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## SSC Multi Tasking Staff (Non-Technical) Exam

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- General Intelligence & Reasoning
- Numerical Aptitude
- English Language
- General Awareness

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Common Errors in English Grammar**

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# COMMON ERRORS IN ENGLISH GRAMMAR

1. Only I and my friend were at the concert. ✗  
**Only my friend and I** were at the concert. ✓  
 (Pronouns order- **I** and **me** come last when more than one pronoun is used in a phrase, **you** comes next to last, and **third-person** pronoun comes first)
2. Everybody will get their share. ✗  
 Everybody will get **his** share. ✓  
 (Everybody sounds like 'a lot of people', but in grammar, everyone is a singular noun and takes a singular verb).
3. Most of the students found difficult to comprehend his speech. ✗  
 Most of the students found **it** difficult to comprehend his speech. ✓
4. Don't pride on your victory. ✗  
 Don't pride **yourself** on your victory. ✓  
 (Without the reflexive pronoun yourself, it would be impossible for the reader to know who you pride on).
5. The climate of India is hotter than France. ✗  
 The climate of India is hotter than **that** of France. ✓  
 (Here the comparison is between the climates of two countries (India and France) and not between the climate of India and the country of France).
6. His room's doors are locked. ✗  
**The doors of his room** are locked. ✓  
 (Normally use 'of the' form, like 'wheels of the car', etc.)
7. John absented from the office yesterday. ✗  
 John absented **himself** from the office yesterday. ✓
8. I have a good news for you. ✗  
 I have **good** news for you. ✓  
 ("News" is uncountable, which means that not only is it followed by a singular verb, but you also cannot say "a news.")
9. The boys leave the school at four o'clock. ✗  
 The boys leave **school** at four o'clock. ✓  
 (Daily routine, not leaving for any specific purpose)
10. They realized where their weak points were and how to get rid of them. ✗  
 They realized where their weak points were and how **they could** get rid of them. ✓  
 (A fragment with a Missing Subject; hence, an appropriate subject to form an independent clause included).
11. While doing the work, there are obstacles ahead. ✗  
 While doing the work, **they met with obstacles**. ✓  
 (Needs to revise a dangling modifier by naming the appropriate doer of the action as the subject of the main clause)
12. It is everybody's duty to respect their motherland. ✗  
 It is everybody's duty to respect **his** motherland. ✓
13. He cannot set a foot in my house. ✗  
 He cannot **set foot in** my house. ✓  
 (The idiom is 'set foot in' and not 'set a foot in')
14. Either of them are to go. ✗  
 Either of them **is** to go. ✓  
 (Technically, "either" is singular but informally and in conversation, you'll hear "either of them are").
15. Andamans are a group of islands. ✗  
**The Andamans** are a group of islands. ✓  
 ('The' is used with the places consisting many Islands; for example The Bahamas, The Philippines, The Maldives, The West Indies etc.)



16. Police was unable to catch the thief. ✗  
Police **were** unable to catch the thief. ✓  
(The word "police" has no singular noun form. Other words that take no singular form include pants, trousers, scissors).
17. Shiela pretended to not recognize the man in the market. ✗  
Shiela pretended **not to** recognize the man in the market. ✓
18. She neither speaks English nor French. ✗  
She speaks **neither English nor French**. ✓  
(Here neither modifies the verb 'speak' whereas it should modify the language English)
19. Fire broke out in our neighbourhood. ✗  
**A fire** broke out in our neighbourhood. ✓  
(While fire, as a substance, is uncountable, but 'a fire broke out' gives a mental image of a single fire)
20. His heart sank and could hardly stand. ✗  
His heart sank and **he** could hardly stand. ✓  
(A fragment with a Missing Subject; hence, an appropriate subject to form an independent clause included).
21. All I know is my friend is right. ✗  
All I know is **that** my friend is right. ✓  
(Here the verb 'is' connected with reporting can be followed by a that-clause acting as the direct object)
22. He has not yet gone to the bed. ✗  
He has not yet **gone to bed**. ✓  
(Go to bed means to lie down to sleep, to put oneself in one's bed while go to the bed means not necessarily preparing for sleep).
23. He made very wise decision. ✗  
He made **a** very wise decision. ✓
24. They had better to go now. ✗  
They had **better go** now. ✓  
(The verb form is always had, not have and is shorten to'd better in informal situations. It is followed by the infinitive without 'to').
25. He succeeded to get the prize. ✗  
He succeeded **in getting** the prize. ✓  
(Gerund is used as nouns for objects of verbs and prepositions: Did she succeed in solving the problem?)
26. No one can avoid to make mistakes. ✗  
No one can avoid **making** mistakes. ✓
27. Mother was busy to prepare dinner. ✗  
Mother was busy **preparing** dinner. ✓
28. Please tell him don't come now. ✗  
Please tell him **not to come** now. ✓
29. We will tolerate no interference with our internal affairs. ✗  
We will tolerate no interference in our internal affairs. ✓  
(The noun 'interference' will take the preposition 'in': She was infuriated by his mother's constant interference.)
30. I saw him to play. ✗  
I saw **him play**. ✓  
There are two patterns of these sentences: 1) I saw **him play**. I saw him play throughout the game. 2) I saw him playing. = I saw him on the field but I do not know whether he actually finished the action)
31. Rita is incapable to complete the work on her own. ✗  
Rita is incapable **of completing** the work on her own. ✓  
(If someone is incapable of doing something, they are unable to do it. You do not say that someone is 'incapable to do' something).
32. This park is belonged to every resident. ✗  
This park **belongs** to every resident. ✓  
(Belong is followed by to which means 'to be bound to (a person, place, or club) by ties of affection, dependence, allegiance, or membership)
33. The answer of this question is not so easy. ✗  
The answer **to** this question is not so easy. ✓  
(The answer to the question is the normal grammatical form like key to the problem).
34. Water composes of hydrogen and oxygen. ✗  
Water **is composed** of hydrogen and oxygen. ✓  
(Be composed of something means to be formed from various things: Air is composed mainly of nitrogen and oxygen).



35. Herman looks cheerfully. ✗  
Herman looks **cheerful**. ✓  
(Look- intransitive verb should be followed by an adjective 'cheerful' and not an adverb 'cheerfully').
36. What is the difference of these two places? ✗  
What is the difference **between** these two places? ✓  
(When you make difference between two or more things, you use 'between': What's the difference between an ape and a monkey?)
37. I didn't see him too. ✗  
I didn't see him **either**. ✓  
(Either' is used in negative sentences to add an agreeing thought: Tom doesn't speak French. Sam doesn't speak French either).
38. The polar bear is not used to live in hot places. ✗  
The polar bear is not **used to living** in hot places. ✓  
(Be used to' is followed by a noun (or pronoun) or the gerund - the 'ing' form of a verb. I can't get used to getting up so early.)
39. How much is the price of this watch? ✗  
**How much is this watch? or How much does this watch cost?** ✓
40. She sent a word that she would come late. ✗  
She **sent word** that she would come late. ✓  
(The word 'word' means news or a message: We got word of their plan from a former colleague).
41. Nobody is bound to suffering. ✗  
Nobody is **bound to suffer**. ✓  
(Bound after verb + to infinitive means certain or extremely likely to happen: You're bound to forget people's names often).
42. Have you read the Shakespeare's Macbeth? ✗  
Have you read **Shakespeare's Macbeth**? ✓
43. She rarely goes to theatre. ✗  
She rarely goes **to the theatre**. ✓
44. Adams invited me to a party. ✗  
**The Adams** invited me to a party. ✓  
(If you are referring some members of a family, you make it plural by adding 'the' in the beginning).
45. Shiela felt sorry about the street children but she did not voice. ✗  
Shiela felt sorry about the street children but she did not voice it. ✓  
(The sentence is incomplete without the objective case 'it').
46. He was astonished by her sudden resignation. ✗  
He was astonished **at** her sudden resignation. ✓  
(If you are astonished by something, you are very surprised about it: I was astonished by his stupidity. Here contextual use is 'at').
47. The judge has decided the case. ✗  
The judge has decided **upon the case**. ✓  
(To make a judgement about some aspect of someone or something; (Upon is formal and less commonly used than on.)
48. Do you want to try these new skates? ✗  
Do you want to **try out** these new skates? ✓  
(Try out' means to undergo a competitive qualifying test; to test or use something experimentally).
49. I enjoyed during the holidays. ✗  
**I enjoyed myself** during the holidays. ✓
50. Although he was ill, but he went to work as usual. ✗  
**Although he was ill, he** went to work as usual. ✓  
(When 'although' as a subordinate conjunction to introduce a subordinate clause is used, there must be a main clause to complete the sentence).



51. They may not realize that how important time is. ✗  
They may not **realize how** important time is. ✓  
(Coordinating conjunctions 'that' and 'wh-question words do not come together).
52. Tom's project is more perfect than Sam's. ✗  
Tom's project is **better than/ superior** to Sam's. ✓  
(There are words like square and not 'more square' or round and not 'more round' similarly, it is perfect or imperfect, unique or not unique etc.)
53. This movie is the most **unique** of all. ✗  
This movie is unique. ✓
54. This bicycle cost me hundred dollars? ✗  
This bicycle cost me **a hundred dollars**? ✓  
(If you spell out dollars, it would be usual to also spell out a hundred or one hundred: You owe me a hundred dollars or you owe me \$100).
55. He has good knowledge of Botany. ✗  
He has **a good knowledge** of Botany. ✓
56. French are industrious and frugal. ✗  
**The French** are industrious and frugal. ✓  
(French means of, relating to, or characteristic of France or its people or culture; The French denotes peoples of the France (functioning as plural) the natives or inhabitants of France collectively).
57. She likes to play the badminton. ✗  
She likes to play **badminton**. ✓
58. The blue is my favourite colour. ✗  
**Blue** is my favourite colour. ✓
59. The dogs are faithful animals. ✗  
**Dogs** are faithful animals. ✓  
(We only use 'the' with general plural nouns when we are referring to a specific set within a general class of people or things: Books are so important in my life. (= all books in general). The
- books were all over the floor. (= specific books (that you and I know)).
60. Sheila did not answer to his question. ✗  
Sheila did not **answer his question**. ✓  
(('To answer to' as a phrasal verb meaning 'be accountable to': If she doesn't behave properly, she'll have to answer to me. 'I'll answer your email' means replying).
61. I bought a story book to read it. ✗  
I bought a story book **to read**. ✓  
(An objective pronoun functions as the object of a verb or preposition, as distinguished from a subject or subjective pronoun, which is the subject of a verb).
62. David has ~~just been~~ commissioned as the captain. ✗  
David has **just been commissioned as captain**. ✓
63. You are no exceptional. ✗  
You are no **exception**. ✓  
(Exceptional is an adjective: an exceptional student; exception is a noun: Men are usually quite good at mountaineering but Sam is the exception).
64. He will be great help for you. ✗  
He will be **of great help to you**. ✓  
(('Of great help to you' is grammatical)
65. Both of them did not win the election. ✗  
**Neither of them won** the election. ✓  
(Additive phrases (both, also, too, etc.) are not used when overall meaning of them is to negate).
66. Each of these girls sing very well. ✗  
Each of these girls **sings** very well. ✓  
(The subject of such sentences is each, which is a singular noun. The phrase 'of these girls' modifies each, but it doesn't turn it into a plural noun. It just specifies a group which the subject is a part of).
67. We all had not been invited. ✗  
**None of us had been** invited. ✓



(In negative sentences we do not normally use 'both'. Instead, we use **neither**. Similarly, don't use 'all', use 'none'. Consider none as singular when emphasis is on a single entity in a group, but consider none to be plural when you want to emphasize more than one: None of us is/are going to the banquet).

68. One should love his country. ✗  
One should love **one's** country. ✓

(To avoid gender bias, use generic pronouns: "While one is reading, one should always wear his glasses.")

69. 'Have you got a house?' 'No, I haven't got.' ✗  
'Have you got a house?' 'No, I haven't.' / 'No, I don't have **one**.' ✓

(In US English: You have a pencil, don't you? and in the UK: You've got a pencil, haven't you?)

70. I said her to behave. ✗  
**I told** her to behave. ✓

71. He told that he would be visiting Father on weekend. ✗

He **said** that he would be visiting Father on weekend. ✓

(Use 'tell' with a personal object and 'said' when there is no personal object).

72. Hardly the sun had risen when we set out. ✗  
**Hardly had** the sun risen **when** we set out. OR  
The sun had **hardly** risen **when** we set out. ✓

(If hardly, scarcely, barely and no sooner are in the initial position, the subject and auxiliary are inverted: Hardly had we arrived home when the doorbell rang. = We had hardly arrived home when the doorbell rang.)

73. Not only she speaks English but also Chinese. ✗

She speaks **not only English** but also Chinese. ✓

(For proper parallel structure, the verb following the subject must precede 'not only' so that it applies to both parallel phrases- English and Chinese).

74. It is high time she improves her behaviour. ✗  
It is high time she **improved** her behaviour. ✓

(After It's time / It's high time, use a past tense to refer to the present)

75. Suppose, if she arrives late, you will miss the train. ✗

**Suppose she** arrives late, you will miss the train. ✓

(Use suppose, supposing and what if + present verb form to make suggestions about what might happen. Suppose and if do not come together).

76. He did good in the exams. ✗  
He did **well** in the exams. ✓

(Good is an adjective and a verb cannot be modified by an adjective. Well is an adverb and it goes after the verb or verb + object).

77. She speaks French good. ✗  
She speaks French **well**. ✓

(Good is an adjective and goes before a noun. An adjective cannot be used to modify a verb. 'Well' is an adverb and it usually goes after the verb or verb + object).

78. This dress is inferior than that. ✗  
This dress is **inferior to** that. ✓

79. Sam is junior than Tom. ✗  
Sam is **junior to** Tom. ✓

(The comparatives senior, junior, superior, inferior etc. are followed by to and not than: His first movie is superior to his latest. However, with other comparative adjectives, than is usually used in such constructions: His first movie is bigger than his latest).

80. It was bitter cold that night. ✗  
It was **bitterly** cold that night. ✓

(Cold is itself an adjective; hence, can be modified by an adverb 'bitterly' and not by an adjective i.e. 'bitter').



81. She sang sweet. ✗  
She sang **sweetly**. ✓  
(Wrong use of adjective in place of adverb)
82. I ever remember having met a more interesting man. ✗  
I **never** remember having met a more interesting man. ✓  
(Never means at no time before now, and is the same as not ..... ever: (I have never visited Berlin; 'ever' is used in questions, negative questions and with 'the first time').
83. The movie is too interesting. ✗  
The movie is **very** interesting. ✓  
(Too means 'more than enough'; do not use in the sense of very or much)
84. This hardly won liberty cannot be lightly abandoned. ✗  
This **hard won** liberty cannot be lightly abandoned. ✓  
(Hard-won is one-word adjective which means won with toil or difficulty; 'hardly' is an adverb meaning 'scarcely').
85. She was much happy to see him. ✗  
She was **very** happy to see him. ✓  
(Don't use 'much' with positive adjectives: She is much intelligent (incorrect) say, she is very intelligent. Similarly, don't use 'very' with comparative adjectives. Instead, use much, far, very much, a lot, lots, rather, a little, a bit etc.: a bit more sensible. (NOT very more sensible)
86. No one writes as neat as Susan does. ✗  
No one writes **as neatly as** Susan does. ✓  
(Neat is an adjective which cannot modify a verb i.e. 'write'; 'neatly' meaning 'with neatness' is an adverb which correctly modifies the verb 'write').
87. The grandmother is living miserly. ✗  
The grandmother is living **in a miserly way**. ✓  
(Not all words ending in -ly are adverbs like miserly is an adjective)
88. The receptionist sat on her desk. ✗  
The receptionist sat **at** her desk. ✓  
(Use 'sit' at a table, but on a chair, on a bench, on a sofa, etc; in an arm-chair, in a tree or up a tree. However, a bird sometime s perches (sits) on a tree).
89. Sam took his younger sister with the hand. ✗  
Sam took his younger sister **by** the hand. ✓  
(Also hold by, catch by, seize by, snatch by, grasp by).
90. Everybody must conform with the rules. ✗  
Everybody must **conform to** the rules. ✓  
(Conform means 'to comply with rules, standards, or laws': conform to hygiene regulations, in some special usages 'conform with' is used: changes have to conform with international classifications).
91. The Himalayas are covered by snow. ✗  
The Himalayas are covered **with/in** snow. ✓  
(Covered by usually means that the covering actually hides the thing that is covered (it may be a sheet, a lid, a curtain): Covered by blankets).
92. Gina was disappointed from her daughter. ✗  
Gina was disappointed **with/in** her daughter. ✓  
(Before a person we use with or in, before a thing we use at, about or by; however, before a gerund we use 'at': Sandra is very disappointed at not getting the job.
93. Divide the apple in four parts. ✗  
Divide the apple **into** four parts. ✓  
(To or cause to separate into parts or groups: divide students into small discussion groups; Book divided into various chapters etc.)
94. This is an exception of the rule. ✗  
This is an **exception to** the rule. ✓  
(When someone or something is not included in a rule, group, or list or that does not behave



- in the expected way: There are exceptions to every rule; however, we say: He liked all her qualities with the exception of nagging)
95. Our class is composed from thirty students. ✗  
Our class is **composed of** thirty students. ✓  
(Composed of something means assembled or made out of something: The committee is composed of people from all walks of life).
96. My leg is paining. ✗  
**There's/ I've got a pain** in my leg. ✓  
(Use pain as a noun, and precede it by have or feel).
97. Susan is married with a rich man. ✗  
Susan is married **to** a rich man. ✓  
(Also use engaged to: Susan is engaged to a rich man)
98. They behaved cowardly. ✗  
They behaved **in a cowardly manner**. ✓  
(Cowardly, silly and miserly are all adjectives which cannot modify verbs)
99. The majority of students does not like the new principal. ✗  
**The majority of students do** not like the new principal. ✓  
(The word 'majority' is used here for a collection of individuals; hence, it should be treated as plural)
100. A 75% majority agree to the decision made by the principal. ✗  
**A 75% majority agrees** to the decision made by the principal. ✓  
(The word 'majority' is used here for a collective group; hence it should be treated as singular).

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# PRACTICE SET- 1

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-3) :** In questions, select the related word/letters/number from given alternatives.

- Crime : Court :: Disease : ?  
 (a) Doctor (b) Medicine  
 (c) Hospital (d) Treatment
- ADGJ : BEHK :: DGJM : ?  
 (a) KPUB (b) GJMP  
 (c) KNQT (d) PSVY
- 7 : 56 :: 5 : ?  
 (a) 25 (b) 26  
 (c) 30 (d) 35

**DIRECTIONS (Qs. 4-5) :** In questions, find the odd word/letters/number pair from the given alternatives.

- (a) Cabbage (b) Carrot  
 (c) Potato (d) Beetroot
- (a) GFI (b) VUX  
 (c) POR (d) LKM

**DIRECTIONS (Qs. 6-7) :** In questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

- CGJ, KOR, TXA, \_\_\_\_?  
 (a) ACE (b) JDP  
 (c) FJM (d) UWY
- B-1, D-2, F-4, H-8, J-16, \_\_\_\_?  
 (a) K-64 (b) L-32  
 (c) M-32 (d) L-64

**DIRECTIONS (Qs. 8-9) :** In question, find the missing number from the given responses.

- If A = 1, B = 2 and N = 14, then BEADING = ?  
 (a) 2154(14)97  
 (b) 2514(14)79  
 (c) 25149(14)7  
 (d) 2154(14)79

- Arrange the letters to form a word and suggest what is it.

NGDEALN

- |           |             |
|-----------|-------------|
| (a) State | (b) Country |
| (c) River | (d) Ocean   |

**DIRECTIONS (Qs. 10) :** In question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

- a \_ n \_ b \_ \_ n c b \_ \_ n c b  
 (a) b c a b a b (b) b a c b a b  
 (c) a b c b c b (d) a b b c c a

- In a class of 45 students, a boy is ranked 20th. When two boys joined, his rank was dropped by one. What is his new rank from the end ?

- |          |          |
|----------|----------|
| (a) 25th | (b) 26th |
| (c) 27th | (d) 28th |

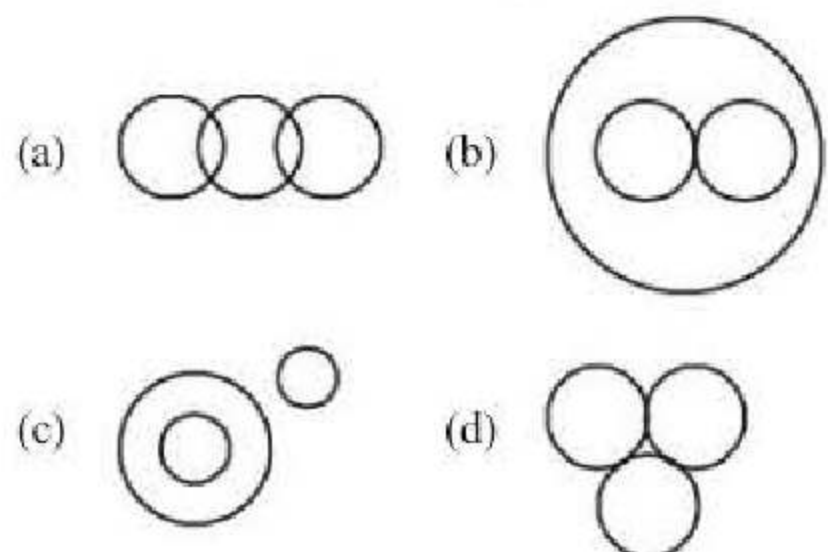
- Introducing a girl, Ram said to his son-in-law, "Her brother is the only son of my brother-in-law." Who is the girl of Ram?

- |                   |            |
|-------------------|------------|
| (a) Sister-in-law | (b) Niece  |
| (c) Daughter      | (d) Sister |

- If an electric train runs in the direction from North to South with a speed of 150 km/hr covering 2000 km, then in which direction will the smoke of its engine go ?

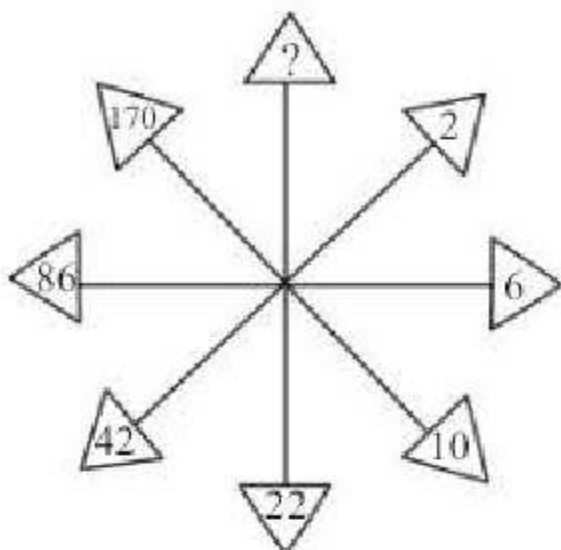
- |         |                  |
|---------|------------------|
| (a) N→S | (b) S→N          |
| (c) E→W | (d) No direction |

- Which figure represents the relation among Computer, Internet and Information Communication Technology?





15. Choose the correct alternative.



- (a) 422 (b) 374  
(c) 256 (d) 342
16. Murthy drove from town A to town B. In the first hour, he travelled  $\frac{1}{4}$  of the journey. In the next one hour, he travelled  $\frac{1}{2}$  of the journey. In the last 30 minutes, he travelled 80 km. Find the distance of the whole journey.
- (a) 240 km (b) 300 km  
(c) 320 km (d) 360 km
17. Find the answer of the following:  
 $7 + 3 = 421$   
 $11 + 7 = 477$   
 $9 + 5 = 445$   
 $6 + 2 = ?$
- (a) 444 (b) 412  
(c) 475 (d) 487
18. A, B, C, D and E are five boys sitting in a circle facing the centre. C is sitting immediately to the left of E. A is sitting between D and E. Then, who is sitting between B and A?
- (a) C (b) E  
(c) D (d) None of these

**DIRECTION (Qs. 19):** In question, one statement is given, followed by three conclusions, I, II, and III. You have to consider the statements to be true, even if they seem to be at variance from commonly known facts. You are to decide which of the given Conclusions can definitely be drawn from the given statement(s). Indicate your answer.

19. Statements:

1. SAGE is a reputed publisher of both journals and books.

2. All publishing of SAGE is highly qualitative.

**Conclusions:**

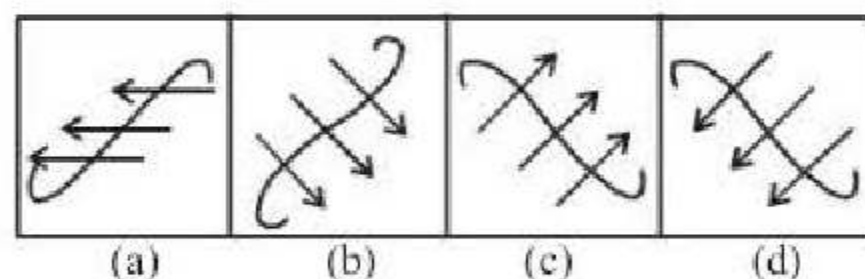
- I. SAGE publishes qualitative articles.  
 II. SAGE did not publish lowest quality articles.  
 III. SAGE enriches its publications by high scrutinization.  
 (a) Only conclusion III  
 (b) All conclusions.  
 (c) Only conclusions I and II  
 (d) Only conclusions II and III

20. If a mirror is placed on the line MN, then which of the answer figures is the correct image of the question figure?

**Question figure:**

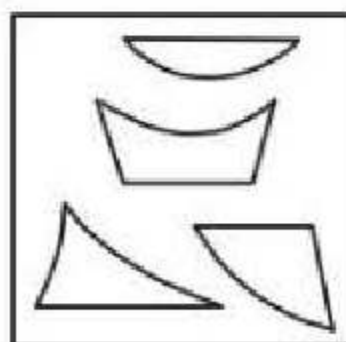


**Answer figures :**

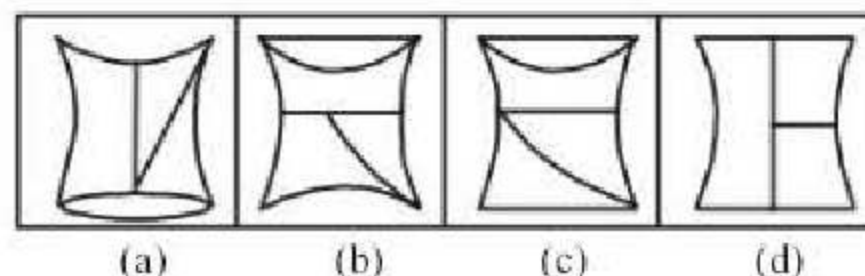


21. Identify the answer figure from which the pieces given in question figure have been cut.

**Question figure :**



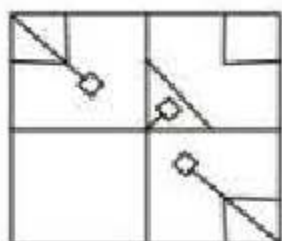
**Answer figures:**



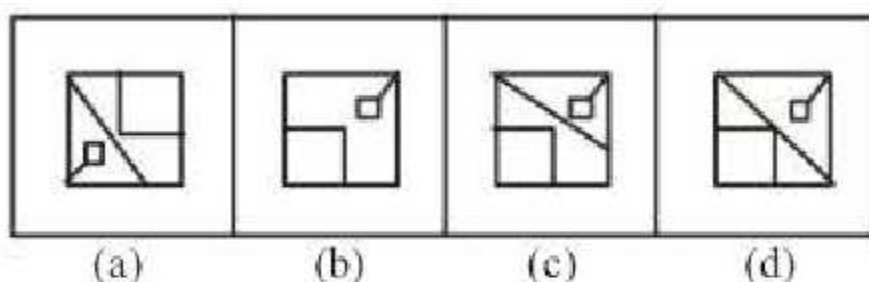


**DIRECTIONS (Qs. 22) :** In question, which answer figure will complete the pattern in the question figure?

22. Question figure:

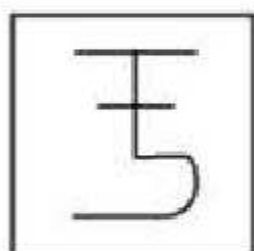


Answer Figures :

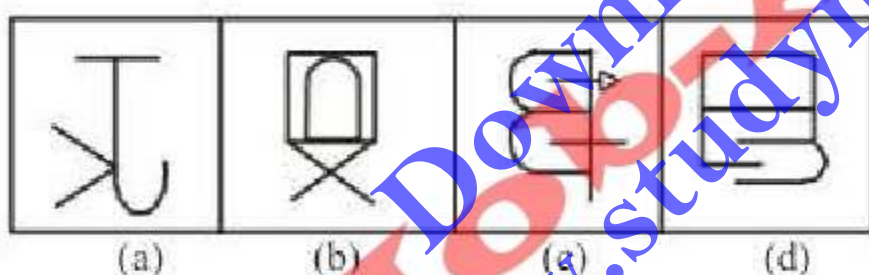


23. Which of the answer figures is not made up only by the components of the question figure?

Question figure:

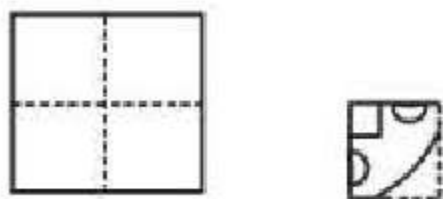


Answer figures:

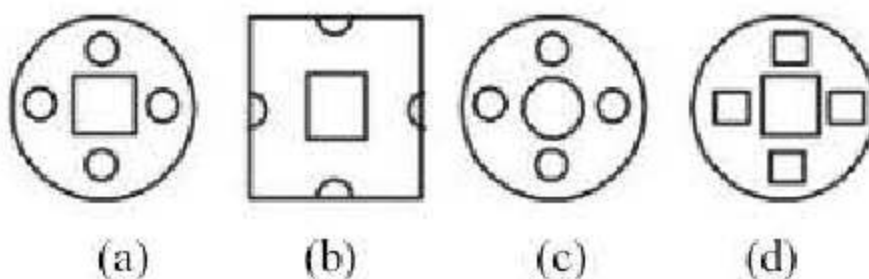


24. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

Question figure:



Answer Figures :



25. A word is represented by one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column e.g., 'A' can be represented by 40, 01, 13, 32, and 'N' can be represented by 56, 68, 89 etc. Similarly, you have to identify the set for the word given below :

SIX-KIDS

Matrix-I

	0	1	2	3	4
4	A	F	K	P	U
3	F	K	A	U	P
2	P	U	F	K	A
1	K	P	U	A	F
0	U	A	P	F	K

Matrix-II

	5	6	7	8	9
9	D	I	N	S	X
8	X	S	I	D	N
7	N	X	S	I	D
6	S	D	X	N	I
5	I	N	D	X	S

- (a) 86, 87, 99 – 40, 41, 86, 64  
 (b) 98, 96, 85 – 42, 78, 88, 77  
 (c) 77, 69, 76 – 22, 95, 28, 31  
 (d) 65, 55, 67 – 05, 25, 91, 40

## NUMERICAL APTITUDE

26. The value of  $\left(\frac{-1}{216}\right)^{-\frac{2}{3}}$  is :

- (a)  $\frac{1}{36}$  (b)  $-\frac{1}{36}$   
 (c)  $-36$  (d)  $36$



27. The unit's digit in the product  $7^{35} \times 3^{71} \times 11^{55}$  is :  
 (a) 1 (b) 3  
 (c) 7 (d) 9
28. When the price of a radio was reduced by 20%, its sale increased by 80%. What was the net effect on the sale?  
 (a) 44% increase (b) 44% decrease  
 (c) 66% increase (d) 75% increase
29. How much water must be added to 48 ml of alcohol to make a solution that contains 25% alcohol?  
 (a) 24ml (b) 72ml  
 (c) 144ml (d) 196ml
30. Ravi's salary is 150% of Amit's salary. Amit's salary is 80% of Ram's salary. What is the ratio of Ram's salary to Ravi's salary?  
 (a) 1 to 2 (b) 2 to 3  
 (c) 5 to 6 (d) 6 to 5
31. A sum of money invested at compound interest amounts in 3 years to ₹ 2,400 and in 4 years to ₹ 2,520. The interest rate per annum is :  
 (a) 6% (b) 5%  
 (c) 10% (d) 12%
32. A man borrows ₹ 6000 at 10% compound rate of interest. He pays back ₹ 2000 at the end of each year to clear his debt. The amount that he should pay to clear all his dues at the end of third year is  
 (a) ₹ 6000 (b) ₹ 3366  
 (c) ₹ 3060 (d) ₹ 3066
33. At what percentage above the cost price must an article be marked so as to gain 33% after allowing the customer a discount of 5%?  
 (a) 48% (b) 43%  
 (c) 40% (d) 38%
34. The batting average of 40 innings of a cricket player is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, the average of the remaining 38 innings is 48. His highest score was :  
 (a) 172 (b) 173  
 (c) 174 (d) 176
35. The lengths of three sides of a triangle are known. In which of the cases given below, it is impossible to get a triangle?  
 (a) 15 cm, 12 cm, 10 cm  
 (b) 3.6 cm, 4.3 cm, 5.7 cm  
 (c) 17 cm, 12 cm, 6 cm  
 (d) 2.3 cm, 4.4 cm, 6.8 cm
36. The perimeters of two similar triangles ABC and PQR are 36 cm, and 24 cm, respectively. If PQ = 10 cm, then the length of AB is :  
 (a) 16 cm (b) 12 cm  
 (c) 14 cm (d) 15 cm
37. Two isosceles triangles have equal vertical angles and their areas are in the ratio 9 : 16. The ratio of their corresponding heights is :  
 (a) 3 : 4 (b) 4 : 3  
 (c) 2 : 1 (d) 1 : 2
38. If in the following figure, PA = 8 cm, PD = 4 cm, CD = 3 cm, then AB is equal to :  
 (a) 3.0 cm (b) 3.5 cm  
 (c) 4.0 cm (d) 4.5 cm
- 
39. In a triangle ABC,  $\angle A = x$ ,  $\angle B = y$  and  $\angle C = y + 20$ . If  $4x - y = 10$ , then the triangle is :  
 (a) Right-angled (b) Obtuse-angled  
 (c) Equilateral (d) None of these
40. Which one of the following is a factor of  $x^3 - 19x + 30$ ?  
 (a)  $x - 2$  (b)  $x + 2$   
 (c)  $x - 1$  (d)  $x + 1$
41. If  $2x^2 - 7xy + 3y^2 = 0$ , then the value of  $x : y$  is :  
 (a) 3 : 2 (b) 2 : 3  
 (c) 3 : 1 or 1 : 2 (d) 5 : 6
42. If  $27 \times (81)^{2n+3} - 3^m = 0$ , then what is  $m$  equal to?  
 (a)  $2n + 5$  (b)  $5n + 6$   
 (c)  $8n + 3$  (d)  $8n + 15$
43. If the L.C.M and H.C.F. of two numbers are 2400 and 16, one number is 480; find the second number.  
 (a) 40 (b) 80  
 (c) 60 (d) 50



44. The average age of 80 boys in a class is 15. The average age of a group of 15 boys in the class is 16 and the average age of another 25 boys in the class is 14. What is the average age of the remaining boys in the class ?

(a) 15.25 (b) 14  
(c) 14.75  
(d) Cannot be determined

45.  $40\% \text{ of } 265 + 35\% \text{ of } 180 = 50\% \text{ of ?}$

(a) 338 (b) 84.5  
(c) 253.5 (d) 169

**DIRECTIONS (Qs. 46 to 48) :** The following table, gives the annual production (in thousands) of 5 products of a famous toy company. Study the table and then answer the questions that follow :

Year	Ludo	Scrabble	Chess	Monopoly	Carrom
1992	200	150	78	90	65
1993	150	180	100	105	70
1994	180	175	92	110	85
1995	195	160	120	125	75
1996	220	185	130	135	80

46. What is the approximate percentage increase in the production of Monopoly from 1993 to 1995?

(a) 10 (b) 20  
(c) 5 (d) 25

47. For which toy category there has been a continuous increase in the production over the years?

(a) Ludo (b) Chess  
(c) Monopoly (d) Carrom

48. What is the percentage drop in the production of Ludo from 1992 to 1994 ?

(a) 30 (b) 50  
(c) 20 (d) 10

49. A circle road runs around a circular garden. If the difference between the circumference of the outer circle and the inner circle is 44 m, the width of the road is

(a) 4m (b) 7m  
(c) 3.5m (d) 7.5m

50. The perimeter of a square whose area is equal to that of a circle with perimeter  $2\pi x$  is :

(a)  $2\pi x$  (b)  $\sqrt{\pi x}$   
(c)  $4x\sqrt{\pi}$  (d)  $4\pi\sqrt{x}$

## ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51-55):** Fill in the blanks with the appropriate word or group of words from the options given below.

51. Although I was \_\_\_\_\_ of his plans, I encouraged him, because there was no one else who was willing to help.

(a) sceptical (b) remorseful  
(c) fearful (d) excited

52. You have no business to \_\_\_\_\_ pain on a weak and poor person.

(a) inflict (b) put  
(c) direct (d) force

53. Her uncle died in a car accident. He was quite rich. She suddenly \_\_\_\_\_ all her uncle's money.

(a) succeeded (b) caught  
(c) gave (d) inherited

54. Let us quickly \_\_\_\_\_.

(a) muddle (b) huddle  
(c) hurdle (d) puddle

55. Rajesh's car wasn't \_\_\_\_\_ Ramesh's, so we were too exhausted by the time we reached home.

(a) such comfortable  
(b) as comfortable as  
(c) comfortable enough  
(d) so comfortable that

**DIRECTIONS (Qs. 56-60) :** Select the word or group of words that is most similar in meaning to the words in capital letters.

56. REPAST

(a) Past (b) Fond memories  
(c) Peacefulness (d) Meal

57. ABEYANCE

(a) Temporary suspension  
(b) Abstinence  
(c) Hatred  
(d) Memory

58. Acrimony

(a) Spleen (b) Courtesy  
(c) Oriented (d) Scarce

59. Embellish

(a) Employ (b) Arrange  
(c) Decorate (d) Design



60. Damp Squib  
 (a) Insignificant happening  
 (b) An old technique  
 (c) Unsuccessful attempt  
 (d) Short, shrill cry

**DIRECTIONS (Qs. 61-65):** Select the word or group of words that is most **opposite** in meaning to the words in capital letters.

61. SUPPLICATE  
 (a) Short of supply  
 (b) To be arrogant  
 (c) To be tolerant  
 (d) To fall on lean days
62. TERSE  
 (a) Detailed (b) Nasty  
 (c) Advanced (d) Impure
63. Sporadic  
 (a) Rare (b) Frequent  
 (c) Sharp (d) Coordinated
64. Exonerate  
 (a) Reject (b) Contract  
 (c) Accuse (d) Admit
65. Exodus  
 (a) Home-coming (b) Influx  
 (c) Restoration (d) Return

**DIRECTIONS (Qs. 66-70):** Read the given passage, and then answer the questions based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

#### PASSAGE

We should preserve Nature to preserve life and beauty. A beautiful landscape, full of green vegetation, will not just attract our attention but will fill us with infinite satisfaction. Unfortunately, because of modernization, much of nature is now yielding to towns, roads and industrial areas. In a few places some natural reserves are now being carved out to avert the danger of destroying nature completely. Man will perish without nature, so modern man should continue this struggle to save plants, which give us oxygen. Moreover, Nature is essential to man's health.

66. What does 'Nature' in the passage mean ?  
 (a) Countryside covered with plants and trees  
 (b) Physical power that created the world  
 (c) Inherent things that determine character  
 (d) Practical study of plants and animals

67. Which one of the following is the correct statement ? According to the passage  
 (a) beauty is only skin-deep  
 (b) everything is beautiful in its natural state  
 (c) there is beauty in Nature  
 (d) Nature is a moray teacher
68. What does the writer suggest ?  
 (a) We should not modernize, so that Nature can be preserved  
 (b) While modernizing we should be careful not to destroy Nature completely  
 (c) All Nature has been destroyed by modern living  
 (d) Carving out Natural reserves will hamper the growth of industries
69. What does 'struggle' in the passage mean ?  
 (a) Man's struggle to exist in the world  
 (b) Man's struggle to save Nature  
 (c) Man's struggle to catch up with modern trends  
 (d) Man's struggle to conserve oxygen
70. Why a beautiful landscape 'will fill us with infinite satisfaction' ?  
 (a) We love beauty  
 (b) It is full of green vegetation  
 (c) It will ensure our future existence  
 (d) It will show our command over Nature

**DIRECTIONS (Qs. 71-73):** Look at the underlined part of each sentence. Below each sentence, three possible situations for the underlined part are given. If one of them (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of these substitutions improves the sentence, indicate (d) as your response on the Answer Sheet. Thus a "No Improvement" response will be signified by the letter (d).

71. More than one person was killed in the accident.  
 (a) were killed (b) are killed  
 (c) have been killed (d) No improvement
72. Not a word they spoke to the unfortunate about victims of the earthquake.  
 (a) did they speak (b) they will speak  
 (c) they had spoken (d) No improvement
73. The poor villagers have waited in bitter cold for more than four hours now.  
 (a) have been waiting (b) had waited  
 (c) has been waiting (d) No improvement



**DIRECTIONS (Qs. 74-76) :** In this section, you are required to spot errors in sentences. Each sentence is divided into three parts. Read each sentence to find out whether there is an error in any of the parts. No sentence has more than one error. Some of the sentences do not have any error. When you find an error in a sentence, the letter indicated under that part of the sentence is the answer and therefore the same may be marked on the separate Answer Sheet. If there is no error in any part.

74. He went to England to work as a doctor  
(a)  
but returned / as he could not endure the  
(b) (c)  
weather there. / No error  
(d)
75. She inquired whether anyone seen her baby.  
(a) (b) (c)  
No error  
(d)
76. When I went outdoor I found frost everywhere.  
(a) (b) (c)  
No error  
(d)

**DIRECTIONS (Qs. 77-82) :** In questions given below out of four alternatives. Choose the one which can be substituted for the given word/sentence.

77. Words inscribed on tomb  
(a) Epitome (b) Epistle  
(c) Epilogue (d) Epitaph
78. One who eats everything  
(a) Omnivorous (b) Omniscient  
(c) Irrestible (d) Insolvent
79. Malafide case is one  
(a) Which is undertaken in a good faith  
(b) Which is undertaken in a bad faith  
(c) Which is undertaken after a long delay  
(d) Which is not undertaken at all
80. Governed by a sense of duty  
(a) conscious (b) sensible  
(c) intelligent (d) conscientious
81. The depository where state records and documents are preserved  
(a) museum (b) library  
(c) emporium (d) archive
82. That which is no longer fashionable or in use  
(a) unused (b) ancient  
(c) obsolete (d) old

**DIRECTIONS (Qs. 83-87) :** Find the correctly spelt word.

83. (a) Pessenger (b) Passenger  
(c) Pasanger (d) Pesanger
84. (a) Benefitted (b) Benifited  
(c) Benefited (d) Benefeted
85. (a) Omminous (b) Omineous  
(c) Ominous (d) Omenous
86. (a) Hindrance (b) Hinderance  
(c) Hindrence (d) Hinderence
87. (a) Perjery (b) Perjury  
(c) Purjury (d) Perjary

**DIRECTIONS (Qs. 88-93) :** Select the most appropriate word from the options against each number:

Life is an (88) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (89) the right opportunities. Planned (90) rather than a hasty decision is (91) as far as your career is concerned. You need to (92) what occupational groups, (93) and type of organizations are suitable for you.

88. (a) enticing (b) exciting  
(c) encharming (d) enhancing
89. (a) catching (b) offsetting  
(c) grabbing (d) conceiving
90. (a) delay (b) hindrance  
(c) application (d) execution
91. (a) desirable (b) deciphered  
(c) inevitable (d) acceptable
92. (a) check (b) classify  
(c) divide (d) analyse
93. (a) specifications (b) limitations  
(c) qualifications (d) identification

**DIRECTIONS (Qs. 94-95) :** In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence.

94. Companies producing goods play to the gallery to boost their sales.  
(a) Advertise  
(b) cater to the public taste  
(c) attempt to appeal to popular taste  
(d) depend upon the public for approval
95. Since he knew what would happen, he should be left to stew in his own juice.  
(a) Make a stew  
(b) Boil  
(c) Suffer in his own juice  
(d) Suffer for his own act



**DIRECTIONS (Qs. 96-100) :** In each of the following questions, a sentence has been given in Direct/Indirect Speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct Speech

96. Rajesh said, "I bought a car yesterday."  
 (a) Rajesh said that I have bought a car the previous day.  
 (b) Rajesh told that he had bought a car yesterday.  
 (c) Rajesh said that he had bought a car the previous day.  
 (d) Rajesh said that he bought a car the previous day.
97. He asked his teacher, "Need I read this chapter?"  
 (a) He asked his teacher whether there was a need to read that chapter.  
 (b) He asked his teacher whether he needed to read this chapter.  
 (c) He asked his teacher if it was necessary to read this chapter.  
 (d) He asked his teacher if he had to read that chapter.
98. He said, "I saw a book here."  
 (a) He said that he saw a book here.  
 (b) He said that he saw a book there.  
 (c) He said that he had seen a book here.  
 (d) He said that he had seen a book there.
99. She said to him, "Why don't you go today?"  
 (a) She said to him that why he don't go today.  
 (b) She asked him if he was going that day.  
 (c) She asked him why he did not go today.  
 (d) She asked him why he did not go that day.
100. Gavaskar said, "Bravo! Azhar, you have done well."  
 (a) Gavaskar exclaimed with joy that Azhar had done well.  
 (b) Gavaskar called Azhar and exclaimed that he had done well.  
 (c) Gavaskar congratulated Azhar, saying that he had done well.  
 (d) Gavaskar praised Azhar for his having done well.

### GENERAL AWARENESS

101. Which of the following symbiotic associations forms a lichen?  
 (a) An algae and a fungus  
 (b) An algae and a bryophyte  
 (c) A bacterium and a fungus  
 (d) A bacterium and a gymnosperm

102. The headquarters of which one of the following organizations is not in Geneva?  
 (a) Food and Agricultural Organisation  
 (b) World Meteorological Organisation  
 (c) World Health Organisation  
 (d) World Trade Organisation
103. The opportunity cost of a factor of production is  
 (a) what it earns in its present use.  
 (b) what it can earn in the long period.  
 (c) what it can earn in some other use.  
 (d) the cost of production.
104. Which Amendment Act is referred as mini constitution?  
 (a) 7<sup>th</sup> Constitutional Amendment Act, 1956  
 (b) 24<sup>th</sup> Constitutional Amendment Act, 1971  
 (c) 42<sup>nd</sup> Constitutional Amendment Act, 1976  
 (d) 44<sup>th</sup> Constitutional Amendment Act, 1978
105. Inflation is caused by  
 (a) decrease in production  
 (b) increase in money supply and decrease in production  
 (c) increase in money supply  
 (d) increase in production
106. The equilibrium of a firm under perfect competition will be determined when  
 (a) Marginal Cost > Average Cost  
 (b) Marginal Revenue > Average Cost  
 (c) Marginal Revenue > Average Revenue  
 (d) Marginal Revenue = Marginal Cost
107. Which one of the following cities and the personalities associated with their establishment is wrongly matched?  
 (a) Calcutta – Robert Clive  
 (b) Pondicherry – Francis Martin  
 (c) Ahmedabad – Ahmad Shah I  
 (d) Madras – Francis Day
108. Arihant is a  
 (a) Multi barrel rocket launcher  
 (b) Airborne Early Warning and Control System  
 (c) Unarmed Combat Aerial Vehicle  
 (d) Nuclear-powered ballistic missile submarine
109. Which of the following is *not* a laid down principle of the Panchsheel?  
 (a) Mutual respect for each other's territorial integrity  
 (b) Mutual non-aggression  
 (c) Mutual support for each other in world forum  
 (d) Mutual non-interference in each other's internal affairs



110. Denatured alcohol  
 (a) is a form of alcohol  
 (b) is unfit for drinking as it contains poisonous substances  
 (c) contains coloured impurities  
 (d) is sweet to taste
111. The city of Prayag was named Allahabad - the city of Allah by  
 (a) Aurangzeb  
 (b) Akbar  
 (c) Shahjahan  
 (d) Bahadur Shah Zafar
112. Arrange the following historical events chronologically choosing the correct response:  
 I. French Revolution  
 II. Glorious Revolution  
 III. American War of Independence  
 IV. Russian Revolution  
 (a) I II III IV  
 (b) II III I IV  
 (c) II I IV III  
 (d) III II I IV
113. Chromosomes are made up of  
 (a) DNA (b) Protein  
 (c) DNA and Protein (d) RNA
114. While the computer executes a program, the program is held in  
 (a) RAM (b) ROM  
 (c) Hard Disk (d) Floppy Disk
115. Presidential form of government consists of the following?  
 (a) Popular election of the President  
 (b) No overlap in membership between the executive and the legislature  
 (c) Fixed term of office  
 (d) All of the above
116. Which of the following places of Sikh religious heritage is not in India?  
 (a) Nankana Sahib (b) Nanded  
 (c) Paonta Sahib (d) Keshgarh Sahib
117. The total population divided by available arable land area is referred to as  
 (a) Population density  
 (b) Nutritional density  
 (c) Agricultural density  
 (d) Industrial density
118. The danger signals are red while the eye is more sensitive to yellow because  
 (a) absorption in red is less than yellow and hence red is visible from a distance  
 (b) scattering in yellow light is less than red  
 (c) the wavelength of red light is more than yellow light  
 (d) none of the above reasons
119. Who was the author of "India of My Dreams" ?  
 (a) J.B. Kripalani (b) M.K. Gandhi  
 (c) G.K. Gokhale (d) Jawaharlal Nehru
120. How many players are there in a Polo team ?  
 (a) 4 (b) 7  
 (c) 8 (d) 6
121. Hemophilia is –  
 (a) caused by bacteria  
 (b) caused by virus  
 (c) caused by pollutants  
 (d) a hereditary defect
122. In human body, vitamin A is stored in the –  
 (a) liver (b) skin  
 (c) lung (d) kidney
123. Odometer is a –  
 (a) Measuring instrument for distance covered by motor wheels  
 (b) Measuring instrument for frequency of electromagnetic waves  
 (c) Device for measuring sound intensity  
 (d) Measuring instrument for electric power
124. Which acid is used in rubber, textile, leather and electroplating industries ?  
 (a) Ethanoic acid (b) Methanoic acid  
 (c) Malonic acid (d) Butyric acid
125. What is the theme of 2016 National Statistics Day?  
 (a) Social Development  
 (b) Trees and their calculative lives  
 (c) Human empowerment  
 (d) Agriculture and Farmers' welfare
126. The book, "A China Passage" was written by  
 (a) MJ Akbar  
 (b) Jagmohan  
 (c) Anees Jung  
 (d) John Kenneth Galbraith
127. Global 500 awards are given for outstanding achievement in which of the following fields?  
 (a) Population Control  
 (b) Elimination of illiteracy  
 (c) Campaigning against AIDS  
 (d) Protection of environment
128. Pulitzer Prize is awarded for the outstanding work in the field of  
 (a) Science and Technology  
 (b) Environmental Studies  
 (c) Literature and Journalism  
 (d) International Understanding



129. The national emblem, viz four lions standing back to back is an adaptation from which of the following:-  
 (a) Sarnath lions (b) Gir lions  
 (c) Khajurao (d) Ajanta caves
130. Which of the following books is written by Arnold Toynbee?  
 (a) Mankind and Mother Earth  
 (b) Tom Sawyer  
 (c) The Future of Freedom  
 (d) The Moon's Last Sigh
131. Which one of the following is the petroleum wax?  
 (a) Paraffin wax (b) Jonoba wax  
 (c) Carnauba wax (d) Bees wax
132. Who among the following is not a recipient of the 'Bharatiya Jnanpith' Award?  
 (a) Ashapurna Devi (b) MF Hussain  
 (c) Raghupati Sahay (d) VK Gokak
133. Which city will host the 2022 Common Wealth Games?  
 (a) Gold Coast, Australia  
 (b) Durban, South Africa  
 (c) Lusaka, Zambia  
 (d) Nairobi, Kenya
134. Who was the person behind conversion of East India Company from a trading company into a regional power?  
 (a) Lord Warren Hastings  
 (b) Lord Clive  
 (c) Lord Dalhousie  
 (d) Lord Wellesley
135. Which of the following Asian countries celebrates its Independence Day on 4<sup>th</sup> February?  
 (a) Sri Lanka (b) Bahrain  
 (c) Cambodia (d) Bangladesh
136. Natural radioactivity was discovered by  
 (a) Marie Curie  
 (b) Earnest Rutherford  
 (c) Henry Bacquerel  
 (d) Enrico Fermi
137. The present chairman of ISRO is  
 (a) MYS Prasad (b) Shailesh Nayak  
 (c) AS Kiran Kumar (d) K Radhakrishnan
138. Who was the Viceroy when the Simon Commission visited India?  
 (a) Lord Chelmsford (b) Lord Reading  
 (c) Lord Irwin (d) Lord Wellington
139. Mahatma Gandhi left South Africa to return to India in  
 (a) 1911 (b) 1915  
 (c) 1917 (d) 1919
140. The Battle of Plassey was fought in  
 (a) 1757 (b) 1782  
 (c) 1748 (d) 1764
141. Mangalyan, Mars Orbiter Mission (MOM) was launched in  
 (a) Jan 2013 (b) Oct 2012  
 (c) Oct 2013 (d) Nov 2013
142. 'Ruhr of India' known for its rich coal deposits is in the State of  
 (a) Uttar Pradesh (b) Jharkhand  
 (c) West Bengal (d) Bihar
143. The Indian space programme began in  
 (a) 1961 (b) 1962  
 (c) 1965 (d) 1969
144. 'Bachpan Bachao Andolan (BBA)', an organisation to protect the rights of children was founded by  
 (a) Amir Khan  
 (b) Kailash Satyarthi  
 (c) Om Prakash Gurjar  
 (d) Santa Sinha
145. The language of discourses of Gautama Buddha was  
 (a) Bhojpuri (b) Magadhi  
 (c) Pali (d) Sanskrit
146. Who has been sworn-in as the new Chief Justice of India (CJI)?  
 (a) JS Khehar (b) Madan Lokur  
 (c) Kamlesh Khehar (d) TS Patil
147. The World Braille Day (WBD) is observed on which date?  
 (a) January 3 (b) January 5  
 (c) January 2 (d) January 4
148. Who has won the 2016 World Blitz Chess Championship?  
 (a) Sergey Karjakin (b) Anna  
 (c) Magnus Carlsen (d) Daniil Dubov
149. Who has been appointed as an Adviser (policy & planning) in the National Disaster Management Authority (NDMA)?  
 (a) Sandip Ray Chaudhury  
 (b) V Thiruppugazh  
 (c) P K Mishra  
 (d) Manoj Kumar Sahoo
150. The book "Death Under The Deodars: The Adventures of Miss Ripley-Bean" has been authored by whom?  
 (a) Vikram Seth (b) Amitav Ghosh  
 (c) Jumpa Lahiri (d) Ruskin Bond



# PRACTICE SET-2

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-3) :** In questions, select the related word/letters/number from given alternatives.

- Uttarakhand : Dehradun :: Mizoram : ?  
(a) Aizawl (b) Kohima  
(c) Shillong (d) Darjeeling
- YQXP : JBIA :: OVNU : ?  
(a) FAGZ (b) HRIS  
(c) DKCJ (d) DNEO
- 1 : 1 :: 10 : ?  
(a) 12 (b) 110 (c) 210 (d) 1000
- The following numbers fall in a group. Which one does not belong to the group?  
53, 63, 83, 73  
(a) 53 (b) 63  
(c) 83 (d) 73
- Which one is the same as Mumbai, Kolkata and Cochin?  
(a) Delhi (b) Kanpur  
(c) Chennai (d) Sholapur

**DIRECTION (Qs. 6-7) :** In question, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

- CEG, JLN, QSU, \_\_\_\_?  
(a) QOS (b) TVY  
(c) HJL (d) UVW
- 285, 253, 221, 189, ?  
(a) 150 (b) 182  
(c) 157 (d) 156
- In a certain code language PRESENTATION is written as ENESTAITPRON. How would INTELLIGENCE be written in that code language?  
(a) TETGLLTNENCE  
(b) LLKKTGTEEBTB  
(c) LLENLLTNTETG  
(d) LLTEIGENINCE

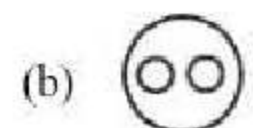
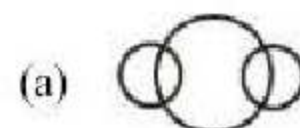
- A word is given in capital letters. It is followed by four words. Out of these four words, three can not be formed from the letters of the word in capital letters. Point out the word which cannot be formed.

SUPERINTENDENT

- |             |               |
|-------------|---------------|
| (a) DENTIST | (b) PERTINENT |
| (c) TEENER  | (d) RETENTION |

**DIRECTIONS (Qs. 10) :** Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

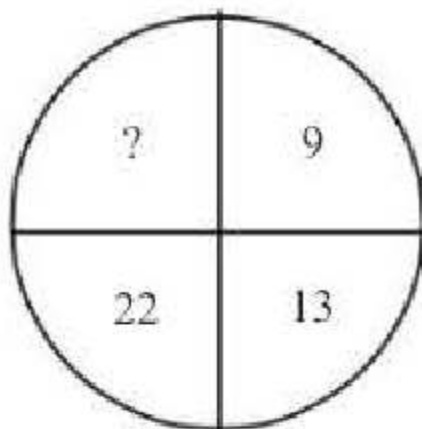
- ba \_ ba \_ \_ bbaaa \_ bbb \_ aa  
(a) baabab (b) babbaa  
(c) baaaab (d) bababa
- Rakesh ranks 15th from the top and 45th from the bottom in a class. How many students are there in the class?  
(a) 64 (b) 59  
(c) 54 (d) None of these
- Moni is daughter of Sheela. Sheela is the wife of my wife's brother. How is Moni related to my wife?  
(a) Cousin (b) Niece  
(c) Sister (d) Sister-in-law
- Ram moves from a point X to 20 metres towards North. Then he moves 40 metres towards West. Then he moves 20 metres North. Then he moves 40 metres towards East and then 10 metres towards right and he reaches to a point Y. Find the distance and direction of Y from X?  
(a) 30 metres, North (b) 30 metres, South  
(c) 40 metres, North (d) 40 metres, South
- Which figure represents the relation among Currency, Rupee and Dollar ?





**DIRECTIONS (Qs. 15-16) :** In questions, find the missing number from the given responses.

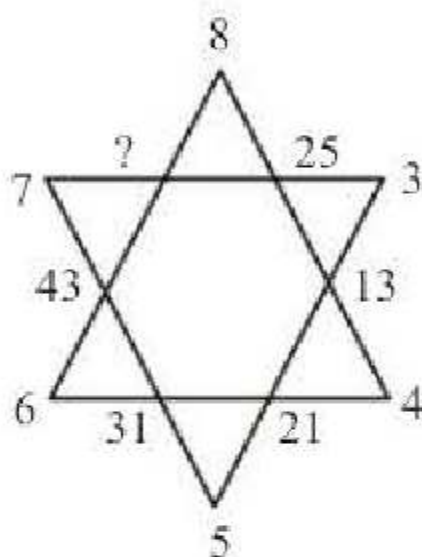
15.



- (a) 40  
(c) 39

- (b) 38  
(d) 44

16.



- (a) 56  
(c) 58

- (b) 57  
(d) 59

17. Nitin's age was equal to square of some number last year and the following year it would be cube of a number. If again Nitin's age has to be equal to the cube of some number, then for how long he will have to wait?

- (a) 10 years  
(c) 39 years

- (b) 38 years  
(d) 64 years

18. Six persons are sitting in a circle. A is facing B, B is to the right of E and left of C. C is to the left of D. F is to the right of A. Now D exchanges his seat with F and E with B. Who will be sitting to the left of D?

- (a) D  
(c) A

- (b) E  
(d) B

19. From the given alternatives select the word which **cannot** be formed using the letters of the given word.

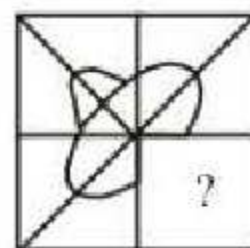
QUINTESSENCE

- (a) Essence  
(c) Sequin

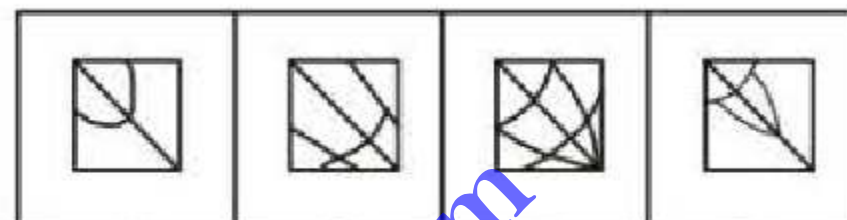
- (b) Entice  
(d) Question

**DIRECTION (Qs. 20) :** In question, which answer figure will complete the pattern in the question figure?

20. Question figure :

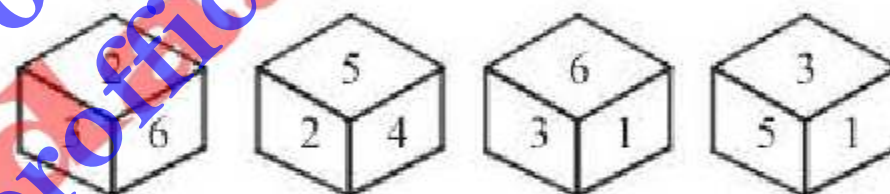


Answer Figures :



(a) (b) (c) (d)

21. Four different positions of dice are as shown below. What number is opposite to face 3?

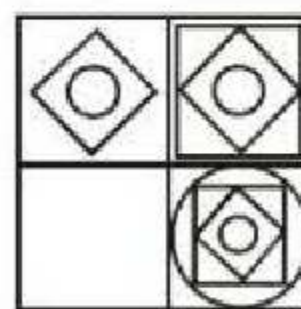


- (a) 4  
(c) 2

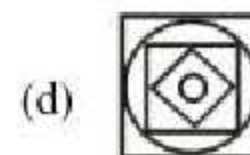
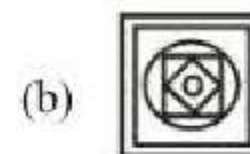
- (b) 3  
(d) 6

**DIRECTIONS (22-23) :** In each of the following questions, which answer figure will complete the question figure?

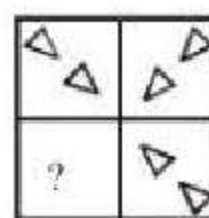
22. Question Figure:



Answer Figures:

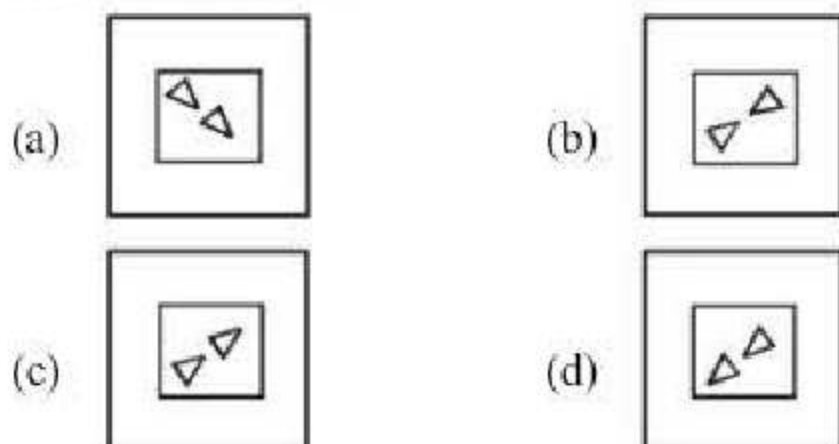


23. Question Figure :





Answer Figures:

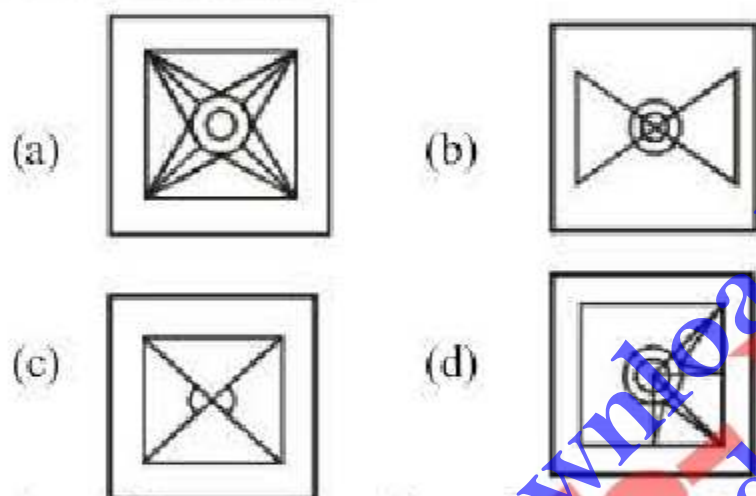


**DIRECTIONS (Qs. 24) :** In the following questions, select the answer figure in which the question figure is hidden/embedded.

24. Question Figure:



Answer Figures :



25. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in the two matrices given below. The columns and rows of matrix I are numbered from 0 to 4 and that of matrix II numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column e.g., 'C' can be represented by 00, 12, 23, etc. and 'M' can be represented by 56, 67, 77, etc. Similarly, you have to identify the set for the given word - GOD.

Matrix-I

	0	1	2	3	4
0	C	D	E	F	G
1	G	D	C	G	E
2	E	F	G	C	D
3	G	C	F	D	E
4	D	C	F	G	E

Matrix-II

	5	6	7	8	9
5	L	M	N	O	P
6	O	L	M	N	P
7	L	O	M	P	N
8	N	O	P	M	L
9	P	L	M	N	O

- (a) 10, 11, 65 (b) 95, 79, 12  
(c) 30, 65, 40 (d) 00, 10, 75

## NUMERICAL ABILITY

26. Which is the smallest of the following numbers ?

- (a)  $\sqrt{7}$  (b)  $\frac{1}{\sqrt{7}}$   
(c)  $\frac{1}{7}$  (d)  $\frac{1}{7}$

27. If  $x^{1/3} + y^{1/3} = z^{1/3}$ , then  $(x + y - z)^3 + 27xyz$  is equal to?

- (a) 3 (b) 0  
(c) 1 (d) 2

28. A bag contains Rs 216 in the form of one rupee, 50 paise and 25 paise coins in the ratio of 2 : 3 : 4. The number of 50 paise coins is :

- (a) 96 (b) 144  
(c) 114 (d) 141

29. In a mixture of 45 litres, the ratio of milk and water is 4 : 1. How much water must be added to make the mixture ratio 3 : 2 ?

- (a) 72 litres (b) 24 litres  
(c) 15 litres (d) 1.5 litres

30. A started a business with ₹ 4500 and another person B joined after some period with ₹ 3000. Determine this period after B joined the business if the profit at the end of the year is divided in the ratio 2 : 1

- (a) After 3 months (b) After 4 months  
(c) After 6 months (d) After  $2\frac{1}{2}$  months

31. A cistern has two taps (which fill it in 12 min and 15 min, respectively) and an exhaust tap. When all three taps are opened together, it takes 20



min to fill the empty cistern. How long will the exhaust tap take to empty it ?

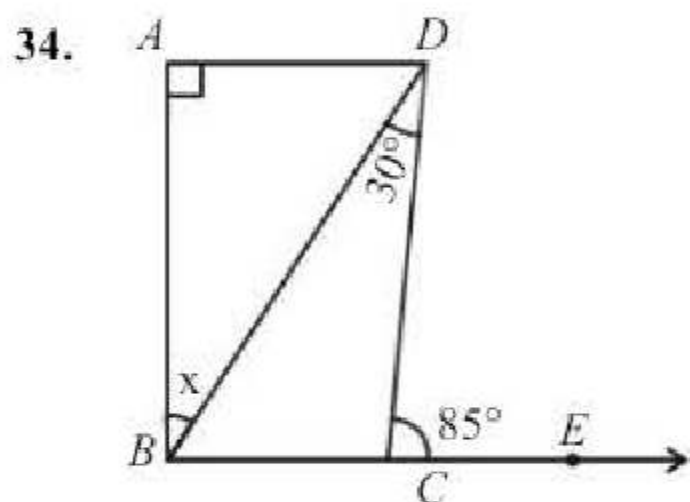
- (a) 20 min (b) 16 min  
(c) 12 min (d) 10 min

32. 12 men complete a work in 18 days. Six days after they had started working, 4 men joined them. How many days will all of them take to complete the remaining work ?

- (a) 10 days (b) 12 days  
(c) 15 days (d) 9 days

33. A motor boat whose speed is 15 km/h in still water goes 30 km downstream and comes back in four and a half hours. The speed of the stream is :

- (a) 46 km/h (b) 6 km/h  
(c) 7 km/h (d) 5 km/h



If  $AD \parallel BE$ ,  $\angle DCE = 85^\circ$  and  $\angle BDC = 30^\circ$ , then what is the value of  $x$ ?

- (a)  $30^\circ$  (b)  $35^\circ$   
(c)  $45^\circ$  (d)  $55^\circ$

35. The L.C.M. of two numbers is 630 and their H.C.F. is 9. If the sum of numbers is 153, their difference is

- (a) 17 (b) 23  
(c) 27 (d) 33

36. What is the number of points in the plane of a  $\triangle ABC$  which are at equal distance from the vertices of the triangle?

- (a) 0 (b) 1  
(c) 2 (d) 3

37. Find the compound interest on Rs 25625 for 12 months at 16% per annum, compounded quarterly.

- (a) 29977.62 (b) 4352.62  
(c) 4100 (d) 29725

38. If a dividend of ₹ 57,834 is to be divided among Meena, Urmila and Vaishali in the proportion of 3:2:1, find Urmila's share.

- (a) ₹ 19,281 (b) ₹ 17,350  
(c) ₹ 23,133 (d) ₹ 19,278

39. A certain number of men can do a work in 60 days. If there were 8 men more it could be finished in 10 days less. How many men are there ?

- (a) 75 men (b) 40 men  
(c) 48 men (d) 45 men

40. For what value of  $k$ , will the expression  $3x^3 - kx^2 + 4x + 16$  be divisible by  $\left(x - \frac{k}{2}\right)$ ?

- (a) 4 (b) -4  
(c) 2 (d) 0

41.  $a$ ,  $b$ ,  $c$  and  $d$  are four consecutive numbers. If the sum of  $a$  and  $d$  is 103, what is the product of  $b$  and  $c$ ?

- (a) 2652 (b) 2562  
(c) 2970 (d) 2550

42. If the H.C.F. of  $x^3 + mx^2 - x + 2m$  and  $x^2 + mx - 2$  is a linear polynomial, then what is the value of  $m$ ?

- (a) 1 (b) 2  
(c) 3 (d) 4

43. If mean of  $y$  and  $\frac{1}{y}$  is  $M$ , then what is the

mean of  $y^3$  and  $\frac{1}{y^3}$ ?

- (a)  $\frac{M(M^2) - 3}{3}$  (b)  $M^3$   
(c)  $M^3 - 3$  (d)  $M(4M^2 - 3)$

44. A cyclist covers a distance of 750 m in 2 min 30 sec. What is the speed in km/h of the cyclist?

- (a) 18 km/h (b) 15 km/h  
(c) 20 km/h (d) None of these

45. The average age of a man and his son is 16 years. The ratio of their ages is 15 : 1 respectively. What is the son's age?

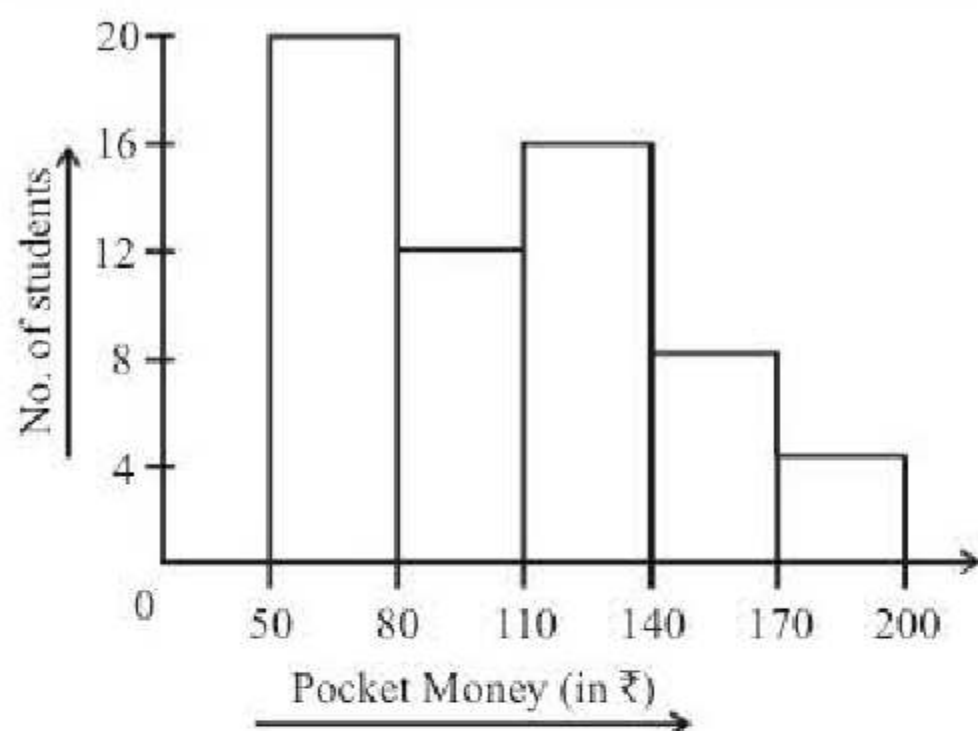
- (a) 30 years (b) 32 years  
(c) 2 years (d) 4 years

46. The equation of a line parallel to the line  $3x - 4y + 5 = 0$  and passing through the point  $(2, -3)$  is

- (a)  $2x - 3y = 7$  (b)  $3x + 4y = 9$   
(c)  $4x + 3y = 8$  (d)  $3x - 4y = 18$



**DIRECTIONS (Qs. 47-48):** The adjacent histogram shows the average pocket money received by 60 students for a span of one month. Study the diagram and answer the question.



47. Maximum number of students received pocket money between  
 (a) 50-80 (b) 140-170  
 (c) 80-110 (d) 110-140
48. The number of students who received pocket money upto ₹ 140 is  
 (a) 20 (b) 32  
 (c) 48 (d) 56
49. Semi-circular lawns are attached to all the edges of a rectangular field measuring 42 m × 35m. The area of the total field is :  
 (a) 3818.5 m<sup>2</sup> (b) 8318 m<sup>2</sup>  
 (c) 5813 m<sup>2</sup> (d) 1358 m<sup>2</sup>
50. A steel wire has been bent in the form of a square of area 121 cm<sup>2</sup>. If the same wire is bent in the form of a circle, then the area of the circle will be :  
 (a) 130 cm<sup>2</sup> (b) 136 cm<sup>2</sup>  
 (c) 145 cm<sup>2</sup> (d) None of these

## ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51-55) :** Read the following passage and answer the questions that follows—

Deriving your authority from the government, your position would secure the respect and consideration of everyone, especially in a service where official rank carries so much weight. This would secure to you every attention and comfort on your way and there, together with a complete submission to your orders.

I know these things are a matter of indifference to you except so far as they may further the great objects you have in view, but they are of importance in themselves, and of every importance to those who have a right to take an interest in your personal position and comfort.

51. The above passage most probably is a part of a  
 (a) speech (b) official communication  
 (c) written report (d) personal letter
52. The writer's attitude towards the person addressed is characterised by  
 (a) officiousness (b) flattery  
 (c) humility (d) arrogance
53. The person addressed is most likely a  
 (a) social worker (b) government servant  
 (c) commercial agent (d) foreign dignitary
54. The writer is asking his reader to accept  
 (a) great objects (b) a respected position  
 (c) an official rank (d) a significant assignment
55. 'The great objects' in the passage means  
 (a) Significant items (b) Noble goals  
 (c) Precious merchandise (d) Objects of praise

**DIRECTIONS (Qs. 56-61) :** Select the most appropriate word from the options against each number:

Life is an (56) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (57) the right opportunities. Planned (58) rather than a hasty decision is (59) as far as your career is concerned. You need to (60) what occupational groups, (61) and type of organisation are suitable for you.

56. (a) enticing (b) exciting  
 (c) enchanting (d) enhancing
57. (a) catching (b) offsetting  
 (c) grabbing (d) conceiving
58. (a) delay (b) hindrance  
 (c) application (d) execution
59. (a) desirable (b) deciphered  
 (c) inevitable (d) acceptable
60. (a) check (b) classify  
 (c) divide (d) analyse



61. (a) specifications (b) limitations  
(c) qualifications (d) identification

**DIRECTIONS (Qs. 62-63) :** In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence.

62. The project did not appear to hold out bright prospects.  
(a) Highlight (b) show  
(c) Offer (d) promise
63. I am afraid he is burning the candle at both ends and ruining his life.  
(a) wasting his money  
(b) becoming overgenerous  
(c) overtaxing his energies  
(d) losing his objectives

**DIRECTIONS (Qs. 64-66) :** In questions given below out of four alternatives. Choose the one which can be substituted for the given word/sentence.

64. The custom or practice of having more than one husband at same time  
(a) Polygyny (b) Polyphony  
(c) Polyandry (d) Polychromy
65. Tending to move away from the centre or axis  
(a) Centrifugal (b) Centripetal  
(c) Axiomatic (d) Awry
66. Teetotaller means  
(a) One who abstains from theft  
(b) One who abstains from meat  
(c) One who abstains from taking wine  
(d) One who abstains from malice

**DIRECTIONS (Qs. 67-68) :** In this section, you are required to spot errors in sentences. Each sentence is divided into three parts. Read each sentence to find out whether there is an error in any of the parts. No sentence has more than one error. Some of the sentences do not have any error. When you find an error in a sentence, the letter indicated under that part of the sentence is the answer and therefore the same may be marked on the separate Answer Sheet. If there is no error in any part, mark (d) as the answer.

67. These are his conclusion remarks.  
(a) (b) (c)  
No error  
(d)
68. The shopkeeper offered either to exchange  
(a)  
the goods or refund the money. No error  
(b) (c) (d)

**DIRECTIONS (Qs. 69-71) :** Look at the underlined part of each sentence. Below each sentence, three possible situations for the underlined part are given. If one of them (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of these substitutions improves the sentence, indicate (d) as your response on the Answer Sheet. Thus a "No Improvement" response will be signified by the letter (d).

69. I am used to hard work.  
(a) work hard (b) work hardly  
(c) hard working (d) No improvement
70. Twenty kilometres are not a great distance in these days of fast moving vehicles.  
(a) is not a great distance  
(b) is no distance  
(c) aren't a great distance  
(d) No improvement
71. They were working as usually.  
(a) usual (b) as usual  
(c) usually (d) No improvement

**DIRECTIONS (Qs. 72-76) :** Pick out the nearest correct meaning or synonym of the words given below:

72. RECUPERATE  
(a) recapture (b) delight  
(c) recover (d) overcome
73. ALMS  
(a) blessings (b) charity  
(c) prayers (d) worship
74. ANATHEMA  
(a) Religious Chant (b) Pun  
(c) Musical Subject (d) Curse
75. DEBILITATE  
(a) Weaken (b) Attack  
(c) Surmount (d) Destroy
76. PENCHANT  
(a) Liking (b) Eagerness  
(c) Disability (d) Keenness

**DIRECTIONS (Qs. 77-81) :** Pick out the opposite meaning or antonym of the words given below:

77. INDICT  
(a) condemn (b) reprimand  
(c) acquit (d) allege
78. VACILLATE  
(a) amplify (b) stimulate  
(c) consistent (d) eradicate



79. **INSOLENT**  
 (a) Sullen (b) Affable  
 (c) Determined (d) Rich
80. **SCEPTIC**  
 (a) Cryptic (b) Believer  
 (c) Support (d) Eminent
81. **REFRACTORY**  
 (a) Refreshing (b) Burdensome  
 (c) Privileged (d) Manageable

**DIRECTIONS: (Qs. 82-86)** Choose the correct spelling of the given word.

82. (a) Efflorascence (b) Efflorescence  
 (c) Efllorescence (d) Eflorescence
83. (a) Aliennate (b) Allienate  
 (c) Alienate (d) Alienatte
84. (a) Dolorous (b) Dolurous  
 (c) Doloreus (d) Delorious
85. (a) Condiut (b) Conduit  
 (c) Connduit (d) Condeut
86. (a) Gragarious (b) Gragerious  
 (c) Gregarious (d) Grigareous

**DIRECTIONS (Qs. 87-90):** In the following questions, sentences are given with blanks to be filled with appropriate word(s). Choose the correct alternative from the given options and indicate it.

87. It is not fair to cast ..... on honest and innocent persons.  
 (a) aspiration (b) aspersions  
 (c) inspiration (d) adulation
88. No country can ..... to practice a constant, rigid foreign policy in view of the world power dynamics.  
 (a) oblivate (b) anticipate  
 (c) afford (d) envisage
89. The skill and ease with which he repaired the machine proved that he is a/an ..... mechanic.  
 (a) able (b) handy  
 (c) nimble (d) competent
90. The prisoner was released on ..... for good behaviour.  
 (a) probation (b) bail  
 (c) parole (d) grounds

**DIRECTIONS (Qs. 91-95):** Which word or words explains the meaning of the following idioms:

91. A fool's errand  
 (a) A blunder  
 (b) An impossible task  
 (c) A useless undertaking  
 (d) None of these

92. To flog a dead horse  
 (a) To act in a foolish way  
 (b) To waste one's efforts  
 (c) To revive into rest in an old subject  
 (d) To revive old memories
93. The alpha and the omega  
 (a) The beginning and the end  
 (b) A nice act  
 (c) The starts and the moon  
 (d) Very costly
94. A bull in a china shop  
 (a) A person who is very ugly but loves the beautiful things of life  
 (b) A person who takes a sadistic delight in harming innocent people  
 (c) A person who becomes too excited where no excitement is warranted  
 (d) A rough and clumsy person at a place where skill and care are required.
95. To hold something in leash  
 (a) To restrain (b) To disappoint  
 (c) To dismiss (d) To discourage

**DIRECTIONS (Qs. 96-100):** In these questions, the sentences have been given in Active / Passive Voice. From the given alternatives, choose the one which best expresses the given sentence in Passive / Active Voice.

96. The Principal has granted him a scholarship.  
 (a) A scholarship has granted to him by the Principal.  
 (b) He has been granted a scholarship by the Principal.  
 (c) He has granted a scholarship by the Principal.  
 (d) A scholarship was granted to him by the Principal.
97. Before festivals the shops are thronged with men, women and children making various purchases.  
 (a) During festivals people throng the shops  
 (b) Men, women and children throng the shops before festivals making various purchases.  
 (c) Men, women and children make purchases during festivals.  
 (d) The shops are thronged by people making purchases.



98. I saw him leaving the house.  
 (a) Leaving the house he was seen by me.  
 (b) He was seen leaving the house by me.  
 (c) He had been seen leaving the house.  
 (d) He was seen to be leaving the house.
99. Someone pulled the bull violently.  
 (a) The bull had been pulled violently by someone.  
 (b) The bull was to be pulled violently by someone.  
 (c) The bull had been pulled violently.  
 (d) The bull was pulled violently.
100. This shirt cannot be worn by me any longer.  
 (a) I cannot wear this shirt any longer.  
 (b) Wearing of this shirt any longer is not possible.  
 (c) This shirt is too worn out to be worn any longer.  
 (d) This worn out shirt cannot be worn any longer.

### GENERAL AWARENESS

101. Which Article of the Indian Constitution guarantees rights to arrested persons ?  
 (a) Article 22 (b) Article 35  
 (c) Article 20 (d) Article 42
102. For a person having hypermetropia, the near point is .....  
 (a) Greater than 20 cm (b) Lesser than 25cm  
 (c) Greater than 25cm (d) Lesser than 30cm
103. Cryogenic is a science deals with  
 (a) High Temperatures (b) Low Pressure  
 (c) High Pressure (d) Low Temperature
104. .... is an active factor of production  
 (a) Product (b) Labour  
 (c) Wages (d) Price
105. When total utility becomes maximum, then marginal utility will be  
 (a) Maximum  
 (b) Minimum  
 (c) Either maximum or minimum  
 (d) Zero
106. Revealed Preference Theory was propounded by .....  
 (a) Robbins (b) Smith  
 (c) Samuelson (d) Schumpeter
107. One Carat of diamond is equal to .....  
 (a) 200m (b) 100m  
 (c) 150m (d) 300m
108. Wood Spirit is which of the following ?  
 (a) Ethyl Alcohol (b) Propanol  
 (c) Methyl Alcohol (d) Butanol
109. Which of the following is chief source of Napthalene ?  
 (a) Moth balls (b) Mothflakes  
 (c) Tar Camphor (d) Coal tar
110. Study of crop production is .....  
 (a) Entology (b) Ecology  
 (c) Botany (d) Agronomy
111. Who was the last guru of the Sikhs ?  
 (a) Guru Granth Sahib  
 (b) Guru Gobind Singh  
 (c) Guru Angad  
 (d) Guru Amar Das
112. Tattvabodhini Sabha was founded by ..... In 1830  
 (a) Swami Vivekanand  
 (b) Keshav Chandra Sen  
 (c) Dabendranath Tagore  
 (d) Swami Sahajanand
113. After the revolt of 1857, British pursued the policy of .....  
 (a) Divide and Policies  
 (b) Rules and Regulation  
 (c) Divide and Rule  
 (d) Unity and Poliy
114. Prithvi-I missile was inducted into the ..... in 1994  
 (a) Indian Army (b) Indian Air Force  
 (c) Indian Navy (d) All of these
115. 2018 FIFA World Cup to be held in .....  
 (a) China (b) Russia  
 (c) India (d) Brazil
116. .... is issued by the court in case of illegal detention of a person  
 (a) Quo Warranto (b) Habeas Corpus  
 (c) Mandamus (d) Certiorari
117. At the time of Emergency, the Indian State become unitary from .....  
 (a) Semi Federal (b) Federal  
 (c) Unitary (d) Quasi-federal
118. The book titled 'The Life and Death of Adolf Hitler' is penned by  
 (a) Z.A. Bhutto  
 (b) James Cross Giblin  
 (c) J.M. Barrie  
 (d) Gunnar Myrdal



119. *Bos Taurus* is a scientific name of .....  
 (a) Buffalo (b) Horse  
 (c) Cow (d) Cat
120. .... includes all prokaryotic organism like bacteria, cyanobacteria and archaebacteria  
 (a) Animalia (b) Protista  
 (c) Monera (d) Planatae
121. .... is the Kuchipudi dancer  
 (a) Anupama Mohan  
 (b) Bimbavati Devi  
 (c) Arush Mudgal  
 (d) Swapnasundari
122. Which of the following is not a chief organ of the United Nations Organisations?  
 (a) International Labour Organisation  
 (b) Security Council  
 (c) International Court of Justice  
 (d) General Assembly
123. The treaty of Mangalore was signed between  
 (a) the English East India Company and Haider Ali  
 (b) the English East India Company and Tipu Sultan  
 (c) Haider Ali and the Zamorin of Calicut  
 (d) the French East India Company and Tipu Sultan
124. World's largest Charkha (spinning wheels) that was unveiled at Terminal 3 of the Indira Gandhi International Airport (IGI), New Delhi is made of the teak wood of which country?  
 (a) Burma (b) Sri Lanka  
 (c) Nepal (d) Ukraine
125. The Union Cabinet recently approved The High Courts (Alteration of Names) Bill, 2016 to be introduced in the Parliament. The bill will facilitate the changing of the names of which two high courts?  
 (a) Bombay High Court and Calcutta High Court  
 (b) Bombay High Court and Madras High Court  
 (c) Calcutta High Court and Madras High Court  
 (d) Bombay High Court and Gauhati High Court
127. Mahatma Gandhi left South Africa to return to India in  
 (a) 1911 (b) 1915  
 (c) 1917 (d) 1919
128. Who was the Viceroy when the Simon Commission visited India?  
 (a) Lord Chelmsford  
 (b) Lord Reading  
 (c) Lord Irwin  
 (d) Lord Wellington
129. Think-tank of Government of India that replaced Planning Commission on 01 January 2015 is  
 (a) NITI Vakyta (b) NITI Dharma  
 (c) NITI Vajpayee (d) NITI Aayog
130. What is the name of 'Innovative Council' proposed in the Rail Budget 2015 to promote innovation?  
 (a) Rail Tech (b) Sankalp  
 (c) Kayakalp (d) Navachar
131. Animals active at night are called  
 (a) Diurnal (b) Nocturnal  
 (c) Parasites (d) Nacto-diurnal
132. Which city will host the 2022 Commonwealth Games?  
 (a) Gold Coast, Australia  
 (b) Durban, South Africa  
 (c) Lusaka, Zambia  
 (d) Nairobi, Kenya
133. Serena Williams defeated \_\_\_\_\_ to win the women's singles title of Australian Open 2015.  
 (a) Venus Williams  
 (b) Sania Mirza  
 (c) Maria Sharapova  
 (d) Ana Ivanovic
134. Lines joining places of equal temperature are called  
 (a) Isotherms (b) Isohyets  
 (c) Isomers (d) Isobars
135. Sir C. V. Raman was awarded Noble Prize for his work connected with which of the following phenomenon of radiation?  
 (a) Scattering (b) Diffraction  
 (c) Interference (d) Polarization
136. Natural radioactivity was discovered by  
 (a) Marie Curie  
 (b) Earnest Rutherford  
 (c) Henry Bacquerel  
 (d) Enrico Fermi

**DIRECTIONS (Qs. 126-) :** Choose the most appropriate answer:

126. Todar Mal was associated with \_\_\_\_\_ in Akbar's darbar.  
 (a) Music (b) Literature  
 (c) Finance (d) Law Reforms



137. Recently tested Agni-V missile is capable of carrying nuclear payload of  
 (a) 1000 Kg. (b) 1500 Kg.  
 (c) 2000 Kg. (d) 2500 Kg.
138. How many days moon takes to revolve around the earth?  
 (a)  $26\frac{1}{3}$  (b)  $27\frac{1}{3}$   
 (c)  $28\frac{2}{3}$  (d)  $29\frac{1}{2}$
139. In which atmospheric layer are the communication satellites located?  
 (a) Stratosphere (b) Ionosphere  
 (c) Troposphere (d) Mesosphere
140. Vinod Mehta an eminent Indian journalist and founder editor-in-chief of 'Outlook' published his autobiography by the name of  
 (a) Lucknow Boy A Memoir  
 (b) One Life is Not Enough  
 (c) Accidental Prime Minister  
 (d) The Substance and the Shadow
141. The book, 'Born Again on the Mountain' is authored by  
 (a) Pooja Rani (b) Arunima Sinha  
 (c) Bachendri Pal (d) Urbashi Lal
142. Which of the following Asian countries celebrates its Independence Day on 4th February?  
 (a) Sri Lanka (b) Bahrain  
 (c) Cambodia (d) Bangladesh
143. Who has been awarded the DadaSaheb Phalke Award for the year 2014?  
 (a) Pran (b) Shashi Kapoor  
 (c) Dilip Kumar (d) Amitabh Bachhan
144. The Russian name of INS Vikramaditya is  
 (a) Admiral Groshkov  
 (b) Admiral Gorbachev  
 (c) Admiral Nakhimov  
 (d) Admiral Petr Bezobrazov
145. The present chairman of ISRO is  
 (a) MYS Prasad  
 (b) Shailesh Nayak  
 (c) AS Kiran Kumar  
 (d) K Radhakrishnan
146. Indian-American music composer, Ricky Kej has won the Grammy Award for the album  
 (a) In the Lonely Hour  
 (b) Morning Phase  
 (c) Beyonce  
 (d) Winds of Samsara
147. Where is the headquarters of the Administrative Staff College of India (ASCI)?  
 (a) Hyderabad (b) New Delhi  
 (c) Pune (d) Chennai
148. NTR Arogya Raksha" a new health scheme has been launched by which state government?  
 (a) Haryana (b) Odisha  
 (c) Karnataka (d) Andhra Pradesh
149. The 104th Indian Science Congress (ISC) has started in which state?  
 (a) Kerala (b) Assam  
 (c) Andhra Pradesh (d) Manipur
150. Who has won the 2016 Mubadala World Tennis Championship?  
 (a) Kevin Anderson  
 (b) Stan Wawrinka  
 (c) Milos Raonic  
 (d) Rafael Nadal

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# PRACTICE SET- 3

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-3) :** In questions, select the related word/letters/number from given alternatives.

- ACE : FHJ :: OQS : ?  
(a) TVX (b) UWY  
(c) PRT (d) RTU
- Saint : Meditation :: Scientist : ?  
(a) Research (b) Knowledge  
(c) Spiritual (d) Rational
- 18 : 5 :: 12 : ?  
(a) 4 (b) 10  
(c) 3 (d) 6

**DIRECTIONS (Qs. 4 - 5) :** In questions, find the odd word/letters/number pair from the given alternatives.

- (a) Kolkata (b) Vishakhapatnam  
(c) Bengaluru (d) Haldia
- (a) HGFE (b) PONM  
(c) DCBA (d) MSTU

**DIRECTIONS (Qs. 6-7) :** In questions below, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

- FAG, GAF, HAI, IAH, \_\_\_\_\_  
(a) JAK (b) HAK  
(c) JAI (d) HAL
- 3, 6, 9, 15, 24, 39, 63, ?  
(a) 100 (b) 87  
(c) 102 (d) 99
- If A = 1, AGE = 13, then CAR = ?  
(a) 19 (b) 20  
(c) 21 (d) 22
- Arrange the following words as per order in the dictionary :  
1. Emplane 2. Empower  
3. Embrace 4. Elocution  
5. Equable  
(a) 5, 1, 3, 2, 4 (b) 4, 2, 1, 3, 5  
(c) 4, 3, 1, 2, 5 (d) 4, 5, 2, 3, 1

**DIRECTION (Qs. 10) :** In question below, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

- LU \_ TUPLUBTU \_ LUBT \_ P \_ UBTUP  
(a) LBPU (b) BPUL  
(c) PBUL (d) BUPL
- Govind is 48 years old. He is twice as old as his son Prem is now. How old was Prem seven years before?  
(a) 16 (b) 17  
(c) 13 (d) 18
- Pointing to a man, a lady said "His mother is the only daughter of my mother". How is the lady related to the man?  
(a) Mother (b) Daughter  
(c) Sister (d) Aunt
- After walking 10 m, Shankar turned left and covered a distance of 6 m, then turned right and covered a distance of 20 m. In the end, he was moving towards the south. From which direction did Shankar start his journey?  
(a) West (b) North  
(c) South (d) East
- If '-' stands for '+', '+' stands for '×', '×' stands for '-' then which one of the following is not correct ?  
(a)  $22 + 7 - 3 \times 9 = 148$   
(b)  $33 \times 5 - 10 + 20 = 228$   
(c)  $7 + 28 - 3 \times 52 = 127$   
(d)  $44 - 9 + 6 \times 11 = 87$
- |            |
|------------|
| 11         |
| 3   28   4 |
| 5          |

22
5   57   3
20

121
6   ?   5
25

  
(a) 176 (b) 115  
(c) 157 (d) 131

- |               |
|---------------|
| 63            |
| 7   9   1     |
| 3   1   7   ? |

  
(a) 3 (b) 9  
(c) 5 (d) 2



17. Five policemen are standing in a row facing south. Shekhar is to the immediate right of Dhanush. Bala is between Basha and Dhanush. David is at the extreme right end of the row. Who is standing in the middle of the row?

(a) Bala (b) Basha  
(c) Shekhar (d) Dhanush

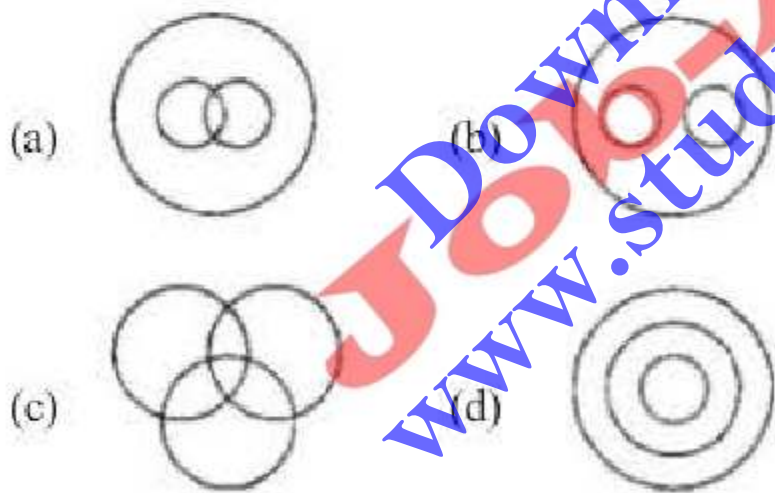
**DIRECTIONS (Qs. 18) :** In the following question, one statement is given followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follow from the given statements.

18. **Statement :** Songs always have singers to sing them.

**Conclusions:**

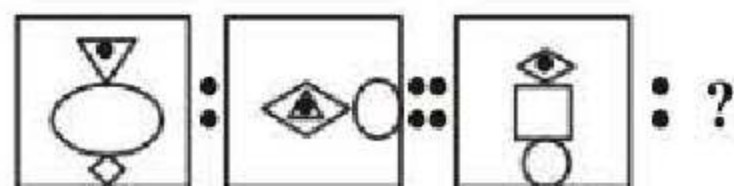
- I. Singers make a song.  
II. There is no un-sung song.  
(a) Only conclusion II follows  
(b) Both conclusions I and II follow  
(c) Neither conclusion I nor II follows  
(d) Only conclusion I follows

19. Which of the following states the relationship between Sociology, Psychology and Humanities?

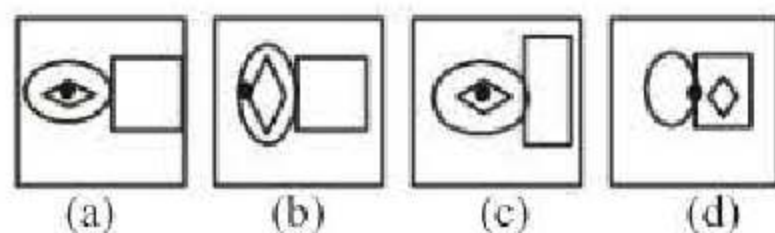


20. Select the related figure from the given alternatives.

**Question figures**



**Answer figures**



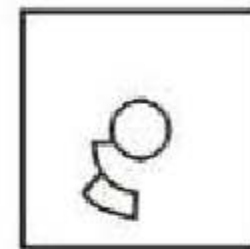
21. From the given alternatives select the word which can be formed using the letters given in the word.

ULTRANATIONALISM

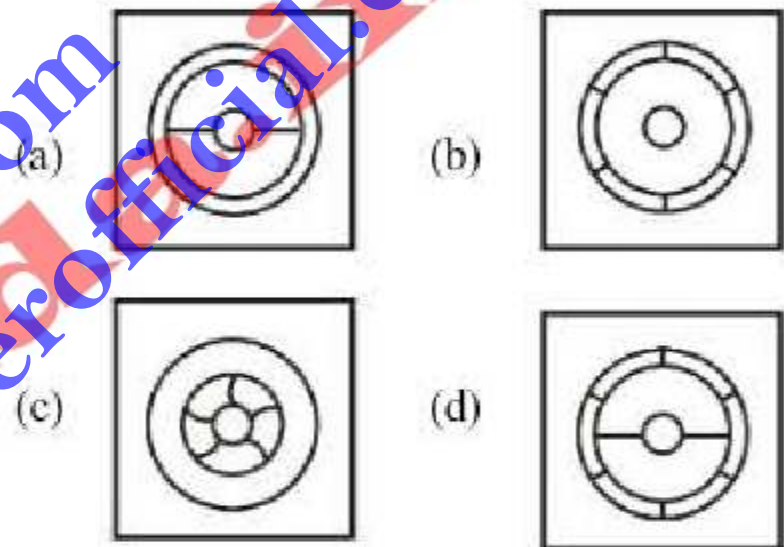
- (a) ULTRAMONTANE  
(b) ULTRAMODERN  
(c) ULTRAIST  
(d) ULULATE

22. In the following question, select the answer figure in which the question figure is hidden / embedded.

**Question Figure:**

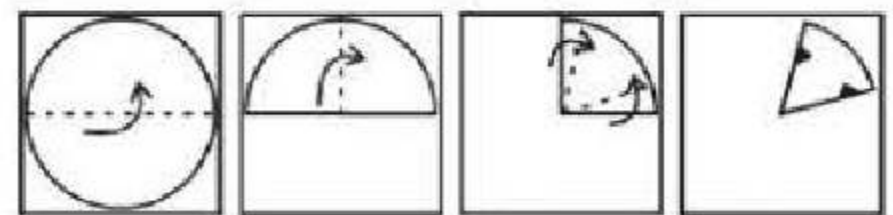


**Answer Figures:**

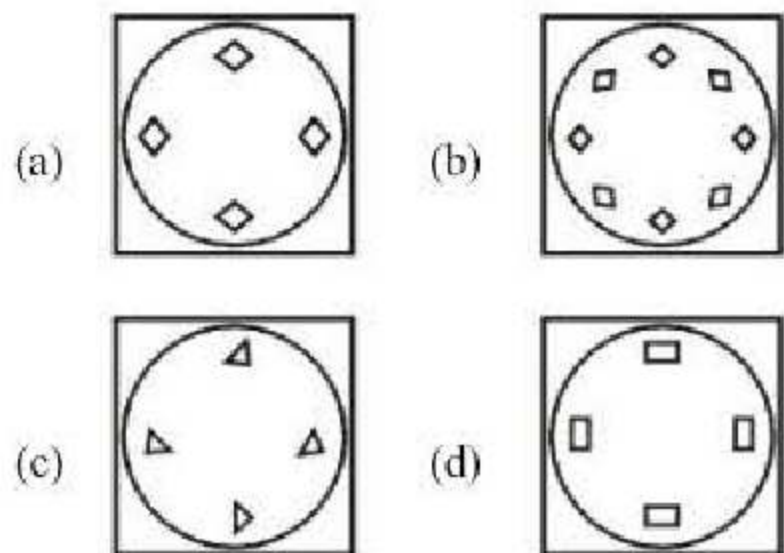


**DIRECTIONS (23-24) :** In each of the following questions, a piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

23. **Question Figures:**

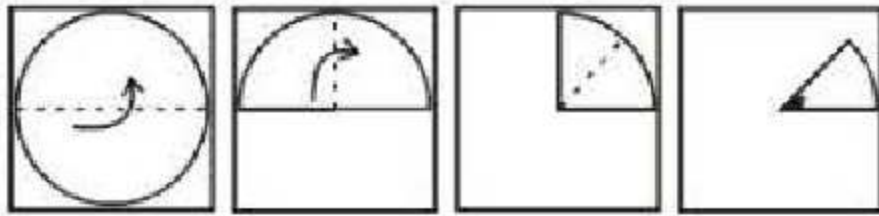


**Answer Figures:**

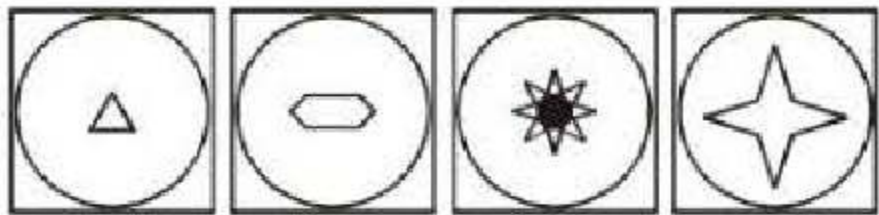




## 24. Question Figures:



## Answer Figures:



(a) (b) (c) (d)

25. A word is represented by only one set of numbers as given in anyone of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of matrix I are numbered from 0 to 4 and that of matrix II numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column e.g. 'B' can be represented by 01, 10, 22, etc. and 'F' can be represented by 55, 76, 86, etc. Similarly, you have to identify the set for the given word - CAGE.

Matrix-I

	0	1	2	3	4
0	A	B	C	D	E
1	B	C	D	E	A
2	C	D	E	A	B
3	D	E	A	B	C
4	E	A	B	C	D

Matrix-II

	5	6	7	8	9
5	F	G	H	I	J
6	G	H	I	J	F
7	H	I	J	F	G
8	I	J	F	G	H
9	J	F	G	H	I

- (a) 95, 82, 31, 14  
 (b) 20, 00, 65, 40  
 (c) 14, 20, 41, 86  
 (d) 00, 21, 41, 95

## NUMERICAL APTITUDE

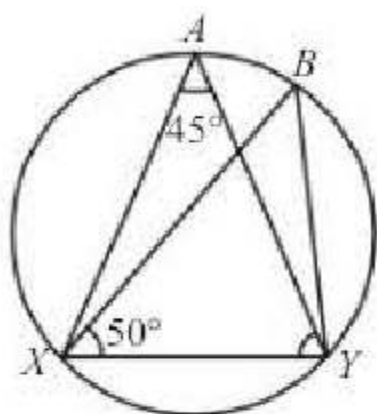
26. What is the value of  $2 + \sqrt{2} + \frac{1}{2 + \sqrt{2}} - \frac{1}{2 - \sqrt{2}}$ ?
- (a) 2 (b)  $2 - \sqrt{2}$   
 (c)  $4 + \sqrt{2}$  (d)  $2\sqrt{2}$
27. What is the value of  $1.\overline{34} + 4.\overline{12}$ ?
- (a)  $\frac{133}{90}$  (b)  $\frac{371}{90}$   
 (c)  $5\frac{219}{990}$  (d)  $5\frac{461}{990}$
28. A sum of money is divided among A, B, C and D in the ratio 3 : 5 : 8 : 9 respectively. If the share of D is ₹ 1,872 more than the share of A, then what is the total amount of money of B & C together?
- (a) ₹ 4,156 (b) ₹ 4,165  
 (c) ₹ 4,056 (d) ₹ 4,068
29. What approximate compound interest can be obtained on an amount of ₹3,980 after 2 years at 8 p.c.p.a.?
- (a) 650 (b) 680  
 (c) 600 (d) 662
30. A man walks at the speed of 5 km/hr and runs at the speed of 10 km/hr. How much time will the man require to cover the distance of 28 km, if he covers half (first 14 km) of his journey walking and half of his journey running?
- (a) 8.4 hrs (b) 6 hrs  
 (c) 5 hrs (d) 4.2 hrs
31. In a 30 litres mixture of water and milk, 50% is milk. How much pure milk need to be added to this mixture to make mixture 30% water?
- (a) 10 litres (b) 18 litres  
 (c) 15 litres (d) 20 litres
32. A bag contains 5 green and 7 red balls. Two balls are drawn. The probability that one is green and the other is red is
- (a)  $\frac{5}{132}$  (b)  $\frac{7}{132}$   
 (c)  $\frac{35}{66}$  (d)  $\frac{31}{66}$
33. By selling 8 dozen pencils, a shopkeeper gains the selling price of 1 dozen pencils. What is the gain?
- (a)  $12\frac{1}{2}\%$  (b)  $13\frac{1}{7}\%$   
 (c)  $14\frac{2}{7}\%$  (d)  $87\frac{1}{2}\%$



34. Two houses are collinear with the base of a tower and are at distance 3 m and 12 m from the base of the tower. The angles of elevation from these two houses of the top of the tower are complementary. What is the height of the tower?

(a) 4m (b) 6m  
(c) 7.5m (d) 36m

35.



In the figure given above, what is  $\angle BYX$  equal to?

(a)  $85^\circ$  (b)  $50^\circ$   
(c)  $45^\circ$  (d)  $90^\circ$

36. The value of  $k$  for which the lines  $2x + ky + 7 = 0$  and  $27x - 18y + 25 = 0$  are perpendicular to each other, is

(a)  $k = -1$  (b)  $k = 2$   
(c)  $k = 3$  (d)  $k = -2$

37. The sum of the three consecutive numbers in G.P. is 21 and the sum of their squares is 189. The product of the numbers is

(a) 72 (b) 216  
(c) 108 (d) 144

38. If  $x + \frac{1}{y} = 1$  and  $y + \frac{1}{z} = 1$ , what is the value of  $xyz$ ?

(a) 1 (b) -1  
(c) 0 (d)  $\frac{1}{2}$

39. The length of a line segment  $AB$  is 2 unit. It is divided into two parts at the point  $C$  such that  $AC^2 = AB \times CB$ . What is the length of  $CB$ ?

(a)  $3 + \sqrt{2}$  units (b)  $3 - \sqrt{5}$  units  
(c)  $2 - \sqrt{5}$  units (d)  $\sqrt{3}$  units

40. If  $\frac{37}{13} = 2 + \frac{1}{x + \frac{1}{y + \frac{1}{z}}}$

where  $x, y, z$  are natural numbers, then what is  $z$  equal to?

(a) 1  
(b) 2  
(c) 3  
(d) Cannot be determined due to insufficient data

41. What is  $27 \times 1.\overline{2} \times 5.526\overline{2} \times 0.\overline{6}$  equal to?

(a)  $121.\overline{57}$  (b)  $121.\overline{75}$   
(c)  $121.7\overline{5}$  (d) None of these

42. What should come in place of the question mark (?) in the following questions?

$$8^{9.4} \times 4^{12.8} \times 64^{8.1} = 16^?$$

(a) 41.8 (b) 16.2  
(c) 18.4 (d) 25.6

43. An aeroplane flies along the four sides of a square at the speeds of 200, 400, 600 and 800 km/h. Find the average speed of the plane around the field.

(a) 384 km/h (b) 370 km/h  
(c) 368 km/h (d) None of these

44. A, B and C can do a work in 6, 8 and 12 days respectively. Doing that work together they get an amount of Rs. 1350. What is the share of B in that amount?

(a) ₹450 (b) ₹168.75  
(c) ₹337.50 (d) ₹718.75

45. A and B started a business by investing ₹35,000 and ₹20,000 respectively. B left the business after 5 months and C joined the business with a sum of ₹15,000. The profit earned at the end of the year is ₹84,125. What is B's share of profit?

(a) ₹14133  
(b) ₹15,000  
(c) ₹13,460  
(d) Cannot be determined

**DIRECTIONS (Q. 46 - 48):** Study the following table carefully in answer the questions that follow :

**Number of Executives recruited by Six different organisations over the years**

Organisation	P	Q	R	S	T	U
2004	458	512	418	502	476	492
2005	522	536	472	500	482	523
2006	480	495	464	508	488	518
2007	506	505	428	444	490	534
2008	427	485	422	512	510	498
2009	492	488	444	499	512	510



46. What is the total number of Executives recruited by all the organisations together in the year 2006?  
(a) 2927 (b) 3042  
(c) 2864 (d) 2953
47. What is the ratio of the total number of Executives recruited by organisation U in the years 2007 and 2009 together to the total number of Executives recruited by organisation P in the same years?  
(a) 436:517 (b) 499:522  
(c) 517:436 (d) 522:499
48. What is the average number of Executives recruited by organisation S over all the years together? (rounded off to the nearest integer)  
(a) 494 (b) 482  
(c) 514 (d) 506
49. A hollow cylindrical iron pipe of length 1.4 m has base radius 2.5 cm and thickness of the metal is 1 cm. What is the volume of the iron used in the pipe?  
(a) 2640 cu cm (b) 2604 cu cm  
(c) 2460 cu cm (d) None of these
50. A solid metallic cube of edge 4 cm is melted and recast into solid cubes of edge 1 cm. If  $x$  is the surface area of the melted cube and  $y$  is the total surface area of all the cubes recast, then what is  $x : y$ ?  
(a) 2 : 1 (b) 1 : 2  
(c) 1 : 4 (d) 4 : 1

### ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51-55) :** Each of the question in this section has a sentence with a blank space and four words given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your choice on the Answer Sheet.

51. An accomplice is a partner in \_\_\_\_\_.  
(a) business (b) crime  
(c) construction (d) gambling
52. A person who pretends to be what he is not is called an \_\_\_\_\_.  
(a) imbibor (b) impresario  
(c) imitator (d) imposter

53. His \_\_\_\_\_ nature would not let him leave his office before 5 p.m.  
(a) honest (b) selfish  
(c) unscrupulous (d) conscientious
54. The Committee's appeal to the people for money \_\_\_\_\_ little response.  
(a) evoked (b) provided  
(c) provoked (d) prevented
55. The house wife \_\_\_\_\_ the cakes burning and ran to switch off the oven.  
(a) smell (b) smells  
(c) smelt (d) smelling

**DIRECTIONS (Qs. 56-60) :** Select the word or group of words that is most *similar* in meaning to the words in capital letters.

56. IMPETUS  
(a) Courage (b) Impatience  
(c) Arrogance (d) Driving energy
57. PHILANDERER  
(a) Time waster (b) Spendthrift  
(c) Male flirt (d) Wanderer
58. PROTAGONIST  
(a) Talented child (b) Reserved person  
(c) Leading character (d) Fearless
59. HOSPITABLE  
(a) Convivial (b) Liberal  
(c) Congenital (d) Welcoming
60. DISDAIN  
(a) Disown (b) Condemn  
(c) Hate (d) Criticise

**DIRECTIONS (Qs. 61-65) :** Select the word or group of words that is most *opposite* in meaning to the words in capital letters.

61. PROCRASTINATE  
(a) To be prompt (b) To adjudicate  
(c) To teach (d) To help others
62. PROCLIVITY  
(a) Speed (b) Weakness  
(c) Disgust (d) Disinclination
63. FABRICATE  
(a) Unearth (b) Construct  
(c) Demolish (d) Renovate
64. GREGARIOUS  
(a) Sociable (b) Societal  
(c) Unsociable (d) Solitary



65. Pragmatic  
 (a) Indefinite (b) Vague  
 (c) Optimistic (d) Idealistic

**DIRECTIONS (Qs. 66-70) :** Read the passage and then answer the questions based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

### PASSAGE

The New Year is a time for resolutions. Mentally at least, most of us could compile formidable lists of do's and don'ts. The same old favourites recur year in and year out with monotonous regularity. Past experience has taught us that certain accomplishments are beyond attainment. If we remain inveterate smokers, it is only because we have so often experienced the frustration that results from failure. Most of us fail in our efforts at self-improvement because our schemes are too ambitious and we never have time to carry them out. We also make the fundamental error of announcing our resolutions to everybody so that we look even more foolish when we slip back into our old bad ways.

66. The author seems to think that others  
 (a) feel happy when we slip back to our old ways.  
 (b) do not really want us to improve ourselves.  
 (c) are ready to tease and laugh at our attempts.  
 (d) might embarrass us by praising our attempts.
67. The author says that most of us fail in our attempts at self-improvement because  
 (a) we set too high goals for ourselves.  
 (b) we do not have the persistence of mind.  
 (c) our nature is such that we cannot become perfect.  
 (d) certain imperfections have become a part and parcel of our lives.
68. The author seems to imply that many are inveterate smokers because  
 (a) they have not really tried to give up smoking  
 (b) they know from past experience that they can never succeed in their attempt to give up  
 (c) they want to forget the frustration of not smoking  
 (d) they do not have the will power to stop smoking
69. The same old favourites recur ..... with monotonous regularity' implies that  
 (a) we want to be so perfect that we include some items regularly

- (b) we have been so regularly doing certain things that they have become monotonous  
 (c) in spite of repeated failures, we still would like to try one more time  
 (d) some favourite actions if repeated often could become monotonous

70. The phrase 'formidable lists of do's and don'ts' means that  
 (a) the bad points of our character are formidable.  
 (b) the list is so long that it is frightening.  
 (c) the things that need to be included is frightening.  
 (d) the realisation that we are so imperfect is frightening.

**DIRECTIONS (Qs. 71-73) :** Look at the underlined part of each sentence. Below each sentence, three possible substitutions for the underlined part are given. If one of them (i.e.,) (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of the substitutions improves the sentence, indicate (d) as your response on the Answer Sheet. Thus, 'No improvement' response will be signified by the letter (d).

71. If I were you, I would do it at once.  
 (a) was (b) am  
 (c) would be (d) No improvement
72. They set a strong guard, lest anyone could escape.  
 (a) would (b) might  
 (c) should (d) No improvement
73. The matter called up an explanation of his conduct.  
 (a) out (b) in  
 (c) for (d) No improvement

**DIRECTIONS (Qs. 74-79) :** Each question in this section has a sentence with three underlined parts labelled (a), (b) and (c). Read each sentence to find out whether there is any error in any underlined part and indicate your response in the Answer Sheet against the corresponding letter i.e., (a) or (b) or (c). If you find no error, your response should be indicated as (d).

74. My detailed statement is respectively  
 (a) (b)  
submitted. No error.  
 (c) (d)



75. I am waiting for my friend since this morning.  
 (a) (b) (c)  
 No error.  
 (d)

76. He is representing my constituency  
 (a) (b)  
for the last five years. No error.  
 (c) (d)

**DIRECTIONS (Qs. 77-79) :** In each of the following sentences four words or phrases have been underlined. Only one underlined part in each sentence is not acceptable in Standard English. Pick up the part a, b, c or d.

77. I have seen as bad or worse scenes of  
 a  
disorder at the  
 b  
 English fair than in any other Australian  
 c d  
 mining town.

78. The officers are now perfectly happy fishing.  
 a b  
 boating, shooting, playing cricket and  
 c  
other sports.  
 d

79. While in conversation with a high military  
 a  
 officer he told me that at the headquarters  
 b c  
nothing was known.  
 d

The subject should come before the verb.

**DIRECTIONS (Qs. 80-81) :** In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence. Choose the alternative which best expresses the meaning of idiom/phrase.

80. Sobhraj could be easily arrested because the police were tipped off in a advance.  
 (a) Toppled over  
 (b) Bribed  
 (c) Given advance information  
 (d) Threatened

81. I met him after a long time, but he gave me the cold shoulder.  
 (a) scolded me (b) insulted me  
 (c) abused me (d) ignored me

**DIRECTIONS (Qs. 82-85) :** In the following questions, a word has been spelt in four different ways, one of which is correct. Choose the correctly spelt word.

82. (a) Dysentary (b) Dysantery  
 (c) Dysentry (d) Dysentery  
 83. (a) Rejevanation (b) Rejuvenation  
 (c) Rejvenation (d) Rejuenation  
 84. (a) accomodate (b) accomodate  
 (c) accommodate (d) accomodat  
 85. (a) vegeterian (b) vegetarian  
 (c) vegetarean (d) vegetarean

**DIRECTIONS (Qs. 86-90) :** Select the most appropriate word from the options against each number :

One fine morning a (86) man knocked at the doors of the home for the aged run by nuns. He told the nun in charge that as he was (87) to Delhi, he wanted to leave his servant-maid to the (88) of the nuns. He assured the nun of sending some money every month (89) she was an orphan. The nun (90) her saying that she had got an excellen master.

86. (a) gentle (b) bad  
 (c) nice (d) good  
 87. (a) moved (b) shifted  
 (c) changed (d) transferred  
 88. (a) care (b) home  
 (c) custody (d) protection  
 89. (a) because (b) and  
 (c) though (d) if  
 90. (a) loved (b) praised  
 (c) consoled (d) condoled

**DIRECTIONS (Qs. 91-95) :** In these questions, the sentences have been given in Active / Passive Voice. From the given alternatives, choose the one which best expresses the given sentence in Passive / Active Voice.

91. I saw him leaving the house.  
 (a) Leaving the house he was seen by me.  
 (b) He was seen leaving the house by me.  
 (c) He had been seen leaving the house.  
 (d) He was seen to be leaving the house.  
 92. Someone pulled the bull violently.  
 (a) The bull had been pulled violently by someone.  
 (b) The bull was to be pulled violently by someone.  
 (c) The bull had been pulled violently.  
 (d) The bull was pulled violently.



93. This shirt cannot be worn by me any longer.  
 (a) I cannot wear this shirt any longer.  
 (b) Wearing of this shirt any longer is not possible.  
 (c) This shirt is too worn out to be worn any longer.  
 (d) This worn out shirt cannot be worn any longer
94. Somebody told me that there had been an explosion in the Town Hall.  
 (a) I was told by somebody about the explosion in the Town Hall.  
 (b) I was told about the explosion in the Town Hall.  
 (c) I was informed that there was an explosion in the Town Hall.  
 (d) I was told by somebody that there had been an explosion in the Town Hall.
95. The doctor advised the patient not to eat rice.  
 (a) The patient was advised by the doctor not to eat rice.  
 (b) The patient was advised by the doctor that he should not eat rice.  
 (c) The patient was being advised by the doctor that he should not rice by the doctor.  
 (d) The patient has been advised not to eat rice by the doctor.

**DIRECTIONS (Qs. 96-100) :** In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

96. A person interested in collecting, studying and selling of old things  
 (a) Antiquarian (b) Junk-dealer  
 (c) Crank (d) Archealogist
97. Policeman riding on motorcycles as guards to a VIP  
 (a) Outriders (b) Servants  
 (c) Commandos (d) Attendants
98. One who is determined to exact full vengeance for wrongs done to him  
 (a) Virulent (b) Vindictive  
 (c) Usurer (d) Vindicator
99. One absorbed in his own thoughts and feelings rather than in things outside  
 (a) Scholar (b) Recluse  
 (c) Introvert (d) Intellectual
100. One who dabbles in fine arts for the love of it and not for monetary gains  
 (a) Connoisseur (b) Amateur  
 (c) Professional (d) Dilettante

## GENERAL AWARENESS

101. Which one of the following is not a computer language?  
 (a) Cobol (b) Visual Basic  
 (c) HTML (d) Netscape
102. Who among the following was the first Governor General of India?  
 (a) Lord Amherst  
 (b) Lord William Bentinck  
 (c) Sir Charles Metcalfe  
 (d) Robert Clive
103. Which one of the following is not a constituent of biogas?  
 (a) Methane (b) Carbon dioxide  
 (c) Hydrogen (d) Nitrogen dioxide
104. In which one of the following sessions was the Indian National Congress split into moderates and extremists?  
 (a) Nagpur (b) Allahabad  
 (c) Surat (d) Calcutta
105. Bar is a unit of which one of the following?  
 (a) Force (b) Energy  
 (c) Pressure (d) Frequency
106. Which of the following metals are present in haemoglobin and chlorophyll, respectively?  
 (a) Fe and Mg (b) Fe and Zn  
 (c) Mg and Zn (d) Zn and Mg
107. A mother of blood group O has a group O child. What could be the blood group of father of the child?  
 (a) Only O (b) A or B or O  
 (c) A or B (d) Only AB
108. Who among the following was the founder of the Muslim League?  
 (a) Muhammad Ali Jinnah  
 (b) Shaukat Ali  
 (c) Nawab Salimullah  
 (d) Aga Khan
109. Which one among the following is not a source of tax revenue for the Central Government in India ?  
 (a) Income tax (b) Customs duties  
 (c) Service tax (d) Motor Vehicle tax
110. Which of the following does not form part of current account of Balance of Payments?  
 (a) Export and import of goods  
 (b) Export and import of services  
 (c) Income receipts and payments  
 (d) Capital receipts and payments
111. Which one of the following Schedules of the Constitution of India includes the disqualification of a Legislator on grounds of defection?  
 (a) 8th Schedule (b) 7th Schedule  
 (c) 9th Schedule (d) 10th Schedule



112. Which one of the following causes the chikungunia disease?  
 (a) Bacteria (b) Helminthic worm  
 (c) Protozoan (d) Virus

113. Who among the following recommends to the Parliament for the abolition of the Legislative Council in a State?  
 (a) The President of India  
 (b) The Governor of the concerned State  
 (c) The Legislative Council of the concerned State  
 (d) The Legislative Assembly of the concerned State

114. Which one of the following vitamins helps in clotting of blood?  
 (a) Vitamin-A (b) Vitamin-B<sub>6</sub>  
 (c) Vitamin-D (d) Vitamin-K

115. The 'Thomas Cup' is associated with  
 (a) Table Tennis (b) Lawn Tennis  
 (c) Badminton (d) Billiards

116. Which one among the following pairs is correctly matched?  
 (a) The Second Battle of Tarain : Defeat of Jaichand of Kannauj by Muhammad of Ghori  
 (b) The First Battle of Panipat : Defeat of Sikander Lodhi by Babur  
 (c) The Battle of Chausa : Defeat of Humayun by Sher Shah  
 (d) The Battle of Khanwa : Defeat of Rana Pratap by Akbar

117. What is the purpose of adding baking soda to dough?  
 (a) To generate moisture  
 (b) To give a good flavour  
 (c) To give good colour  
 (d) To generate carbon dioxide

118. The 'Arthashastra' is a treatise on which one of the following?  
 (a) Economics  
 (b) Environment  
 (c) Political Philosophy  
 (d) Religion in Administration

119. Which one of the following glands in the human body stores iodine?  
 (a) Parathyroid (b) Thyroid  
 (c) Pituitary (d) Adrenal

120. India's first integrated Defense Communication Network (DCN) has been launched in which of the following cities?  
 (a) New Delhi (b) Lucknow  
 (c) Ahmedabad (d) Kochi

121. The book "The mind of the terrorist: the Psychology of terrorism from the IRA to al-Qaeda" has been authored by whom?  
 (a) Amitav Ghosh (b) Ashwin Sanghi  
 (c) Kunal Basu (d) Jerrold M. Post

122. The Government of India (GoI) has extended the ban on the import of milk and milk products of China till which year?  
 (a) June 2017 (b) March 2017  
 (c) December 2017 (d) January 2017

123. What is the recently extended deadline for states to join Union Government's Ujwal Discom Assurance Yojana (UDAY) scheme?  
 (a) March 2017 (b) January 2018  
 (c) March 2018 (d) January 2017

124. As of now, how many countries are members of Nuclear Suppliers Group (NSG)?  
 (a) 48 (b) 56  
 (c) 64 (d) 96

125. India's first AYUSH university will be set up in which state of India?  
 (a) Sikkim (b) Haryana  
 (c) Karnataka (d) West Bengal

126. Under which Article of the Constitution can an individual move to the Supreme Court directly in case of any violation of Fundamental Rights?  
 (a) Article 31 (b) Article 32  
 (c) Article 28 (d) Article 29

127. The Dandi March of Gandhi is an example of  
 (a) Non-Cooperation (b) Direct Action  
 (c) Boycott (d) Civil Disobedience

128. Which one of the following inscriptions relate to the Chalukya king, Pulakesin II?  
 (a) Nasik (b) Maski  
 (c) Hathigumpha (d) Aihole

129. The filtration unit of kidney is  
 (a) yellow fiber (b) axon  
 (c) nephron (d) neuron

130. Yeast is an important source of  
 (a) protein (b) vitamin B  
 (c) invertase (d) vitamin C

131. The longest river of peninsular India is  
 (a) Godavari (b) Krishna  
 (c) Kaveri (d) Narmada

132. Minorities Rights Day is observed in India on  
 (a) 18<sup>th</sup> December (b) 23<sup>rd</sup> December  
 (c) 5<sup>th</sup> September (d) 1<sup>st</sup> December



133. "Sattriya Nritya" recognised as a classical dance form of India by the Sangeet Natak Akademi only in 2000, originated from  
 (a) Tripura (b) Assam  
 (c) Karnataka (d) Gujarat
134. Which one of the following National Park/Sanctuary is not in Rajasthan ?  
 (a) Sariska National Park  
 (b) Sambar Wildlife Sanctuary  
 (c) Rajaji National Park  
 (d) Ranthambore National Park
135. Which of the following is associated with Panchayati Raj ?  
 (a) Nanavati Commission  
 (b) Balwant Rai Mehta Committee  
 (c) Librahan Commission  
 (d) Shah Commission
136. 'Pehli Udaan' is a name given to  
 (a) Launching of Air Asia in India  
 (b) SBI's Savings Account Scheme for children  
 (c) Proposed Bullet Train in India  
 (d) Satellite sent to Mars
137. Jean Tirole has won Nobel Prize in which of the below category?  
 (a) Literature (b) Physics  
 (c) Chemistry (d) Economics
138. What does 'Ozone Layer' absorb?  
 (a) g-rays (b) Infrared rays  
 (c) Ultraviolet rays (d) X-rays
139. Who among the following is the author of "The scatter here is too great"?  
 (a) Kedarnath Singh (b) Bilal Tanweer  
 (c) Deepti Kapoor (d) Mahesh Rao
140. Which of the following statements are true about the impact of Alexander's invasion of India?  
 (a) Alexander destroyed the power of petty states in the north  
 (b) The invasion opened up four distinct routes by land and sea  
 (c) Greek settlements such as Buoukephala on the Indus were established  
 (d) His invasion helps as to build Indian chronology for subsequent events on a definite basis.
141. The Blue Revolution is related with  
 (a) Fish production  
 (b) Food grain production  
 (c) Oilseed production  
 (d) Milk production
142. Which one of the following is not a line of demarcation between two countries ?  
 (a) Durand Line (b) Mac Mahon Line  
 (c) Plimsoll Line (d) Maginot Line
143. Who among the following first propounded the idea of Basic Education?  
 (a) Jawahar Lal Nehru  
 (b) Raja Ram Mohan Roy  
 (c) Mahatma Gandhi  
 (d) Dayanand Saraswati
144. Equinox means two days in a year when day and night are almost equal. If March 21 is an equinox which is the next ?  
 (a) 09 October (b) 31 August  
 (c) 23 September (d) 03 November
145. Vitamin necessary to prevent prolonged bleeding is  
 (a) Vitamin A (b) Vitamin E  
 (c) Vitamin D (d) Vitamin K
146. Who has been appointed as the new chairman of the Union Public Service Commission (UPSC)?  
 (a) S R Hashim (b) Deepak Gupta  
 (c) Alka Sirohi (d) David Syiemlieh
147. Which Indian-origin British professor has been honoured with the Queen Elizabeth II Knighthood?  
 (a) Nandini Koel  
 (b) Kamaldeep Begol  
 (c) Shankar Balasubramanian  
 (d) Mandeep Singh Bhui
148. The Bargarh Dhanua Jatra festival has started in which of the following states?  
 (a) Odisha (b) Kerala  
 (c) Assam (d) Manipur
149. The Haj Committee of India (HCoI) is the statutory body of which union ministry?  
 (a) Ministry of Home Affairs  
 (b) Ministry of Minority Affairs  
 (c) Ministry of Personnel, Public Grievances and Pensions  
 (d) Ministry of Health and Family Welfare
150. Which of the following state governments have signed MoU to prepare State Resident Data Base (SRDB)?  
 (a) Haryana and Assam  
 (b) Maharashtra and Andhra Pradesh  
 (c) Haryana and Andhra Pradesh  
 (d) Maharashtra and Assam



# PRACTICE SET-4

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-2) :** In questions, select the related word/letters/number from given alternatives.

- ACE : BDF :: GIK : ?  
 (a) HJL (b) AXP  
 (c) CFG (d) GFC
- hive : bee :: eyrie : ?  
 (a) Pigeon (b) Sparrow  
 (c) Parrot (d) Eagle

**DIRECTIONS (Qs. 3-4) :** In questions, find the odd word/letters/number pair from the given alternatives.

- (a) vwqp (b) yxmn  
 (c) gfkf (d) cbrs
- (a) (324,18) (b) (441,72)  
 (c) (117,81) (d) (186,14)
- Which one of the given responses would be a meaningful order of the following words?  
 1. Sowing 2. Tilling  
 3. Reaping 4. Weeding  
 (a) 3, 1, 2, 4 (b) 2, 1, 4, 3  
 (c) 1, 2, 4, 3 (d) 1, 3, 2, 4

**DIRECTIONS (Qs. 6-7) :** In questions below, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

- 1, 0, ?, 8, 15, 24  
 (a) 4 (b) 3  
 (c) 2 (d) 1
- 24, 35, 20, 31, 16, 27, \_\_, \_\_  
 (a) 9, 9 (b) 5, 30  
 (c) 8, 25 (d) 12, 23
- In a language FIFTY is written as CACTY, CAR as POL, TAR as TOL, how can TARIFF be written in that language?  
 (a) TOEFEL (b) TOEFDD  
 (c) TOLADD (d) TOLACC

- Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

rtx \_ sx \_ z \_ txy \_ \_ yz

- (a) y y r x s (b) y y s x r  
 (c) y y r s x (d) y y x r s

- A is in the east of B which is in the North of C. If D is in the South of C., then in which direction of A is D?  
 (a) North-West (b) South  
 (c) East-East (d) South-West

- Rearrange the given jumbled letters to make a meaningful word.

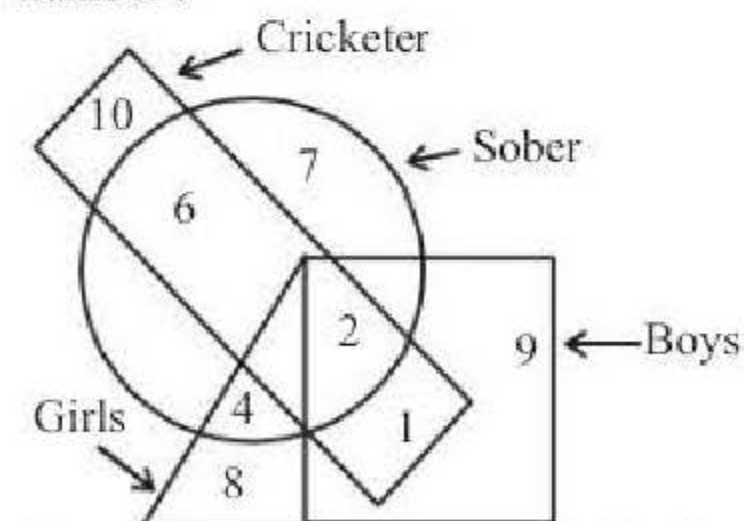
Given letters : riytaraplamen

- (a) Lamination (b) Realignment  
 (c) Parliamentary (d) Replacement

- Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl?

- (a) Brother (b) Nephew  
 (c) Uncle (d) Son-in-law

- In the following figure, the boys who are cricketer and sober are indicated by which number ?



- (a) 6 (b) 5  
 (c) 4 (d) 2

- Some equations are solved on the basis of a certain system. Find the correct answer for the unsolved equation on that basis.

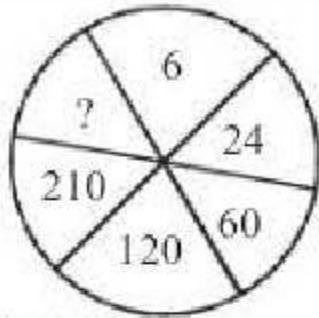
$5 * 6 = 35$ ,  $8 * 4 = 28$ ,  $6 * 8 = ?$

- (a) 46 (b) 34  
 (c) 23 (d) 38



**DIRECTIONS (15-16) :** In each of the following questions, select the missing number from the given responses.

15.



- (a) 330 (b) 336  
(c) 428 (d) 420

16. 

12	15	16
03	04	05
04	06	04
40	66	?

- (a) 104 (b) 320  
(c) 25 (d) 84

17. Six girls are standing in such a way that they form a circle, facing the centre. Subbu is to the left of Pappu, Revathi is between Subbu and Nisha, Aruna is between Pappu and Keertana. Who is to the left of Pappu?

- (a) Keertana (b) Nisha  
(c) Aruna (d) Subbu

**DIRECTIONS (Qs. 18) :** In the following question, two statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follow from the given statements.

18. Statements :

- I. Some cats are dogs.  
II. No dog is a toy.

Conclusions :

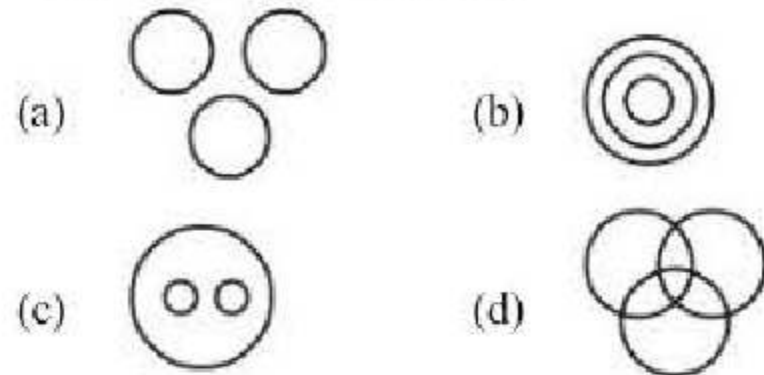
- I. Some dogs are cats.  
II. Some toys are cats.  
III. Some cats are not toys.  
IV. All toys are cats.  
(a) Only Conclusions I and either II or III.  
(b) Only Conclusions II and III follow  
(c) Only Conclusions I and II follow  
(d) Only Conclusion I follows

19. Arrange the following words according to the dictionary:

- |                   |                   |
|-------------------|-------------------|
| 1. Matter         | 2. Motive         |
| 3. Mockery        | 4. Manage         |
| 5. Movies         |                   |
| (a) 4, 1, 2, 5, 3 | (b) 4, 2, 3, 5, 1 |
| (c) 3, 2, 1, 4, 5 | (d) 4, 1, 3, 2, 5 |

**DIRECTION (Qs. 20) :** In Question which one of the following diagrams represents the correct relationship among :

20. Lion, Fox and Carnivorous



**DIRECTIONS (21-22) :** In each of the following questions, if a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?

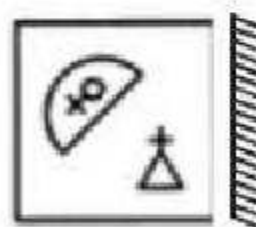
21. Question Figure:



Answer Figures:

- (a) AN24EQ1C (b) AN24EQ1C  
(c) 21Q4SNA (d) ANS4EQ12

22. Question Figure:

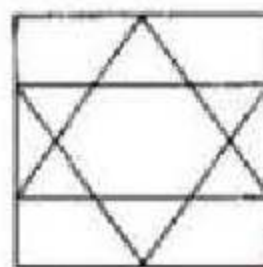


Answer Figures:



- (a) (b) (c) (d)

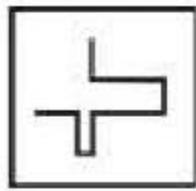
23. How many triangles are there in the following square?



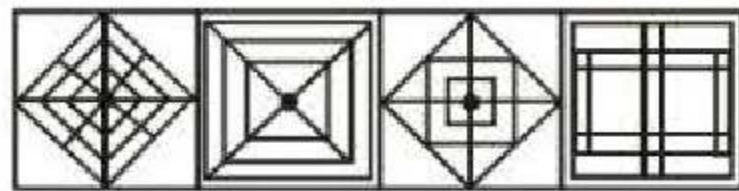
- (a) 7 (b) 12  
(c) 6 (d) 9



24. Find out the alternative figure which contains figure (X) as its part.



(X)



(a)

(b)

(c)

(d)

**DIRECTION (Qs. 25) :** A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column e.g., 'E' can be represented by 01, 13 etc., and 'L' can be represented by 56, 77 etc. Similarly, you have to identify the set for the word given in each question.

25. **Matrix I**

	0	1	2	3	4
0	Z	M	G	R	C
1	J	L	D	B	G
2	M	B	C	M	H
3	R	L	N	G	I
4	B	D	M	R	J

**Matrix II**

	5	6	7	8	9
5	X	K	T	E	S
6	Q	A	U	X	P
7	U	V	O	W	E
8	T	Y	A	F	U
9	O	O	E	V	A

LANE

- (a) 11, 66, 33, 96 (b) 31, 87, 32, 97  
(c) 31, 66, 33, 97 (d) 11, 67, 32, 97

## NUMERICAL APTITUDE

26. What is the value of  $\sqrt{7.84} + \sqrt{0.0784} + \sqrt{0.000784} + \sqrt{0.00000784}$  ?  
(a) 3.08 (b) 3.108  
(c) 3.1008 (d) 3.1108
27. A three-digit number is divisible by 11 and has its digit in the unit's place equal to 1. The number is 297 more than the number obtained by reversing the digits. What is the number ?  
(a) 121 (b) 231  
(c) 561 (d) 451
28. What is 40% of 50% of  $\frac{3}{4}$  of 3200 ?  
(a) 480 (b) 560  
(c) 420 (d) 600
29. A bag contains 5 white and 7 black balls and a man draws 4 balls at random. The odds against these being all black is :  
(a) 7:92 (b) 92:7  
(c) 92:99 (d) 99:92
30. A trader marked a watch 40% above the cost price and then gave a discount of 10%. He made a net profit of ₹ 468 after paying a tax of 10% on the gross profit. What is the cost price of the watch?  
(a) ₹ 1200 (b) ₹ 1800  
(c) ₹ 2000 (d) ₹ 2340
31. 42 men take 25 days to dig a pond. If the pond would have to be dug in 14 days, then what is the number of men to be employed?  
(a) 67 (b) 75  
(c) 81 (d) 84
32. If the diameter of a wire is decreased by 10%, by how much per cent (approximately) will the length be increased to keep the volume constant?  
(a) 5% (b) 17%  
(c) 20% (d) 23%
33. From a series of 50 observations, an observation with value 45 is dropped but the mean remains the same. What was the mean of 50 observations?  
(a) 50 (b) 49  
(c) 45 (d) 40
34. Mr Duggal invested ₹20,000 with rate of interest @ 20 pcpa. The interest was compounded half-yearly for the first one year and in the next year it was compounded yearly. What will be the total interest earned at the end of two years?  
(a) ₹ 8,800 (b) ₹ 9,040  
(c) ₹ 8,040 (d) ₹ 9,800

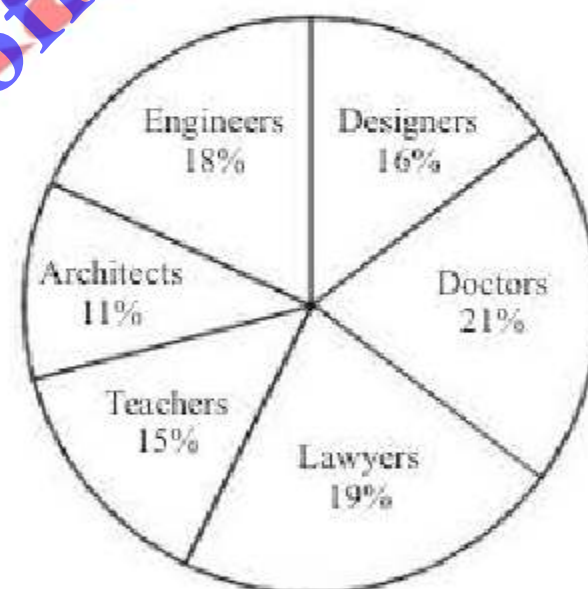


35. The average age of the family of five members is 24. If the present age of youngest member is 8 yr, then what was the average age of the family at the time of the birth of the youngest member?  
 (a) 20 yr (b) 16 yr  
 (c) 12 yr (d) 18 yr
36. Product of two co-prime numbers is 117. Their L.C.M. should be:  
 (a) 1  
 (b) 117  
 (c) equal to their H.C.F.  
 (d) cannot be calculated
37. A candidate appearing for an examination has to secure 35% marks to pass. But he secured only 40 marks and failed by 30 marks. What would be the maximum marks of test?  
 (a) 280 (b) 180  
 (c) 200 (d) 150
38. By selling a table for Rs 330, a trader gains 10%. Find the cost price of the table.  
 (a) 300 (b) 363  
 (c) 297 (d) 270
39. A ladder of 17 ft length reaches a window which is 15 ft above the ground on one side of the street. Keeping its foot at the same point the ladder is turned to the other side of the street and now it reaches a window 8 ft high. What is the width of the street?  
 (a) 23 ft (b) 15 ft  
 (c) 25 ft (d) 30 ft
40. The difference between compound interest and simple interest on a certain amount of money at 5% per annum for 2 years is ₹ 15. Find the sum :  
 (a) ₹ 4500 (b) ₹ 7500  
 (c) ₹ 5000 (d) ₹ 6000
41. If  $x + \left(\frac{1}{x}\right) = p$ , then what is  $x^6 + \left(\frac{1}{x^6}\right)$  equal to?  
 (a)  $p^6 + 6p$  (b)  $p^6 - 6p$   
 (c)  $p^6 + 6p^4 + 9p^2 + 2$  (d)  $p^6 - 6p^4 + 9p^2 - 2$
42. If  $(x + y + z = 0)$ , then what is  $(x + y)(y + z)(z + x)$  equal to?  
 (a)  $-xyz$  (b)  $x^2 + y^2 + z^3$   
 (c)  $x^3 + y^3 + z^3 + 3xyz$  (d)  $xyz$
43. 40 men can cut 60 trees in 8 hrs. If 8 men leave the job how many trees will be cut in 12 hours?  
 (a) 72 (b) 60  
 (c) 48 (d) 36
44. A monkey ascends a greased pole 12 metres high. He ascends 2 metres in first minute and slips down 1 metre in the alternate minute. In which minute, he reaches the top?  
 (a) 21st (b) 22nd  
 (c) 23rd (d) 24th
45. The average age of a lady and her daughter is 28.5. The ratio of their ages is 14 : 5 respectively. What is the daughter's age?  
 (a) 12 years  
 (b) 15 years  
 (c) 18 years  
 (d) Cannot be determined

**DIRECTIONS (Q. 46-48) :** Study the following Pie-chart carefully and answer the questions given below.

Survey conducted on 10500 people to find out various Professionals in the town and percentage of Female Professionals amongst them

Various Professionals = 10500



Percentage of Female Professionals

Doctors	20%
Engineers	60%
Architects	40%
Teachers	80%
Lawyers	40%
Designers	35%

46. What is the difference between the total number of male and female professionals in the town?  
 (a) 1284 (b) 1134  
 (c) 1054 (d) 1164



47. Female Doctors are what per cent of the female Teachers in the town?  
 (a) 42 (b) 28  
 (c) 15 (d) 35
48. What is the ratio of the number of male Architects to the number of male Teachers in the town?  
 (a) 11 : 5 (b) 3 : 2  
 (c) 5 : 11 (d) 2 : 3
49. The ratio of the length and the breadth of a rectangle is 4 : 3 and the area of the rectangle is 1728 sq cm. What is the ratio of the breadth and the area of the rectangle?  
 (a) 1 : 38 (b) 1 : 24  
 (c) 1 : 42 (d) 1 : 48
50. A person has four iron bars whose lengths are 24 m, 36 m, 48 m and 72 m respectively. This person wants to cut pieces of same length from each of four bars. What is the least number of total pieces if he is to cut without any wastage?  
 (a) 10 (b) 15  
 (c) 20 (d) 25

### ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51-55):** Read the passage, and then answer the questions based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

#### PASSAGE

Once upon a time I went for a week's holiday in the Continent with an Indian friend. We both enjoyed ourselves and were sorry when the week was over, but on parting our behaviour was absolutely different. He was plunged in despair. He felt that because the holiday was over all happiness was over until the world ended. He could not express his sorrow too much. But in me the Englishman came out strong. I could not see what there was to make a fuss about. It wasn't as if we were parting forever or dying. "Buck up", I said, "do buck up". He refused to buck up, and I left him plunged in gloom.

51. What is the Continent in the context of the passage?  
 (a) An island (b) The countryside  
 (c) Africa (d) Europe
52. What does the author mean by 'buck up'?  
 (a) Buckle yourself up  
 (b) Stand up  
 (c) Cheer up  
 (d) Shut up

53. Why was the Indian friend plunged in despair?  
 (a) He was hopeless  
 (b) He experienced racial discrimination  
 (c) He would never be so happy again  
 (d) He had spent lot of money
54. What does 'But in me the Englishman came out strong' imply?  
 (a) He was a strong Englishman  
 (b) He had the typical English character  
 (c) The Englishman went out of him  
 (d) He started following Indian traditions
55. What is the author's intention in the passage?  
 (a) To contrast the Indian character with the English character  
 (b) To show that an Indian is sorrowful  
 (c) To ridicule the Indian traditions  
 (d) To praise the Englishman

**DIRECTION (Qs. 56-60):** Select the most appropriate word from the options against each number :

Auctions are public (56) of goods, conducted by an (57) auctioneer. He encourages buyers to (58) higher prices and finally names the (59) bidder as the buyer of the goods. This is called 'knocking down' the goods, for when the bidding ends the auctioneer (60) a small hammer on a table in front of him.

56. (a) sale (b) marketing  
 (c) promotion (d) viewing
57. (a) authoritative (b) allowed  
 (c) authentic (d) approved
58. (a) bid (b) buy  
 (c) get (d) bargain
59. (a) smartest (b) highest  
 (c) biggest (d) strongest
60. (a) bangs (b) thrashes  
 (c) smashes (d) hits

**DIRECTIONS (Qs. 61-63):** In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence. Choose the alternative which best expresses the meaning of idiom/phrase.

61. He passed himself off as a noble man.  
 (a) Was regarded as  
 (b) Pretended to be  
 (c) Was thought to be  
 (d) Was looked upon



62. This matter has been hanging fire for the last many months and must therefore be decided one way or the other.  
 (a) going on slowly (b) hotly debated  
 (c) stuck up (d) ignored
63. In the armed forces, it is considered a great privilege to die in harness.  
 (a) die on a horse back  
 (b) die in the battlefield  
 (c) die while still working  
 (d) die with honour

**DIRECTIONS (Qs. 64-69):** In questions given below out of four alternatives, choose the one which can be substituted for the given word/sentence.

64. That which cannot be corrected  
 (a) Unintelligible (b) Indelible  
 (c) Illegible (d) Incurable
65. The study of ancient societies  
 (a) Anthropology (b) Archaeology  
 (c) History (d) Ethnology
66. A person of good understanding knowledge and reasoning power  
 (a) Expert (b) Intellectual  
 (c) Snob (d) Literate
67. Code of diplomatic etiquette and precedence  
 (a) Statesmanship (b) Diplomacy  
 (c) Hierarchy (d) Protocol
68. To renounce a high position of authority or control  
 (a) Abduct (b) Abandon  
 (c) Abort (d) Abdicate
69. Not to be moved by entreaty  
 (a) Rigorous (b) Negligent  
 (c) Inexorable (d) Despot

**DIRECTIONS (Qs. 70-74):** Look at the underlined part of each sentence. Below each sentence, three possible substitutions for the underlined part are given. If one of them (i.e.,) (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of the substitutions improves the sentence, indicate (d) as your response on the Answer Sheet. Thus, 'No improvement' response will be signified by the letter (d).

70. The accused refused having murdered anybody.  
 (a) disagreed (b) denied  
 (c) declaimed (d) No improvement

71. We need honest workers, not people of redoubtable integrity.  
 (a) doubting (b) doubtful  
 (c) doubtless (d) No improvement
72. By the time he arrived, everybody had gone home.  
 (a) when he arrived  
 (b) at which he arrived  
 (c) by which he arrived  
 (d) No improvement
73. Recently he had insured for a mediclaim policy.  
 (a) He had recently insured for  
 (b) Recently he insured for  
 (c) He insured recently for  
 (d) No improvement
74. An orangutan's intelligence is as superior to that of man.  
 (a) is more superior to  
 (b) is superior to  
 (c) is superior than that of  
 (d) No improvement

**DIRECTIONS (Qs. 75-77):** Each of the following items is followed by four words or group of words. Fill in the blanks with the appropriate word or group of words.

75. The prisoner showed no \_\_\_\_\_ for his crimes.  
 (a) hatred (b) obstinacy  
 (c) remorse (d) anger
76. It is inconceivable that in many schools children are subjected to physical \_\_\_\_\_ in the name of discipline.  
 (a) violation (b) exercise  
 (c) violence (d) security
77. We have not yet fully realised the \_\_\_\_\_ consequences of the war.  
 (a) happy (b) pleasing  
 (c) grim (d) exciting

**DIRECTIONS (Qs. 78-82):** Each question below consists of a word in capital letters followed by four words or group of words. Select the word or group of words that is most similar in meaning to the words in capital letters.

78. GLEAN  
 (a) To groom (b) To gather bit by bit  
 (c) To discover (d) To polish



79. TACTILE  
 (a) Considerate  
 (b) Strong  
 (c) Sharp  
 (d) Pertaining to the organs of touch

80. APPRISE :  
 (a) Praise (b) Inform  
 (c) Conceal (d) Assess

81. PERIODIC :  
 (a) Infrequent (b) Continuous  
 (c) Occasional (d) Regular

82. GRUESOME :  
 (a) Sullen (b) Hideous  
 (c) Exhausting (d) Insulting

**DIRECTIONS (Qs. 83-87) :** Each questions below consists of a word in capital letters followed by four words or group of words. Select the word or group of words that is most **opposite** in meaning to the words in capital letters.

83. DEFERENTIAL  
 (a) Discount (b) Disrespectful  
 (c) Preconception (d) Acute

84. FELICITOUS  
 (a) Unfriendly (b) Uneasy  
 (c) Unheard of (d) Inappropriate

85. KNACK :  
 (a) Talent (b) Dullness  
 (c) Dexterity (d) Balance

86. PERNICIOUS :  
 (a) Prolonged (b) Ruinous  
 (c) Ruthless (d) Beneficial

87. OPULENCE :  
 (a) Luxury (b) Transparency  
 (c) Weath (d) Poverty

**DIRECTIONS (Qs. 88-93) :** Find the correctly spelt words.

88. (a) Excessive (b) Exccessive  
 (c) Exxcessive (d) Excesive
89. (a) Indipensable (b) Indipenseble  
 (c) Indispansible (d) Indispensable
90. (a) garulous (b) garrulous  
 (c) garullous (d) garrullous
91. (a) marquee (b) markue  
 (c) marquei (d) marquie
92. (a) puissant (b) puiscant  
 (c) puiscent (d) puissent
93. (a) disconncerting (b) disconserting  
 (c) discuncerting (d) disconcerting

**DIRECTIONS (Qs. 94-95) :** In this section, you are required to spot errors in sentences. Each sentence is divided into three parts. Read each sentence to find out whether there is an error in any of the parts. No sentence has more than one error. Some of the sentences do not have any error. When you find an error in a sentence, the letter indicated under that part of the sentence is the answer and therefore the same may be marked on the separate Answer Sheet. If there is no error in any part, mark (d) as the answer.

94. They sit at the window and watch the traffic  
 (a) (b) (c)  
 No error  
 (d)

95. I started early for the station lest I  
 (a) (b)  
should miss the train No error  
 (c) (d)

**DIRECTIONS (Qs. 96-100) :** In each of the following sentences, an idiomatic expression or proverb is highlighted. Select the alternative which best describes its use in the sentence.

96. Rohit has **bitten off more than he chew.**  
 (a) is trying to do much  
 (b) is very greedy  
 (c) is always hungry  
 (d) has little regard for others
97. The detective **left no stone unturned** to trace the culprit.  
 (a) took no pains  
 (b) did very irrelevant things  
 (c) resorted to illegitimate practices  
 (d) used all available means
98. He believes in the policy of **making hay while the sun shines.**  
 (a) giving bribes to get his work done  
 (b) seeking advice from one and all  
 (c) helping those who help him  
 (d) making the best use of a favourable situation
99. His friends advised him to be **fair and square** in his dealings.  
 (a) careful (b) considerate  
 (c) polite (d) upright
100. We should **give a wide berth** to bad characters.  
 (a) give publicity to  
 (b) publicly condemn  
 (c) keep away from  
 (d) not sympathise with



**GENERAL AWARENESS**

- 101.** Which one of the following is a programme that converts high level language to machine language?  
 (a) Linker (b) Assembler  
 (c) Interpreter (d) Compiler
- 102.** Classification of an enterprise into public or private sector is based on  
 (a) number of employees in the enterprise  
 (b) ownership of assets of the enterprise  
 (c) employment conditions for workers in the enterprise  
 (d) nature of products manufactured by the enterprise
- 103.** Which one of the following glands produces the growth hormone (somatotrophin)?  
 (a) Adrenal (b) Pancreas  
 (c) Pituitary (d) Thyroid
- 104.** Who among the following was elected as the President of All India Khilafat Conference met at Delhi in 1919?  
 (a) Motilal Nehru (b) Mahatma Gandhi  
 (c) M A Jinnah (d) Shaukat Ali
- 105.** Which one of the following Indian states does not have a common international border with Bangladesh?  
 (a) Manipur (b) Paschim Banga  
 (c) Tripura (d) Assam
- 106.** Who among the following is the author of the book, 'The Namesake'?  
 (a) Arundhati Roy (b) Amitava Ghosh  
 (c) Jhumpa Lahiri (d) Kiran Desai
- 107.** Who among the following was not a member of the Constituent Assembly?  
 (a) Sardar Vallabhbhai Patel  
 (b) Acharya JB Kriplani  
 (c) Lok Nayak Jayprakash  
 (d) K M Munshi
- 108.** Carbon dioxide is called a greenhouse gas because  
 (a) its concentration remains always higher than other gases  
 (b) it is used in photosynthesis  
 (c) it absorbs infrared radiation  
 (d) it emits visible radiation
- 109.** Laser is a device to produce  
 (a) a beam of white light  
 (b) coherent light  
 (c) microwaves  
 (d) X-rays
- 110.** In the human body, Cowper's glands form a part of which one of the following system?  
 (a) Digestive system  
 (b) Endocrine system  
 (c) Reproductive system  
 (d) Nervous system
- 111.** Mist is a result of which one of the following  
 (a) Condensation (b) Evaporation  
 (c) Sublimation (d) Saturation
- 112.** 'Dyarchy' was first introduced in India under  
 (a) Morley-Minto reforms  
 (b) Montford reforms  
 (c) Simon Commision plan  
 (d) Government of India Act, 1935
- 113.** When Lord Mounbatten became the first Governor-General of India, who among the following became the Governor-General for Pakistan?  
 (a) Lord Mountbatten  
 (b) Muhammad Ali Jinnah  
 (c) Liaquat Ali Khan  
 (d) Shaukat Ali
- 114.** Fiscal Policy in India is formulated by  
 (a) the Reserve Bank of India  
 (b) the Planning Commission  
 (c) the Finance Ministry  
 (d) the Securities and Exchange Board of India
- 115.** Fat can be separated from milk in a cream separation because of  
 (a) cohesive force (b) gravitational force  
 (c) centrifugal force (d) centripetal force
- 116.** The average fixed cost curve will always be  
 (a) a rectangular hyperbola  
 (b) a downward sloping convex to the origin curve  
 (c) a downward sloping straight line  
 (d) a U-shaped curve
- 117.** Malaria in the human body is caused by which one of the following organisms?  
 (a) Bacteria (b) Virus  
 (c) Mosquito (d) Protozoan
- 118.** The focal length of convex lens is  
 (a) the same for all colours  
 (b) shorter for blue light than for red  
 (c) shorter for red light than for blue  
 (d) maximum for yellow light



119. The Name of Ram Prasad Bismil is associated with  
 (a) Kanpur Conspiracy Case  
 (b) Alipore Conspiracy Case  
 (c) Kakori Conspiracy Case  
 (d) Meerut Conspiracy Case
120. The Indian Research Station 'Himadri' is located at  
 (a) Siachen (b) Darjeeling  
 (c) Arctic Region (d) Antarctica
121. What is the theme of the first-ever "National Yoga Olympiad", which has been organized by the NCERT?  
 (a) Yoga for Peace and Dhyana  
 (b) Yoga for Health and Harmony  
 (c) Yoga for Kriya and Harmony  
 (d) Yoga for Emotional and Mental development
122. Mohammad Shahid is associated with which sports?  
 (a) Hockey (b) Badminton  
 (c) Wrestling (d) Boxing
123. KG Subramanyan, who passes away recently, was a famous personality of which field?  
 (a) Art (b) Journalism  
 (c) Sports (d) Politics
124. Who has won the 2016 wins Iceland's presidential election?  
 (a) David Oddsson  
 (b) Olafur Ragnar Grimsson  
 (c) Gudni Johannesson  
 (d) Andri Snær Magnason
125. Which of the following countries has become the newest member of the Missile Technology Control Regime (MTCR)?  
 (a) Canada (b) India  
 (c) Brazil (d) Poland
126. The programme of 'Operation Flood' was concentrated on  
 (a) increasing irrigation facilities.  
 (b) flood control.  
 (c) increasing the milk production.  
 (d) increase the flood grains production.
127. Article 324 of the Indian Constitution deals with the  
 (a) imposition of President's Rule in States.  
 (b) appointment of Finance Commission.  
 (c) powers and functions of the Chief Election Commissioner.  
 (d) functions of the Union Public Service Commission.
128. The founder of the Lodi Dynasty was  
 (a) Bahlul Lodi  
 (b) Sikandar Shah Lodi  
 (c) Jalal Khan Lodi  
 (d) Ibrahim Lodi
129. Which General, who commanded the British forces against the Americans in their War of Independence later became Governor-General of India?  
 (a) Dalhousie (b) William Bentinck  
 (c) Wellesley (d) Cornwallis
130. The Constitutional Amendment Act that has introduced safeguards against the misuse of proclamation of national emergency is the  
 (a) 42nd Amendment Act  
 (b) 43rd Amendment Act  
 (c) 44th Amendment Act  
 (d) 45th Amendment Act
131. The Fundamental Rights can be suspended by the  
 (a) Governor (b) President  
 (c) Law Minister (d) Prime Minister
132. Prithvi Raj Chauhan was defeated in the Second Battle of Tarain by  
 (a) Mahmud Ghazni (b) Muhammad Ghor  
 (c) Qutbuddin Aibak (d) Yalduz
133. The city of Prayag was named Allahabad - the city of Allah by  
 (a) Aurangzeb  
 (b) Akbar  
 (c) Shahjahan  
 (d) Bahadur Shah Zafar
134. Which one of the following wars decided the fate of the French in India?  
 (a) Battle of Plassey  
 (b) Battle of Wandiwash  
 (c) First Carnatic War  
 (d) Battle of Buxar
135. Which one of the following is a warm ocean current?  
 (a) Gulf Stream (b) Kurile  
 (c) Canary (d) Labrador
136. The main advantage of Rain Water Harvesting (RWH) is  
 (a) Avoid soil erosion  
 (b) Recharge ground water  
 (c) Avoid floods  
 (d) Reduce the loss of water



137. Who was the first posthumous recipient of Bharat Ratna?  
 (a) M.G. Ramachandran  
 (b) B.R. Ambedkar  
 (c) K. Kamraj  
 (d) Lal Bahadur Shastri
138. Which day is observed as "International Day of Non-Violence"?  
 (a) 1 st May (b) 2 nd October  
 (c) 24 th October (d) 30 th January
139. Lakshmibai National Institute of Physical Education (LNPE) is in:  
 (a) Patiala (b) Gwalior  
 (c) Indore (d) Jhansi
140. Amuktamalyada is the work of:  
 (a) Krishnadeva Raya  
 (b) Vachcharaj  
 (c) Kharavela  
 (d) Allasani Peddana
141. Yakshagana is a folk dance-drama of:  
 (a) Maharashtra (b) Karnataka  
 (c) Gujarat (d) W. Bengal
142. The 'Panch Prayag' which connotes the five sacred river confluences is in the state of \_\_\_\_\_.  
 (a) Himachal Pradesh  
 (b) Madhya Pradesh  
 (c) Uttarakhand  
 (d) Andhra Pradesh
143. The 'Yashvini Health Insurance' scheme is associated with which of the following states?  
 (a) Punjab (b) Karnataka  
 (c) Tamil Nadu (d) Andhra Pradesh
144. Which of the following pairs is incorrect?  
 (a) Amirkhusro – Sarod  
 (b) Bhim Sen Joshi – Vocal music  
 (c) Utpal Dutt – Films  
 (d) Shambhu Maharaj – Kathak
145. Kaziranga National Park is famous for  
 (a) One-horned Rhinos  
 (b) Tigers  
 (c) Swamp Dears (Barasingha)  
 (d) Elephants
146. Kush Bhagat is associated with which sports?  
 (a) Chess (b) Badminton  
 (c) Tennis (d) Wushu
147. Who is the new Chief of the Army Staff (COAS) of the Indian Army?  
 (a) Vikram Singh Rathore  
 (b) Bipin Rawat  
 (c) Velu Nair  
 (d) Birender Singh
148. Who has been named as the new Prime Minister of Romania?  
 (a) Victor Ponta (b) Sevil Shhaideh  
 (c) Klaus Iohannis (d) Sorin Grindeanu
149. Eknathrao Vikhe-Pati, who passed away recently, was the well-known politician of which state?  
 (a) Rajasthan (b) Uttar Pradesh  
 (c) Gujarat (d) Maharashtra
150. Where is the headquarters of the International Federation of Football History & Statistics (IFFHS)?  
 (a) United States (b) France  
 (c) Germany (d) Switzerland





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# PRACTICE SET-5

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-2) :** In questions below, select the related word/letters/number from the given alternatives.

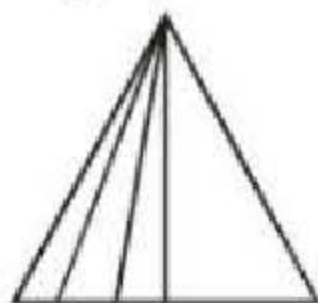
1.  $9 : 24 :: ? : 6$   
 (a) 3 (b) 2  
 (c) 1 (d) 5
2. STAR : SBUT :: WARD : ?  
 (a) XBAW (b) ESBX  
 (c) FAME (d) DRAW

**DIRECTIONS (Qs. 3-4) :** In questions find the odd word/letters//numbers pair from the given alternatives:

3. (a) (25, 49) (b) (121, 169)  
 (c) (7, 169) (d) (9, 25)
4. (a) HEAT (b) MEAT  
 (c) MEET (d) BEAT

**DIRECTION (Qs 5 - 6) :** A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

5. BDFH, IKMO, PRTV, \_  
 (a) WYAC (b) WXYA  
 (c) WXYZ (d) WYZA
6. 2, 65, 7, 59, 12, 53, \_ , \_  
 (a) 15, 42 (b) 17, 45  
 (c) 17, 47 (d) 18, 48
7. How Many triangles are there in the given figure?



- (a) 5 (b) 12  
 (c) 9 (d) 10

8. Arrange the words given below in a meaningful sequence.

- |             |          |
|-------------|----------|
| 1. Elephant | 2. Cat   |
| 3. Mosquito | 4. Tiger |
| 5. Whale    |          |

- |                   |                   |
|-------------------|-------------------|
| (a) 5, 3, 1, 2, 4 | (b) 3, 2, 4, 1, 5 |
| (c) 1, 3, 5, 4, 2 | (d) 2, 5, 1, 4, 3 |

9. If GOODNESS is coded as HNPCODTR, how can GREATNESS be written in that code?

- |                |               |
|----------------|---------------|
| (a) HQFZSMFRT  | (b) HQFZUFRTM |
| (c) HQFZUCODTR | (d) HQFZUMFRT |

10. From the given alternatives select the word which cannot be formed using the letters of the given word.

LEGALIZATION

- |             |               |
|-------------|---------------|
| (a) ALERT   | (b) ALEGATION |
| (c) GALLANT | (d) NATAL     |

11. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

B \_ CCABB \_ CABBC \_ AB \_ CCA

- |          |          |
|----------|----------|
| (a) BCBC | (b) BCCB |
| (c) BBCC | (d) BBBC |

12. Seema walks 30 m North. Then she turns right and walks 30 m then she turns right and walks 55 m. Then she turns left and walks 20 m. Then she again turns left and walks 25m. How many metres away is she from her Original position?

- |          |          |
|----------|----------|
| (a) 45 m | (b) 50 m |
| (c) 66 m | (d) 55 m |

13. A family consisted of a man, his wife, his three sons, their wives and three children in each son's family. How many members are there in the family?

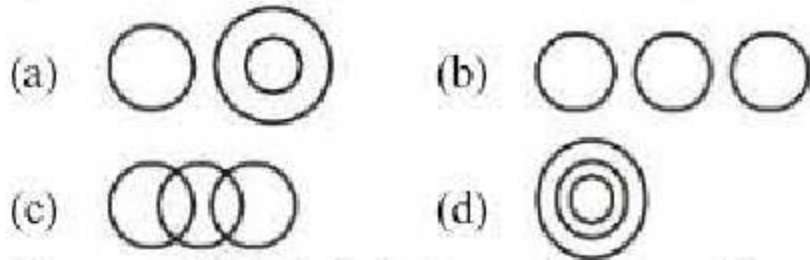
- |        |        |
|--------|--------|
| (a) 12 | (b) 13 |
| (c) 15 | (d) 17 |

14. If the 5<sup>th</sup> date of a month is Tuesday, what date will be 3 days after the 3<sup>rd</sup> Friday in the month?

- |        |        |
|--------|--------|
| (a) 17 | (b) 22 |
| (c) 19 | (d) 18 |



15. Which of the following states the relationship between Manager, Labour Union and Worker?



16. 12 year old Rahul is three times as old as his brother Raras. How old will Rahul be when he is twice as old as Paras?

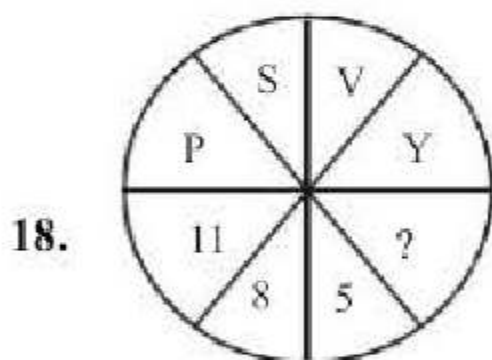
- (a) 14 years (b) 20 years  
(c) 16 years (d) 18 years

**DIRECTIONS (17-18) :** In each of the following questions, select the missing number from the given responses.

17.

5	4	7	8
6	9	5	?
3	7	2	6

- (a) 6 (b) 4  
(c) 10 (d) 8



- (a) 6 (b) 7  
(c) 3 (d) 2

**DIRECTIONS (Qs. 19) :** In question below, some statements are given followed by three conclusions respectively. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions if any, follow from the given statements.

19. **Statement :** Pictures can tell a story. All story books have pictures. Some story books have words.

**Conclusions:** I. Pictures can tell a story better than words can.

II. The stories in story books are very simple.

III. Some story books have both words and pictures.

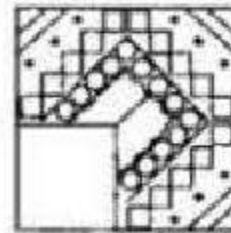
- (a) Only conclusion I follows  
(b) Only conclusion II follows  
(c) Only conclusion III follows  
(d) Both conclusions I and II follow

20. There are five houses P, Q, R, S and T. P is right of Q and T is left of R and right of P. Q is right of S. Which house is in the middle?

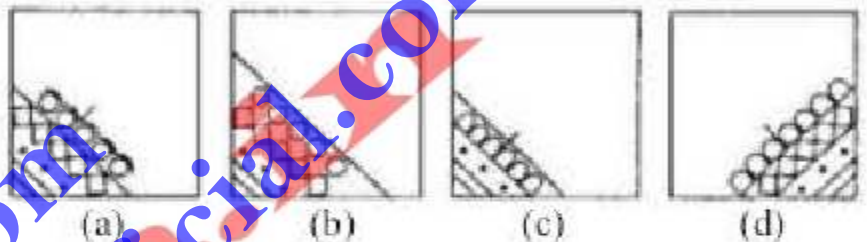
- (a) P (b) Q  
(c) T (d) R

**DIRECTION (Qs. 21) :** In question below, which answer figure will complete the pattern in the question figure?

21. **Question figure :**

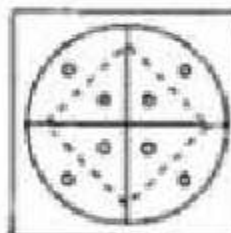


**Answer figures :**

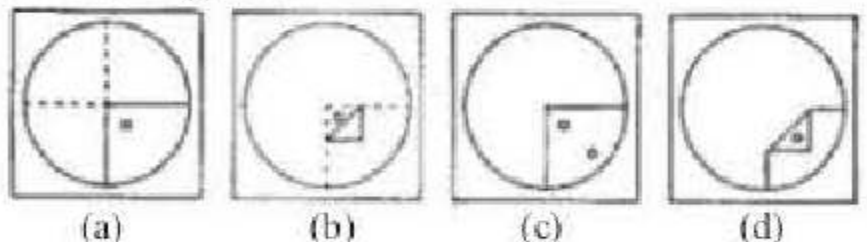


22. A Circular sheet of paper is folded in particular manner, punched once and then unfolded. Find Out the manner in which the paper was folded and punched from amongst the answer figures.

**Question figure :**

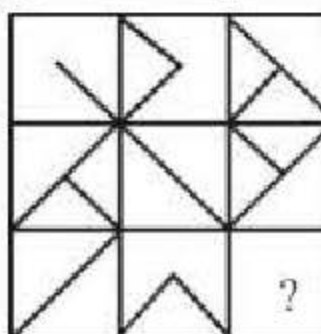


**Answer figure:**

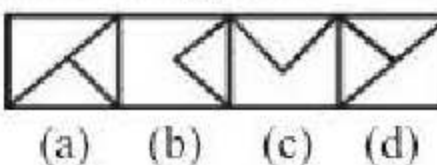


23. Select a suitable figure from the four alternatives that would complete the figure matrix.

**Question figure:**



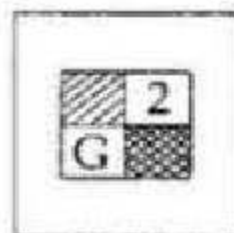
**Answer figures:**



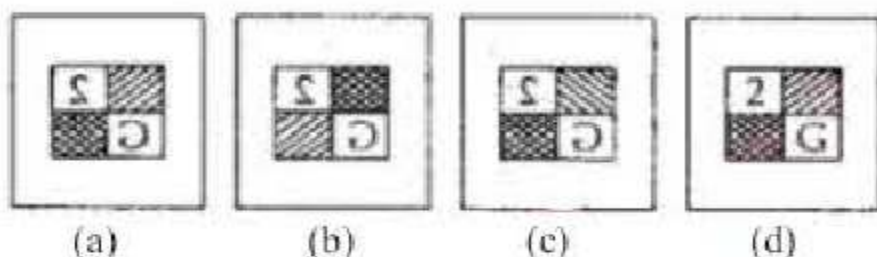


24. Which is the correct image if the picture is held in front of a mirror?

Question figure:



Answer figures:



**DIRECTIONS (Qs. 25) :** A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column e.g., 'E' can be represented by 01, 13 etc., and 'L' can be represented by 56, 77 etc. Similarly, you have to identify the set for the word given in each question.

25. Matrix I

	0	1	2	3	4
0	A	E	M	N	P
1	N	P	A	E	M
2	E	M	N	P	A
3	P	A	E	M	N
4	M	N	P	A	E

Matrix II

	5	6	7	8	9
5	I	L	R	S	T
6	R	S	T	I	L
7	T	I	L	R	S
8	L	R	S	T	I
9	S	T	I	L	R

AIRS

- (a) 12, 76, 99, 78 (b) 43, 55, 86, 95  
(c) 00, 68, 78, 88 (d) 24, 69, 56, 78

## NUMERICAL APTITUDE

26.  $\frac{1}{\sqrt{9}-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}}$   
 $+ \frac{1}{\sqrt{5}-\sqrt{4}}$  equal to

- (a) 0 (b) 1  
(c) 5 (d)  $\frac{1}{3}$

27. What is the sum of the digits of the least number which when divided by 52, leaves 33 as remainder, when divided by 78 leaves 59 and when divided by 117, leaves 98 as remainder?

- (a) 17 (b) 18  
(c) 19 (d) 21

28. If 1 is subtracted from the numerator of a fraction it becomes  $(1/3)$  and if 5 is added to the denominator the fraction becomes  $(1/4)$ . Which fraction shall result, if 1 is subtracted from the numerator and 5 is added to the denominator?

- (a)  $\frac{5}{12}$  (b)  $\frac{7}{23}$   
(c)  $\frac{1}{8}$  (d)  $\frac{2}{3}$

29. 38L of milk was poured into a tub and the tub was found to be 5% empty. To completely fill the tub, what amount of additional milk must be poured?

- (a) 1 L (b) 2 L  
(c) 3 L (d) 4 L

30. Prakash, Sunil and Anil started a business jointly investing ₹11 lakhs, ₹16.5 lakhs and ₹8.25 lakhs respectively. The profit earned by them in the business at the end of three years was ₹19.5 lakhs. What will be the 50% of Anil's share in the profit?

- (a) ₹4.5 lakhs (b) ₹2.25 lakhs  
(c) ₹2.5 lakhs (d) ₹3.75 lakhs

31. A ball is dropped from a height 64 m above the ground and every time it hits the ground it rises to a height equal to half of the previous. What is the height attained after it hits the ground for the 16th time?

- (a)  $2^{-12}$  m (b)  $2^{-11}$  m  
(c)  $2^{-10}$  m (d)  $2^{-9}$  m



32. If ₹ 8400 is divided among  $A$ ,  $B$  and  $C$  in the ratio  $\frac{1}{5} : \frac{1}{6} : \frac{1}{10}$ , what is the share of  $A$ ?

(a) ₹ 3200 (b) ₹ 3400  
(c) ₹ 3600 (d) ₹ 3800

33. There are 45 male and 15 female employees in an office. If the mean salary of the 60 employees is ₹ 4800 and the mean salary of the male employees is ₹ 5000, then the mean salary of the female employees is

(a) ₹ 4200 (b) ₹ 4500  
(c) ₹ 5600 (d) ₹ 6000

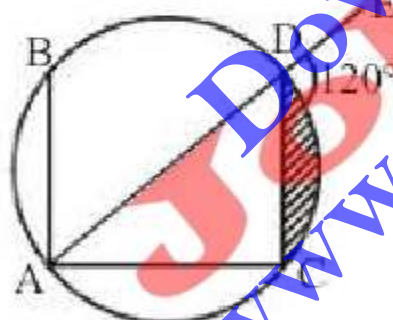
34. A train started from a station with a certain number of passengers. At the first halt,  $\frac{1}{3}$ rd of its passengers got down and 120 passengers got in. At the second halt, half of the passengers got down and 100 persons got in. Then, the train left for its destination with 240 passengers. How many passengers were there in the train when it started?

(a) 540 (b) 480  
(c) 360 (d) 240

35. The radius of a circle is 13 cm and  $xy$  is a chord which is at a distance of 12 cm from the centre. The length of the chord is

(a) 12 cm (b) 10 cm  
(c) 20 cm (d) 15 cm

36. In the given figure, measure of  $\angle ABC$  is



(a)  $20^\circ$  (b)  $40^\circ$   
(c)  $60^\circ$  (d)  $80^\circ$

37.  $ABC$  is an equilateral triangle inscribed in a circle.  $D$  is any point on the arc  $BC$ . What is  $\angle ADB$  equal to?

(a)  $90^\circ$  (b)  $60^\circ$   
(c)  $45^\circ$  (d) None of the above

38. The angle made by the line  $x + \sqrt{3}y - 6 = 0$  with positive direction of  $x$ -axis is

(a)  $120^\circ$  (b)  $150^\circ$   
(c)  $30^\circ$  (d)  $60^\circ$

39. A round balloon of unit radius subtends an angle of  $90^\circ$  at the eye of an observer standing at a point, say  $A$ . What is the distance of the centre of the balloon from the point  $A$ ?

(a)  $1/\sqrt{2}$  (b)  $\sqrt{2}$   
(c) 2 (d)  $1/2$

40. What is one of the value of  $x$  in the equation

$$\sqrt{\frac{x}{1-x}} + \sqrt{\frac{1-x}{x}} = \frac{13}{6}?$$

(a)  $\frac{5}{13}$  (b)  $\frac{7}{13}$   
(c)  $\frac{9}{13}$  (d)  $\frac{11}{3}$

41. If  $pqr = 1$ , what is the value of the expression

$$\frac{1}{1+p+q^{-1}} + \frac{1}{1+q+r^{-1}} + \frac{1}{1+r+p^{-1}}?$$

(a) 1 (b) -1  
(c) 0 (d)  $1/3$

42. What should be subtracted from  $27x^3 - 9x^2 - 6x - 5$  to make it exactly divisible by  $(3x - 1)$ ?

(a) -5 (b) -7  
(c) 5 (d) 7

43.  $(a + b + c)^2 - (a - b - c)^2 = ?$

(a)  $4a(b + c)$  (b)  $2a(b + c)$   
(c)  $3a(b + c)$  (d)  $4a(b - c)$

44. A man is walking at a speed of 10 km per hour. After every kilometre, he takes rest for 5 minutes. How much time will he take to cover a distance of 5 kilometres?

(a) 48 min. (b) 50 min.  
(c) 45 min. (d) 55 min.

45. The angle of elevation of the top of an unfinished pillar at a point 150 m from its base is  $30^\circ$ . If the angle of elevation at the same point is to be  $45^\circ$ , then the pillar has to be raised to a height of how many metres?

(a) 59.4 m (b) 61.4 m  
(c) 62.4 m (d) 63.4 m

**DIRECTIONS (Q. 46-48):** Study the following table carefully in answer the questions that follow :

**Number of Executives recruited by Six different organisations over the years**

Organisation	P	Q	R	S	T	U
2004	458	512	418	502	476	492
2005	522	536	472	500	482	523
2006	480	495	464	508	488	518
2007	506	505	428	444	490	534
2008	427	485	422	512	510	498
2009	492	488	444	499	512	510



46. What is the per cent increase in the number of Executives recruited by organisation R in 2005 from the previous year? (rounded off to two digits after decimal)  
 (a) 18.67 (b) 12.92  
 (c) 16.48 (d) 13.21
47. The number of Executives recruited by organisation T in the year 2008 forms approximately what percent of the total number of Executives recruited by all the organisations together in that year?  
 (a) 11 (b) 31  
 (c) 18 (d) 26
48. If the area of a circle, inscribed in an equilateral triangle is  $4\pi \text{ cm}^2$ , then what is the area of the triangle?  
 (a)  $12\sqrt{3} \text{ cm}^2$  (b)  $9\sqrt{3} \text{ cm}^2$   
 (c)  $8\sqrt{3} \text{ cm}^2$  (d)  $18 \text{ cm}^2$
49. The HCF of  $X^4 - 1$  and  $X^4 - 2X^3 - 2X^2 - 2X - 3$  is  
 (a)  $(x^2 + 1)(x - 1)$  (b)  $(x^2 + 1)$   
 (c)  $(x^2 + 1)(x + 1)$  (d)  $(x + 1)$
50. A cone is inscribed in a hemisphere such that their bases are common. If C is the volume of the cone and H that of the hemisphere, then what is the value of C : H?  
 (a) 1 : 2 (b) 2 : 3  
 (c) 3 : 4 (d) 4 : 5

### ENGLISH LANGUAGE

**DIRECTIONS (Q. 51-55) :** Fill in the blanks with the appropriate word or group of words.

51. Happiness consists in being \_\_\_\_\_ what we have?  
 (a) contented to (b) contented with  
 (c) contented for (d) contented in
52. His rude behaviour is a \_\_\_\_\_ his organization.  
 (a) disgrace for (b) disgrace on  
 (c) disgrace upon (d) disgrace to
53. \_\_\_\_\_ you leave now, you will be late.  
 (a) Until (b) Till  
 (c) Unless (d) Although
54. The \_\_\_\_\_ were arrested for illegally hunting the bears.  
 (a) poachers (b) rangers  
 (c) soldiers (d) villagers

55. If you had followed the rules, you ..... disqualified.  
 (a) will not be  
 (b) would not be  
 (c) will not have been  
 (d) would not have been

**DIRECTIONS (Qs. 56-57) :** Read the passage and then answer the questions based on it. You are required to select your answers based on the content of the passage and opinion of the author only.

### PASSAGE

While I stood drinking in the beauty of this placid scene I became conscious of an alteration. In a moment the sole porter emerged from his midday nap, operated a signal that clanked noisily into position, and then ambled slowly towards me for my return-half-ticket, whilst I remarked that his red amiable face and easygoing gait were in perfect harmony with the tranquil surroundings. A wisp of smoke on the horizon with a dark snake crawling beneath it announced the approach of the train. As it drew nearer, the deep silence of the place was gradually displaced by a creaking of brakes and a hissing of steam. Save for myself, no one entered the train and no one alighted. The porter with leisurely expertness, trundled a couple of milk churns on board, the door was slammed, the guard signalled to the driver, and we moved off, leaving the small station once more to its drowsy silence.

56. The meaning of drowsy is  
 (a) Untidy (b) Sleepy  
 (c) Freezing (d) Drugged
57. The central idea of the passage is  
 (a) Leisure and Peace (b) Hurry and Noise  
 (c) Activity (d) The Porter
58. Who had a midday nap ?  
 (a) The author  
 (b) The passenger  
 (c) The Station-master  
 (d) The porter
59. Who/what does first break the silence of the station ?  
 (a) The train (b) The porter  
 (c) The passenger (d) Milk churns
60. What does the author suggest by the word 'placid' ?  
 (a) The scene was filled with noise of the train  
 (b) The place was filled with lively humanity  
 (c) The place was quite and lonely  
 (d) The horizon looked smoke laden



61. Those are your new shoes, aren't they ?  
(a) isn't it ?                      (b) is it so ?  
(c) are they ?                      (d) No improvement

62. He told to us everything he knew.  
(a) us everything he knew  
(b) us everything he is knowing  
(c) us everything he was knowing  
(d) No improvement

63. Unless you do not work hard, you won't succeed in life.  
(a) cannot work hard  
(b) will not work hard  
(c) work hard  
(d) No improvement

64. I wanted to see whethey they  
(a) (b)  
had actually read the notes. No error  
(c) (d)

65. They made him treasurer because they  
considered  
(a) (b)  
him to be honest and efficient No error  
(c) (d)

- DIRECTIONS (Qs. 67-71) :** *In questions given below out of four alternatives choose the one which can be substituted for the given word/sentence.*

67. A place where bees are kept in called  
(a) An apiary (b) A mole  
(c) A hive (d) A sanctuary
68. A religious discourse  
(a) Preach (b) Stanza  
(c) Sanctorum (d) Sermon
69. Parts of a country behind the coast or a river's banks  
(a) Isthmus (b) Archipelago  
(c) Hinterland (d) Swamps
70. That which has a double meaning  
(a) doubtless (b) uncertain  
(c) controversial (d) ambiguous
71. Incapable of making errors  
(a) infallible (b) incorrigible  
(c) impervious (d) inexplicable

72. PALPABLE  
(a) Trembling (b) Weak  
(c) Obvious (d) Foolish

73. USURP  
(a) To climb upon  
(b) to yield  
(c) To seize power or position illegally  
(d) To demand unlawfully high interest on a loan

74. INCLEMENT  
(a) Selfish (b) Active  
(c) Unfavourable (d) Inactive

75. GENIAL  
(a) Cordial (b) Unselfish  
(c) Careful (d) Specific



**DIRECTIONS (Qs. 76 - 81) :** Which word or words explains the meaning of the following idioms :

76. To turn over a new leaf  
 (a) To change completely one's course of action  
 (b) To shift attention to new problems  
 (c) To cover up one's faults by wearing new marks  
 (d) To change the old habits and adopt new ones
77. To wrangle over an ass's shadow  
 (a) To act in a foolish way  
 (b) To quarrel over trifles  
 (c) To waste time on petty things  
 (d) To do something funny
78. All Agog  
 (a) Everybody (b) All ready  
 (c) Restless (d) Almighty
79. To take with a grain of salt  
 (a) To take with some reservation  
 (b) To take with total disbelief  
 (c) To take whole heartedly  
 (d) To take seriously
80. Hobson's choice  
 (a) Feeling of insecurity  
 (b) Accept or leave the other  
 (c) Feeling of strength  
 (d) Excellent choice
81. To take through one's hat  
 (a) To speak fluently  
 (b) To talk nonsense  
 (c) To talk wisdom  
 (d) To speak at random

**DIRECTIONS (Qs. 82-86) :** Each questions below consists of a word in capital letters followed by four words or group of words. Select the word or group of words that is most opposite in meaning to the words in capital letters.

82. OUTLANDISH  
 (a) Modern (b) Moderate  
 (c) Disrespectful (d) Coward
83. ABSOLVE  
 (a) To remember someone fondly  
 (b) To imitate someone  
 (c) To pretend  
 (d) To declare someone guilty

84. CHARMED  
 (a) Offended (b) Stunned  
 (c) Repulsed (d) Jealous
85. OBLIGATORY  
 (a) Doubtful (b) Voluntary  
 (c) Sincerely (d) Faithfully
86. OBSCURE  
 (a) Suitable (b) Apt  
 (c) Thalamus (d) Clear

**DIRECTIONS (Qs. 87 - 91) :** Find the correctly spelt word

87. (a) Forefiet (b) Forefeit  
 (c) Forfeit (d) Forfiet
88. (a) Comemorate (b) Commemorate  
 (c) Momemorate (d) Commemorate
89. (a) Efflorascence (b) Efflorescence  
 (c) Efflorescence (d) Efflorescence
90. (a) Aliennate (b) Allienate  
 (c) Alienate (d) Alienatte
91. (a) Forchiet (b) Forefeit  
 (c) Forfeit (d) Forfiet

**DIRECTIONS (Qs. 92 - 95) :** Select the most appropriate word from the options against each number :

Experienced climber Aron Ralston set out on a 92 hiking adventure, which proved to be a 93 event. Despite it being a common safety practice amongst climbers to inform others when undertaking unaccompanied hiking trips, Aron had not 94 anyone of his plans. During his climbing adventure Aron's right arm became pinned against the canyon wall by a 360 kg boulder. Aron was unable to free himself, and after six days of being 95 he made the decision to break the bones in his forearm and then amputate his arm below the elbow. Once free he made his way down a cliff and walked 8 km to seek assistance. Aron survived.

92. Which of these fits gap 94?  
 (a) authorised (b) alerted  
 (c) signalled (d) cautioned
93. Which of these fits gap 92?  
 (a) supervised (b) solo  
 (c) team (d) shared
94. Which of these fits gap 95?  
 (a) suppressed (b) captive  
 (c) trapped (d) entangled
95. Which of these fits gap 93?  
 (a) beath-taking (b) fail-safe  
 (c) stimulating (d) life-changing



**DIRECTIONS (Qs. 96 - 100) :** In each of the following questions, find out which part has an error.

96. Hasan plays (a) / both-cricket and billiards (b) / at the national level. (c) / No error. (d)
97. More you (a) / think of it, (b) / the worse it becomes. (c) / No error. (d)
98. My father gave me (a) / a pair of binocular (b) / on my birthday. (c) / No error. (d)
99. Kalidas is (a) / a Shakespeare (b) / of India. (c) / No error. (d)
100. The teacher as well as his students, (a) / all left (b) / for the trip. (c) / No error. (d)

### GENERAL AWARENESS

101. When had Muslim league passed the resolution "Divide and Quit" movement ?  
(a) 1945 (b) 1943  
(c) 1944 (d) None of these
102. What is the ratio of money held by the public in currency to that they held in deposit ?  
(a) The currency deposit ratio  
(b) The reserve deposit ratio  
(c) Cash reserve ratio  
(d) Cash deposit ratio
103. The chemical behavior of an atom depends upon –  
(a) the number of Neutrons in the nucleus  
(b) the number of Nucleons in the nucleus  
(c) the number of Protons in its nucleus  
(d) the number of Electrons orbiting around the nucleus
104. 88th amendment of the Indian Constitution is related to –  
(a) The demarcation of new boundaries between states  
(b) The Constitution of the National Judicial Commission  
(c) Empowering the Centre to levy and appropriate Service tax  
(d) Readjustment of electoral constituencies on the basis of the population census 2001
105. The joint sitting of both Houses of Indian Parliament is held in connection with –  
(a) Constitutional amendment bill  
(b) Ordinary bill  
(c) Money bill  
(d) Election of the Vice – President of India
106. Many Fungi belonging to the genera Microsporum Trichophyton and Epidermophyton are responsible for –  
(a) Filarial (b) Cancer /  
(c) Ringworms (d) AIDS
107. A boat will submerge when it displaces water equal to its own –  
(a) volume (b) weight  
(c) surface area (d) density
108. Which organ of Human body is affected by Alzheimer disease ?  
(a) Brain (b) Bone Marrow  
(c) Lung (d) Intestine
109. What is the chemical name of vitamin E ?  
(a) Calciferol (b) Tocopherol  
(c) Riboflavin (d) Phylloquinone
110. According to the Constitution of India, the Right to Property is a –  
(a) Fundamental Right  
(b) Directive Principle  
(c) Legal Right  
(d) Social Right
111. Babar declared himself as an emperor first at –  
(a) Samarqand (b) Farghana  
(c) Kabul (d) Panipat
112. How many times has financial emergency been declared in India, so far?  
(a) Five times (b) Four times  
(c) Once (d) Never
113. Economy is in the "Liquidity Trap" when –  
(a) Rate of interest on bonds is minimum  
(b) Rate of interest on bonds is maximum  
(c) Transaction demand for money is maximum  
(d) None of the above
114. Who is the author of "The Unseen Indira Gandhi"?  
(a) K.P. Mathur  
(b) Bilal Siddique  
(c) Anurag Mathur  
(d) N.R. Narayana Murthy
115. What is 'biomagnification'?  
(a) blowing up of environmental issues by man  
(b) growth of organisms due to food consumption  
(c) reduction of dissolved  $O_2$  caused by microbial organisms  
(d) increase in the concentration of nondegradable pollutants as they pass through food chain



116. Subhash Chandra Bose formed the government for independent India in Singapore, on –  
 (a) 22nd September, 1943  
 (b) 20th October, 1943  
 (c) 21st October, 1943  
 (d) 22nd October, 1943
117. 'Laffer Curve' shows the relationship between –  
 (a) Government Revenue and Government Expenditure.  
 (b) Tax Rates and Tax Revenue.  
 (c) Direct Taxes and GDP.  
 (d) None of the above
118. 'Cerebral palsy' is a brain disorder found generally in –  
 (a) Old people (b) Drug addicts  
 (c) Small children (d) Only in ladies
119. India is not a member of which of the following constituent organizations of the World Bank Group?  
 (a) International Centre for Settlement of Investment Disputes (ICSID)  
 (b) International Development Association (IDA)  
 (c) International Finance Corporation (IFC)  
 (d) Multilateral Investment Guarantee Agency (MIGA)
120. The mirror used in search light is –  
 (a) Concave Mirror (b) Convex Mirror  
 (c) Plane Mirror (d) None of these
121. A.T.F. is related to –  
 (a) Civil Aviation (b) Railways  
 (c) Road transport (d) None of these
122. A hybrid computer is the one having the combined properties of  
 (a) Super and micro computers  
 (b) Mini and micro computers  
 (c) Analog and digital computers  
 (d) Super and mini computers
123. Which of the following statements are NOT correct?  
 (a) Prithvi-II is a Surface-to-Surface Missile  
 (b) Prithvi-II can carry a 500 kg nuclear warhead  
 (c) Prithvi-III has a range of 350 KM  
 (d) Akash is the naval variant of the Prithvi missile
124. The 2016 Copa America Football tournament has been won by which of the following countries?  
 (a) Argentina (b) Colombia  
 (c) Chile (d) Peru
125. Which historical site has been declared as the SARRC cultural capital for 2016-17?  
 (a) Bamiyan (b) Maynamati  
 (c) Shilaidah (d) Mahashangarh
126. How many members can be nominated to both the Houses of the Parliament by the President?  
 (a) 14 (b) 16  
 (c) 10 (d) 12
127. Presidential form of government consists of the following :  
 (a) Popular election of the President  
 (b) No overlap in membership between the executive and the legislature  
 (c) Fixed term of office  
 (d) All of the above
128. Who among the following introduced the Mansabdari system?  
 (a) Jahangir (b) Shah Jahan  
 (c) Sher Shah (d) Akbar
129. Moraines are formed in  
 (a) Monsoon region (b) River deltas  
 (c) Arid regions (d) Glacial regions
130. An employment situation where the marginal productivity of agricultural labour is zero is known as :  
 (a) Seasonal unemployment  
 (b) Cyclical unemployment  
 (c) Disguised unemployment  
 (d) Disguised unemployment
131. Longest cell in human body is:  
 (a) Blood cell (b) Bone cell  
 (c) Nerve cell (d) Muscle cell
132. Which of the following is known as 'Seven Pagodas'?  
 (a) Mahabalipuram temple  
 (b) Karle caves  
 (c) Chaityas  
 (d) Elephanta caves
133. Who is the author of the book India 2020?  
 (a) Nibal Singh (b) R.K. Narayan  
 (c) Sidney Shelton  
 (d) Dr. A.P.J. Abdul Kalam



134. When is the World Population Day observed?  
 (a) May 31 (b) October 4  
 (c) December 10 (d) July 11
135. The Government of India has decided to set up National Cultural Audio-Visual Archives at  
 (a) Jodhpur (b) Vadodara  
 (c) Jalandhar (d) Ernakulam
136. Deendayal Antyodaya Yojana, launched on September 25, 2014 is related to—  
 (a) Skill Development in rural and urban areas  
 (b) Poverty Alleviation in rural areas  
 (c) Enhancement of livelihood of the poorest among poor  
 (d) None of the above
137. The study of lake is called  
 (a) Topology (b) Hydrology  
 (c) Limnology (d) Potomology
138. Which countries are separated by the McMahon line?  
 (a) India and Bangladesh  
 (b) India and Pakistan  
 (c) China and Tibet  
 (d) India and China
139. The 'Chipko Movement' is related to  
 (a) Wildlife preservation  
 (b) Scientific agriculture  
 (c) Forest conservation  
 (d) Deforestation
140. Israel built "Spike", which has been decided to be bought by India is an  
 (a) Radar system  
 (b) Anti-aircraft missile  
 (c) Stealth ship  
 (d) Anti tank missile
141. With how many permanent members of United Nations Security Council India has civil nuclear pact signed?  
 (a) Two (b) Three  
 (c) Four (d) Five
142. What is the name given to military exercises conducted between India and Nepal?  
 (a) Surya Kiran (b) Malabar  
 (c) Indra (d) Varuna Exercise
143. The union government has announced a nationwide scheme "Rashtriya Gokul Mission" which aims to  
 (a) Eliminate diseases of cattle  
 (b) Increase milk production  
 (c) Curb slaughtering of cattle  
 (d) Protect the indigenous breed of cows
144. The youngest mountain range in the world is:-  
 (a) Himalayas (b) Alps  
 (c) Andes (d) Rockies
145. Who amongst the following is the author of the book 'A Bend in the River'?  
 (a) Chetan Bhagat (b) VS Naipaul  
 (c) Kiran Desai (d) Anita Desai
146. India's first transgender school "Sahaj International" has started in which state?  
 (a) Tamil Nadu  
 (b) Kerala  
 (c) Karnataka  
 (d) Andhra Pradesh
147. Which state government has recently declared 50% reservation in judicial services for OBCs, SCs, STs and EBCs?  
 (a) Odisha  
 (b) Madhya Pradesh  
 (c) Bihar  
 (d) Assam
148. The book "The Secret Chord" has been authored by whom?  
 (a) Alice Hoffman  
 (b) Geraldine Brooks  
 (c) TD Ramakrishnan  
 (d) Tishani Doshi
149. Which committee has submitted report on promoting digital payments to the Union Government?  
 (a) Vinod Rai committee  
 (b) Ajit Seth committee  
 (c) HR Khan committee  
 (d) Ratan Watal committee
150. India's first caterpillar train will be set up by which state government of India?  
 (a) Assam (b) Uttar Pradesh  
 (c) Haryana (d) Rajasthan



# PRACTICE SET- 6

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-3) :** In questions below, select the related word/letter/number/figure from the given alternatives.

- King : Palace :: Eskimo : ?  
(a) Caravan (b) Asylum  
(c) Monastery (d) Igloo
- AFKP : DINS :: WBGL : ?  
(a) ORUX (b) OSWA  
(c) OTYD (d) OQSU
- 12 : 20 :: ?  
(a) 15 : 37 (b) 16 : 64  
(c) 27 : 48 (d) 30 : 42

**DIRECTIONS (Qs. 4-5) :** In questions below, find the odd number/letters/number pair from the given alternatives.

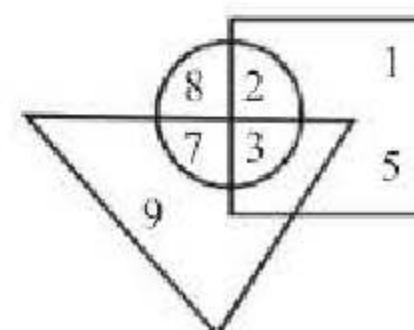
- (a) (47,49) (b) (5,7)  
(c) (29,31) (d) (11,13)
- (a) Marigold (b) Lotus  
(c) Tulip (d) Rose

**DIRECTIONS (Qs. 6 to 7) :** Complete the given series.

- BDF, CFI, DHL, ?  
(a) CJM (b) EIM  
(c) EJO (d) EMI
- 1, 3, 8, 19, 42, 89, ?  
(a) 108 (b) 184  
(c) 167 (d) 97
- In a certain code DEPUTATION is written as ONTADEPUTI. How is DERIVATION written in that code ?  
(a) ONVADERITI (b) ONDEVARITI  
(c) ONVAEDIRTI (d) ONVADEIRIT
- Arrange the following words as per order in the dictionary.  
1. Forecast 2. Forget 3. Foreign 4. Forsook  
5. Force  
(a) 3, 5, 1, 2, 4 (b) 5, 1, 3, 2, 4  
(c) 5, 1, 3, 4, 2 (d) 5, 1, 2, 3, 4

**DIRECTIONS (Qs.10) :** In question which one set of letters/ numbers when sequentially placed at the gaps in the given series shall complete it?

- a \_ cdd \_ bcd \_ abc \_ dab \_  
(a) b a d d c (b) a b d d c  
(c) b a d c d (d) b d a d c
- Sohan ranks seventh from the top and twenty-sixth from the bottom in a class. How many students are there in the class ?  
(a) 33 (b) 34  
(c) 31 (d) 32
- Keeping his back towards the rising sun, Reshma starts walking. After a few minutes, she turns left and keeps on walking. Then a little later she turns right and then left. In which direction is she going at the moment?  
(a) East or South (b) South or West  
(c) North or South (d) West or North
- Seema's younger brother Sohan is older than Seeta. Sweta is younger than Deepti but elder than Seema. Who is the eldest ?  
(a) Seeta (b) Deepti  
(c) Seema (d) Sweta
- In the given figure in a garden, square represent the area where jackfruit trees are grown, circle represent mango trees and triangle represent coconut trees. Which number represent the common area in which all types of trees are grown.



- 4
- 3
- 7
- 8



15. If 'a' represents  $\div$ , 'b' represents  $+$ , 'c' represents  $-$  and 'd' represents  $\times$  then  $24a 6d 4b 9c 8 = ?$   
 (a) 6 (b) 17  
 (c) 20 (d) 19
16. Mani is double the age of Prabhu. Ramona is half the age of Prabhu. If Mani is sixty, find out the age of Ramona.  
 (a) 20 (b) 15  
 (c) 10 (d) 24
- J = 1      K = 2      L = 5      M = 7

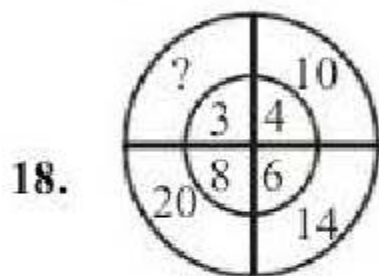
**DIRECTIONS (Qs. 17-18) :** In questions below, Select the missing number from the given responses.

17. 

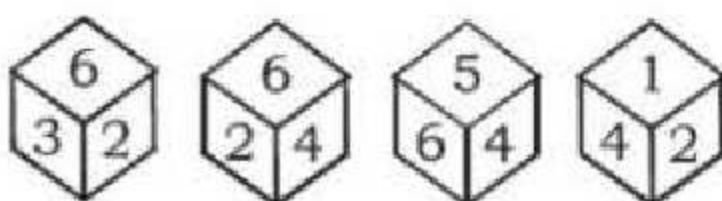
8
6   54   7
4

12
8   51   4
7

14
9   ?   5
9
- (a) 53 (b) 71  
 (c) 76 (d) 68



- (a) 24 (b) 12  
 (c) 18 (d) 19
19. How many triangles are there in the following figure?
- 
- (a) 12 (b) 8  
 (c) 16 (d) 15
20. Four positions of a dice are given below. Find out the opposite surface of 6.



- (a) 2 (b) 3  
 (c) 1 (d) 5

**DIRECTION:** In question nos. 4 two statements are given followed by some conclusions. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusion, if any, follow from the given statements.

**21. Statements :**

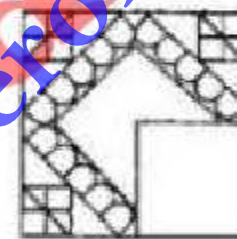
1. All students are doctors.
2. No doctor is leader.

**Conclusions :**

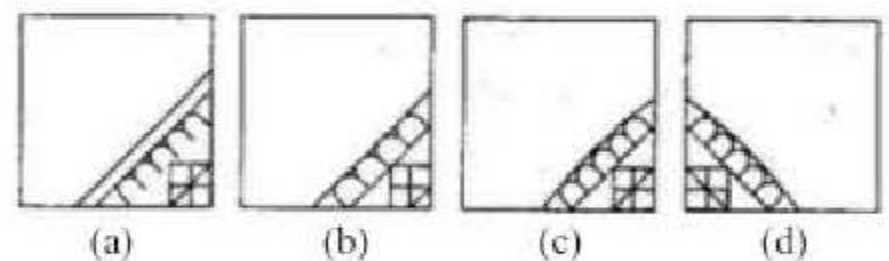
- I. All leaders are students.
  - II. Some doctors are students.
- (a) Only conclusion I follows  
 (b) Only conclusion II follows  
 (c) Both conclusions I and II follow  
 (d) Neither conclusion I nor II follows

**DIRECTIONS (Qs. 22-23) :** In questions below, which answer figure will complete the pattern in the question figure?

**22. Question figure :**

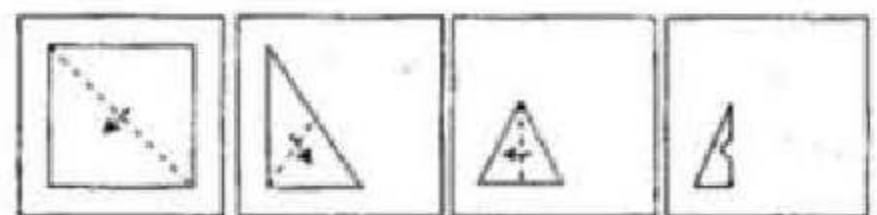


**Answer figures :**

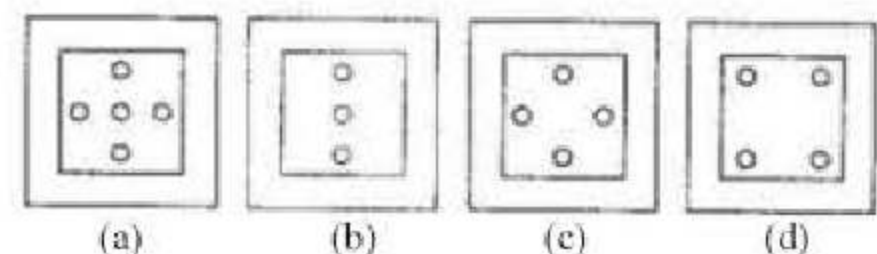


23. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

**Question figure :**



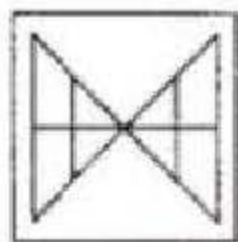
**Answer figures:**



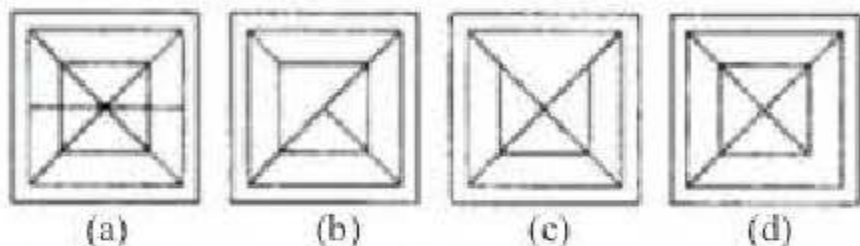


24. From the given answer figures, select the one in which the question figure is hidden/embedded.

Question figure :



Answer figures:



25. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix - I are numbered from 0 to 4 and that of Matrix - II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., A can be represented by 01, 20, 42 etc. and H can be represented by 65, 57, 98 etc. Similarly you have to identify the set for the word given in the question.

FAITH

Matrix-I

	0	1	2	3	4
0	F	A	N	O	I
1	I	O	F	A	N
2	A	N	O	I	F
3	O	F	I	N	A
4	N	I	A	F	O

Matrix-II

	5	6	7	8	9
5	S	E	H	B	T
6	H	S	E	T	B
7	B	T	S	E	H
8	E	H	T	B	S
9	T	S	E	H	B

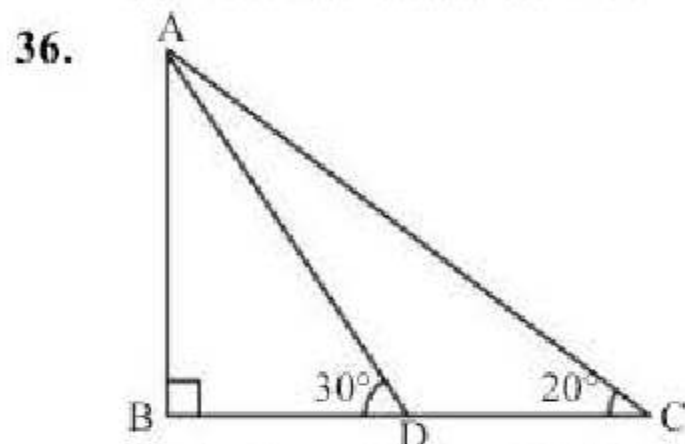
- (a) 24, 31, 10, 59, 57 (b) 12, 20, 40, 68, 65  
(c) 31, 34, 23, 76, 79 (d) 43, 42, 41, 78, 89

## NUMERICAL APTITUDE

26. The product of two successive numbers is 9506. Which is the smaller of the two numbers?  
(a) 96 (b) 97 (c) 98 (d) 99
27. What is the square root of  $9 + 2\sqrt{14}$ ?  
(a)  $1 + 2\sqrt{2}$  (b)  $\sqrt{3} + \sqrt{6}$   
(c)  $\sqrt{2} + \sqrt{7}$  (d)  $\sqrt{2} + \sqrt{5}$
28. There are two taps A and B to fill up a water tank. The tank can be filled in 40 min, if both taps are on. The same tank can be filled in 60 min, if tap A alone is on. How much time will tap B alone take, to fill up the same tank?  
(a) 64 min (b) 80 min  
(c) 96 min (d) 120 min
29. In how many different ways can the letters of the word DESIGN be arranged so that the vowels are at the two ends?  
(a) 48 (b) 72 (c) 36 (d) 24
30. Distance between point P and Q is 480 km. A train starts from point P at 6:00 AM with 60 km/hr towards Q. Another train starts from point Q towards P at 7:00 AM with 80 km/hr. At what time the trains will meet?  
(a) 9:40 AM (b) 10:30 AM  
(c) 10:00 AM (d) 11:00 AM
31. Naresh purchased a TV set for ₹11,250 after getting discount of 10% on the labelled price. He spent ₹150 on transport and ₹800 on installation. At what price should it be sold so that the profit earned would be 15% if no discount was offered?  
(a) ₹12,937.50 (b) ₹14,030  
(c) ₹13,450 (d) ₹15,467.50
32. If  $P:Q = \frac{3}{5}:\frac{5}{7}$  and  $Q:R = \frac{3}{4}:\frac{2}{5}$ , then what is  $P:Q:R$  equal to?  
(a)  $\frac{3}{5}:\frac{5}{7}:\frac{2}{5}$  (b)  $\frac{9}{20}:\frac{15}{28}:\frac{2}{7}$   
(c)  $\frac{3}{5}:\frac{3}{4}:\frac{2}{5}$  (d)  $\frac{3}{5}:\frac{5}{7}:\frac{3}{4}$
33. Arun invested a sum of money at a certain rate of simple interest for a period of four years. Had he invested the same sum at the same rate for a period of six years, the total interest earned by him would have been fifty per cent more than the earlier interest amount. What was the rate of interest per cent per annum?  
(a) 4 (b) 8  
(c) 5 (d) Cannot be determined



34. Two-thirds of three-fourths of one-fifth of a number is 15. What is 30 per cent of that number?  
 (a) 45 (b) 60  
 (c) 75 (d) 30
35. The sum of the circumference of a circle and the perimeter of a square is equal to 272 cm. The diameter of the circle is 56 cm. What is the sum of the areas of the circle and the square?  
 (a) 2464 sq cm (b) 2644 sq cm  
 (c) 3040 sq cm  
 (d) Cannot be determined



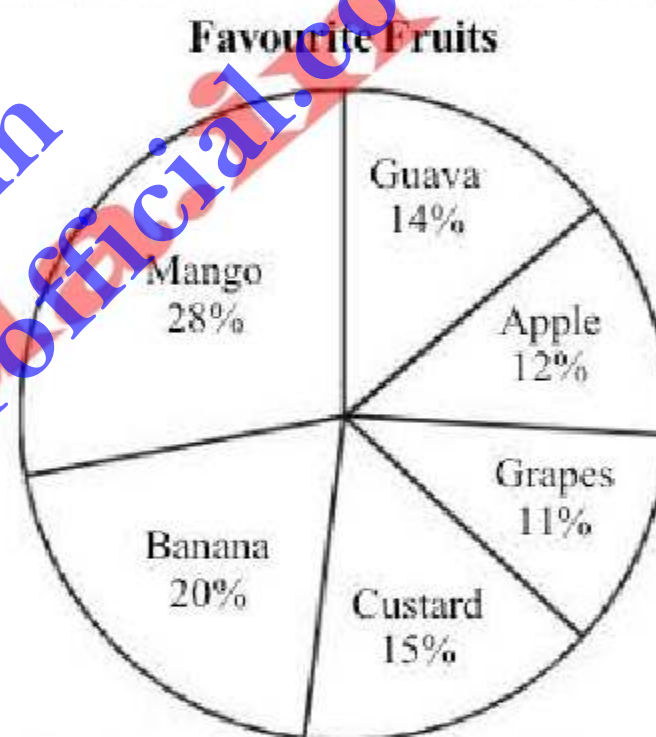
In the given figure,  $\angle ABD = 90^\circ$ ,  $\angle BDA = 30^\circ$  and  $\angle BCA = 20^\circ$ . What is  $\angle CAD$ ?

- (a)  $10^\circ$  (b)  $20^\circ$   
 (c)  $30^\circ$  (d)  $15^\circ$
37. On a journey across Bombay, a tourist bus averages 10 km/h for 20% of the distance, 30 km/h for 60% of it and 20 km/h for the remainder. The average speed for the whole journey was  
 (a) 10 km/h (b) 30 km/h  
 (c) 5 km/h (d) 20 km/h
38. The diameter of two circles are 18 cm and 8 cm. The distance between their centres is 13 cm. What is the number of common tangents?  
 (a) 1 (b) 2  
 (c) 3 (d) None of these
39. A man can do a piece of work in 10 days but with the assistance of his son, the work is done in 8 days. In how many days, his son alone can do the same piece of work?  
 (a) 15 days (b) 22 days  
 (c) 30 days (d) 40 days
40. If  $(3.7)^x = (0.037)^y = 10000$ , then what is the value of  $\frac{1}{x} - \frac{1}{y}$ ?  
 (a) 1 (b) 2  
 (c)  $\frac{1}{2}$  (d)  $\frac{1}{4}$
41. If  $3^x + 27(3^{-x}) = 12$ , then what is the value of  $x$ ?  
 (a) 4 (b) 3  
 (c) 1 or 2 (d) 0 or 1
42. How many kg of salt at 42 P per kg must a man mix with 25 kg of salt at 24 P per kg so that he may, on selling the mixture at 40 P per kg gain 25% on the outlay?

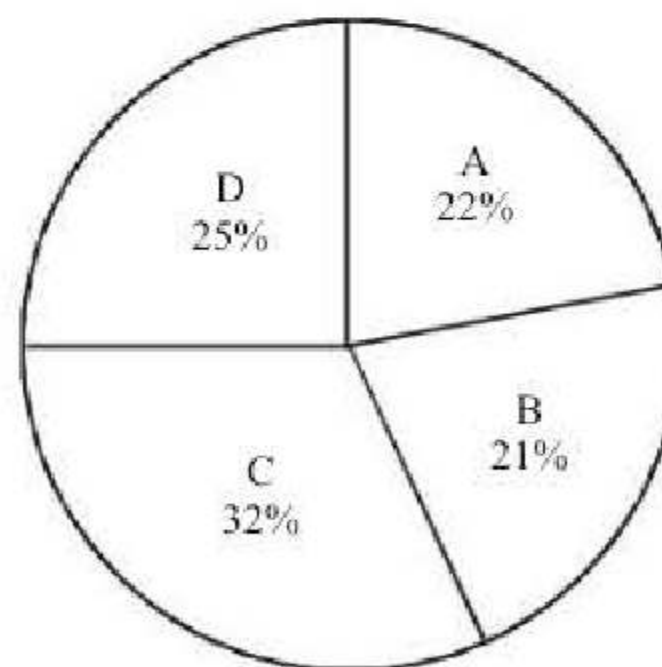
- (a) 15 (b) 20  
 (c) 25 (d) 30
43. If  $A : B = 3 : 4$ ,  $B : C = 8 : 10$  and  $C : D = 15 : 17$ . Then find  $A : B : C : D$ .  
 (a)  $9 : 12 : 13 : 11$  (b)  $4 : 5 : 6 : 7$   
 (c)  $9 : 12 : 15 : 17$  (d) None of these
44. The difference between the simple interest and the compound interest compounded annually at the rate of 12% per annum on Rs 5000 for two years will be :  
 (a) ₹ 47.50 (b) ₹ 63  
 (c) ₹ 45 (d) ₹ 72

**DIRECTIONS (Qs. 45-46):** Study the following Pie-chart carefully and answer the questions given below:

A survey conducted on 5800 villagers staying in various villages and having various favourite fruits.



**People staying in various villages**



45. Mango is the favourite fruit of 50% of the people from village C. People having their favourite fruit as mango from village C form approximately what per cent of the people having their favorite fruit as mango from all the villages together?  
 (a) 48 (b) 53  
 (c) 61 (d) 57



46. 20% of the people from village D have banana as their favourite fruit and 12% of the people from the same village have guava as their favourite fruit. How many people from that village like other fruits?  
 (a) 764 (b) 896  
 (c) 874 (d) 986
47. How many people in all have custard as their favourite fruit?  
 (a) 850 (b) 864 (c) 870 (d) 812
48. A hollow cylindrical iron pipe of length 1.4 m has base radius 2.5 cm and thickness of the metal is 1 cm. What is the volume of the iron used in the pipe?  
 (a) 2640 cu cm (b) 2604 cu cm  
 (c) 2460 cu cm (d) None of these
49. A solid metallic cube of edge 4 cm is melted and recast into solid cubes of edge 1 cm. If  $x$  is the surface area of the melted cube and  $y$  is the total surface area of all the cubes recast, then what is  $x : y$ ?  
 (a) 2 : 1 (b) 1 : 2  
 (c) 1 : 4 (d) 4 : 1
50. The angle of elevation of the top of a tower 30 m high from the foot of another tower in the same plane is  $60^\circ$  and the angle of elevation of the top of the second tower from the foot of the first tower is  $30^\circ$ . The distance between the two towers is  $m$  times the height of the shorter tower. What is  $m$  equal to?  
 (a)  $\sqrt{2}$  (b)  $\sqrt{3}$  (c)  $\frac{1}{2}$  (d)  $\frac{1}{3}$

### ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51-55):** Read the passage and answer the questions based on the passage. You are required to select your answers from the given options.

#### PASSAGE

The heat-wave deepened during the following few days while Jack and I lazed about in the house and yards, wearing ragged shirts and discarded garments, because the more presentable ones were being packed by Mother. She was obviously not strong enough to cycle down to Hemisphire, where Father and Jack had been one week-end, to see and rent a cottage in Ropley, near Alresford. From this prospective journey Jack had returned with half a dozen photographs taken with a plate-camera which he had made for himself, the aperture being a pinhole. This was only one of

his many ingenious artefacts. I had studied the pictures, which included a church that leaned backwards, in the hope of finding the perpetually teasing certainty which we look for when about to take some adventurous step into the unknown. But Ropley remained unreal.

51. During the hot summer days the author and Jack  
 (a) were taking adventurous steps into the unknown  
 (b) went visiting several churches in Ropley  
 (c) were busy repairing a camera  
 (d) were passing their time idleness
52. They were planning  
 (a) to move out Ropley  
 (b) a trekking expedition to Alresford  
 (c) to do some photography  
 (d) to make some artefacts
53. The author and Jack were wearing ragged shirts and discarded garments because  
 (a) they were very poor  
 (b) it was summer  
 (c) all their good clothes were already packed  
 (d) they were lazing about
54. The plate camera  
 (a) was the only artefact made by Father and Jack  
 (b) was the only artefact Jack had made for himself  
 (c) was only one of Jack's many such artefacts  
 (d) was borrowed by Jack from his friend for taking half a dozen photographs.
55. Father and Jack had been to Ropley one week-end  
 (a) to take photographs of the church that leaned backwards  
 (b) because Ropley was unreal  
 (c) to take some adventurous step into the unknown  
 (d) to see and rent a cottage there

**DIRECTIONS (Qs. 56 - 60):** Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.

56. The human mind seems to have built-in \_\_\_\_\_ against original thought.  
 (a) prejudices (b) ideas  
 (c) interests (d) safeguards
57. The statue \_\_\_\_\_ a global symbol of freedom  
 (a) stands against (b) stands to  
 (c) stands for (d) stands as



58. A child is the future of a family \_\_\_\_\_ nation.  
 (a) just as (b) as a  
 (c) like a (d) as well as of a
59. If strict security measures were taken, the tragedy might have been \_\_\_\_\_.  
 (a) restrained (b) averted  
 (c) removed (d) controlled
60. The deceased left \_\_\_\_\_ children.  
 (a) behind (b) for  
 (c) with (d) by

**DIRECTIONS (Qs. 61-63) :** In questions given below out of four alternatives choose the one which can be substituted for the given word/sentence.

61. Study of the evolution of man as an animal  
 (a) Archaeology (b) Anthropology  
 (c) Chronology (d) Ethnology
62. A person who speaks many languages  
 (a) Linguist (b) Monolingual  
 (c) Polyglot (d) Bilingual
63. One who does not believe in existence of god  
 (a) Egoist (b) Atheist  
 (c) Stoic (d) Naive

**DIRECTIONS (Qs. 64-66) :** Fill in the blanks with most appropriate word(s).

64. \_\_\_\_\_ the world, teams have been quick to use every means to improve their play.  
 (a) Surrounding (b) Beyond  
 (c) Across (d) Around
65. The top and bottom come \_\_\_\_\_ if you pull hard enough.  
 (a) down (b) apart  
 (c) across (d) up
66. I want to shop \_\_\_\_\_ a little before I decide on this book.  
 (a) around (b) up  
 (c) over (d) out

**DIRECTION: (Qs. 67-69) :** Sentence/ a part of the sentence is underlined. Below are given alternatives to the underlined part at (A), (B), (C) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is: (D).

67. There is no universally agreed name for the events of this period.  
 (a) universal agreed  
 (b) No improvement  
 (c) universally agree  
 (d) universally agreeing
68. A number of revolts occurred in areas not down under British rule and against native rulers, often as a result of local internal politics.

- (a) in British rule  
 (b) under British rule  
 (c) No improvement  
 (d) in under British rule
69. He was arrested, tried and killed.  
 (a) No improvement (b) smashed  
 (c) murdered (d) executed

**DIRECTIONS (Qs. 70-74) :** Find out which part of a sentence has an error :

70. It was he who / came running in the house /  
 (a) (b)  
 with the news about the earthquake. /  
 (c)  
 No Error.  
 (d)
71. Her mother does not approve of /  
 (a)  
 her to go to the party /  
 (b)  
 without dressing formally. / No Error.  
 (c) (d)
72. Riding across the battle field /  
 (a)  
 the famous Bhishm /  
 (b)  
 saw a large number of dead warriors. /  
 (c)  
 No Error.  
 (d)
73. My Aunt / was first / to get a degree /  
 (a) (b) (c)  
 No Error.  
 (d)
74. Padmini had not rarely missed /  
 (a)  
 a dance performance or festival since /  
 (b)  
 she was eight years old. / No Error.  
 (c) (d)



**DIRECTIONS (Qs. 75-79):** Out of the four alternatives, choose the one which best expresses the meaning of the given word.

75. BREVITY  
 (a) Confused (b) Calmness  
 (c) Conciseness (d) Heaviness
76. IMMACULATE  
 (a) Spotless (b) Obscene  
 (c) Insane (d) Weak
77. DISCOMFIT  
 (a) litigate (b) ease  
 (c) conflict (d) frustrate
78. WRATH  
 (a) violence (b) anger  
 (c) hatred (d) displeasing
79. ABSTINENCE  
 (a) synchronic (b) torrential  
 (c) restraint (d) gluttony

**DIRECTIONS : (Qs. 80-82):** Choose the word opposite in meaning to the given word.

80. QUASH  
 (a) Cancel (b) Revoke  
 (c) Persist (d) Permit
81. REMONSTRATE  
 (a) Protest (b) Argue  
 (c) Commend (d) Disagree
82. ELEVATION  
 (a) depression (b) deflation  
 (c) depreciation (d) recession

**DIRECTION (Qs. 83-87):** Choose the alternative which best expresses the meaning of the Idiom/Phrase given in the questions below.

83. Beat a hasty retreat -  
 (a) Beat someone harshly  
 (b) To pack things quickly  
 (c) To make a hasty withdrawal  
 (d) To make an exhaustive search
84. Easy come, easy go -  
 (a) To earn money without effort and giving away all of it  
 (b) A piece of work that is very easy to do  
 (c) A person who keeps his cool in difficult situations  
 (d) Readily won and readily lost
85. A pig in a poke -  
 (a) A never ending problem  
 (b) Something acquired without inspection which may therefore be worthless  
 (c) Someone who is quarrelsome  
 (d) Someone who interferes in others personal matters

86. To take through one's hat  
 (a) To speak fluently  
 (b) To talk nonsense  
 (c) To talk wisdom  
 (d) To speak at random
87. To snap one's fingers  
 (a) To speak abruptly  
 (b) To accept immediately  
 (c) To grasp eagerly  
 (d) To become contemptuous of

**DIRECTION (Qs. 88-89) :** Some part of the sentences have errors and some are correct. Find out which part of a sentence has an error and mark the answer accordingly.

88. I was walking past Benny's Bakery when I decided to go into bakery to get some bread.  
 (a) No error  
 (b) To get some bread  
 (c) When I decided to go into bakery  
 (d) I was walking past Benny's Bakery
89. Beware of a fair weather friend who is neither a friend in need nor a friend indeed.  
 (a) No error  
 (b) who is neither a friend in need  
 (c) nor a friend indeed  
 (d) Beware of a fair weather friend

**DIRECTIONS (Qs. 90-93) :** Select the most appropriate word from the options against each number :

I peered at the river through a gap in the roots of the strangler fig. The thick branches of the tree 90 me without really protecting me. I noticed the gentlest of ripples in the water and then something 91 began to emerge from its depths. An enormous head upon a slender neck rose about the surface. I looked into the beast's cold, reptilian eyes. I could sense no mind or soul behind them. I had to refrain from letting out a frightened 92 ! The time for retreating into the depths of the forest had arrived and I knew that it was 93.

90. (a) either sooner rather than later  
 (b) either now or never  
 (c) neither now or never  
 (d) neither sooner nor later
91. (a) magnificent yet terrifying  
 (b) frightening yet scary  
 (c) wonderful yet grand  
 (d) amazing yet astonishing
92. (a) "Phew!" (b) "Aah!"  
 (c) "Aha!" (d) "Ouch!"



93. (a) were hiding (b) hiding  
(c) hidden (d) was hiding

**DIRECTIONS (Qs. 94-95):** In the following questions, group of four words are given in each group, one word is incorrectly spelt. Find the incorrectly spelt word.

94. (a) Enthusiast (b) Pronounciation  
(c) Vassal (d) Marginalise
95. (a) Population (b) Memorandum  
(c) Associate (d) Comarades

**DIRECTIONS (Qs. 96-100):** In each of the following questions, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/ Direct speech.

96. She said to him, "Why don't you go today?"  
(a) She said to him that why he don't go today.  
(b) She asked him if he was going that day.  
(c) She asked him why he did not go today.  
(d) She asked him why he did not go that day.
97. Gavaskar said, "Bravo! Azhar, you have done well."  
(a) Gavaskar exclaimed with joy that Azhar had done well.  
(b) Gavaskar called Azhar and exclaimed that he had done well.  
(c) Gavaskar congratulated Azhar, saying that he had done well.  
(d) Gavaskar praised Azhar for his having done well.
98. He said, "The mice will play, when the cat is away."  
(a) He said that the mice will play when the cat is away.  
(b) He said that the mice would play when the cat was away.  
(c) He said that the mice would play when the cat would be away.  
(d) He said that the mice shall play, when the cat is away.
99. He said to his servant, "Why are you so lazy today?"  
(a) He asked his servant why he was so lazy that day.  
(b) He asked his servant why he had been so lazy that day.  
(c) He asked his servant why he was being so lazy that day.  
(d) He asked his servant why was he so lazy that day.

100. He said, "Can you sing?" And I said, "No".  
(a) He asked me that could I sing and I refused.  
(b) He asked me if I could sing and I said that I couldn't.  
(c) I denied, when he asked me if I could sing.  
(d) He asked me if I could sing and I said no.

## GENERAL AWARENESS

101. Who among the following had founded the Theosophical Society in the United States of America?  
(a) Swami Dayanand Saraswati  
(b) Madam Blavatsky  
(c) Madam Cama  
(d) Lala Hardayal
102. 'Freon' used as refrigerants is chemically known as  
(a) chlorinated hydrocarbon  
(b) fluorinated hydrocarbon  
(c) chlorofluoro hydrocarbon  
(d) fluorinated aromatic compound
103. The humidity of air measured in percentage is called  
(a) absolute humidity  
(b) specific humidity  
(c) relative humidity  
(d) all of these
104. In which of the following years was the first Railway line between Bombay and Thane laid?  
(a) 1853 (b) 1854  
(c) 1856 (d) 1858
105. Which one of the following was the original name of Tansen, the famous musician in the court of Akbar?  
(a) Mahananda Pande  
(b) Lal Kalwant  
(c) Baz Bahadur  
(d) Ramtanu Pande
106. When the productive capacity of the economic systems of a state is inadequate to create sufficient number of jobs, it is called  
(a) seasonal unemployment  
(b) structural unemployment  
(c) disguised unemployment  
(d) cyclical unemployment
107. Who of the following constitutes a Finance Commission for a State in India?  
(a) The President of India  
(b) The Governor of the State  
(c) The Union Finance Minister  
(d) The Union Cabinet



108. Who drafted the Constitution of Muslim League, 'The Green Book'?
- Rahamat Ali
  - Muhammad Iqbal
  - Muhammad Ali Jinnah
  - Maulana Muhammad Ali Jauhar
109. Bluetooth technology allows
- wireless communications between equipments
  - signal transmission on mobile phones only
  - landline to mobile phone communication
  - satellite television communication
110. The '*Arthashastra*' is a treatise on which one of the following?
- Economics
  - Environment
  - Political Philosophy
  - Religion in Administration
111. Who among the following was the Viceroy of India at the time of the formation of Indian National Congress?
- Lord Mayo
  - Lord Ripon
  - Lord Dufferin
  - Lord Lansdowne
112. As which one of the following, does carbon occur in its purest form in nature?
- Carbon black
  - Graphite
  - Diamond
  - Coal
113. Whose philosophy is called the Advaita?
- Ramanujacharya
  - Shankaracharya
  - Nagarjuna
  - Vasumitra
114. Special Drawing Rights [SDRs] relate to
- the World Bank
  - the Reserve Bank of India
  - the World Trade Organisation
  - the International Monetary Fund
115. The income elasticity of demand for inferior goods is
- less than one
  - less than zero
  - equal to one
  - greater than one
116. Which schedule of the Constitution of India contains the three lists that divide powers between the Union and the states?
- Fifth
  - Sixth
  - Seventh
  - Eighth
117. In which part of the Constitution, details of citizenship are mentioned?
- I
  - II
  - III
  - IV
118. In which one of the following Indian States is the game of polo said to have originated?
- West Bengal
  - Meghalaya
  - Manipur
  - Sikkim
119. 'And Then One Day : A Memoir' is an autobiography of
- Kamal Hasan
  - Shahrukh Khan
  - Naseeruddin Shah
  - Karan Johar
120. Which one of the following diseases is caused by virus?
- Tuberculosis
  - Typhoid
  - Influenza
  - Diphtheria
121. Movement of cell against concentration gradient is called
- osmosis
  - active transport
  - diffusion
  - passive transport
122. Prokaryotic cells lack
- nucleolus
  - nuclear membrane
  - membrane bound organelles
  - All of these
123. Plants that grow in saline water are called
- halophytes
  - hydrophytes
  - mesophytes
  - thallophytes
124. The Juno spacecraft which successfully entered the Jupiter orbit recently belonged to which space agency?
- National Aeronautics and Space Administration
  - European Space Agency
  - Japan Aerospace Exploration Agency
  - China National Space Administration
125. The 2016 National Doctors' Day that was observed recently is observed to honour which of the following legendary physicians?
- Sushruta
  - Ronald Ross
  - Kadambini Ganguly
  - Bidhan Chandra Roy
126. The concept of Concurrent List in Indian Constitution is borrowed from the Constitution of
- U.S.A.
  - Japan
  - Canada
  - Australia
127. Which one of the following cities and the personalities associated with their establishment is *wrongly* matched?
- Calcutta - Robert Clive
  - Pondicherry - Francis Martin
  - Ahmedabad - Ahmad Shah I
  - Madras - Francis Day
128. The Crimean War came to an end by the
- Treaty of St. Germain
  - Treaty of Trianon
  - Treaty of Versailles
  - Treaty of Paris



129. The Himalayan mountain range is an example of  
 (a) Fold mountain  
 (b) Volcanic mountain  
 (c) Residual mountain  
 (d) Block mountain
130. The depletion of Ozone layer is mainly due to  
 (a) Chlorofluorocarbons  
 (b) Volcanic eruptions  
 (c) Aviation fuels  
 (d) Radioactive rays
131. The use of which of the following regional languages was popularised by the Bhakti leader, Shankaradeva?  
 (a) Bengali (b) Brijbhasha  
 (c) Avadhi (d) Assamese
132. Which part of the plant is used as 'saffron'?  
 (a) Petals (b) Stamens  
 (c) Style and Stigma (d) Sepals
133. Suspended colloidal particles in the water can be removed by the process of :  
 (a) Filtration (b) Adsorption  
 (c) Absorption (d) Coagulation
134. When and by whom were the Asokan inscriptions deciphered for the first time?  
 (a) 1787 - John Tower  
 (b) 1825 - Charles Metcalfe  
 (c) 1837 - James Prinsep  
 (d) 1810 - Harry Smith
135. Which gupta emperor is said to have founded Nalanda University?  
 (a) Skandagupta (b) Buddhagupta  
 (c) Purugupta (d) Kumaragupta I
136. Other than Annie Besant, who among the following also launched a Home Rule Movement in India?  
 (a) Aurobindo Ghosh  
 (b) Bal Gangadhar Tilak  
 (c) Gopal Krishna Gokhale  
 (d) Moti Lal Nehru.
137. Three-tier system of Panchayati Raj consists of  
 (a) Gram Panchayat, Panchayat Samiti, Block Samiti  
 (b) Gram Panchayat, Block Samiti, Zila Parishad  
 (c) Gram Panchayat, Panchayat Samiti, Zila Parishad  
 (d) None of these
138. 'Sarva Siksha Abhiyan' is aimed at the education of which of the following?  
 (a) Engineering and technical education  
 (b) Education of girls upto graduation level  
 (c) College education  
 (d) Education of children between 6-14 years
139. 'Apna Khet, Apna Kaam', a new scheme under MNREGA has been initiated in which state?  
 (a) Punjab (b) Rajasthan  
 (c) Uttra Pradesh (d) Madhya Pradesh
140. Which of the following places is famous for Chikankari work, which is a traditional art of embroidery?  
 (a) Lucknow (b) Hyderabad  
 (c) Jaipur (d) Mysore
141. The second highest Gallantry award is  
 (a) Mahavir Chakra (b) Vir Chakra  
 (c) Arjuna Award (d) Ashok Chakra
142. The highest peace time gallantry award is  
 (a) Ashok Chakra (b) Param Vir Chakra  
 (c) Kirti Chakra (d) Vir Chakra
143. Who has authored the recently released book - "India and the Global Financial Crisis"?  
 (a) Y. V. Reddy (b) Shankar Acharya  
 (c) Rakesh Mohan (d) C. Rangarajan
144. Which of the following is a pair names of the same game?  
 (a) Soccer - Football (b) Golf - Polo  
 (c) Billiards - Carrom (d) Volleyball - Squash
145. Which zone of a candle flame is the hottest?  
 (a) Dark innermost zone  
 (b) Outermost zone  
 (c) Middle luminous zone  
 (d) Central zone
146. "BHIM" mobile app has been launched by Union Government to make digital payments easier. What does "BHIM" stands for?  
 (a) Build Interface for Money  
 (b) Built-up Interface for Money  
 (c) Bi-aural Interface for Money  
 (d) Bharat Interface for Money
147. The 2016 World Bhojpuri Conference has started in which of the following cities?  
 (a) Jaipur (b) Ahmedabad  
 (c) Varanasi (d) Bhopal
148. How much loan amount has been approved by the World Bank for rural road projects in Bihar?  
 (a) \$245 million (b) \$235 million  
 (c) \$255 million (d) \$265 million
149. "Beipanjiang Bridge" the world's highest bridge is in which country?  
 (a) China (b) France  
 (c) Japan (d) Germany
150. The National Trust Foundation Day (NTFD) is observed on which date in India?  
 (a) December 28 (b) December 31  
 (c) December 29 (d) December 30



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# PRACTICE SET-7

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-2) :** In questions, select the related word letters numbers from the given alternatives.

1. PETAL : FLOWER  
 (a) salt : pepper (b) tire : bicycle  
 (c) base : ball (d) sandals : shoes
2. 8 : 28 :: 27 : ?  
 (a) 28 (b) 8  
 (c) 64 (d) 65

**DIRECTIONS (Qs. 3-4) :** In questions, find the odd word/letters/numbers from the given alternatives.

3. (a) FIK (b) DGI  
 (c) MPR (d) KND
4. (a) Google (b) Firefox  
 (c) Internet Explorer (d) Chrome

**DIRECTIONS (Qs. 5-6) :** Complete the given series.

5. LXF, MTJ, NPN, OLR, ?  
 (a) PHV (b) PIU  
 (c) PKX (d) PJW
6. 5, 16, 51, 158, ..... ?  
 (a) 1452 (b) 483  
 (c) 481 (d) 1454
7. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?  
 a \_bbc\_ aab\_cca\_bbcc  
 (a) bacb (b) acba  
 (c) caba (d) abba
8. In the following question, a group of letters is given which are numbered 1, 2, 3, 4, 5 and 6. Below are given four alternatives containing combinations of these numbers. Select that

combination of numbers so that letters arranged accordingly, form a meaningful word.

C E L S M U

1 2 3 4 5 6

- (a) 4, 6, 3, 5, 2, 1 (b) 5, 6, 4, 1, 3, 2  
 (c) 4, 6, 5, 2, 3, 1 (d) 5, 2, 3, 1, 6, 4

9. If in a code language, COULD is written as BNTKC and MARGIN is written as LZQFHM, how will MOULDING be written in that code ?

- (a) CHMFINTK (b) LNKTCMHF  
 (c) LNTKCHME (d) NITKHCMF

10. If FRIEND is coded as HUMJTK, how is CANDLE written in that code ?

- (a) EDKRL (b) DCQHQK  
 (c) ESJFME (d) FYOBOK  
 (e) DEQJQM

11. From the given alternatives select the word which cannot be formed using the letters of the given word :

INFLATIONARY

- (a) FLAIR (b) FAULTY  
 (c) NATIONAL (d) RATION

12. If Neena says, "Anita's father Raman is the only son of my father-in-law Mahipal" then how is Bindu, who is the sister of Anita, related to Mahipal?

- (a) Niece (b) Daughter  
 (c) Wife (d) Grand daughter

13. A cyclist goes 30 km to North and then turning East he goes 40 km. Again he turns to his right and goes 20 km. After this, he turns to his right and goes 40 km. How far is he from his starting point ?

- (a) 25km (b) 40km  
 (c) 6km (d) 10km

14. If the positions of the first and the sixth digits of the group of digits 5904627813 are interchanged, similarly, the positions of the second and the seventh are interchanged, and so on, which of the following will be the fourth from the right end after the rearrangement?

- (a) 4 (b) 9  
 (c) 1 (d) 0



15. Arrange the words given below in a meaningful order.

1. Protect                      2. Pressure  
3. Relief                      4. Rain  
5. Flood

- (a) 2, 4, 3, 1, 5              (b) 2, 5, 4, 1, 3  
(c) 2, 4, 5, 1, 3              (d) 3, 2, 4, 5, 1

16. A man said to lady, "Your mother's husband's sister is my aunt." How is the lady related to the man?

- (a) Daughter                  (b) Grand daughter  
(c) Mother                    (d) Sister

**DIRECTION:** In question no. 17 one statement is given followed by some conclusions. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusion, if any, follow from the given statements.

17. Statements :

Students are influenced more by their teachers.

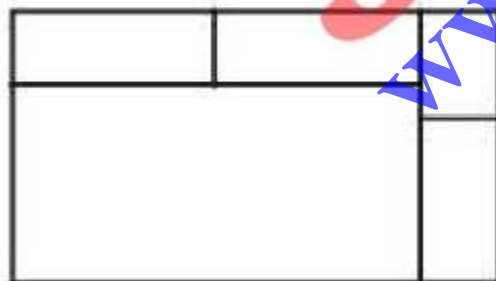
Conclusions :

- I. Students consider their teachers as their role models.  
II. Much time of students is spent at school.

- (a) Only conclusion I follows  
(b) Only conclusion II follows  
(c) Both conclusions I and II follow  
(d) Neither conclusion I nor II follows

18. How many rectangles are there in the question figure?

Question figure :



- (a) 6                              (b) 7  
(c) 8                              (d) 9

19. Find out the two signs to be interchanged for making following equation correct.

$$5 + 3 \times 8 - 12 \div 4 = 3$$

- (a) + and -                      (b) - and ÷  
(c) + and ×                      (d) + and ÷

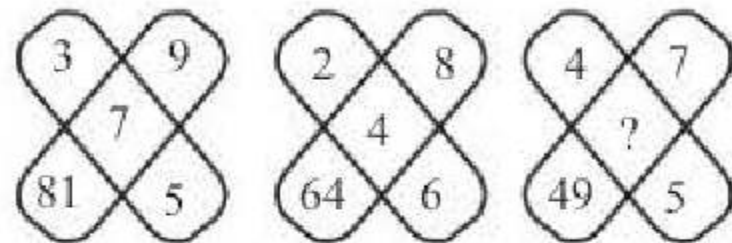
**DIRECTIONS (Qs. 20-21) :** In questions below, select the missing number from the given responses.

- 20.

7	9	8
2	4	3
5	7	6
16	32	?

- (a) 17                              (b) 23  
(c) 47                              (d) 73

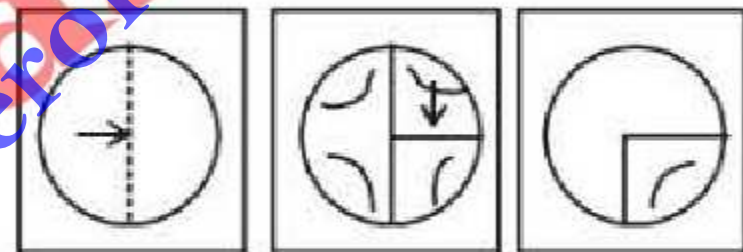
- 21.



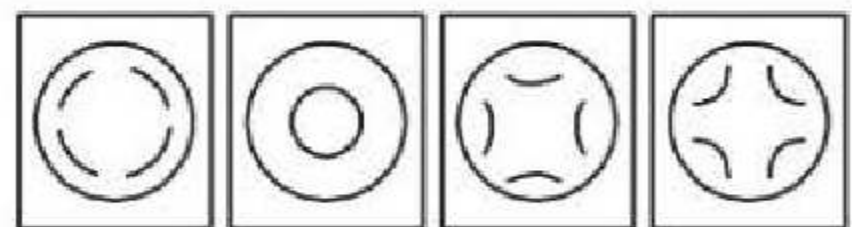
- (a) 1                                  (b) 8  
(c) 6                                  (d) 16

22. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

Question figures :

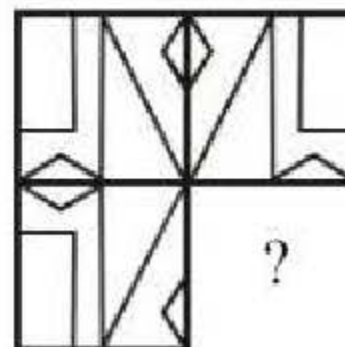


Answer figures :



- (a)                                  (b)                                  (c)                                  (d)

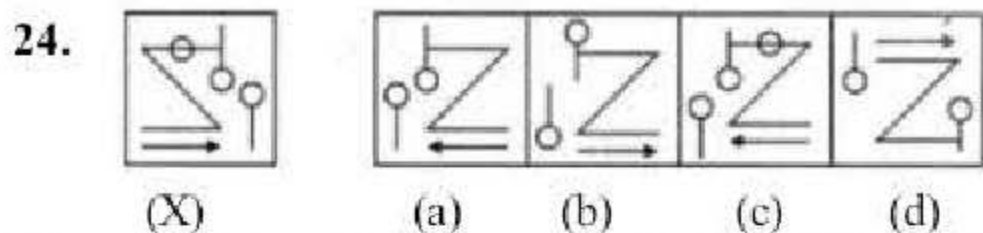
23. Complete the given figure.



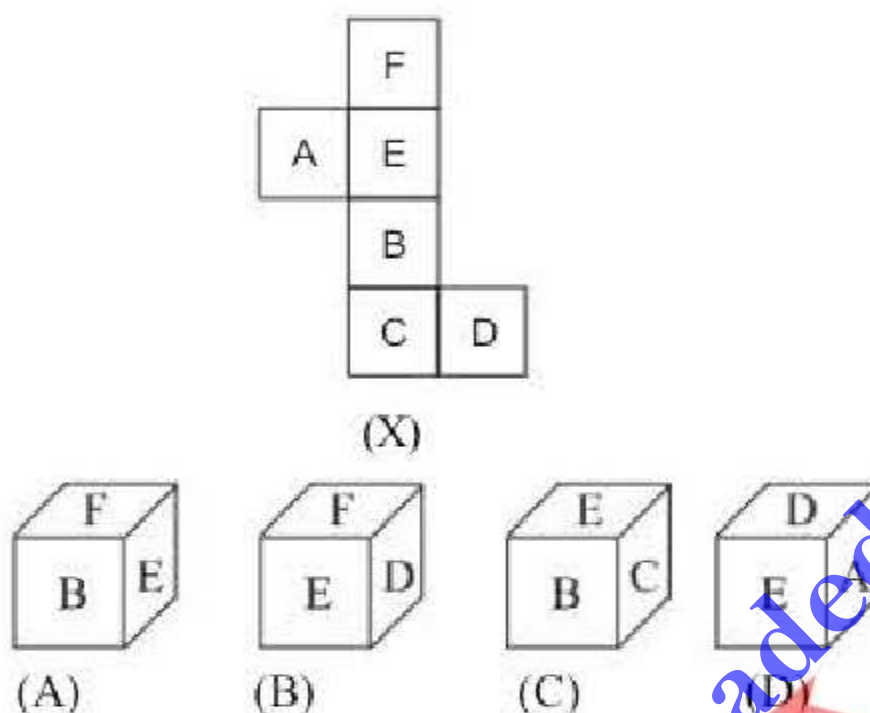
- (a)                                  (b)  
(c)                                  (d)



**DIRECTION (Qs. 24) :** In the following questions, choose the correct mirror-image of the Fig. (X) from amongst the four alternatives (a), (b), (c) and (d) given along with it.



25. Select from the alternative, the box that can be formed by folding the sheet shown in figure (X) :



- (a) A only (b) B only  
(c) A and C only (d) A, B, C and D

### NUMERICAL APTITUDE

26. How many numbers, between 1 and 300 are divisible by 3 and 5 together?

- (a) 16 (b) 18  
(c) 20 (d) 100

27. The value of

$$3 \div \left[ (8-5) \div \left\{ (4-2) + \left( 2 + \frac{8}{13} \right) \right\} \right] \text{ is}$$

- (a)  $\frac{15}{17}$  (b)  $\frac{13}{17}$   
(c)  $\frac{15}{19}$  (d)  $\frac{13}{19}$

28. Kamya purchased an item for ₹46,000 and sold it at a loss of 12 per cent. With that amount she purchased another item and sold it at a gain of 12 per cent. What was her overall gain/loss?

- (a) Loss of ₹662.40 (b) Profit of ₹662.40  
(c) Loss of ₹642.80 (d) Profit of ₹642.80

29. The call rate of a SIM of company A is one paise for every three seconds. Another SIM of company B charges 45 paise per minute. A man talked for 591 seconds from the SIM of company A and 780 seconds from the SIM of company B. What would be the total amount he spent?

- (a) ₹7.80 (b) ₹7.40  
(c) ₹7.46 (d) ₹7.82

30. An amount of money is to be divided among P, Q and R in the ratio of 3 : 5 : 7 respectively. If the amount received by R is ₹4,000 more than the amount received by Q, what will be the total amount received by P and Q together?

- (a) ₹8,000  
(b) ₹12,000  
(c) ₹16,000  
(d) Cannot be determined

31. A 180-metre long train crosses another 270-metre long train running in the opposite direction in 10.8 seconds. If the speed of the first train is 60 kmph, what is the speed of the second train in kmph?

- (a) 80  
(b) 90  
(c) 150  
(d) Cannot be determined

32. In what time will ₹300000 amount to ₹746496 at 20% compound interest?

- (a) 3 yrs (b) 4 yrs  
(c) 5 yrs (d) 6 yrs

33. Two person Ravi and Shyam can do a work in 60 days and 40 days respectively. They began the work together but Ravi left after some time and Shyam finished the remaining work in 10 days. After how many days did Ravi leave?

- (a) 8 days (b) 12 days  
(c) 15 days (d) 18 days

34. What is the number whose 20% is 30% of 40?

- (a) 90 (b) 80  
(c) 60 (d) 50

35. The largest and the second largest angles of a triangle are in the ratio of 4 : 3. The smallest angle is half the largest angle. What is the difference between the smallest and the largest angles of the triangle?

- (a) 30° (b) 60°  
(c) 40° (d) 20°



36. Rahim and his uncle differ in their ages by 30 years. After 7 years, if the sum of their ages is 66, what will be the age of the uncle?

(a) 39 (b) 41  
(c) 51 (d) 49

37. If the cost price is 96% of the selling price, then what is the profit percent?

(a) 4.5% (b) 4.2%  
(c) 4% (d) 3.8%

38. If  $\frac{3}{x+y} + \frac{2}{x-y} = 2$  and  $\frac{9}{x+y} - \frac{4}{x-y} = 1$ ,

then what is the value of  $\frac{x}{y}$ ?

(a)  $\frac{3}{2}$  (b) 5

(c)  $\frac{2}{3}$  (d)  $\frac{1}{5}$

39. The mean of 100 values is 45. If 15 is added to each of the first forty values and 5 is subtracted from each of the remaining sixty values, the new mean becomes

(a) 45 (b) 48  
(c) 51 (d) 55

40. The sum of the square of a number and the square of the reciprocal of the number, is thrice the difference of the square of the number and the square of the reciprocal of the number. What is the number?

(a) 1 (b)  $(2)^{1/4}$   
(c)  $(3)^{1/3}$  (d)  $(4)^{1/4}$

41. If for two real constants a and b, the expression  $ax^3 + 3x^2 - 8x + b$  is exactly divisible by  $(x+2)$  and  $(x-2)$ , then

(a)  $a = a, b = 12$  (b)  $a = 12, b = 2$   
(c)  $a = 2, b = -12$  (d)  $a = -2, b = 12$

42. Which one of the following is correct?

(a)  $-\frac{7}{10} < -\frac{2}{3} < -\frac{5}{8}$  (b)  $-\frac{5}{8} < -\frac{2}{3} < -\frac{7}{10}$

(c)  $-\frac{5}{8} < -\frac{7}{10} < -\frac{2}{3}$  (d)  $-\frac{7}{10} < -\frac{5}{8} < -\frac{2}{3}$

43. The number of two digit numbers which are divisible by 3 is

(a) 33 (b) 31  
(c) 30 (d) 29

44. A horse is tethered to one corner of a rectangular grassy field 40 m by 24 m with a rope 14 m long. Over how much area of the field can it graze?

(a)  $154 \text{ cm}^2$  (b)  $308 \text{ m}^2$   
(c)  $150 \text{ m}^2$  (d) None of these

45. In a 800 m race around a stadium having the circumference of 200 m, the top runner meets the last runner on the 5th minute of the race. If the top runner runs at twice the speed of the last runner, what is the time taken by the top runner to finish the race?

(a) 20 min (b) 15 min  
(c) 10 min (d) 5 min

**DIRECTIONS (Q. 46-48):** Study the following table carefully and answer the questions given below.

**Percentage distribution of students in various disciplines in five different colleges**

Discipline Colleges	Arts	Commerce	Science	Total number of students
A	25	35	40	17500
B	15	45	40	25000
C	15	30	55	35300
D	28	48	24	23000
E	29	30	41	32400

46. What is the average number of students from the discipline of Commerce from all the colleges together?

(a) 9745 (b) 9735  
(c) 9720 (d) 9750

47. Which college has the least number of students from the discipline of Science?

(a) A (b) C  
(c) E (d) D

48. What is the difference between the total number of students from the discipline of Arts from all the colleges together and the total number of students from the discipline of Science from all the colleges together?

(a) 22874 (b) 23863  
(c) 22963 (d) 25963

49. If the number of square centimetres on the surface area of a sphere is three times the number of cubic centimetres in its volume, then what is its diameter?

(a) 1 cm (b) 2 cm  
(c) 3 cm (d) 6 cm



50. For a plot of land of  $100\text{ m} \times 80\text{ m}$ , the length to be raised by spreading the earth from stack of a rectangular base  $10\text{ m} \times 8\text{ m}$  and vertical section being a trapezium of height  $2\text{ m}$ . The top of the stack is  $8\text{ m} \times 5\text{ m}$ . How many centimeters can the level raised?

- (a) 3 cm (b) 2.5 m  
(c) 2 cm (d) 1.5 cm

### ENGLISH LANGUAGE

**DIRECTIONS (Qs. 51 to 53) :** Choose the one which can be substituted for the given words/ sentences

51. An accomplished fact :

- (a) fore (b) fait accompli  
(c) ipso facto (d) ex post facto

52. One who does not care for art and literature :

- (a) Bigot (b) Bohemian  
(c) Philistine (d) Pacifist

53. A flock of cattle being driven :

- (a) Drove (b) Fleet  
(c) Swarm (d) Crow

**DIRECTION (Qs. 54 to 56) :** Choose the alternative which best expresses the meaning of the Idiom/Phrase

54. Pyrrhic victory -

- (a) A victory with great losses  
(b) A victory by cheating  
(c) A victory only in one's imagination  
(d) To win at the last moment

55. Pull wires-

- (a) to coerce someone into doing something  
(b) To influence or control shrewdly  
(c) To decide to break up with somebody  
(d) To win hearts

56. Volte-face

- (a) A sudden change of belief or plan to the opposite of what it was before  
(b) An ugly face  
(c) A difficult situation that can not be improved  
(d) leave somebody awestruck

**DIRECTION(Qs. 57 to 61) :** Read the passage carefully and choose the best answer to each question out of the four alternatives.

### PASSAGE

Paradoxes in the human context abound. We are all human; but few are humane. Most of us think we are

virtuous; but few are bereft of vice. We are all uniquely blessed with the power to imagine, extrapolate, inquire and to perceive beyond immediacy but so few see beyond the reach of their noses and so much consumed by the grind of daily existence. Many of us feel selfrighteous; but few shrink from hurting the weak and vulnerable. To be fallible is to be human but individually we think we are infallible. Why does human intimacy rob mutual respect and interpersonal relationships so hard to sustain when man is so gregarious and craves for human contact? We are endowed with the unique power of reason, viveka (wisdom) and vichakshana (discrimination) but we act so often without them. We are infinitely creative but often mindlessly destructive. Instead of feeling ashamed for our anger and avarice, so many use them as a cover and justification for their actions arising from them. We make daily choices but often avoid facing the consequences. Great men who changed the tide of history single-handedly walked this earth as well as evil men who brought senseless suffering to so many. What is the measure of great men and great deeds? Are some men greater than their deeds and for some others the other Way? Time and again we see that men of great intellect who have left indelible imprints on the sands of history are after all too human in their personal lives.

57. According to the passage, who walked this earth ?

- (a) Only great men  
(b) Only evil men  
(c) Both great men and evil men  
(d) None of these

58. According to the passage, what can be said true about men of great intellect?

- (a) that they are infinitely creative  
(b) that they too make daily choices and face the consequences  
(c) that they are also human in their personal lives  
(d) that they are greater than their deeds

59. Based on the passage, what might be the possible reason why the writer thinks- 'to be fallible is be human' ?

- (a) Because humans create things that hold the potential to destroy the world.  
(b) Because humans are naturally prone to making errors at some point of time in their life  
(c) Because humans want to hold onto interpersonal relationships even if they are hurt.  
(d) None of these



60. What message does the writer want to convey when he claims that only a few humans are bereft of vice ?  
 (a) that humans in general feel embarrassed for their actions  
 (b) that only a few humans give in to their greed  
 (c) that only a few humans tend to justify their actions  
 (d) that only a few humans keep themselves from depraved conduct
61. According to the passage what of the following options is/are the thing(s) we all are not blessed with ?  
 (a) The power to imagine and inquire  
 (b) The power to extrapolate  
 (c) Foresightedness  
 (d) Virtues

**DIRECTIONS (Qs. 62-66):** In the following questions, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

62. (a) mendatory (b) circulatory  
 (c) temporary (d) regulatory
63. (a) convinience (b) initative  
 (c) concessional (d) exaggerate
64. (a) diologue (b) gireffe  
 (c) scissors (d) humourrus
65. (a) arsiduous (b) nefarious  
 (c) mecabre (d) laquacious
66. (a) cortege (b) damag  
 (c) milege (d) plumage

**DIRECTION (Qs. 67 to 68):** Some part of the sentences have errors and some are correct. Find out which part of a sentence has an error and choose the answer according.

67. The students were required to seriously study for examination.  
 (a) No error  
 (b) For examination  
 (c) The students were  
 (d) Required to seriously study
68. The little students that were in the class were sitting idle.  
 (a) Were sitting idle (b) No error  
 (c) Were in the class (d) The little students that

**DIRECTIONS (Qs. 69 to 71):** In Question nos. 64 to 66, sentences given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.

69. Uncapped players \_\_\_\_\_ a lot of attention from the teams.  
 (a) recommended (b) showed  
 (c) reviewed (d) commanded
70. We expect to begin understanding what is \_\_\_\_\_ our candidates to take this giant leap for humankind.  
 (a) motivating (b) captivating  
 (c) suggesting (d) granting
71. The larger problem of state \_\_\_\_\_ must be addressed urgently.  
 (a) freedom (b) incapacity  
 (c) activity (d) degradation

**DIRECTIONS (Qs. 72-76):** In each of the following sentences, an idiomatic expression or proverb is highlighted. Select the alternative which best describes its use in the sentence.

72. I have **a bone to pick** with you in this matter.  
 (a) am in agreement (b) am angry  
 (c) am indebted (d) will join hands
73. The new CM **stuck his neck out** today and promised 10 kgs. free wheat a month for all rural families.  
 (a) took an oath  
 (b) took a risk  
 (c) extended help  
 (d) caused embarrassment
74. Harassed by repeated acts of injustice he decided to **put his foot down**.  
 (a) not to yield  
 (b) resign  
 (c) to accept the proposal unconditionally  
 (d) withdraw
75. The class could not **keep a straight face** on hearing the strange pronunciation of the new teacher.  
 (a) remain silent  
 (b) remain serious  
 (c) remain mute  
 (d) remain disturbed
76. His speech **went down well with** the majority of the audience.  
 (a) found acceptance with  
 (b) was attentively listened to by  
 (c) was appreciated by  
 (d) was applauded by

**DIRECTION (Qs. 77 to 79):** In Question nos. 67 to 69, a sentence/ a part of the sentence is underlined. Below are given alternatives to the underlined part at (a), (b), (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (d).



77. Let's have a party some time at the next week.  
 (a) sometime at next week  
 (b) sometime in the next week  
 (c) sometimes next week  
 (d) No Improvement
78. These days, it is difficult to make both ends meet.  
 (a) to have both ends meet  
 (b) to make all ends meet  
 (c) to make the ends meet  
 (d) No Improvement
79. If I would realised the nature of the job earlier, I would not have accepted it.  
 (a) I would if  
 (b) In case I would have  
 (c) Had I  
 (d) No Improvement

**DIRECTIONS (Qs.80-84) :** In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/ sentence.

80. A person of good understanding knowledge and reasoning power  
 (a) Expert (b) Intellectual  
 (c) Snob (d) Literate
81. A person pretending to be somebody he is not  
 (a) Magician (b) Rogue  
 (c) Liar (d) Imposter
82. One who has little faith in human sincerity and goodness  
 (a) Egoist (b) Fatalist  
 (c) Stoic (d) Cynic
83. One who possesses many talents  
 (a) Versatile (b) Nubile  
 (c) Exceptional (d) Gifted
84. The custom or practice of having more than one husband at same time  
 (a) Polygyny (b) Polyphony  
 (c) Polyandry (d) Polychromy

**DIRECTIONS(Qs. 85 to 86) :** In Question nos. 70 to 71 out of the four alternatives, choose the one which best expresses the meaning of the given word.

85. Discomfiture  
 (a) Calmness (b) Building  
 (c) Unease (d) Success
86. Sycophancy  
 (a) Abuse (b) Praying  
 (c) Criticism (d) Flattery

**DIRECTIONS (Qs. 87 to 88) :** Choose the word opposite in meaning to the given word.

87. Eschew  
 (a) Reduce (b) Invite  
 (c) Use (d) Embrace
88. Iniquity  
 (a) Fairness (b) Dishonesty  
 (c) Peace (d) Apostasy

**DIRECTIONS (Qs. 89 to 90) :** In Questions below, out of the four alternatives, choose the one which can be substituted for the given words/ sentences.

89. Without emotion or interest :  
 (a) Pragmatic (b) Phlegmatic  
 (c) Prosaic (d) Petulant
90. Being mournful or sad:  
 (a) Odious (b) Pedantic  
 (c) Pristine (d) Plaintive

**DIRECTIONS (Qs. 91-95):** In each these questions a disarranged sentence is given in which words or phrases are lettered A, B, C and D. You are arrange to form meaningful sentence.

91. A: in different regions of that federation  
 B: that was Yugoslavia  
 C: although the dismemberment of the federation  
 D: is seem more as the result of an ethnic conflict the fundamental came has been the very large difference in the quality of life  
 Which of the sequences present the most logical sentence?  
 (a) ABDC (b) DBCA  
 (c) BDCA (d) ABCD
92. A: but there is same merit in it  
 B: as distinct from consumption in sofar as it focuses attention on development expenses  
 C: bifurcation of plan and non-plan funds  
 D: in the budget is artificial  
 Which of the sequences present the most logical sentence?  
 (a) ABCD (b) CBDA  
 (c) CDAB (d) DACB
93. A: as if they are to be suffered as relics of a backward post  
 B: we have specially driven attention to the non-motorized transport modes  
 C: because they are completely overlooked in transport planning



D: till replaced by faster petroleum fuelled transport like the industrialized countries  
Which of the sequences present the most logical sentence?

- (a) CDBA (b) BCDA  
(c) BACD (d) BCAD

94. A: an image of a person in meditative pose  
B: surrounded by animal, wild and tame  
C: we have in the relics of Mohenjodaro  
D: with eyes closed and indrawn  
Which of the sequences present the most logical sentence?

- (a) CADB (b) ABCD  
(c) CBAD (d) CABD

95. A: by her indulgent parents  
B: the child was so spoiled  
C: when she did not receive all of their attention  
D: that she pouted and became sullen  
Which of the sequences present the most logical sentence?

- (a) CBAD (b) BCAD  
(c) BADC (d) BDAC

**DIRECTIONS (Qs. 96-100) :** Complete the passage by choosing the most suitable word/phrase from each list to fit the corresponding gap.

#### Passage

In England, Gandhiji at first 96 his time entirely to his studies. He tried to 97 fashionable gentlemen in every way. He 98 by what was new and foreign. He 99 a lot of money on buying smart English Clothes. After three months he suddenly realised his mistake and 100 to devote all his time to serious study.

96. (a) gave (b) were not given  
(c) not given (d) did not give  
97. (a) copy (b) copied  
(c) to have copied (d) being copied  
98. (a) had attracted (b) is attracted  
(c) was attracted (d) attracts  
99. (a) has wasted (b) wasted  
(c) was wasting (d) wastes  
100. (a) began (b) begin  
(c) to begin (d) had begun

### GENERAL AWARENESS

101. The Four Varnas are described in which Mandal of Rigveda?  
(a) First Mandal (b) Third Mandal  
(c) Tenth Mandal (d) Ninth Mandal
102. The Chief of State Election Commission is appointed by –  
(a) The President  
(b) The Governor  
(c) The committee of elected members of State Legislative Assembly  
(d) Election Commission of India
103. Which of the following is not an algae?  
(a) Blue Algae (b) Green Algae  
(c) Red Algae (d) Brown Algae
104. 'Defence Expenditure' forms part of which of the component of Union Budget?  
(a) Plan Revenue Expenditure  
(b) Non-Plan Revenue Expenditure  
(c) Plan Capital Expenditure  
(d) None of these
105. Any session of State Legislature is prorogated by –  
(a) Presiding officer of the house  
(b) The Chief Minister of the State  
(c) The Governor  
(d) None of the above
106. The 'official reserve transactions' are seen as which items in Balance of Payment?  
(a) Autonomous (b) Accommodating  
(c) Above the line (d) None of these
107. Where "Hathigumpha" inscription of Kharwel is located?  
(a) Uttar Pradesh (b) Bihar  
(c) Bengal (d) Odissa
108. The right to 'equality before the law' contained in Article 14 of the Constitution of India is available to —  
(a) natural persons only  
(b) legal persons only  
(c) citizens of India  
(d) all persons whether natural or legal
109. The purpose of an Adjournment Motion is to —  
(a) Propose a reduction in the budget  
(b) Seek the approval of the House on a proposal



- (c) Draw the attention of the House to a matter of urgent public importance  
(d) Seek the permission of the House to introduce a Government Bill
110. The book 'The man who Divided India' was written by —  
(a) Maulana Abul Kalam Azad  
(b) Dr. Rajendra Prasad  
(c) Rafiq Zakaria  
(d) None of these
111. The capital of Emperor Kanishka was situated in which city of modern Pakistan?  
(a) Lahore (b) Karachi  
(c) Peshawar (d) Rawalpindi
112. Name the Viceroy who was killed in Andaman & Nicobar Island?  
(a) Lord Mayo (b) Lord Elgin  
(c) Lord Hastings (d) Lord Dalhousie
113. What is erythroblastosis fetalis?  
(a) It is Haemolytic disease of the fetus and newborn.  
(b) It is a type of Leukemia in the new born.  
(c) It happens typically when father is Rh<sup>-ve</sup> and mother is Rh<sup>+</sup>ve.  
(d) It is seen only in human beings.
114. 'Effective Revenue Deficit' refers to —  
(a) Revenue Deficit-Grants from Centre to State for capital asset generation  
(b) Revenue Deficit-Expenditure on capital generation from the Centres grant to State  
(c) Revenue Deficit-Net interest liability  
(d) Fiscal Deficit-Grants to state for capital asset generation
115. 'Red Ink' is prepared from —  
(a) Phenol (b) Aniline  
(c) Congo red (d) Eosin
116. When did India become a member of the International Monetary Fund?  
(a) 1952 (b) 1950  
(c) 1947 (d) 1945
117. Which one is not micro nutrient?  
(a) Iron (b) Zinc  
(c) Sulphur (d) Manganese
118. An air bubble inside water behave as an:  
(a) bifocal lens/ (b) convergent lens/  
(c) divergent lens/ (d) cylindrical lens
119. ICAO stands for  
(a) International Civil Aviation Organization  
(b) Indian Corporation of Agriculture Organization  
(c) Institute of Company of Accounts Organization  
(d) None of the above
120. At which of the following places is the College of Defence Management located?  
(a) Dehradun (b) Pune  
(c) Secunderabad (d) Chennai
121. "Hopman cup" is related to which sports?  
(a) Football (b) Lawn Tennis  
(c) Badminton (d) Cricket
122. Which of the following memories is an optical memory?  
(a) Floppy Disk (b) Bubble Memories  
(c) CD-ROM (d) Core Memories
123. Which among the following blood protein regulates the amount of water in plasma?  
(a) Globulin (b) Albumin  
(c) Fibrin (d) Fibulin
124. Who headed the 7th Pay Commission whose recommendations were approved by the Union Cabinet?  
(a) Vivek Rae (b) Ratin Roy  
(c) Meena Agarwal (d) AK Mathur
125. This Central Asian city hosted the 2016 Shanghai Cooperation Organisation Summit.  
(a) Tashkent (b) Astana  
(c) Bishkek (d) Dushanbe
126. Hiuen Tsang visited the Pallava kingdom during the reign of?  
(a) Narasimhavarman I  
(b) Mahendravarman I  
(c) Paramesvarvarman II  
(d) Nandivarman II
127. The first sermon of Buddha made at Saranath is called  
(a) Dharmachakra Parivartan  
(b) Dharma Sansthapan  
(c) Dharma Sabha (d) Maha Parinirvan
128. When Alexander invaded india, who were the rulers of Magadha ?  
(a) Haryankas (b) Shishunagas  
(c) Nandas (d) Maurya
129. Bhakta Tukaram was a contemporary of which Mughal emperor?  
(a) Babar (b) Akbar  
(c) Jahangir (d) Aurangzeb



130. Who founded the Fort William College at Calcutta?  
 (a) Lord Cornwallis (b) Lord Ellenborough  
 (c) Lord Macaulay (d) Lord Wellesley
131. Who abolished the Dual Government of Bengal?  
 (a) Cornwallis (b) Robert Clive  
 (c) Warren Hastings (d) John Macfersson
132. In 1930, Mahatma Gandhi started Civil Disobedience Movement from:  
 (a) Sevagram (b) Dandi  
 (c) Sabarmati (d) Wardha
133. Which comet appears every 76 years?  
 (a) Hailey's (b) Holme's  
 (c) Donati's (d) Alpha Centauri
134. The waterfall 'Victoria' is associated with the river  
 (a) Amazon (b) Missouri  
 (c) St. Lawrence (d) Zambezi
135. Which one of the following rights has been described by Dr. Ambedkar as 'The heart and soul of the constitution'?  
 (a) Rights of Equality  
 (b) Right to freedom  
 (c) Right to property  
 (d) Right to Constitutional Remedies
136. The electric charge is stored in a device called  
 (a) Inductor (b) Capacitor  
 (c) Resister (d) Transformer
137. The folk dance 'Chhau' belongs to  
 (a) Odisha (b) Uttarakhand  
 (c) Jharkhand (d) Assam
138. Which country is the winner of Davis Cup- 2014?  
 (a) Serbia (b) USA  
 (c) Switzerland (d) Russia
139. Who among the following players has received the Arjuna Award in 2014?  
 (a) Manoj Kumar (b) Mary Kom  
 (c) M S Dhoni (d) Sardar Singh
140. Dr. APJ Abdul Kalam was formally conferred the title of Honorary Professor by which of the following university?  
 (a) Shanghai University  
 (b) University of Hong Kong  
 (c) Peking University  
 (d) Tsinghua University
141. Richard Flanagan recently won Man Booker Prize for which of the following book?  
 (a) The Narrow Road to the Deep North  
 (b) The Sound of One Hand Clapping  
 (c) Death of a River Guide  
 (d) The Unknown Terrorist
142. Patrick Madiano has been awarded with Nobel Prize in which of the following category?  
 (a) Medicine (b) Economics  
 (c) Physics (d) Literature
143. Fertilization occurs normally in the  
 (a) Cervix (b) Vagina  
 (c) Fallopian tube (d) Uterus
144. Which one of the following correctly describes AGNI?  
 (a) A fighter plane  
 (b) A versatile tank  
 (c) A long-range missile  
 (d) A long-range gun
145. According to a resolution adopted by the United Nations General Assembly, 'International Day of Peace' is observed every year on  
 (a) September 1 (b) September 14  
 (c) September 21 (d) September 30
146. "Swachh Swasth Sarvatra" initiative has been launched by the Union Health Ministry in collaboration with which union ministry?  
 (a) Ministry of Drinking Water and Sanitation  
 (b) Ministry of Finance  
 (c) Ministry of Housing and Urban Poverty Alleviation  
 (d) Ministry of AYUSH
147. The 77th session of Indian History Congress (IHC) has started in which state of India?  
 (a) Tamil Nadu (b) Kerala  
 (c) Karnataka (d) Andhra Pradesh
148. India's first Digi Dhan mela has been held in which state to promote cashless transactions?  
 (a) Jharkhand (b) Uttar Pradesh  
 (c) Haryana (d) Odisha
149. Who has been appointed as the new Lt Governor of Delhi?  
 (a) Vishnu Sahay  
 (b) Pradeep Sinha  
 (c) K M Chandrasekhar  
 (d) Anil Baijal
150. Indian Army has partnered with which Indian Institute of Technology (IIT) for critical technology requirements?  
 (a) IIT Bombay (b) IIT Roorkee  
 (c) IIT Kanpur (d) IIT Gandhinagar



# PRACTICE SET- 8

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1-3) :** In the questions, select the related word/ letters/numbers from the given alternatives.

- ACE : FHJ :: OQS : ?  
(a) PRT (b) RTU  
(c) TVX (d) UWY
- Saint : Meditation :: Scientist : ?  
(a) Research (b) Knowledge  
(c) Spiritual (d) Rational
- 7 : 56 :: 9 : ?  
(a) 63 (b) 81  
(c) 90 (d) 99

**DIRECTIONS (Qs. 4-5) :** In the following question, find the odd word/number from the given alternative.

- (a) Lord Dalhousie (b) Lord Mountbatten  
(c) Lord Linlithgow (d) Lord Tennyson
- (a) 226 (b) 290  
(c) 360 (d) 170

**DIRECTIONS (Qs. 6-7) :** In the following question a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

- AYBZC, DWEXF, GLHVI, JSKTL, (?), POQPR  
(a) MQDRN (b) QMONR  
(c) MQNRO (d) NOMOR
- 8, 15, 28, 53, ...?  
(a) 98 (b) 106  
(c) 100 (d) 102
- In a certain code language NATIONALISM is written as OINTANMSAIL. How is DEPARTMENTS written in that code?  
(a) RADEPTSTMNE (b) RADPETSTMNE  
(c) RADPESTMTNE (d) RADPETSTNME
- If 'green' is called 'white', 'white' is called 'yellow', 'yellow' is called 'red', 'red' is called 'orange', then which of the following represents the colour of sunflower?  
(a) red (b) yellow  
(c) brown (d) indigo
- A man said to a woman, "Your mother's husband's sister is my aunt." How is the woman related to the man?  
(a) Granddaughter (b) Daughter  
(c) Sister (d) Aunt

- Rasik walks 20 m North. Then, he turns right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Then he again turns left and walks 15 m. In which direction and how many metres away is he from his original position?  
(a) 15 metres West (b) 30 metres East  
(c) 30 metres West (d) 45 metres East

- In a row of boys Akash is fifth from the left and Nikhil is eleventh from the right. If Akash is twenty-fifth from the right then how many boys are there between Akash and Nikhil?

- (a) 14 (b) 13  
(c) 15 (d) 12

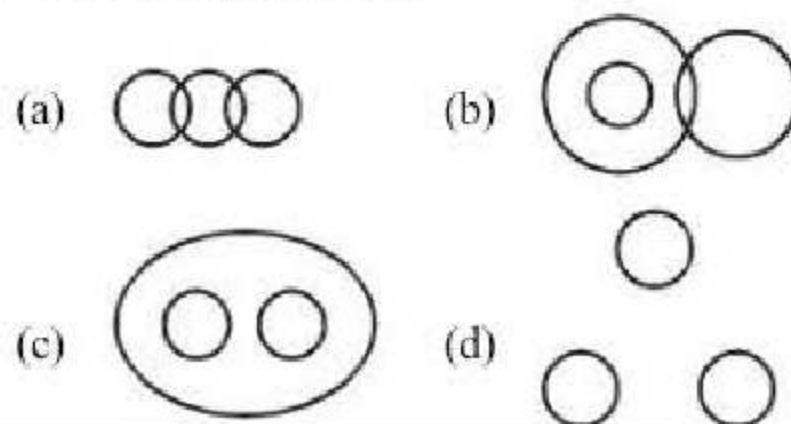
- P, Q, R and S are four men. P is the oldest but not the poorest. R is the richest but not the oldest. Q is older than S but not than P or R. P is richer than Q but not than S. The four men can be ordered (descending) in respect of age and richness, respectively, as

- (a) PQRS, RPSQ (b) PRQS, RSPQ  
(c) PRQS, RSQP (d) PRSQ, RSPQ

**DIRECTIONS (Qs. 14) :** Arrange the following in a logical order:

1. Birth 2. Death  
3. Funeral 4. Marriage  
5. Education  
(a) 1, 3, 4, 5, 2 (b) 1, 5, 4, 2, 3  
(c) 2, 3, 4, 5, 1 (d) 4, 5, 3, 1, 2

- Choose the diagram which represent the relationship among the following :- Capsules, Antibiotics, Injection.



**DIRECTIONS (Qs. 16) :** In the question belows are given two statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions



and then decide which of the given statements disregarding commonly known facts. Given Answer:

Give answer (a) If only conclusion I follows.

Give answer (b) if only conclusion II follows.

Give answer (c) if either I or II follows.

Give answer (d) if neither I nor II follows.

**16. Statements:**

All leaders are good team workers.

All good team workers are good orators.

**Conclusions:**

**I** Some good team workers are leaders.

**II** All good orators are leaders.

**17.** If '-' stands for division, '+' for multiplication, '÷' for subtraction and '×' for addition. Which one of the following equation is correct?

(a)  $6 \div 20 \times 12 + 7 - 1 = 70$

(b)  $6 + 20 - 20 \div 7 \times 1 = 62$

(c)  $6 - 20 \div 12 \times 7 + 1 = 57$

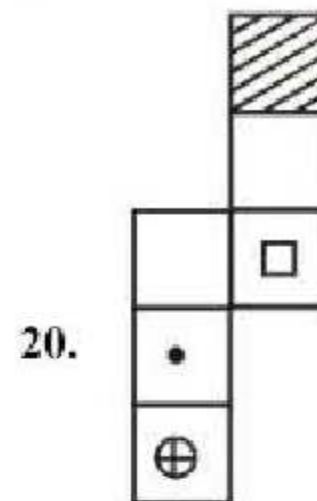
(d)  $6 + 20 - 20 \div 7 - 1 = 38$

**DIRECTIONS (Qs.18-19):** In the following questions, select the missing number from the given response.

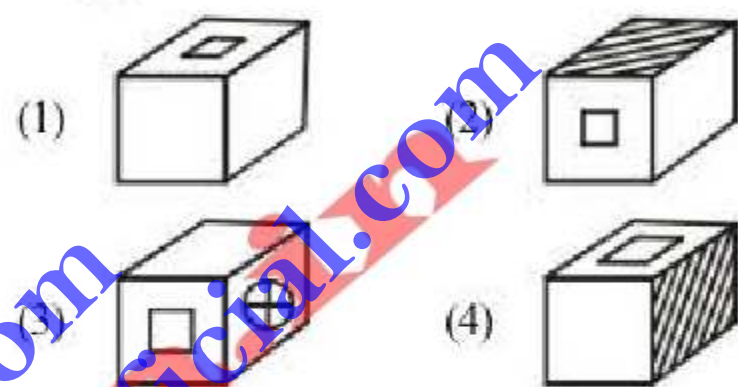
- 18.**
- |     |     |     |
|-----|-----|-----|
| 2   | 7   | 9   |
| 7   | 3   | 4   |
| 9   | 8   | ?   |
| 126 | 168 | 216 |
- (a) 8  
(b) 3  
(c) 6

- 19.**
- |   |    |   |
|---|----|---|
| 1 |    |   |
|   | 30 | 2 |
| 4 |    | 3 |
- 
- |   |     |    |
|---|-----|----|
| 3 |     | 4  |
|   | 286 | 4  |
| 6 |     | 15 |
- 
- |   |     |    |
|---|-----|----|
| 4 |     | ?  |
|   | 218 | 12 |
| 3 |     |    |
- (a) 6  
(b) 7  
(c) 9  
(d) 12

**Directions (Qs. 20):** Choose the box that is similar to the box formed from the given sheet of paper (X).

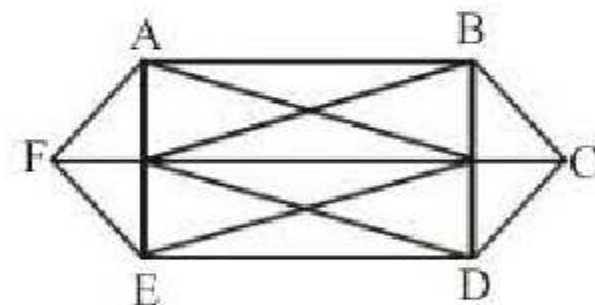


(X)



- (a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 4 only

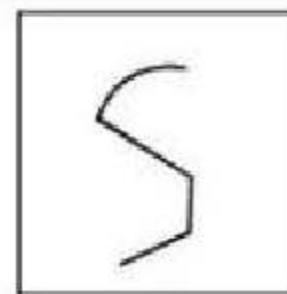
**21.** How many triangles are there in the figure ABCDEF?



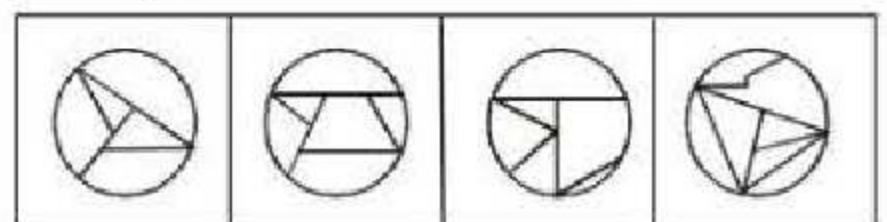
- (a) 24  
(b) 26  
(c) 28  
(d) 30

**Directions (Qs. 22):** From the given answer figures, select the one which is hidden/embedded in the question figure.

**22.**



(X)



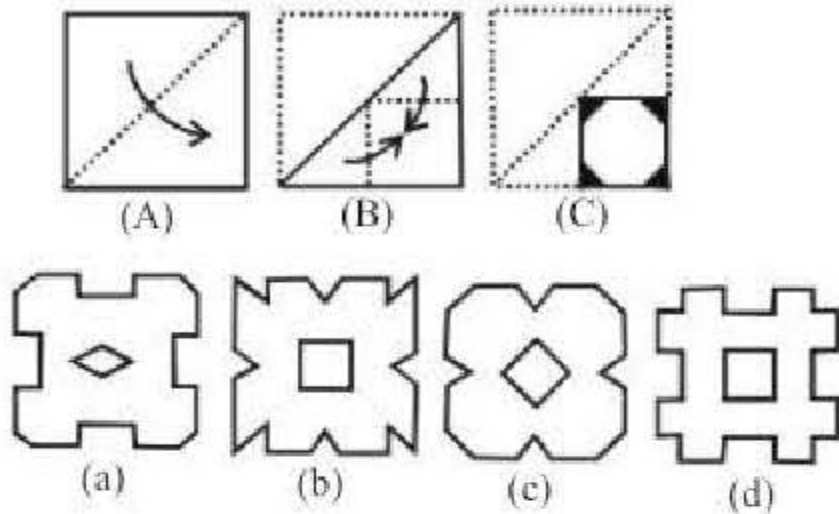
- (a) (b) (c) (d)

**DIRECTIONS (Qs. 23):** In the question a set of three figures A, B and C showing a sequence of



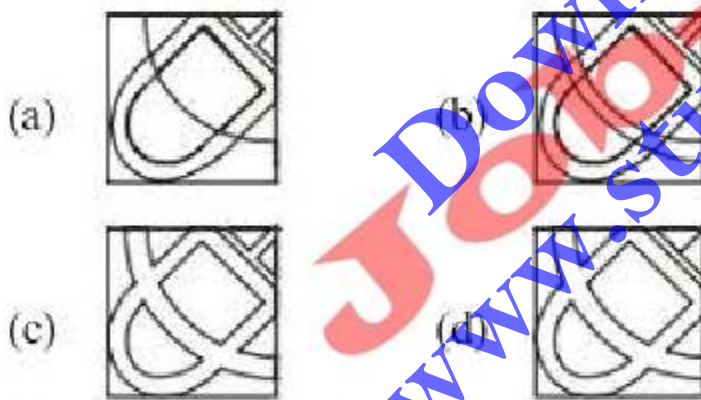
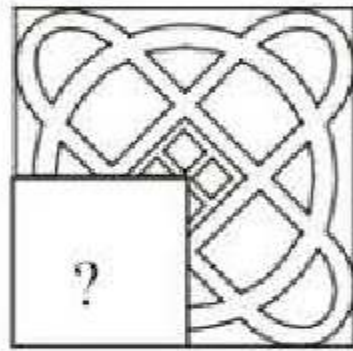
folding of a piece of paper. Fig. (C) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form of fig. (C).

23.



**DIRECTIONS (Q.24):** In the following question, which answer figure will complete the pattern in the question figure?

24.



25. From the given alternative words, select the word which cannot be formed using the letters of the given word :

TRIVANDRUM

- (a) RAIN (b) DRUM  
(c) TRAIN (d) DRUK

### NUMCRICAL APTITUDE

26. A number being successively divided by 3, 5 and 8 leaves 1, 2 and 4 as remainders respectively. What are the remainders if the order of divisors be reversed?

- (a) 3, 3, 1 (b) 3, 1, 3  
(c) 1, 3, 3 (d) None of these

27. Find the unit digit in the product  $(2467)^{153} \times (341)^{72}$ .

- (a) 6 (b) 7  
(c) 8 (d) 9

28. A shopkeeper bought 30 kg of wheat at the rate of ₹45 per kg. He sold forty per cent of the total quantity at the rate of ₹50 per kg. Approximately, at what price per kg should he sell the remaining quantity to make 25 percent overall profit?

- (a) ₹54 (b) ₹52  
(c) ₹50 (d) ₹60

29. 4 goats or 6 sheeps can graze a field in 50 days. 2 goats and 9 sheeps can graze the field in

- (a) 100 days (b) 75 days  
(c) 50 days (d) 25 days

30. If two numbers are respectively 20% and 50% of a third number, what is the percentage of the first number to the second?

- (a) 10 (b) 20  
(c) 30 (d) 40

31. If the manufacturer gains 10%, the wholesale dealer 15% and the retailer 25%, then find the cost of production of a table, the retail price of which is ₹1265?

- (a) ₹800 (b) ₹1000  
(c) ₹900 (d) ₹600

32. Out of a certain sum,  $\frac{1}{3}$ rd is invested at 3%,  $\frac{1}{6}$ th at 6% and the rest at 8%. If the simple interest for 2 years from all these investments amounts to ₹600, find the original sum.

- (a) ₹4000 (b) ₹5000  
(c) ₹6000 (d) ₹7000

33. If the difference between S.I and C.I for 2 years on a sum of money lent at 5% is ₹6, then the sum B.

- (a) ₹2200 (b) ₹2400  
(c) ₹2600 (d) ₹2000

34. A contractor undertakes to built a walls in 50 days. He employs 50 peoples for the same. However after 25 days he finds that only 40% of the work is complete. How many more man need to be employed to complete the work in time?

- (a) 25 (b) 30  
(c) 35 (d) 20

35. R and S start walking each other at 10 AM at the speeds of 3 km/h and 4 km/h respectively. They were initially 17.5 km apart. At what time do they meet?

- (a) 2 : 30 PM (b) 11 : 30 AM  
(c) 1 : 30 PM (d) 12 : 30 PM



36. Find the co-ordinates of the point which divides the line segment joining the points (4, -1) and (-2, 4) internally in the ratio 3 : 5

- (a)  $\left(\frac{6}{4}, \frac{7}{2}\right)$  (b)  $\left(\frac{4}{7}, \frac{8}{7}\right)$   
 (c)  $\left(\frac{7}{4}, \frac{7}{8}\right)$  (d)  $\left(\frac{7}{12}, \frac{8}{4}\right)$

37. Present age of Sudha and Neeta are in the ratio of 6 : 7 respectively. Five years ago their ages were in the ratio of 5 : 6 respectively. What is Sudha's present age?

- (a) 30 years (b) 35 years  
 (c) 40 years (d) Cannot be determined

38. A triangle and a parallelogram are constructed on the same base such that their areas are equal. If the altitude of the parallelogram is 100 m, then the altitude of the triangle is :

- (a) 100 m (b) 200 m  
 (c)  $100\sqrt{2}$  m (d)  $10\sqrt{2}$  m

39. In a 800 m race around a stadium having the circumference of 200 m, the top runner meets the last runner on the 5th minute of the race. If the top runner runs at twice the speed of the last runner, what is the time taken by the top runner to finish the race?

- (a) 20 min (b) 15 min  
 (c) 10 min (d) 5 min

40. The equation of a line passing through the points A (-1, 1) and B (2, -4) is

- (a)  $3x + 5y + 2 = 0$  (b)  $5x + 3y + 2 = 0$   
 (c)  $2x + 3y + 5 = 0$  (d) None of these

41. X and Y can do job in 25 days and 30 days respectively. They work together for 5 days and then X leaves. Y will finish the rest of the work in how many days?

- (a) 18 days (b) 19 days  
 (c) 20 days (d) 21 days

42. A dishonest dealer professes to sell his goods at cost price, but he uses a weight of 960 g for the kg weight. Find his gain per cent.

- (a) 4% (b)  $4\frac{1}{6}\%$   
 (c) 96% (d) 40%

43. If  $x = 2 + \sqrt{3}$ , then  $x^2 + \frac{1}{x^2}$  is equal to

- (a) 10 (b) 12  
 (c) -12 (d) 14

44. If  $a^2 + b^2 + c^2 = 2a - 2b - 2$ , then the value of  $3a - 2b + c$  is

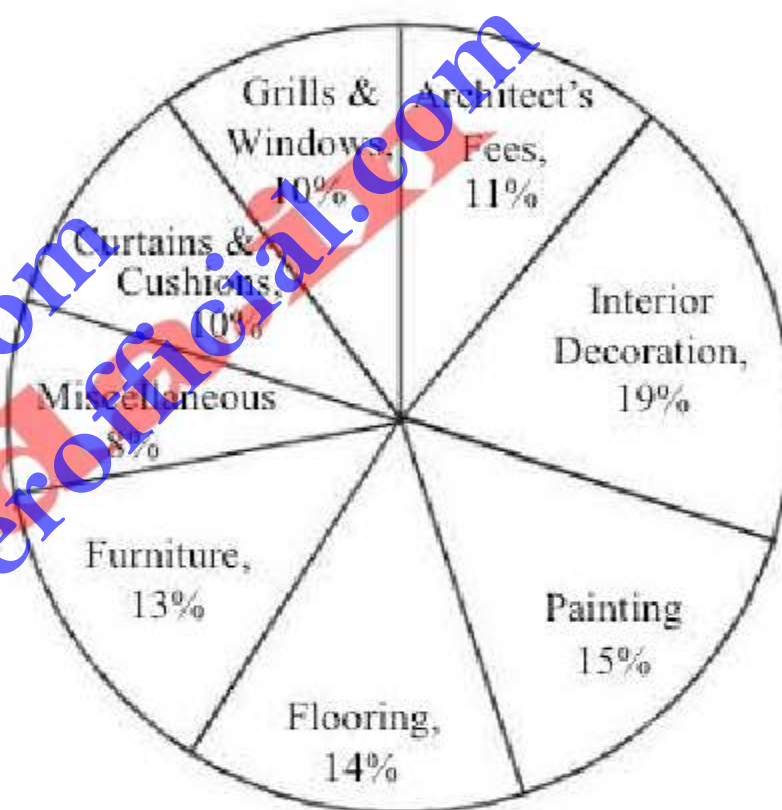
- (a) 0 (b) 3  
 (c) 5 (d) 2

45. The least value of  $3^x + 3^{-x}$  is :

- (a) 2 (b) 1  
 (c) 0 (d)  $\frac{2}{3}$

**DIRECTIONS (Q. 46-48) :** Study the following pie-chart carefully and answer the questions given below.

**Cost estimated by a family in renovation of their house**



**Total estimated cost is ₹1,20,000**

46. What is the difference in the amount estimated by the family on interior decoration and that on architect's fees?

- (a) ₹10,000 (b) ₹9,500  
 (c) ₹7,200 (d) ₹9,600

47. During the process of renovation, the family actually incurred miscellaneous expenditure of ₹10,200. The miscellaneous expenditure incurred by the family is what percentage of the total estimated cost?

- (a) 9.5% (b) 9%  
 (c) 8.5% (d) 10.5%

48. Other than getting the discount of 12% on the estimated cost of furniture and the actual miscellaneous expenditure being ₹10,200 instead of the estimated one, the family's estimated cost is correct. What is the total amount spend by the family in renovating its house?

- (a) ₹1,16,728 (b) ₹1,15,926  
 (c) ₹1,19,500 (d) ₹1,18,728



49. The length of a rectangular plot is thrice its breadth. If the area of the rectangular plot is 7803 sq. metre, what is the breadth of the rectangular plot?

- (a) 51 metres (b) 153 metres  
(c) 104 metres (d) 88 metres

50. A cylindrical tube open at both ends is made of metal. The internal diameter of the tube is 6 cm and length of the tube is 10 cm. If the thickness of the metal used is 1 cm, then the outer curved surface area of the tube is

- (a)  $140\pi$  sq cm (b)  $146.5\pi$  sq cm  
(c)  $70\pi$  sq cm (d) None of these

## ENGLISH LANGUAGE

**DIRECTION (Qs. 51 to 55):** Read the passages carefully and choose the best answer to each question out of the four alternatives.

### PASSAGE

Over one hundred years ago, the news that gold had been discovered in California electrified the entire country. Immediately, thousands of men rushed West with but one concern—to get to California before the next fellow. Everyone was confident that he would find gold and become wealthy. Little did the travelers know about the hardships and inconveniences they would have to endure: desert heat, mountain cold, miles of mud, raging rivers. Besides, they would be menaced by hostile Indians, ferocious beasts, starvation, and disease.

How many people died in the “Gold Rush” nobody knows; what is known is that thousands of the more self-reliant travelers did get to their destination, did find gold, and did become wealthy. In five years, the population of California rose from 5,000 to 100,000.

51. When was gold discovered in California ?

- (a) Over one thousand years ago  
(b) Over two hundred years ago  
(c) Over one hundred years ago  
(d) Over two thousand years ago

52. According to the passage, how many people died in the ‘Gold Rush’ ?

- (a) Fifty thousand (b) Ten thousand  
(c) No one knows (d) Seven thousand

53. At the beginning of the five years during which the population of California rose, what was its population ?

- (a) 100,000 (b) 5,000  
(c) 10,000 (d) 50,000

54. Which of the following statements is not true according to the passage ?

- (a) Everyone was confident that he would become wealthy.  
(b) The discovery of gold electrified the whole country.  
(c) Thousands of men rushed west in search of gold.  
(d) Everyone was confident that he would not have to endure any hardships in their quest for gold.

55. Which of the following is/are true ?

- The travelers had to struggle for their own survival.
- Everyone wanted to reach California before everyone else.
- Many of the travelers found gold and became wealthy.

- (a) Only 1 (b) Only 2 and 3  
(c) All are true (d) None of these

**DIRECTIONS (Qs. 56-60):** In the following questions, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

56. (a) coimmission (b) comision  
(c) comission (d) commision
57. (a) jewelery (b) jewellry  
(c) jwellry (d) jewellery
58. (a) sattellite (b) satellite  
(c) sattelite (d) satelite
59. (a) ocasion (b) ocassion  
(c) occasion (d) occassion
60. (a) comettee (b) committe  
(c) comittee (d) committee

**DIRECTIONS (Qs. 61 to 63):** Four alternatives are given for the Idiom/Phrase given. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

61. A fool's paradise means –

- (a) a foolish idea  
(b) an imaginary idea  
(c) an unexpected gain  
(d) false hopes for a foolish person

62. Will o' the wisp –

- (a) Anything which eludes or deceives  
(b) To act in a foolish way  
(c) To act in a childish way  
(d) To have desires unbaked by efforts



63. To fly off the handle –  
 (a) To take off  
 (b) To be indifferent  
 (c) To dislocate  
 (d) To lose one's temper

**DIRECTIONS (Qs. 64 to 66) :** Out of the four alternatives, choose the one which can be substituted for the given words/sentences.

64. That which comes and goes –  
 (a) transgressing (b) fitful  
 (c) vegetating (d) spontaneous
65. In a confused manner –  
 (a) nitty-gritty (b) pell-mell  
 (c) blurry (d) organised
66. A poem in praise –  
 (a) condemn (b) hymn  
 (c) elegy (d) ode

**DIRECTIONS (Qs. 67 to 71):** Out of the four alternatives, choose the one which best expresses the meaning of the given word.

67. OVERWROUGHT  
 (a) Cool (b) Exhausted  
 (c) Quiet (d) Excited
68. INDUBITABLE  
 (a) Disputable (b) Certain  
 (c) Doubtful (d) Equivocal
69. TEPID  
 (a) Irreversible (b) Causing fatigue  
 (c) Fast moving (d) Lukewarm
70. PROBITY  
 (a) Integrity (b) Impudence  
 (c) Profane (d) Preface
71. MUSTY  
 (a) Certainty (b) Stale  
 (c) Modern (d) Mysterious

**DIRECTIONS (Qs. 72 to 73):** Choose the word opposite in meaning to the given word.

72. COGNISANCE  
 (a) Idiom (b) Ignorance  
 (c) Abeyance (d) Anecdote
73. ANALYSIS  
 (a) Dialysis (b) Electrolysis  
 (c) Synthesis (d) Parenthesis

**DIRECTIONS (Qs. 74 to 75) :** Four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word from the given options.

74. (a) Slowenly (b) Slovenly  
 (c) Slowanly (d) Slovanly
75. (a) Suppliant (b) Suppliant  
 (c) Supplient (d) Supplient

**DIRECTIONS (Qs. 76 to 80):** Sentences given with blanks are to be filled in with an appropriate word. Four alternatives are suggested for each question.

76. On the other hand, there is absolutely no time to \_\_\_\_\_.  
 (a) get (b) create  
 (c) gain (d) lose
77. The graphics are brilliant and the game \_\_\_\_\_ up 5GB of space after storage.  
 (a) need (b) sways  
 (c) kills (d) takes
78. These days, getting news is not the problem, \_\_\_\_\_ it is.  
 (a) reading (b) consuming  
 (c) understanding (d) enjoying
79. These essays are intellectually ..... and represent various levels of complexity.  
 (a) revealing (b) modern  
 (c) superior (d) demanding
80. The soldiers are instructed to ..... restraint and handle the situation peacefully.  
 (a) exercise (b) control  
 (c) enforce (d) remain

**DIRECTIONS (Qs. 81-82):** To create logical scenario the following sentences need to be arranged in correct order. Choose the most logical order of the sentences from amongst the four given choices so as to form a logical scenario.

81. A: One day, a 17-year old shepherd boy came to visit his brothers and asked, "Why don't you stand up and fight the giant?"  
 B: We all know the story of David and Goliath, in which there was a giant who was bullying and harassing the children in the village.  
 C: But David said, No, he is not too big to hit; he is too big to miss."  
 D: The brothers were terrified and they replied, "Don't you see he is too big to hit?"
- Which of the sequences present the most logical scenario?
- (a) BADC (b) ACDB  
 (c) BACD (d) BDCA



82. A: Michael Hofman, a poet and translator, accepts this sorry fact without approval.  
 B: But thanklessness and impossibility do not daunt him. Hofman feels passionately about his work and this is clear from his writings.  
 C: He acknowledges too-infact, he returns to the point often-the best translators of poetry always fail at some level.  
 D: In terms of the gap between worth and rewards, translators come somewhere near nurses and street cleaners.

Which of the sequences present the most logical scenario?

- (a) DABC (b) DACB  
 (c) ADBC (d) CDAB

**DIRECTIONS (Qs. 83 to 86):** Complete the passage by choosing the most suitable word/phrase from each list to fit the corresponding gap.

India is said to be one of the most \_\_83\_\_ and \_\_84\_\_ countries in the world and our constitution is a \_\_85\_\_ to this very fact. In many countries, democratic governments in the course of conducting a major review of their national constitutions \_\_86\_\_ to curtail, if not abolish, the death penalty.

83. (a) orthodox (b) rigid  
 (c) liberal (d) flamboyant
84. (a) have been decided  
 (b) have decided  
 (c) are deciding  
 (d) could have decided
85. (a) testimony (b) evidence  
 (c) declaration (d) witness
86. (a) powerful (b) engaging  
 (c) open (d) systematic

**DIRECTIONS (Qs. 87-91):** In each of the following questions, a sentence two been given in Direct/Indirect speech, out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct speech.

87. "Please don't go away", she said.  
 (a) She said to please her and not go away.  
 (b) She told me not to go away.  
 (c) She begged that I not go away.  
 (d) She begged me not to go away.

88. He said to me, "What time do the offices close?"  
 (a) He wanted to know what time the offices close.  
 (b) He asked me what time did the offices close.  
 (c) He asked me what time the offices close .  
 (d) He asked me what time the offices did close.
89. Pinki said to Gaurav, "will you help me in my work just now"  
 (a) Pinki asked Gaurav if he would help her in her work just then.  
 (b) Pinki questioned to Gaurav that will you help me in my work just now.  
 (c) Pinki told Gaurav whether he will help her in her work just now.  
 (d) Pinki asked to Gaurav that will he help her in her work just now.
90. Sarita said to me, "I will do it now or never."  
 (a) Sarita told me that I would do it then or never.  
 (b) Sarita told me that she would do it now or never.  
 (c) Sarita told me tht she will do that now or never.  
 (d) Sarita told me that she would do it then or never.
91. He said, "I have often told you not to waste your time."  
 (a) He said that he had often told not to waste your time.  
 (b) He said that he had often told him not to waste his time.  
 (c) He said that he had often suggested to him not to waste him time.  
 (d) He told that he has often told him not to waste his time.

**DIRECTIONS (Qs. 92-96):** In these questions, the sentences have been given in Active / Passive Voice. From the given alternatives, choose the one which best expresses the given sentence in Passive / Active Voice.

92. It is your duty to make tea at eleven O'clock.  
 (a) You are asked to make tea at eleven O'clock.  
 (b) Your are required to make tea at eleven O'clock.  
 (c) You ar esupposed to make tea at eleven O'clock.  
 (d) Tea is to be made by you at eleven O'clock.



93. He was congratulated by his teacher on his brilliant success in the recent examination.  
 (a) His teacher congratulated him on his brilliant success in the recent examination.  
 (b) His teacher congratulated him for his success in the examination.  
 (c) His teacher congratulated him on his success.  
 (d) His teacher congratulated him.
94. People speak English all over the world.  
 (a) English is spoken all over the world.  
 (b) English was spoken all over the world.  
 (c) English was spoken by people.  
 (d) English is spoken by people.
95. You need to clean your shoes properly.  
 (a) Your shoes are needed to clean properly.  
 (b) You are needed to clean your shoes properly.  
 (c) Your shoes need to be cleaned properly.  
 (d) Your shoes are needed by you to clean properly.
96. He is said to be very rich.  
 (a) He said he is very rich.  
 (b) People say he is very rich.  
 (c) He said it is very rich.  
 (d) People say it is very rich.

**DIRECTIONS (Qs. 97-100) :** In each of the following sentences, an idiomatic expression or proverb is highlighted. Select the alternative which best describes its use in the sentence.

97. In spite of the immense pressure exerted by the militants, the Government has decided not to **give in**.  
 (a) accede (b) yield  
 (c) oblige (d) confirm
98. Their business is now **on its last legs**.  
 (a) about to fructify  
 (b) about to perish  
 (c) about to produce results  
 (d) about to take off
99. He **went back on** his promise to vote for me.  
 (a) withdrew (b) forgot  
 (c) reinforced (d) supported
100. The old beggar **ran amuck** and began to throw stones at the passerby.  
 (a) became desperate  
 (b) ran about wildly  
 (c) become annoyed  
 (d) felt disgusted

## GENERAL AWARENESS

101. Which of the following is not evident at Mohenjodaro?  
 (a) Pasupati seal  
 (b) Great granary and great bath  
 (c) Multi-pillared assembly hall  
 (d) Evidence of double burials
102. Which one of the following is not a part of early Jains literature?  
 (a) Therigatha (b) Acarangasutra  
 (c) Sutakritanga (d) Brihatkalpasutra
103. When did Delhi first become capital of a kingdom?  
 (a) At the time of Tomar dynasty  
 (b) Tughlaq dynasty  
 (c) Lodhi dynasty  
 (d) None of these
104. Total schedules in Indian Constitution are:  
 (a) 22 (b) 10  
 (c) 16 (d) 12
105. Who was the President of the Constituent Assembly?  
 (a) Rajendra Prasad (b) B. R. Ambedkar  
 (c) K. M. Munshi (d) G. V. Mavlankar
106. By Which name/names is our country mentioned in the constitution?  
 (a) India and Bharat  
 (b) India and Hindustan  
 (c) Bharat Only  
 (d) India, Bharat and Hindustan
107. Per capita Income of a country derived from  
 (a) National Income  
 (b) Population  
 (c) National Income and Population both  
 (d) None of these
108. Which one of the following agencies of Indian Government implements the price support scheme (PSS)?  
 (a) FCI  
 (b) NAFED  
 (c) Agriculture pricing agency of India  
 (d) None of the above
109. 'Udyog Bandu' is a/an ?  
 (a) labour supplying agency  
 (b) sick Industry rehabilitation agency  
 (c) committee to assist industrial units in solving time bound establishment and related problems  
 (d) agency for financing industrial development



110. Which one of the following is a vector quantity?  
 (a) Momentum (b) Pressure  
 (c) Energy (d) Work
111. The working principle of a washing machine is :  
 (a) centrifugation (b) dialysis  
 (c) reverse osmosis (d) diffusion
112. Acid rain is caused by the pollution of environment by  
 (a) carbon dioxide and nitrogen  
 (b) carbon monoxide and carbon dioxide  
 (c) ozone and carbon dioxide  
 (d) nitrous oxide and sulphur dioxide
113. The wine is prepared by the process of  
 (a) fermentation (b) catalysation  
 (c) conjugation (d) displacement
114. Which one of the following hormones contains iodine?  
 (a) Thyroxine (b) Testosterone  
 (c) Insulin (d) Adrenaline
115. The major component of honey is  
 (a) glucose (b) sucrose  
 (c) maltose (d) fructose
116. In eye donation, which one of the following parts of donor's eye is utilized?  
 (a) Iris (b) Lens  
 (c) Cornea (d) Retina
117. Octopus is  
 (a) an arthropod (b) an echinoderm  
 (c) a hemichordate (d) a mollusc
118. Who is the author of the book 'Harry Potter' and the 'Half-Blood Prince' ?  
 (a) Mark Twain  
 (b) J. K. Rowling  
 (c) William Shakespeare  
 (d) Jules Verne
119. Which of the following games is **not** included in the Olympic Games?  
 (a) Skiing (b) Cycling  
 (c) Cricket (d) Archery
120. In context to India's defence structure 'Agni missile' is \_\_\_\_\_.  
 (a) Surface-to-air (b) Air-to-air  
 (c) Air-to-surface (d) Surface-to-surface
121. What does NPR stand for?  
 (a) National Population Programme  
 (b) National Population Project  
 (c) National Population Register  
 (d) National Population Production
122. The BASIC countries are a bloc of four larger developing countries. Which one of the following is not a BASIC country?  
 (a) Brazil (b) Switzerland  
 (c) India (d) China
123. NASA recently gave its approval to New Horizons mission to investigate a mysterious object in kuiper Belt. Name the mysterious object.  
 (a) 2014MU69 (b) 2014 MU68  
 (c) 2015 MU69 (d) 2014MV69
124. Which state has recently banned e-cigarettes?  
 (a) Kerala (b) Nagaland  
 (c) Assam (d) Bihar
125. The book "When Breath Becomes Air" has been authored by whom?  
 (a) Ruskin Bond (b) Raj Kotwal  
 (c) Paul Kalanithi (d) Zalmay Khalilzad
126. Most highly intelligent mammals are  
 (a) whales (b) dolphins  
 (c) elephants (d) kangaroos
127. The first Olympics in 1896 was held in  
 (a) Athens, Greece  
 (b) Paris, France  
 (c) London, Great Britain  
 (d) Los Angeles, USA
128. The last ruler of the Mughal dynasty was  
 (a) Babur  
 (b) Bahadurshah Zafar  
 (c) Akbar  
 (d) None of the above
129. The highest rank in Army is that of  
 (a) Brigadier  
 (b) General  
 (c) Lieutenant General  
 (d) Major General
130. The last month of the Saka year is  
 (a) Phalguna (b) Chaitra  
 (c) Asadha (d) Pausa
131. The dance performed by women to invoke rain in Bihar is  
 (a) Jata Jatin (b) Faguna or Fog  
 (c) Purbi (d) Bihi
132. The exhaled air contains  
 (a) carbon dioxide only  
 (b) a mixture which has more carbon dioxide than oxygen



- (c) a mixture of carbon dioxide, nitrogen and oxygen in which nitrogen has the highest percentage  
(d) a mixture of carbon dioxide and nitrogen
133. The first General Elections in India took place in  
(a) 1948 (b) 1950  
(c) 1952 (d) 1954
134. The branch of science that studies cells is called  
(a) cytology (b) entomology  
(c) homoplasty (d) hormonology
135. Richter scale is used for measuring  
(a) density of liquid  
(b) intensity of earthquakes  
(c) velocity of wind  
(d) humidity of air
136. Rangaswamy Cup is associated with  
(a) archery (b) cricket  
(c) football (d) hockey
137. Who developed Yahoo?  
(a) Dennis Ritchie & Ken Thompson  
(b) David Filo & Jerry Yang  
(c) Vint Cerf & Robert Kahn  
(d) Steve Case & Jeff Bezos
138. 'DB' computer abbreviation usually means  
(a) Database (b) Double Byte  
(c) Data Block (d) Driver Boot
139. Under whose leadership was the all India Muslim League set up?  
(a) Mohammed Ali Jinnah  
(b) Sayyid Ahmed Khan  
(c) Aga Khan  
(d) All of the above
140. A device or system not directly connected to the CPU is  
(a) On-line (b) Keyboard  
(c) Memory (d) Off-line
141. An error in computer data is called  
(a) Chip (b) Bug  
(c) CPU (d) Storage devices
142. India Celebrates February 28 every year as 'National Science Day' because on this day  
(a) first Indian Space craft was launched  
(b) Nehru laid the foundation of Science labs all over India  
(c) in 1928 C.V. Raman discovered what was later called the 'Raman Effect'  
(d) Vikram Sarabhai was born
143. Paper currency first started in India in  
(a) 1861 (b) 1542  
(c) 1601 (d) 1880
144. Ms. Medha Patkar is associated with the  
(a) Tehri project  
(b) Enron project  
(c) Sardar Sarovar project  
(d) Dabhol project
145. Lala Lajpat Rai is also known as  
(a) Sher-e-Punjab  
(b) Punjab Kesari  
(c) Both (a) and (b)  
(d) None of the above
146. The book "Watership Down" was authored by whom?  
(a) Richard Adams (b) Lilian Rosa  
(c) George Beadon (d) Dal Carnegie
147. Prithviraj Ayachi is associated with which sports?  
(a) Boxing (b) Wrestling  
(c) Badminton (d) Shooting
148. Who has been selected for the prestigious 2016 Jnanpith Award?  
(a) Kedarnath Singh  
(b) Ravuri Bharadhwaja  
(c) Chandrashekhara Kambara  
(d) Shankha Ghosh
149. Who has won the 2016 All India Football Federation (AIFF) Player of the Year?  
(a) Jeje Lalpekhlua  
(b) Rowllin Borges  
(c) Uvena Fernandes  
(d) Gurpreet Singh Sandhu
150. The Good Governance Day (GGD) is observed on which day in India?  
(a) December 23  
(b) December 24  
(c) December 26  
(d) December 25



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# PRACTICE SET- 9

## GENERAL INTELLIGENCE & REASONING

- 'Hygrometer' is related to 'Humidity' in the same way as 'Sphygmomanometer' is related to
  - Pressure
  - Blood Pressure
  - Precipitation
  - Heart Beat
- HEATER : KBDQHO :: COOLER : ?
  - ALRHV
  - FLRIHO
  - FLIRHO
  - FRLIHO
- 12 : 30 :: 20 : ?
  - 25
  - 32
  - 35
  - 42

**DIRECTIONS (Qs. 4 – 5) :** Find the odd word/letter/number pair from the given alternatives.

- Microbe
  - Microflim
  - Microphone
  - Microscope
- BDGK
  - JLOS
  - HJMQ
  - MORU

**DIRECTIONS (Qs. 6 – 7) :** Complete the given series.

- YEB, WFD, UHG, SKI, (?)
  - QOL
  - TOL
  - QGL
  - QNL
- 2 12 36 80 150 ?
  - 194
  - 210
  - 252
  - 258
- In a certain code language OUTCOME is written as OQWWEQOE. How is REFRACT written in that code?
  - RTGITCET
  - RTGTICET
  - RTGITECT
  - RTGICTET
- If A = 1, PAT = 37 then TAP = ?
  - 73
  - 37
  - 36
  - 38
- Introducing Rajesh, Neha said, "His brother's father is the only son of my grand father". How Neha is related to Rajesh?
  - Sister
  - Daughter
  - Mother
  - Niece

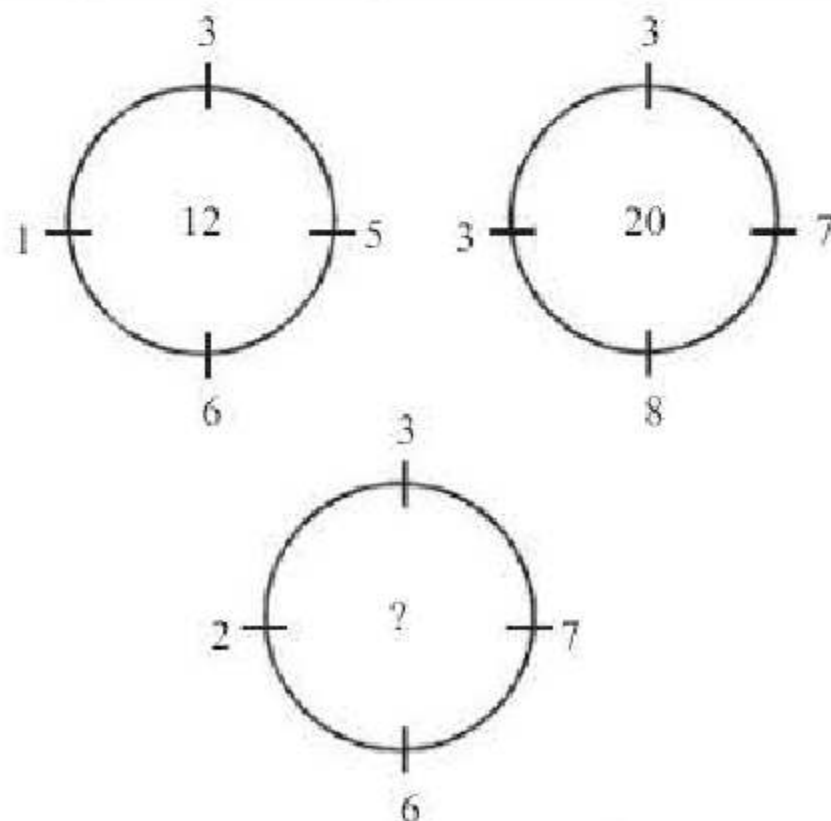
- Ruchi's house is to the right of Vani's house at a distance of 20 metres in the same row facing North. Shabana's house is in the North- East direction of Vani's house at a distance of 25 metres. Determine that Ruchi's house is in which direction with respect of Shabana's house?
  - North-East
  - East
  - South
  - West

- If the positions of the first and the fifth digits of the number 83721569 are interchanged, similarly, the positions of the second and the sixth digits are interchanged, and so on, which of the following will be the third from the right end after the rearrangement?
  - 6
  - 3
  - 2
  - 7

- Some boys are sitting in a line. Mahendra is on 17th place from left and Surendra is on 18th place from right. There are 8 boys in between them. How many boys are there in the line?
  - 43
  - 42
  - 41
  - 44

**DIRECTIONS (Qs. 14 – 15) :** In the following questions find the missing number

14.



- 10
- 15
- 20
- 25



15.

21	24	36
11	14	12
3	?	4
77	112	108

- (a) 2 (b) 4  
(c) 3 (d) 5

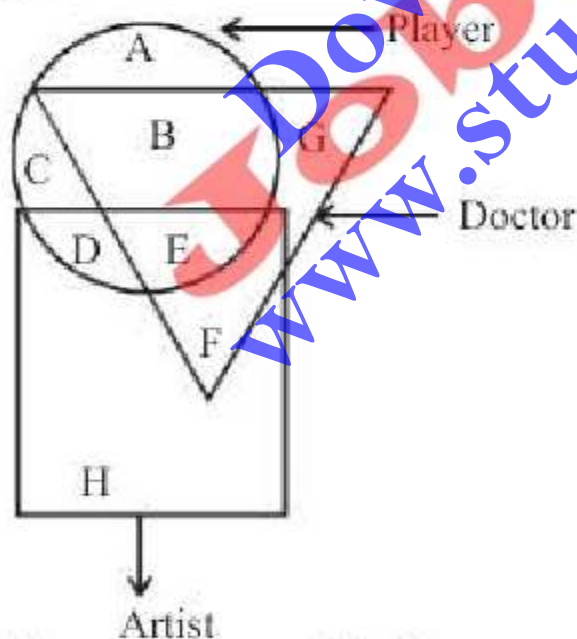
**DIRECTIONS (Qs. 16):** Arrange the following in a logical order:

16. 1. Millenium 2. Diamond Jubilee  
3. Silver Jubilee 4. Centenary  
5. Golden Jubilee  
(a) 2, 3, 5, 4, 1 (b) 2, 5, 3, 1, 4  
(c) 3, 5, 2, 4, 1 (d) 2, 3, 5, 1, 4

**DIRECTIONS (Qs. 17):** In the following questions, a group of letters is given which are numbered 1, 2, 3, 4, 5 and 6. Below are given four alternatives containing combinations of these numbers. Select that combination of numbers so that letters arranged accordingly form a meaningful word.

17. INLASG  
1 2 3 4 5 6  
(a) 6, 1, 3, 5, 4, 2 (b) 5, 1, 6, 2, 4, 3  
(c) 3, 4, 6, 1, 2, 5 (d) 2, 4, 3, 6, 1, 5

18. In the following venn diagram identify the letter which denotes players who are also doctors but not artist.



- (a) B + E (b) E  
(c) B (d) A

**DIRECTIONS (Qs. 19):** In question the belows is given two statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given statements disregarding commonly know facts. Given Answer.

Give answer (a) If only conclusion I follows.  
Give answer (b) if only conclusion II follows.  
Give answer (c) if either I or II follows.  
Give answer (d) if neither I nor II follows.

19. Statements:

All terrorists are human.  
All humans are bad.

Conclusions:

- I. All terrorists are bad.  
II. No human can be a terrorist.

20. Which one of the following is correct?

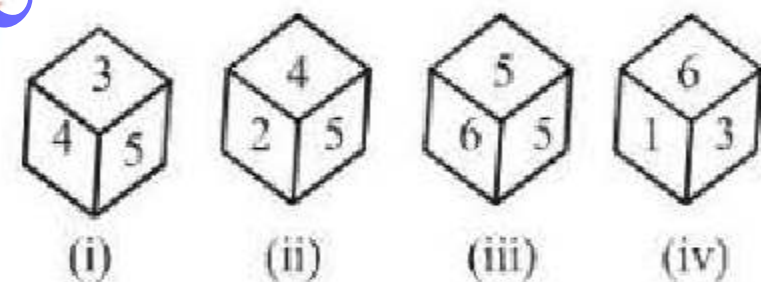
$$6 * 4 * 9 * 15$$

- (a)  $\times, =, -$  (b)  $\times, -, =$   
(c)  $=, \times, -$  (d)  $-, \times, =$

21. If '-' stands for '+', '+' stands for ' $\times$ ', ' $\times$ ' stands for '-' then which one of the following is not correct?

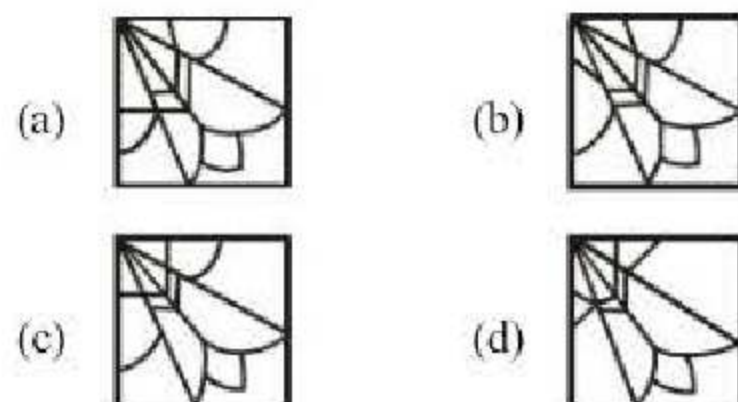
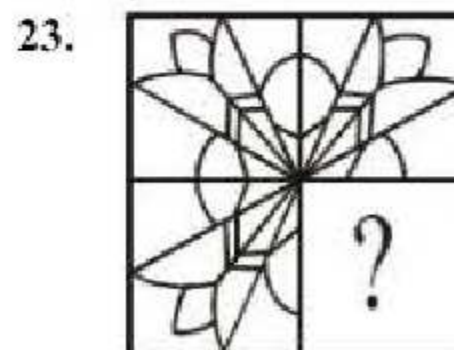
- (a)  $22 + 7 - 3 \times 9 = 148$   
(b)  $33 \times 5 - 10 + 20 = 228$   
(c)  $7 + 28 - 3 \times 52 = 127$   
(d)  $44 - 9 + 6 \times 11 = 87$

22. The four different positions of a dice are given below. Find the number on the face opposite the face showing 6?



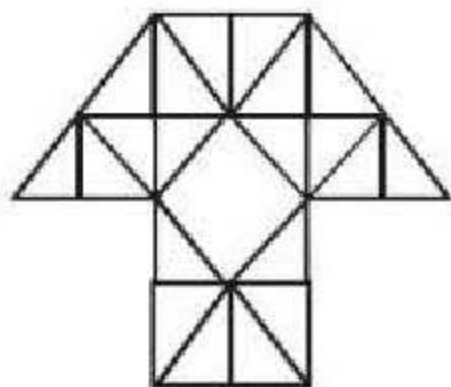
- (a) 1 (b) 2  
(c) 4 (d) 5

**DIRECTIONS (QS, 23):** Which answer figure will complete the pattern in the question figure?





24. How many triangles are there in the given figure?



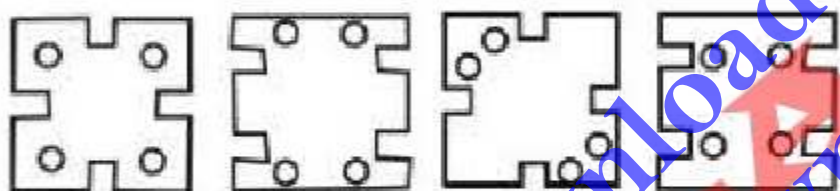
- (a) 29 (b) 38  
(c) 40 (d) 35

**DIRECTIONS (Qs. 25) :** In the following question a set of three figures A, B and C showing a sequence of folding of a piece of paper. Fig. (C) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form of fig. (C).

25.



(A) (B) (C)



(a) (b) (c) (d)

### NUMERICAL APTITUDE

26. If  $3\frac{4}{5}$  is subtracted from  $6\frac{3}{5}$  and difference is multiplied by 355 then what will be the final number?  
(a) 1004 (b) 884  
(c) 774 (d) 994
27. How many times must 79 be subtracted from  $5 \times 10^4$  so as to obtain 43759?  
(a) 77 (b) 78  
(c) 79 (d) 80
28. In a class of 65 students and 4 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 40% of the total number of students. How many sweets were there?  
(a) 845 (b) 897  
(c) 949 (d) 104

29. An order was placed for supply of carpet of breadth 3 metres, the length of carpet was 1.44 times of breadth. Subsequently the breadth and length were increased by 25 and 40 per cent respectively. At the rate of ₹45 per square metre, what would be the increase in the cost of the carpet?  
(a) ₹1020.6 (b) ₹398.8  
(c) ₹437.4 (d) ₹583.2
30. In a mixture of milk and water the proportion of water by weight was 75% if in the 60 gms mixture 15 gms water was added, what would be the percentage of water in the new mixture?  
(a) 75% (b) 80%  
(c) 90% (d) 100%
31. The sum of five numbers is 290. The average of the first two numbers is 48.5 and the average of last two numbers is 53.5. What is the third number?  
(a) 72 (b) 84  
(c) 96 (d) 86
32. The average weight of a class of 15 boys and 10 girls is 38.4 kg. If the average weight of the boys is 40 kg, then what is the average weight of the girls?  
(a) 36.5 kg (b) 35 kg  
(c) 36 kg (d) 34.6 kg
33. The angle of elevation of a cloud from a point 200 m above a lake is  $30^\circ$  and the angle of depression of its reflection in the lake is  $60^\circ$ . The height of the cloud is  
(a) 200m (b) 300m  
(c) 400m (d) 600m
34. A and B can finish a work in 10 days while B and C can do it in 18 days. A started the work, worked for 5 days, then B worked for 10 days and the remaining work was finished by C in 15 days. In how many days could C alone have finished the whole work?  
(a) 30 days (b) 15 days  
(c) 45 days (d) 24 days
35. ABCD is a cyclic quadrilateral in which  $BC \parallel AD$ ,  $\angle ADC = 110^\circ$  and  $\angle BAC = 50^\circ$  find  $\angle DAC$   
(a)  $60^\circ$  (b)  $45^\circ$   
(c)  $90^\circ$  (d)  $120^\circ$
36. In a triangle ABC, the internal bisector of the angle A meets BC at D. If  $AB = 4$ ,  $AC = 3$  and  $\angle A = 60^\circ$ , then the length of AD is



- (a)  $2\sqrt{3}$  (b)  $\frac{12\sqrt{3}}{7}$
- (c)  $15\sqrt{\frac{3}{8}}$  (d)  $6\sqrt{\frac{3}{7}}$
37. Some amount out of ₹7000 was lent at 6% per annum and the remaining at 4% per annum. If the total simple interest from both the fractions in 5 yrs was ₹1600, find the sum lent at 6% per annum.
- (a) 2000 (b) 16000  
(c) 5400 (d) 3200
38. A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days?
- (a) 11 days (b) 13 days  
(c)  $20\frac{3}{17}$  days (d) None of these
39. ABCD is a square, F is the mid-point of AB and E is a point on BC such that BE is one-third of BC. If area of  $\triangle FBE = 108 \text{ m}^2$ , then the length of AC is:
- (a) 63m (b)  $36\sqrt{2} \text{ m}$   
(c)  $63\sqrt{2} \text{ m}$  (d)  $72\sqrt{2} \text{ m}$
40. If  $a^2 = b + c$ ,  $b^2 = c + a$ ,  $c^2 = a + b$ , then the value of  $\frac{1}{1+a} + \frac{1}{b+1} + \frac{1}{1+c}$  is
- (a)  $abc$  (b)  $a^2 + b^2 + c^2$   
(c) 1 (d) 0
41. If  $x + \frac{1}{y} = 1$  and  $y + \frac{1}{z} = 1$ , what is the value of  $xyz$ ?
- (a) 1 (b) -1  
(c) 0 (d)  $\frac{1}{2}$
42. If  $p = 999$ , then the value of  $\sqrt[3]{p(p^2 + 3p + 3) + 1}$  is
- (a) 1000 (b) 999  
(c) 998 (d) 1002
43. By selling 33 metres of cloth, a man gains the sale price of 11 metres. The gain % is
- (a) 50% (b) 25%  
(c)  $33\frac{1}{3}\%$  (d) 20%

44. The income of A is 150% of the income of B and the income of C is 120% of the income of A. If the total income of A, B and C together is ₹86000, what is C's income?

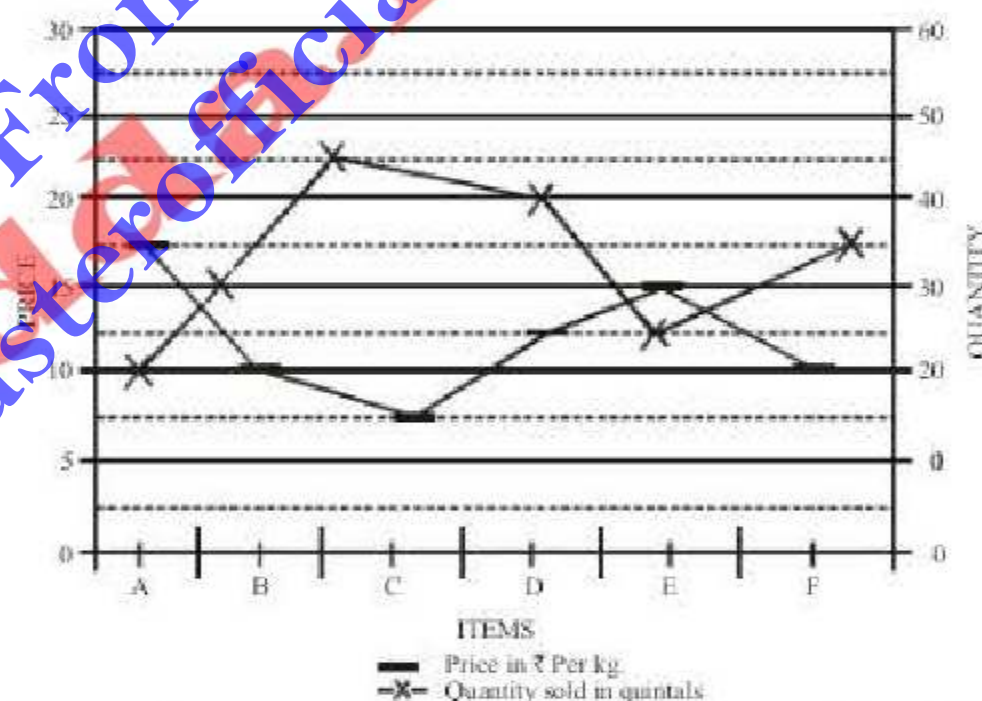
(a) ₹30000 (b) ₹32000  
(c) ₹20000 (d) ₹36000

45. A man walks half of the journey at 4 km/h by cycle does one third of journey at 12 km/h and rides the remainder journey in a horse cart at 9 km/h, thus completing the whole journey in 6 hours and 12 minutes. The length of the journey is

(a) 36km (b)  $\frac{1332}{67} \text{ km}$   
(c) 40km (d) 28km

**DIRECTIONS (Qs. 46-48):** Study the following graph carefully to answer these questions.

Quantity of various items sold and price per kg.



46. If the quantity sold of item D increased by 50% and the price reduced by 10%, what was the total value of the quantity sold for Item D?
- (a) ₹675 (b) ₹6750  
(c) ₹67550 (d) ₹67500
47. Approximately, what is the average price per kg of items A, B and C?
- (a) ₹9.50 (b) ₹8  
(c) ₹7.50 (d) ₹11.6
48. What is the ratio between the total values of quantity sold for items E and F respectively?
- (a) 15 : 14 (b) 3 : 2  
(c) 5 : 7 (d) 7 : 5
49. From the top of a cliff 200 m high, the angles of depression of the top and bottom of a tower are observed to be  $30^\circ$  and  $45^\circ$ , respectively. What is the height of the tower?



- (a) 400m (b)  $400\sqrt{3}$  m  
 (c)  $400/\sqrt{3}$  m (d) None of these
50. For a plot of land of  $100\text{ m} \times 80\text{ m}$ , the length to be raised by spreading the earth from stack of a rectangular base  $10\text{ m} \times 8\text{ m}$  and vertical section being a trapezium of height 2 m. The top of the stack is  $8\text{ m} \times 5\text{ m}$ . How many centimeters can the level raised?
- (a) 3 cm (b) 2.5 m  
 (c) 2 cm (d) 1.5 cm

### ENGLISH LANGUAGE

**DIRECTION (Qs. 51 to 53):** Four alternative are given for the Idiom/Phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

51. Sachin prefers to have few friends who are as true as steel rather than have fifty acquaintances who refuse to recognize him when he needs them most.
- (a) who are loyal  
 (b) who always speak the truth  
 (c) who are always with him  
 (d) who are influential
52. I am waiting for the old man to kick the bucket so that I can get his money.
- (a) to kill (b) to die  
 (c) to absolve (d) to conclude
53. For your safety and the safety of others, always pay attention to the traffic signals.
- (a) overlook (b) take head of  
 (c) glance at (d) repair

**DIRECTION (Qs. 54 to 56):** A sentence/ a part of the sentence is underlined. Below are given alternatives to the underlined part at (a), (b), (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (d).

54. He backed out of the agreement.
- (a) gave his full support  
 (b) reconsidered the point  
 (c) withdrew his support to  
 (d) No improvement
55. He parked his vehicle under the shade of a tree.
- (a) on (b) in  
 (c) beneath (d) No improvement

56. God has bestowed man unusual gifts.
- (a) bestowed with man  
 (b) bestowed for man  
 (c) bestowed on man  
 (d) No improvement

**DIRECTIONS (Qs. 57 to 59) :** Out of the four alternatives, choose the one which can be substituted for the given words/sentences.

57. A style full of words –
- (a) verbose (b) pedantic  
 (c) rhetorical (d) abundant
58. To issue a thunderous verbal attack –
- (a) languish (b) fulminate  
 (c) animate (d) invigorate
59. That which can't be seen –
- (a) insensible (b) intangible  
 (c) invisible (d) unseen

**DIRECTIONS (Qs. 60 to 64):** Four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word from the given option.

60. (a) Momentary (b) Mommentary  
 (c) Mommentary (d) Momenntery
61. (a) Misschievous (b) Mischievous  
 (c) Mischivious (d) Misschivious
62. (a) collaborate (b) comemorate  
 (c) colate (d) chocolate
63. (a) circuiteous (b) clairvoyant  
 (c) chivelery (d) cavalcade
64. (a) severety (b) sovereignty  
 (c) superiorty (d) serenity

**DIRECTIONS (Qs. 65 to 69):** You have a passage with 5 questions. Read the passages carefully and choose the best answer to each question out of the four alternatives.

### PASSAGE

In May 1966, 'the Wold Health Organisation was authorised to initiate a global campaign to eradicate smallpox. The goal was to eradicate the disease in one decade. Because similar projects for malaria and yellow fever had failed, few believed that smallpox could actually be eradicated, but eleven years after the initial organisation of the campaign, no cases were reported in the field.



The strategy was not only to provide mass vaccinations, but also to isolate patients with active small-pox in order to contain the spread of the disease and to break the chain of human transmission. Rewards for reporting small-pox assisted in motivating the public to aid health workers. One by one, each small-pox victim was sought out, removed from contact with others and treated. At the same time, the entire village where the victim had lived was vaccinated.

Today small-pox is no longer a threat to humanity. Routine vaccinations have been stopped worldwide.

65. Which of the following is the best title for the passage?

- (a) The World Health Organisation
- (b) The Eradication of Small-pox
- (c) Small-pox Vaccinations
- (d) Infectious Diseases

66. What was the goal of the campaign against small-pox?

- (a) To decrease the spread of small-pox worldwide.
- (b) To eliminate small-pox worldwide in ten years.
- (c) To provide mass vaccinations against small-pox worldwide.
- (d) To initiate worldwide projects for smallpox, malaria and yellow fever at the same time.

67. According to the paragraph what was the strategy used to eliminate the spread of small-pox?

- (a) Vaccination of the entire village
- (b) Treatment of individual victims
- (c) Isolation of victims and mass vaccinations
- (d) Extensive reporting of outbreaks.

68. Which statement doesn't refer to smallpox?

- (a) Previous projects had failed.
- (b) People are no longer vaccinated for it.
- (c) The World Health Organisation mounted a world-wide campaign to eradicate the disease.
- (d) It was serious threat.

69. It can be inferred that

- (a) no new cases of small-pox have been reported this year.
- (b) malaria and yellow fever have been eliminated.
- (c) small-pox victims no longer die when they contract the disease.
- (d) small-pox is not transmitted from one person to another.

**DIRECTIONS (Qs. 70-74):** In the following passages, some of the words have been left out. First read the passage over and try to understand what it is about. Then, fill in the blanks with the help of the alternatives given.

#### PASSAGE

The Solar System has been a complicated wonder for the astronomers. This a 1 to which we may never have the exact answer. Man has wondered 2 the age of the Earth 3 ancient times. There were all kinds of 4 that seemed to have the 5.

- |                  |              |
|------------------|--------------|
| 70. (a) problem  | (b) question |
| (c) matter       | (d) query    |
| 71. (a) around   | (b) out      |
| (c) about        | (d) on       |
| 72. (a) since    | (b) during   |
| (c) around       | (d) from     |
| 73. (a) ideas    | (b) opinions |
| (c) stories      | (d) matters  |
| 74. (a) solution | (b) novel    |
| (c) book         | (d) answer   |

**DIRECTION (Qs. 75 to 76):** Some part of the sentences have errors and some are correct. Find out which part of a sentence has an error and mark the correct option accordingly

- |  |                       |
|--|-----------------------|
| 75. I agree to Mr. Saxena.                 |                       |
| (a) Mr Saxena                              | (b) No error          |
| (c) agree to                               | (d) I                 |
| 76. The plump lady eats three times a day. |                       |
| (a) No error                               | (b) three times a day |
| (c) lady eats                              | (d) The plump         |

**DIRECTIONS (Qs. 77 to 82):** Sentences given with blanks to be filled in with an appropriate word. Four alternatives are suggested for each question. Choose the correct alternative out of the four.

- |  |              |
|--|--------------|
| 77. I realized that my pocket _____ picked.                  |              |
| (a) had been   | (b) was      |
| (c) is   | (d) has been |
| 78. No sooner did he go in _____ he came out.                |              |
| (a) then   | (b) when     |
| (c) and  | (d) than     |
| 79. No sooner does he arrive than everyone up in his honour. |              |
| (a) stood  | (b) stands   |
| (c) stand  | (d) bowed    |



80. The only way to ..... the country from the evils of communalism is to enforce the rule of law.  
 (a) eradicate (b) mobilise  
 (c) extricate (d) purge
81. Even at the risk of economic loss, he ..... refused to take the beaten track.  
 (a) repeatedly (b) steadily  
 (c) regularly (d) continuously
82. On his sudden demise, my emotions were so complicated that it was ..... how I felt.  
 (a) unreasonable (b) impossible  
 (c) inexplicable (d) unimaginable

**DIRECTIONS (Qs. 83 to 84) :** Out of the four alternatives, choose the one which best expresses the meaning of the given word.

83. Lascivious  
 (a) Treacherous (b) Erotic  
 (c) Lustful (d) Vicious
84. Persuasions  
 (a) Personalities (b) Tastes  
 (c) Qualifications (d) Convictions

**DIRECTIONS (Qs. 85 to 86):** Choose the option opposite in meaning to the given word.

85. Timorous  
 (a) Trembling (b) Cowardly  
 (c) Bright (d) Bold
86. Briskly  
 (a) Sluggishly (b) Inadvertently  
 (c) Oddly (d) Secretly

**DIRECTIONS (Qs. 87-89) :** In each of the following questions, a sentence has been given in Direct/Indirect Speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct Speech.

87. The teacher punished the boys who had not done their home work.  
 (a) The boys who had not done their homework had been punished by their teacher.  
 (b) The boys were punished by their teacher who had not done their homework.  
 (c) The boys who had not done their homework were punished by the teacher.  
 (d) The boys who had not done their homework were being punished by the teacher.
88. She makes cakes every Sunday.  
 (a) Every Sunday cakes made by her.

- (b) Cakes are made by her every Sunday.  
 (c) Cakes make her every Sunday.  
 (d) Cakes were made by her every Sunday.

89. They have built a perfect dam across the river.  
 (a) Across the river a perfect dam was built.  
 (b) A perfect dam has been built by them across the river.  
 (c) A perfect dam should have been built by them.  
 (d) Across the river was a perfect dam.

**DIRECTIONS (Qs. 90-95) :** In each of the following questions, a sentence has been given in Direct/Indirect Speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct Speech

90. He said to them, "Don't make a noise".  
 (a) He told them that don't make a noise.  
 (b) He told them not to make noise.  
 (c) He told them not to make a noise.  
 (d) He asked them not to make a noise.
91. The teacher said, "Be quiet, boys."  
 (a) The teacher said that they boys should be quiet.  
 (b) The teacher called the boys and ordered them to be quiet.  
 (c) The teacher urged the boys to be quiet.  
 (d) The teacher commanded the boys that they be quiet.
92. The employer said to the workman, "I cannot pay you higher wages."  
 (a) The employer told the workman that he could not be paid higher wages.  
 (b) The employer forbade the workman that he could not pay him higher wages.  
 (c) The employer forbade the workman to pay higher wages.  
 (d) The employer warned the workman that he cannot pay him higher wages.
93. My cousin said, "My room-mate snored throughout the night."  
 (a) My cousin said that her room-mate had snored throughout the night.  
 (b) My cousin told me that her room-mate snored throughout the night.  
 (c) My cousin complained to me that her room-mate is snoring throughout the night.  
 (d) My cousin felt that her room-mate may be snoring throughout the night.



94. He said to me, "What time do the offices close?"  
 (a) He wanted to know what time the offices close.  
 (b) He asked me what time did the offices close.  
 (c) He asked me what time the offices close.  
 (d) He asked me what time the offices did close.
95. Pinki said to Gaurav, "will you help me in my work just now?"  
 (a) Pinki asked Gaurav if he would help her in her work just then.  
 (b) Pinki questioned to Gaurav that will you help me in my work just now.  
 (c) Pinki told Gaurav whether he will help her in her work just now.  
 (d) Pinki asked to Gaurav that will he help her in her work just now.

**DIRECTIONS (Qs. 96-100) :** *In these questions, the sentences have been given in Active / Passive Voice. From the given alternatives, choose the one which best expresses the given sentence in Passive / Active Voice.*

96. The people elected him Mayor.  
 (a) Him was elected Mayor the people.  
 (b) He was elected Mayor by the people.  
 (c) Mayor is elected by the people.  
 (d) He is elected by the people Mayor.
97. Someone saw him picking up a gun.  
 (a) He was seen pick up a gun by someone  
 (b) He was seen picking up a gun by someone  
 (c) he was seen when he was picking up a gun  
 (d) He was seen by someone pick a gun
98. A child could not have done this mischief.  
 (a) This mischief could not be done by a child.  
 (b) This mischief could not been done by a child.  
 (c) This mischief could not have been done by a child.  
 (d) This mischief a child could not have been done.
99. She spoke to the official on duty.  
 (a) The official on duty was spoken to by her  
 (b) The official was spoken to by her on duty.  
 (c) She was spoken to by the official on duty.  
 (d) She was the official to be spoken to on duty.
100. Ought you not to reveal the truth now?  
 (a) Should the truth need not be revealed by you then?

- (b) Ought the truth not to be revealed by you now?  
 (c) Ought the truth not to be revealed by you then?  
 (d) Ought the truth need not be revealed by you now?

### GENERAL AWARENESS

101. Ashtapradhan was a council of ministers:  
 (a) in the Gupta administration  
 (b) in the Chola administration  
 (c) in the Vijayanagar administration  
 (d) in the Maratha administration
102. Which one among the following newspapers was published first?  
 (a) The Madras Mail  
 (b) The Indian Social Reformer  
 (c) The Bengal Gazette  
 (d) The Times of India
103. Jaitrang Movement started in  
 (a) Nagaland (b) Tripura  
 (c) Manipur (d) Mizoram
104. Which term is not used in the preamble of the Indian constitution ?  
 (a) Republic (b) Integrity  
 (c) Federal (d) Socialist
105. The Prime Minister of India is the head of the  
 (a) State Government  
 (b) Central Government  
 (c) Both the State and Central Government  
 (d) None of them
106. How many types of writs can be issued by the supreme court?  
 (a) 2 (b) 3  
 (c) 5 (d) 6
107. The Indian Economy is characterised by  
 (a) pre-dominance of agriculture  
 (b) low per capita income  
 (c) Massive unemployment  
 (d) All of the above
108. The Green Revolution in India has contributed to  
 (a) inter-regional inequality  
 (b) inter-class inequality  
 (c) inter-crop inequality  
 (d) all of the above



109. Core industries include  
(a) basic industries  
(b) industries catering to defence requirements  
(c) critical industries  
(d) all the above
110. Which zone of a candle flame is the hottest ?  
(a) Dark innermost zone  
(b) Outermost zone  
(c) Middle luminous zone  
(d) Central zone
111. Which one of the following is used to remove Astigmatism for a human eye?  
(a) Concave lens (b) Convex lens  
(c) Cylindrical lens (d) Prismatic lens
112. Which one of the following is a mixed fertilizer?  
(a) Urea  
(b) CAN  
(c) Ammonium sulphate  
(d) NPK
113. The most reactive among the halogens is  
(a) Fluorine (b) Chlorine  
(c) Bromine (d) Iodine
114. Which one of the following is a modified stem?  
(a) Carrot (b) Sweet potato  
(c) Coconut (d) Potato
115. 'Athlete's Foot' is a disease caused by  
(a) Bacteria (b) Fungus  
(c) Protozoan (d) Nematode
116. Which one of the following is present in chlorophyll which gives a green colour to plant leaves?  
(a) Calcium (b) Magnesium  
(c) Iron (d) Manganese
117. In human beings, the opening of the stomach into the small intestine is called  
(a) caecum (b) ileum  
(c) ocaophagus (d) pylorus
118. Which of the dance forms enlisted in UNESCO?  
(a) Mudiyeitu (b) Bidesia  
(c) Maach (d) Yakshagan
119. 'India of our Dreams' is a book written by  
(a) Dr. S. Radhakrishnan  
(b) Dr. C. Subramanian  
(c) M.V. Kamath  
(d) Dr. Rajendra Prasad
120. With which game is 'Bully' associated ?  
(a) Cricket (b) Football  
(c) Golf (d) Hockey
121. Which amongst the following Abbreviations stands for organization related to Indian space programme?  
(a) NASA (b) ISO  
(c) ISRO (d) NSAT
122. Indian Standard Time relates to  
(a) 75.5° E longitude  
(b) 82.5° E longitude  
(c) 90.5° E longitude  
(d) 0° longitude
123. In which Eco-system Grassland is included ?  
(a) Marine (b) Fresh water  
(c) Terrestrial (d) Artificial
124. US embassy launched a scholarship program for women of which country ?  
(a) Myanmar (b) Afghanistan  
(c) Sri Lanka (d) Bangladesh
125. What was the theme for the 10th National Statistics Day that was celebrated in June 2016.  
(a) Social Development  
(b) Agriculture and Farmers' Welfare  
(c) Better Data, Better Lives  
(d) Statistics for all, with all
126. In which year India Joined the United Nations?  
(a) 1954 (b) 1955  
(c) 1956 (d) 1957
127. Which language was patronised by the the rules of Delhi Sultanate?  
(a) Hindi (b) Arabic  
(c) Persian (d) Turkish
128. Seasonal unemployment refers to  
(a) Banks (b) Agriculture  
(c) Public Sector (d) Private Sector
129. The earnings of the kings in the Medieval age were mostly derived from  
(a) Offerings made at the temples  
(b) Land revenue  
(c) Trade  
(d) Industrial production
130. 'Mansabdars' in Mughal period were  
(a) Landlords and Zamindars  
(b) Officials of the state  
(c) Those who had to give revenue  
(d) Revenue collectors
131. At which place Gautama Buddha delivered his first sermon?  
(a) Sarnath (b) Lumbini  
(c) Bodh Gaya (d) Vaishali



132. Another name of Vitamin C is  
 (a) Folic acid (b) Ascorbic acid  
 (c) Niacin (d) Acetic acid
133. Which Indian States are known for their bandhani work?  
 (a) Rajasthan and Maharashtra  
 (b) Gujarat and Rajasthan  
 (c) Tamil Nadu and Karnataka  
 (d) Haryana and Gujarat
134. What type of mirror is used by motorists to see the road behind them ?  
 (a) Convex (b) Concave  
 (c) Plane (d) Concavo-convex
135. The set of instructions that tells the computer what to do is  
 (a) Softcopy (b) Software  
 (c) Hardware (d) Hardcopy HH
136. What is e-commerce?  
 (a) Buying and selling computer products  
 (b) Buying and selling products and services not found in stores  
 (c) Buying and selling international goods  
 (d) Buying and selling products and services over the Internet
137. Verification of a login name and password is known as:  
 (a) configuration (b) accessibility  
 (c) authentication (d) logging in
138. How many Schedules are contained in the Constitution of India  
 (a) 12 schedules (b) 20 schedules  
 (c) 10 schedules (d) 25 schedules
139. Who was the first Indian to win an individual medal in olympics?  
 (a) Milkha Singh  
 (b) P T Usha  
 (c) Karnam Mallshwari  
 (d) KD Jadhav
140. India's satellite launch-pad is located at  
 (a) Thumba (b) Shri Hari Kota  
 (c) Ahmedabad (d) Dehradun
141. 'Kabir Samman' is given for excellence in the field of  
 (a) Sports (b) Space Research  
 (c) Literature (d) Music
142. The first underground railway in India was opened in 1984 in  
 (a) Mumbai (b) Chennai  
 (c) Kolkata (d) Bangalore
143. The famous Meenakshi temple is in  
 (a) Maharashtra (b) Gujarat  
 (c) Orissa (d) Tamil Nadu
144. Who among the following was the first woman Chief Justice of a High Court ?  
 (a) Geeta Mukherjee (b) Leila Seth  
 (c) Sujata Manohar (d) Rani Jethmalani
145. First Governor General of India, after independence was  
 (a) C. Rajagopalachari  
 (b) Jawaharlal Nehru  
 (c) Lord Mountbatten  
 (d) Rajendra Prasad
146. The 2018 Women's Hockey World Cup will be held in which country?  
 (a) India (b) England  
 (c) Sri Lanka (d) New Zealand
147. Which of the following islands in India was once named "New Denmark"?  
 (a) Salsatte Island  
 (b) Elephanta Island  
 (c) Lakshadweep  
 (d) Andaman & Nicobar Island
148. Which of the following communities has become the first Scheduled Tribe of Puducherry?  
 (a) Eravallan (b) Kammara  
 (c) Irular (d) Kattunayakan
149. With which of the following, the BliSS scheme is related to \_\_?  
 (a) Travel & Tourism Promotion  
 (b) Mother and Child Health  
 (c) Biotechnology Education  
 (d) Business & Economy Transactions
150. Vittiya Saksharata Abhiyan (VISAKA) is an initiative of which of the following ministries?  
 (a) Ministry of Finance  
 (b) Ministry of Human Resource Development  
 (c) Ministry of Commerce  
 (d) Ministry of Textiles



# PRACTICE SET- 10

## GENERAL INTELLIGENCE & REASONING

**DIRECTIONS (Qs. 1 to 3) :** In each of the following questions, there are two words / set of letters / numbers to the left of the sign :: which are connected in some way. The same relationship obtains between the third words / set of letters / numbers and one of the four alternatives under it. Find the correct alternative in each question.

1. Foresight : Anticipation :: Insomnia : ?  
 (a) Treatment (b) Disease  
 (c) Sleeplessness (d) Unrest
2. PAPER : SCTGW :: MOTHER : ?  
 (a) ORVLGW (b) PQVIGT  
 (c) PQXJIT (d) PQXKJV
3. 182 : ? :: 210 : 380  
 (a) 342 (b) 272  
 (c) 240 (d) 156

**DIRECTIONS (Qs. 4 to 6) :** Find the odd word/letters/number pair from the given alternatives.

4. (a) Anxiety (b) Worry  
 (c) Inhibition (d) Curiosity
5. (a) PROQN (b) DECEG  
 (c) GIFHE (d) KMJLI
6. (a) 117 – 143 (b) 142 – 156  
 (c) 64 – 78 (d) 103 – 169

**DIRECTIONS (Qs. 7 to 9) :** Complete the given series.

7. ABD, DGK, HMS, MTB, SBL, ?  
 (a) ZAB (b) XKW  
 (c) ZKU (d) ZKW
8. 165, 195, 255, 285, 345, ?  
 (a) 375 (b) 390  
 (c) 420 (d) 435
9. 24, 60, 120, 210, ?  
 (a) 300 (b) 336  
 (c) 420 (d) 525

10. In a code, CORNER is written as GSVRIV. How can CENTRAL be written in that code?  
 (a) DFOUSBM (b) GIRXVEP  
 (c) GJRYVEP (d) GNFJKER
11. If LOVE is coded as 27 then how is COME coded as:-  
 (a) 38 (b) 18  
 (c) 28 (d) 8
12. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?  
 (a) Grandmother (b) Grandfather  
 (c) Daughter (d) Granddaughter
13. M is to the East of D, F is to the South of D and K is to the West of F. M is in which direction with respect to K?  
 (a) South-West (b) North-West  
 (c) North-East (d) South-East
14. Ketan takes casual leave only on first working day of every month. The office has weekly offs on Saturday and Sunday. In a month of 30 days, the first working day happened to be Tuesday. What will be the day for his next casual leave?  
 (a) Wednesday (b) Thursday  
 (c) Friday (d) Monday
15. In a row of boys facing the North, A is sixteenth from the left end and C is sixteenth from the right end. B, who is fourth to the right of A, is fifth to the left of C in the row. How many boys are there in the row ?  
 (a) 39 (b) 40  
 (c) 41 (d) 42
16. Malay Pratap is on 13th position from the starting and on 17th position from the end in his class. He is on 8th position from the starting and on 13th position from the end among the students who passed. How many students failed?  
 (a) 7 (b) 8  
 (c) 9 (d) Cannot be determined



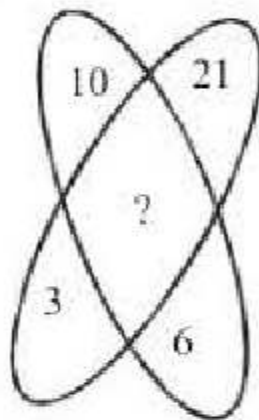
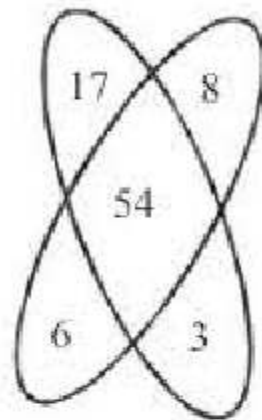
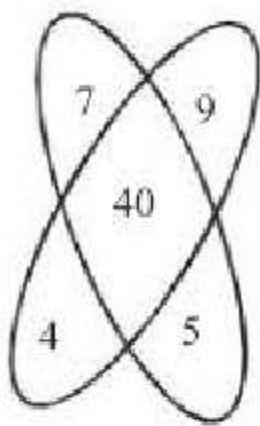
**DIRECTIONS (Qs. 17 – 18):** In the following questions find the missing number

17. 

5	9	15
16	29	?
49	89	147

- (a) 45 (b) 48  
(c) 51 (d) 54

18.



- (a) 60 (b) 62  
(c) 64 (d) 66

19. Which one of the given responses would be a meaningful order of the following?

1. apartment 2. town  
3. street 4. building

5. complex

- (a) 1, 5, 4, 3, 2 (b) 4, 5, 3, 2, 1  
(c) 2, 1, 3, 4, 5 (d) 1, 4, 5, 3, 2

**DIRECTIONS (Qs. 20):** In question below are given two statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given statements disregarding commonly known facts. *Given Answer:*

**Give answer (a)** If only conclusion I follows.

**Give answer (b)** if only conclusion II follows.

**Give answer (c)** if either I or II follows.

**Give answer (d)** if neither I nor II follows.

20. **Statements:**

Some books are pens.

No pen is pencil.

**Conclusions:**

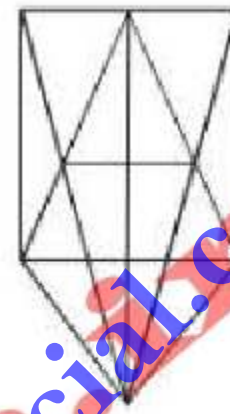
I. Some books are pencils.

II. No book is pencil.

21. If '-' stand for addition, '+' stands for subtraction, '×' stands for multiplication and '÷' stands for division, then which one of the following equations is correct?

- (a)  $25 \times 5 \div 20 - 27 + 7 = 120$   
(b)  $25 + 5 \times 20 - 27 \div 7 = 128$   
(c)  $25 + 5 - 20 + 27 \times 7 = 95$   
(d)  $25 - 5 + 20 \times 27 \div 7 = 100$

22.



How many triangles are there?

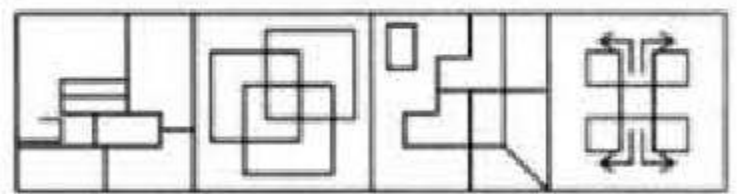
- (a) 20 (b) 21  
(c) 26 (d) 28

**DIRECTIONS (Qs. 23):** In the following question, you are given a figure (X) followed by four alternative figures (a), (b), (c) and (d) such that fig. (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.

23.



(X)



(a)

(b)

(c)

(d)

**DIRECTIONS (Qs. 24):** In each of the following questions, choose the correct **water image** of the figure (X) from amongst the four alternatives (a), (b), (c), (d) given along with it.

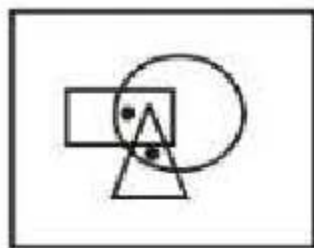
24. absence  
?

- (a) spseuce  
(b) sqseuce  
(c) spseuce  
(d) spseuce

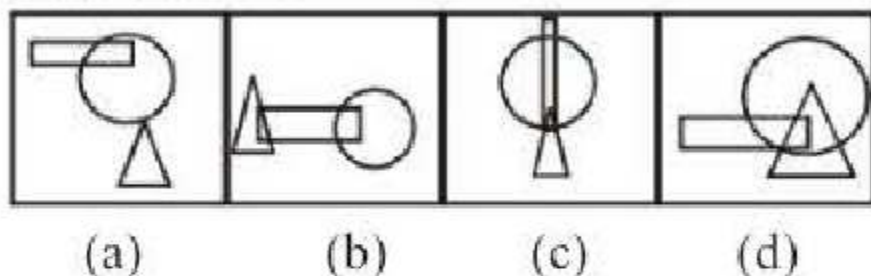


25. There are two dots placed in the question figure. Find out the answer figure which has the possibility of placing the dots satisfying the same condition as in the question figure.

**Questions Figure**



**Answer Figure**



### NUMERICAL APTITUDE

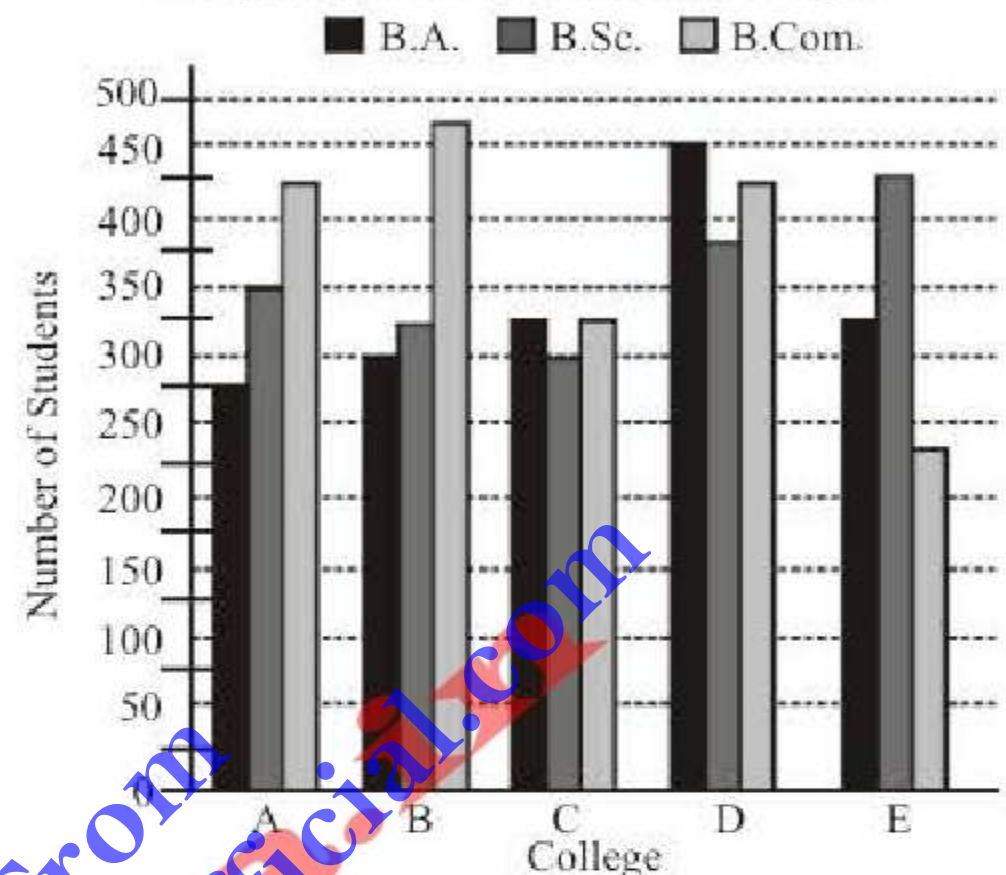
26. A certain number is divided by 385 by division by factors. The quotient is 102, the first remainder is 4, the second is 6 and the third is 10. Find the number.  
 (a) 39654 (b) 32754  
 (c) 38554 (d) None of these
27. Two different numbers when divided by the same divisor, left remainder 11 and 21 respectively, and when their sum was divided by the same divisor, remainder was 4. What is the divisor?  
 (a) 36 (b) 28  
 (c) 14 (d) 9
28. A shopkeeper fixes the marked price of an item 20% above the cost price. He allows his customers a discount and makes a profit of 8%. Find the rate of discount.  
 (a) 8% (b) 9%  
 (c) 10% (d) 11%
29. Mr. Thomas invested an amount of ₹ 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be ₹ 3508, what was the amount invested in Scheme B?  
 (a) ₹ 6400 (b) ₹ 6500  
 (c) ₹ 7200 (d) ₹ 7500
30. The difference between C. I. (Compound Interest) and S.I. (Simple Interest) on a sum of ₹ 4,000 for 2 years at 5% p.a. payable yearly is  
 (a) ₹ 20 (b) ₹ 10  
 (c) ₹ 50 (d) ₹ 60
31. A, B and C are partners. A receives  $\frac{9}{10}$  of the profit and B and C share the remaining profit equally. A's income is increased by ₹ 270 when the profit rises from 12 to 15%. Find the capital invested by B and C each  
 (a) ₹ 5000 (b) ₹ 1000  
 (c) ₹ 500 (d) ₹ 1500
32. A machine P can print one lakh books in 8 hours, machine Q can print the same number of books in 10 hours while machine R can print them in 12 hours. All the machines are started at 9 a.m. while machine P is closed at 11 a.m. and the remaining two machines complete the work. Approximately at what time will the work be finished?  
 (a) 11:30 am (b) 12 noon  
 (c) 12:30 pm (d) 1 pm
33. A man walks half of the journey at 4 km/h by cycle does one third of journey at 12 km/h and rides the remainder journey in a horse cart at 9 km/h, thus completing the whole journey in 6 hours and 12 minutes. The length of the journey is  
 (a) 36 km (b) 39 km  
 (c) 40 km (d) 28 km
34. If  $x^2 + y^2 + 2x + 1 = 0$ , then the value of  $x^{31} + y^{35}$  is  
 (a) -1 (b) 0  
 (c) 1 (d) 2
35. If  $2^x = 3^y = 6^{-z}$  then  $\left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z}\right)$ , is equal to  
 (a) 0 (b) 1  
 (c)  $\frac{3}{2}$  (d)  $-\frac{1}{2}$
36. If  $m + \frac{1}{m-2} = 4$  then, what is value of  
 $(m-2)^2 + \frac{1}{(m-2)^2} = ?$   
 (a) -2 (b) 0  
 (c) 2 (d) 4
37. If a man walks to his office at  $\frac{5}{4}$  of his usual rate, he reaches office 30 minutes early than usual. What is his usual time to reach office.  
 (a) 2 hr (b)  $2\frac{1}{2}$  hr  
 (c) 1 hr 50 min (d) 2 hr 15 min



38. If the slope of a line passing through the points A (2, 5) and B (x, 3) is 2, then x is equal to  
 (a) 1 (b) 2  
 (c) -1 (d) -2
39. Two parallel chords of a circle of diameter 20 cm are 12 cm and 16 cm long. If the chords are in the same side of the centre, then the distance between them is  
 (a) 28 cm (b) 2 cm  
 (c) 4 cm (d) 8 cm
40. Average age of 36 children of the class is 15 years. 12 more children joined whose average age is 16 years. What is the average age of all the 48 children together?  
 (a) 15.25 years (b) 15.5 years  
 (c) 15.3 years (d) 15.4 years
41. A and B can finish a work in 10 days while B and C can do it in 18 days. A started the work, worked for 5 days, then B worked for 10 days and the remaining work was finished by C in 15 days. In how many days could C alone have finished the whole work?  
 (a) 30 days (b) 15 days  
 (c) 45 days (d) 24 days
42. If the coordinates of the points A, B, C be (4, 4), (3, -2) and (3, -16) respectively, then the area of the triangle ABC is:  
 (a) 27 (b) 15  
 (c) 18 (d) 9
43. In how many minimum number of complete years, the interest on ₹212.50 P at 3% per annum will be in exact number of rupees?  
 (a) 6 (b) 8  
 (c) 9 (d) 7
44. If the cost price is 96% of the selling price, then what is the profit percent?  
 (a) 4.5% (b) 4.2%  
 (c) 4% (d) 3.8%
45. The average of four consecutive odd numbers is 36. What is the smallest of these numbers?  
 (a) 31 (b) 35  
 (c) 43 (d) None of these

**DIRECTIONS (Q. 46-48) :** Study the following graph carefully to answer the questions that follow:

**Number of Students Enrolled in Three Different Disciplines in Five Different Colleges**



46. What is the total number of students studying B.Sc. in all Colleges together?  
 (a) 1825 (b) 1975  
 (c) 1650 (d) 1775
47. What is the respective ratio of total number of students studying B.Sc. in the colleges C and E together to those studying B.A. in the Colleges A and B together?  
 (a) 24 : 23 (b) 25 : 27  
 (c) 29 : 23 (d) 29 : 27
48. What is the respective ratio of total number of students studying B.Sc., B.A. and B.Com. in all the Colleges together?  
 (a) 71 : 67 : 75 (b) 67 : 71 : 75  
 (c) 71 : 68 : 75 (d) 75 : 71 : 68
49. A cylindrical bucket of height 36 cm and radius 21 cm is filled with sand. The bucket is emptied on the ground and a conical heap of sand is formed, the height of the heap being 12 cm. The radius of the heap at the base is:  
 (a) 63 cm (b) 53 cm  
 (c) 56 cm (d) 66 cm
50. A conical vessel, whose internal radius is 12 cm and height 50 cm, is full of liquid. The contents are emptied into a cylindrical vessel with internal radius 10 cm. Find the height to which the liquid rises in the cylindrical vessel.  
 (a) 18 cm (b) 22 cm  
 (c) 24 cm (d) None of these



## ENGLISH LANGUAGE

**DIRECTION (Qs. 51 to 53):** Four alternative are given for the Idiom/Phrase bold in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it in the Answer Sheet.

51. I trusted him but he **played me false**.  
 (a) played with me  
 (b) took it lightly  
 (c) treated me improperly  
 (d) deceived me
52. He **did me a good turn** by recommending me for the post of vice-principal.  
 (a) paid debts  
 (b) did an act of kindness  
 (c) improved my prospects  
 (d) became suddenly good
53. Please **look into** the matter personally as it is very important.  
 (a) see secretly (b) examine  
 (c) overlook (d) take care of

**DIRECTION (Qs. 54 to 56):** A sentence/a part of the sentence is bold. Below are given alternatives to the bold part at (a), (b), (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (d).

54. **No person except** Ravi came forward to help me in the matter of my difficulties.  
 (a) Not a person except  
 (b) No person excepting  
 (c) No other person except  
 (d) No improvement
55. What are you looking **upon** in the dark?  
 (a) over (b) after  
 (c) for (d) No improvement
56. They were not interested in **discussing about** your problem.  
 (a) discussing your problem  
 (b) discussing on your problem  
 (c) discussing for your problem  
 (d) No improvement

**DIRECTIONS (Qs. 57 to 59):** Out of the four alternatives, choose the one which can be substituted for the given words/ sentences.

57. A person claiming to be superior in culture and intellect to others –  
 (a) highbrow (b) aristocrat  
 (c) criminal (d) elite

58. Release of a prisoner from jail on certain terms and conditions –  
 (a) parole (b) parley  
 (c) pardon (d) acquit
59. A person who doesn't want to see the realities of life and tries to escape –  
 (a) escapist (b) activist  
 (c) plunderer (d) scavenger

**DIRECTIONS (Qs.60-61):** In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/ sentence.

60. One who knows everything  
 (a) Literate (b) Scholar  
 (c) Omnipotent (d) Omniscient
61. A large sleeping-room with many beds  
 (a) Bedroom (b) Dormitory  
 (c) Hostel (d) Basement

**DIRECTION (Qs. 62 to 65):** Four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word from the given options.

62. (a) gragerious (b) gregarious  
 (c) gregerious (d) gragarious
63. (a) extemporneous (b) extemporaneous  
 (c) extemporinious (d) extemporeneous
64. (a) cummulative (b) comemorative  
 (c) accumulative (d) accommodative
65. (a) benidiction (b) besmerch  
 (c) beneficent (d) benevolence

**DIRECTIONS (Qs. 66 to 70):** Read the passage carefully and choose the best answer to each question out of the four alternatives.

### PASSAGE

If you believe you can, you can. If you believe you cannot, you cannot. Think negatively and you will get a negative result because by your thoughts you create a negative atmosphere which is hospitable to negative results. On the contrary, think positively and you create a positive atmosphere which makes positive results a certain.

To cultivate positive thinking, speak hopefully about everything. Then feed your mind with good, nourishing and wholesome thoughts. Keep good company of friends who are optimistic.

Read scriptures which will cast away your negative thoughts. Lastly, pay a great deal and count the



blessings of failure and cultivate positive thoughts of success.

66. Think negatively and you will get —  
 (a) bad result (b) immediate result  
 (c) negative (d) positive result
67. If you want to cultivate positive thinking—  
 (a) you should think and speak hopefully  
 (b) you should speak boldly  
 (c) you should speak softly  
 (d) you should speak loudly
68. The passage is on —  
 (a) Pessimism (b) Optimism  
 (c) Tourism (d) Naturalism
69. What will cast away your negative thoughts?  
 (a) Newspapers (b) Magazines  
 (c) Books (d) Holy books
70. Which of the following statements is not true?  
 (a) Good friends elevate our thoughts  
 (b) Prayer helps us to keep our mind clean  
 (c) It is not possible to change a pessimist into an optimist  
 (d) For cultivating optimism, we should always speak hopefully

**DIRECTIONS (Qs.71-75) :** In the following passages, some of the words have been left out. First read the passage over and try to understand what it is about. Then, fill in the blanks with the help of the alternatives given.

#### PASSAGE

Once upon a time, two friends were 71 through the desert. During some point of the 72 they had an argument, and one friend slapped the other one in the face. The one who got slapped was 73, but without saying anything, he wrote in the sand, "Today my best friend slapped me in the face." They kept on walking 74 they found an oasis, where they 75 to take a bath. The one, who had been slapped, got 76 in the quicksand and started drowning, but the friend saved him.

71. (a) crawling (b) speaking  
 (c) swimming (d) walking
72. (a) journey (b) sand  
 (c) running (d) border
73. (a) dead (b) captured  
 (c) presentable (d) hurt
74. (a) as (b) until  
 (c) from (d) with

75. (a) decided (b) fell  
 (c) made (d) want

**DIRECTION (Qs. 76 to 80):** Some part of the sentences have errors and some are correct. Find out which part of a sentence has an error and mark the answer accordingly

76. It took him (a)/ time to realize (b)/ that he offended the stranger. (c) / No error (d)
77. Even if you are a film star, (a)/ I would not care (b)/ for you. (c)/ No error (d)
78. The Headmaster with all his senior teachers  
 (a)  
have come / to attend the meeting.  
 (b) (c)
- No error.  
 (d)
79. The teacher said that  
 (a)  
the building adjacent with his house  
 (b)
- needed repairs. / No error.  
 (c) (d)
80. Grapes / cannot gathered / from thistles.  
 (a) (b) (c)
- No error.  
 (d)

**DIRECTION (Qs. 81 to 85):** Sentences given with blanks are to be filled in with an appropriate word. Four alternatives are suggested for each question. Choose the correct alternative out of the four.

81. \_\_\_\_\_ you wake me up so early on a Sunday ?  
 (a) Could (b) Dare  
 (c) Must (d) Will
82. A foreign language or mathematics may call for three or more hours per class, at least until you have mastered the \_\_\_\_\_.  
 (a) topic (b) subject  
 (c) language (d) fundamentals
83. We have done it and so \_\_\_\_\_.  
 (a) he has (b) has he  
 (c) have he (d) has had he



84. We attended a \_\_\_\_\_ discourse.  
 (a) spiritual (b) spirituous  
 (c) spirituality (d) spiritually
85. The valley is known for its \_\_\_\_\_ growth of vegetation.  
 (a) luxurious (b) luxury  
 (c) luxuriant (d) luxuriously

**DIRECTION (Qs. 86 to 90):** Choose the option opposite in meaning to the given word.

86. ASCETICISM  
 (a) Comfort (b) Luxury  
 (c) Anti-Semitism (d) Humility
87. ENDURING  
 (a) Fleeting (b) Painful  
 (c) Permanent (d) Long lasting
88. BEFRIENDED  
 (a) recoiled (b) ignored  
 (c) accepted (d) mistrusted
89. FRAIL  
 (a) Unhealthy (b) Massive  
 (c) Rich (d) Robust
90. SPLENDIDLY  
 (a) Wisely (b) Unfairly  
 (c) unimpressively (d) Reluctantly

**DIRECTION (Qs. 91 to 95):** Choose the one which best expresses the meaning of the given word.

91. LOUSY  
 (a) Unbearable (b) Unpleasant  
 (c) Awful (d) Stinking
92. PREDOMINANTLY  
 (a) Emphatically (b) Forcefully  
 (c) Mostly (d) Profoundly
93. REMEDIAL  
 (a) Punitive (b) Stringent  
 (c) Corrective (d) Strict
94. TRIVIAL  
 (a) Unimportant (b) Transparent  
 (c) Important (d) Unexpected
95. INCREDIBLE  
 (a) Hard to believe (b) Considerable  
 (c) Inconsistent (d) Unsatisfactory

**DIRECTIONS (Qs. 96-100) :** In each of the following questions, a sentence has been given in Direct/Indirect

speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.

96. The employer said to the workman, "I cannot pay you higher wages."  
 (a) The employer told the workman that he could not be paid higher wages.  
 (b) The employer forbade the workman that he could not pay him higher wages.  
 (c) The employer forbade the workman to pay higher wages.  
 (d) The employer warned the workman that he cannot pay him higher wages.
97. My cousin said, "My room-mate snored throughout the night."  
 (a) My cousin said that her room-mate had snored throughout the night.  
 (b) My cousin told me that her room-mate snored throughout the night.  
 (c) My cousin complained to me that her room-mate is snoring throughout the night.  
 (d) My cousin felt that her room-mate may be snoring throughout the night.
98. He said, "What a beautiful scene!"  
 (a) He said that what a beautiful scene it was.  
 (b) He wondered that it was a beautiful scene.  
 (c) He exclaimed what a beautiful scene it was.  
 (d) He exclaimed that it was a very beautiful scene.
99. He said, "Will you listen to such a man?"  
 (a) He asked them will you listen to such a man.  
 (b) He asked them are you listening to such a man.  
 (c) He asked them whether they would listen to such a man.  
 (d) He asked them whether they will listen to such a man.
100. Mary said to Robert, "Let him come, then we shall see."  
 (a) Mary said to Robert that if he came, they would see him.  
 (b) Mary told Robert that they shall see him if he came.  
 (c) Mary told Robert that once he came, they would see him.  
 (d) Mary told Robert that they would see him if he might come.



## GENERAL AWARENESS

- 101.** In context of Mauryan period 'Gudhapurushas' referred to –  
 (a) Detectives  
 (b) Blacksmith  
 (c) Army commander  
 (d) Chariot rider
- 102.** Which among the following parts of a plant is involved in gaseous exchange?  
 (a) Stomata  
 (b) Lenticels  
 (c) Vacuoles  
 (d) Stomata and Lenticels
- 103.** Who among the following led the agitation against the Partition of Bengal (1905)? (1905)  
 (a) Surendranath Banerjee  
 (b) C.R. Das  
 (c) Ashutosh Mukharjee  
 (d) Rabindra Nath Tagore
- 104.** Graphite is used in nuclear reactors for –  
 (a) reducing the speed of fast neutrons  
 (b) cooling the reactor  
 (c) absorbing neutrons  
 (d) None of the above
- 105.** The Republic Day parade, held every year, is organized by which of the following ministries?  
 (a) Union Home Ministry  
 (b) Union Ministry of Defence  
 (c) Union Ministry of Finance  
 (d) Union Ministry of Information and Broadcasting
- 106.** Which of the following articles can not be suspended upon the proclamation of the National Emergency?  
 (a) Article 20 and 21  
 (b) All Fundamental Rights  
 (c) All Fundamental Rights and Directive Principles of State Policy  
 (d) None of the above
- 107.** What would be the effect on an economy if money supply is increased more than market expectations because of decision on part of the Central Bank?  
 (a) Balance of Payment increases  
 (b) Growth in Import  
 (c) Hyperinflation  
 (d) Stagflation
- 108.** How many members are nominated by the governor in the Legislative Council of the State?  
 (a) 1/3rd of the total membership  
 (b) 1/6th of the total membership  
 (c) 1/12th of the total membership  
 (d) 12 members
- 109.** Which of the following book is centred on "Environment"?  
 (a) The Late, Great Planet Earth  
 (b) Silent Spring  
 (c) Here I stand  
 (d) And then One Day
- 110.** Pandit Jawaharlal Nehru drafted the resolution on Fundamental Rights an Economic Programme at which session of Indian National Congress?  
 (a) Lahore Session (b) Bombay Session  
 (c) Calcutta Session (d) Karachi Session
- 111.** If an insect that feeds on feces sits on the food you are going to eat, you are most likely to be infected by which disease?  
 (a) Tuberculosis (b) Cholera  
 (c) Typhoid (d) Hepatitis B
- 112.** Which of the following is not an antibiotics?  
 (a) Penicilin (b) Ampicilin  
 (c) Streptomycin (d) Aspirin
- 113.** In which north east state of India Rongbang dare waterfall is situated?  
 (a) Assam (b) Meghalaya  
 (c) Manipur (d) Mizoram
- 117.** The purpose of 'selective credit control' in hands of Reserve Bank of India is to –  
 (a) Diversify credit to sensitive commodities.  
 (b) Diversify credit to selected sectors.  
 (c) Regulate credit in sensitive commodities.  
 (d) Regulate credit in priority sectors.
- 118.** Mitosis is a type of cell division in which –  
 (a) The chromosomes maintain their original number.  
 (b) The chromosome number is reduced to half.  
 (c) The Chromosome number is doubled.  
 (d) The chromosome number is reduced to one fourth.
- 116.** WiMax stands for – Wimax  
 (a) Worldwide interoperability for Microwave Access  
 (b) Wireless Maximum  
 (c) Wireless international Microwave Access  
 (d) Worldwide Microwave Access



117. Ginger is an example of –  
 (a) Modified Node  
 (b) Modified Root  
 (c) Modified Stem  
 (d) Tap Root
118. Which of the following is not the mission of ISRO?  
 (a) SURYA  
 (b) Mars Orbiter Mission  
 (c) YOUTHSAT  
 (d) ADITYA-1
119. The first death anniversary day of Sri Rajiv Gandhi was observed as the —  
 (a) National Integration Day  
 (b) Peace and love Day  
 (c) Secularism Day  
 (d) Anti-terrorism Day
120. What is the ratio of money held by the public in currency to that they held in deposit ?  
 (a) The currency deposit ratio  
 (b) The reserve deposit ratio  
 (c) Cash reserve ratio  
 (d) Cash deposit ratio
121. Before X-ray examination (coloured X-ray) of the stomach, patients are given suitable salt of barium because.  
 (a) barium is a good absorber of X-rays and helps stomach to appear clearly  
 (b) barium salts are white in colour and this helps stomach to appear clearly  
 (c) barium allows X-rays to pass through the stomach  
 (d) barium salts are easily available
122. If the length of a simple pendulum is halved then its period of oscillation is –  
 (a) doubled  
 (b) halved  
 (c) increased by a factor  $\sqrt{2}$   
 (d) decreased by a factor  $\sqrt{2}$
123. Kalinga Prize is given in which of the following fields ?  
 (a) Arts (b) Medicine  
 (c) Creative writing (d) Science
124. Who was appointed as the head of New Health Emergencies Programme by World Health Organisation (WHO) in June 2016?  
 (a) Peter Salama (b) Samantha Power  
 (c) Sacha Llorenti (d) John Ashe
125. Which state Government launched Kalinga Sikha Sathi Yojana (KSSY)?  
 (a) Madhya Pradesh (b) Maharashtra  
 (c) Odisha (d) Kerala
126. Which is the oldest paramilitary force in the country?  
 (a) Border Security Force (BSF)  
 (b) Assam Rifles  
 (c) Indo-Tibetan Border Police (ITBP)  
 (d) Coast Guard
127. Which country hosted the first Asian Games?  
 (a) India (b) Indonesia  
 (c) Iran (d) Malaysia
128. Which of the following act as a channel of transmission of blood to the heart in the human body?  
 (a) Arteries (b) Muscle fibres  
 (c) Nerves (d) Veins
129. Which is the highest literary award of the world?  
 (a) Nobel Prize (b) Booker Prize  
 (c) Pulitzer Prize (d) Magsaysay Award
130. When is the World's Diabetes Day?  
 (a) 14th November (b) 11th December  
 (c) 15th October (d) 1st July
131. When the batsman, in cricket, is out without scoring a single run, is called  
 (a) drive (b) duck  
 (c) flight (d) googly
132. What is the S.I. unit of temperature?  
 (a) Kelvin (b) Celsius  
 (c) Centigrade (d) Fahrenheit
133. When did India enter into space age by launching the satellite 'Aryabhata'?  
 (a) 1966 (b) 1932  
 (c) 1975 (d) 1990
134. What is Bhakti movement?  
 (a) It is a social and religious movement form about AD 500 to 1600  
 (b) It is the movement that influenced the developed of regional language because it emphasised people's everyday speech  
 (c) Both (a) and (b)  
 (d) None of the above



135. Vitamin B12 is most useful for combating  
(a) Anemia (b) Goitre  
(c) night blindness (d) Rickets
136. Vijayalakshmi Pandit was  
(a) the first women minister of an Indian state (UP)  
(b) the first women to become president of the UN General Assembly  
(c) the first Indian women Ambassador to Moscow  
(d) All of the above
137. The term of office of a Judge of the International Court of Justice is  
(a) five years (b) six years  
(c) nine years (d) ten years
138. Control Unit of a digital computer is often called the  
(a) Nerve center (b) Clock  
(c) ICS (d) All of these
139. If the addressee fails to take delivery of the inland article from the post office within the prescribed period then, the article will be returned to the office of posting for delivery to the sender. Mention the prescribed period.  
(a) 5 days (b) 7 days  
(c) 10 days (d) 12 days
140. How many banks were nationalized in 1969?  
(a) 16 (b) 14  
(c) 15 (d) 20
141. The world famous 'Khajuraho' sculptures are located in  
(a) Gujarat (b) Madhya Pradesh  
(c) Orissa (d) Maharashtra
142. Computers are extremely fast and have fantastic memories. However, the only thing they can remember is  
(a) Instruction  
(b) Series of 1s and 0s  
(c) Boolean algebra  
(d) Logic theorems
143. Who is the administrative controller of postal department?  
(a) Director General of Posts  
(b) Managing director of posts  
(c) Post head of the posts  
(d) Chairman of posts
144. The Rath Yatra at Puri is celebrated in honour of which Hindu deity  
(a) Ram (b) Jaganath  
(c) Shiva (d) Vishnu
145. Ozone hole refers to  
(a) hole in ozone layer  
(b) decrease in the thickness of ozone layer in troposphere  
(c) decrease in thickness of ozone layer in stratosphere  
(d) increase in the thickness of ozone layer in troposphere
146. Which country recently won the Asian Cricket Council Under-19 Asia Cup title?  
(a) India (b) Sri Lanka  
(c) West Indies (d) Bangladesh
147. Which is the first country in the world to use drones for national mail service?  
(a) UK (b) France  
(c) Sweden (d) China
148. Which of the following is an OPEC country?  
(a) Russia (b) Kazakhstan  
(c) Brazil (d) Nigeria
149. What is the theme of 2016 National Consumer Day (NCD)?  
(a) Healthy environment & healthy food  
(b) Safe & healthy food  
(c) Combat food adulteration  
(d) Alternate consumer disputes redressal
150. The first 2G (Second Generation) ethanol bio-refinery will be set up in which state of India?  
(a) Haryana (b) Punjab  
(c) Uttar Pradesh (d) Odisha



# Hints & Explanations

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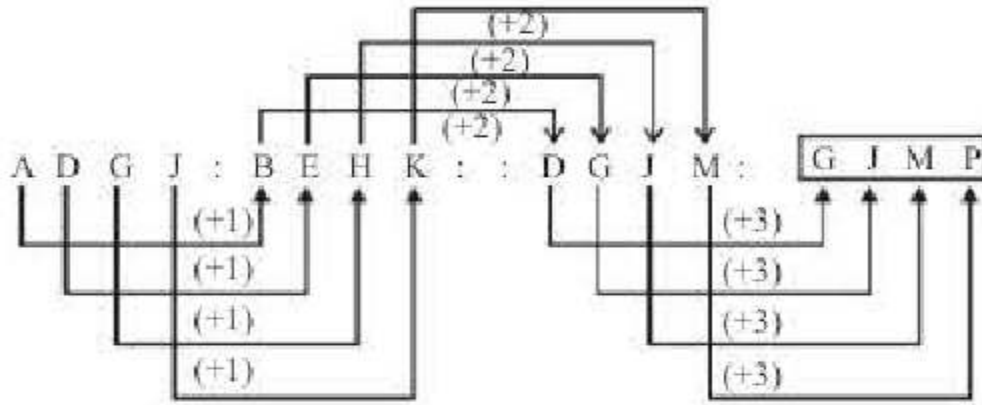
**साथ Hindi/Eng मे**



## Practice Set-1

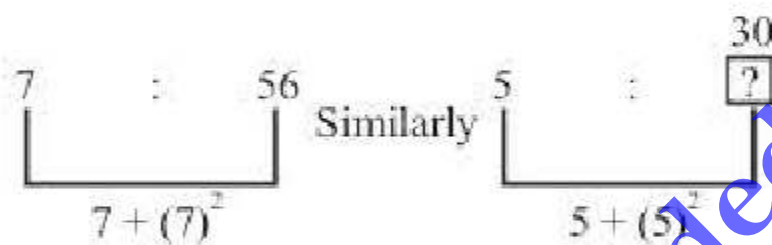
1. (c) "Court" is the place where the judge gives his decision on crime. Similarly, Hospital is the place where the doctor diagnoses the disease of the patient.

2. (b) As,



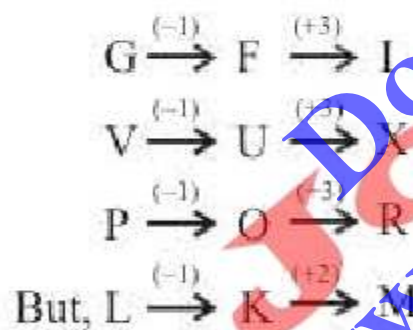
So, GJMP is the correct answer.

3. (c) As,



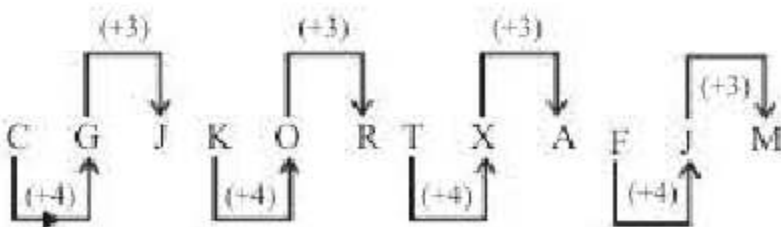
4. (a) All others, except (a) are root vegetables.

5. (d) As,

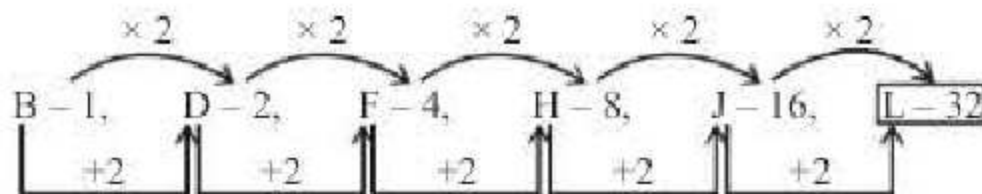


So, LKM is odd word

6. (c) The pattern of the series is as follows:



7. (b) The pattern of the series is as follows:



8. (c) It is based on position of English alphabet.

B	E	A	D	I	N	G
↓	↓	↓	↓	↓	↓	↓
2	5	1	4	9	(14)	7

9. (b) After arranging the letters, we get word 'ENGLAND' which is the name of the country.

10. (a) a b n c b / a b n c b / a b n c b

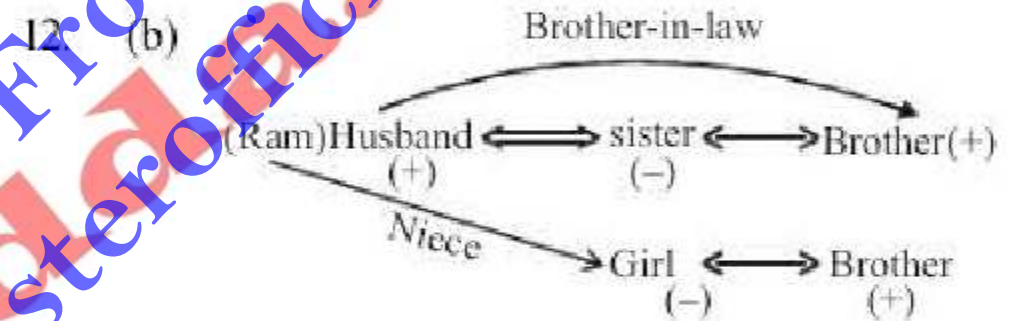
11. (c) After 2 boys joined, total strength of class = 45 + 2 = 47

As, rank was dropped by one from 20th rank, new rank is 21st.

Rank of the boy from the beginning = 21

No. of students below his rank = 47 - 21 ⇒ 26

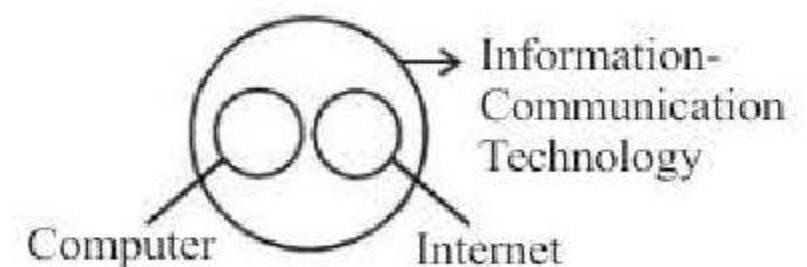
Rank from the end = (47 - 21) + 1 ⇒ 27.



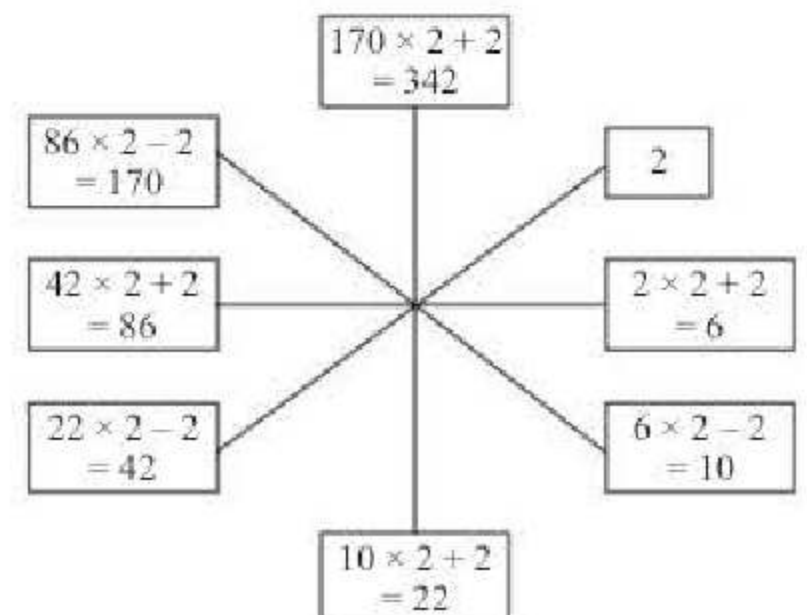
Hence, girl is the niece of Ram.

13. (d) An electric train does not emit smoke. Therefore, no smoke will be going in any of the direction.

14. (b)



15. (d)





16. (c) Let total Journey =  $x$  km.

1st hour, he travelled =  $\frac{x}{4}$  km.

Next hour, he travelled =  $\frac{x}{2}$  km.

$$\begin{aligned}\text{Total distance travelled} &= \left(\frac{x}{4} + \frac{x}{2}\right) \text{ km} \\ &= \frac{3x}{4} \text{ km}\end{aligned}$$

$$\begin{aligned}\text{Remaining distance} &= \left(x - \frac{3x}{4}\right) \text{ km} \\ &= \frac{x}{4} \text{ km}\end{aligned}$$

It is given that, last  
last 30 min, he travelled = 80 km

$$\Rightarrow \frac{x}{4} = 80$$

$$x = 320 \text{ km.}$$

17. (b) As,  $7 + 3 = 421 = (7 - 3)(7 \times 3)$

$$11 + 7 = 477 = (11 - 7)(11 \times 7)$$

$$9 + 5 = 445 = (9 - 5)(9 \times 5)$$

$$6 + 2 = 412 = (6 - 2)(6 \times 2)$$

18. (c)



19. (b) Conclusions :

- I. (✓)  
II. (✓)  
III. (✓) ] All follow given statements.

20. (d) 21. (c) 22. (c)

23. (c) 24. (a) 25. (b)

$$\begin{aligned}26. (d) \left(\frac{-1}{216}\right)^{\frac{2}{3}} &= \left(\frac{-1}{6^3}\right)^{\frac{2}{3}} \\ &= \left(-\frac{1}{6}\right)^2 = (-6)^2 = 36\end{aligned}$$

27. (a) Unit's digit in  $(7^4) = 1$ . Therefore, unit's digit in  $(7^4)^8$  i.e.  $7^{32}$  will be 1. Hence, unit's digit in

$$(7)^{35} = 1 \times 7 \times 7 \times 7 = 3$$

Again, unit's digit in  $(3)^4 = 1$

Therefore, unit's digit in the expansion of

$$(3^4)^{17} = (3)^{68} = 1$$

$\Rightarrow$  Unit's digit in the expansion of

$$(3^{71}) = 1 \times 3 \times 3 \times 3 = 7$$

and unit's digit in the expansion of

$$(11^{35}) = 1$$

Hence, unit's digit in the expansion of

$$3^{35} \times 3^{71} \times 11^{55} = 3 \times 7 \times 1 = 1$$

28. (a) Let the original price be  $x$  and sale be of  $y$  units.

Then, the revenue collected initially =  $x \times y$

Now, new price =  $0.8x$ , new sale =  $1.8y$

Then, new revenue collected =  $1.44xy$

$$\% \text{ increase in revenue} = \frac{0.44xy}{xy} \times 100 = 44\%$$

Shortcut Method

$$\begin{aligned}\text{Net effect} &= -20 + 80 + \frac{(-20 \times 80)}{100} \\ &= 60 - 16 = 44\%\end{aligned}$$

29. (c) Let quantity of water to be added be  $x$  ml.

$$\text{Then, } (x + 48) \times \frac{25}{100} = 48 \text{ or } x = 144 \text{ ml.}$$

30. (c) Let the salary of Ram be ₹ 100.

Then, salary of Amit = ₹ 80

and salary of Ravi = 150% of 80 = ₹ 120

Ratio of Ram's salary to Ravi's salary = 100 : 120 = 5 : 6



31. (b) Let the rate of interest be  $r\%$ .

$$\text{Therefore, } \frac{2520}{2400} = \frac{\left(1 + \frac{r}{100}\right)^4}{\left(1 + \frac{r}{100}\right)^3}$$

$$\Rightarrow 1 + \frac{r}{100} = \frac{21}{20} \text{ or } r = 5\%$$

32. (b) Amount = 6000

Rate = 10%

$$\text{First year interest} = \frac{6000 \times 10 \times 1}{100} = ₹ 600$$

At the end of first year amount

$$= 6000 + 600 - 2000 = 4600$$

At the end of second year

$$\text{Interest} = \frac{4600 \times 10 \times 1}{100} = 460$$

At the second year amount

$$= 4600 + 460 - 2000 = 3060$$

At the end of third year

$$\text{Interest} = \frac{3060 \times 10 \times 1}{100} = 306$$

Amount at the end of third year

$$= 3060 + 306 = ₹ 3366$$

Amount refund in third year = ₹ 3366

33. (c) Let the cost price be ₹ 100.

Gain of 33% = ₹ 33

$$\Rightarrow \text{SP} = ₹ 133$$

Let the marked price be ₹  $x$ . The SP of ₹ 133 has been arrived after giving a discount of 5% on marked price.

$$\text{i.e. } x \times 0.95 = ₹ 133$$

$$\Rightarrow x = \frac{133}{0.95} = ₹ 140$$

Required increase = ₹ 140 - ₹ 100 = ₹ 40

Hence required percentage = 40%.

34. (c) Total score of 40 innings =  $40 \times 50 = 2000$   
Total score of 38 innings =  $38 \times 48 = 1824$   
Let the highest score be  $x$  and the lowest score be  $y$ .

$$\text{Sum of the highest and the lowest score} = x + y = 2000 - 1824$$

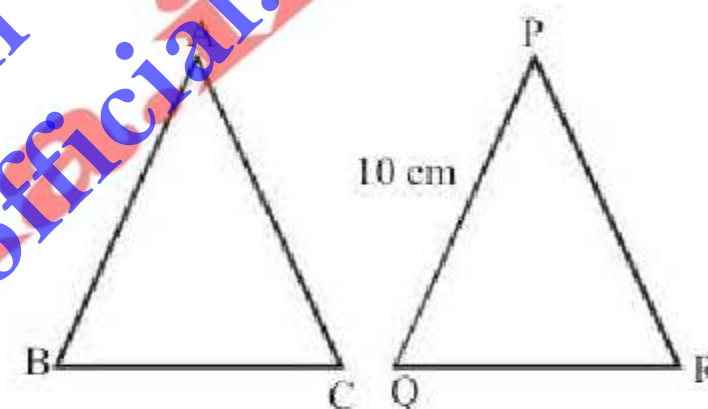
$$\Rightarrow x + y = 176 \quad \dots(i)$$

$$\text{and by question, } x - y = 172 \quad \dots(ii)$$

Solving (i) and (ii), we get  $x = 174$

35. (d) To construct a triangle, it is necessary that the sum of any two sides is greater than the third side. Checking with options, we find that it is not possible for the measurements given in (d) as  $2.3 + 4.4 < 6.8$ .

36. (d)



$\triangle ABC$  and  $\triangle PQR$  are similar.

$$\frac{AB}{PQ} = \frac{\text{Perimeter of } \triangle ABC}{\text{Perimeter of } \triangle PQR} \Rightarrow \frac{AB}{PQ} = \frac{36}{24}$$

$$\text{or } AB = \frac{36}{24} \times 10 = 15$$

37. (a) For the two similar triangles, we have

$$\frac{h_1^2}{h_2^2} = \frac{\text{Area of 1st } \triangle}{\text{Area of 2nd } \triangle} = \frac{9}{16}$$

$$\Rightarrow h_1 : h_2 = 3 : 4$$

38. (d) We know that

$$PC \times PD = PA \times PB$$

$$\Rightarrow PB = \frac{28}{8} = 3.5 \text{ cm}$$

Therefore,  $AB = AP - BP = 8 - 3.5 = 4.5 \text{ cm}$

39. (a) We have,  $x + y + (y + 20) = 180$

$$\text{or } x + 2y = 160 \quad \dots(i)$$



and  $4x - y = 10$  ... (ii)

From (i) and (ii),  $y = 70, x = 20$

Angles of the triangles are  $20^\circ, 70^\circ, 90^\circ$ .

Hence the triangle is a right angled.

40. (a) If  $f(x) = 0$  at  $x = 0$ , then  $(x - 0)$  is a factor of  $f(x)$ .  
Checking with the options, we find that

$$f(2) = (2)^3 - 19 \times (2) + 30 = 0$$

Therefore,  $x - 2$  is a factor of  $x^3 - 19x + 30$

41. (c)  $2x^2 - 7xy + 3y^2 = 0$

$$2\left(\frac{x}{y}\right)^2 - 7\left(\frac{x}{y}\right) + 3 = 0 \quad (\text{Dividing by } y^2)$$

$$\frac{x}{y} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$= \frac{7 \pm \sqrt{49 - 24}}{2 \times 2} = \frac{7 \pm 5}{4} = 3, \frac{1}{2}$$

$$\Rightarrow \frac{x}{y} = \frac{3}{1} \text{ or } \frac{x}{y} = \frac{1}{2}$$

42. (d) Given,  $27 \times (81)^{2n+3} - 3^m = 0$   
 $\Rightarrow 3^3 \times (3)^{8n+12} = 3^m$   
 $\Rightarrow 3^{8n+15} = 3^m \Rightarrow m = 8n+15$   
 (on comparing)

43. (b)  $\therefore$  Product of numbers = (LCM  $\times$  HCF)  
 $\Rightarrow 480 \times \text{second number} = 2400 \times 16$   
 $\Rightarrow \text{second number} = 80$

44. (a) Average age of the remaining boys  
 $= \frac{(80 \times 15) - (15 \times 16 + 25 \times 14)}{40}$   
 $= \frac{1200 - 590}{40} = 15.25$

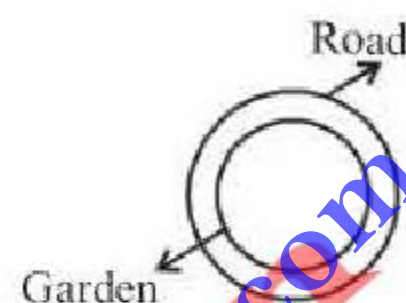
45. (a)  $40\%$  of  $265 + 35\%$  of  $180 = 50\%$  of ?  
 $\Rightarrow 265 \times 0.4 + 180 \times 0.35 = ? \times 0.5$   
 $\Rightarrow 106 + 63 = ? \times 0.5 \Rightarrow ? = \frac{169}{0.5} = 338$

46. (b) Percentage increase in the production of monopoly  
 $= \frac{(125 - 105)}{105} \times 100 = \frac{20}{105} \times 100$   
 $= 19.05\% \approx 20\%$

47. (c) Production of monopoly has shown continuous increase over the years.

48. (d)  $\% \text{ drop} = \frac{200 - 180}{200} \times 100 = 10\%$

49. (b) Let  $R$  be the radius of circular road



i.e.,  $R$  = radius of outer circle.

Let  $r$  be the radius of inner circle (garden).

Circumference of the road =  $2\pi R$

Circumference of the garden =  $2\pi r$

Given:  $2\pi R - 2\pi r = 44 \text{ m}$

$$\Rightarrow 2\pi(R - r) = 44 \Rightarrow R - r = 7 \text{ m}$$

Hence, the width of the road =  $R - r = 7 \text{ m}$

50. (c) Area of the circle =  $\pi(x)^2$  where radius of circle =  $x$

Let side of the square be  $y$ .

$$\text{Then, } y^2 = \pi(x)^2 \Rightarrow y = x\sqrt{\pi}$$

Perimeter of the square is =  $4y = 4x\sqrt{\pi}$

51. (a) The word 'sceptical' means suspicious or doubtful.

52. (a) The word 'inflict' means burden someone with or impose.

53. (d) The word 'inherit' means become heir to or take over.

54. (b) 55. (b)

56. (d) 'Repast' means 'meal'.

57. (a) 'Abeyance' means 'not being used for a period of time'.

58. (a) Acrimony means bitterness or ill feeling; spleen means bad temper.

59. (c) Embellish means make more attractive by adding ornament, colour, etc.



60. (a) Damp squib means an event which people think will be exciting but which is disappointing when it happens.
61. (b) 'Supplicate' means to be humble or requestful.
62. (a) 'Terse' means brief and straightforward.
63. (b) Sporadic means recurring in scattered and irregular or unpredictable instances while its opposite is frequent.
64. (c) Exonerate means pronounce not guilty of criminal charges, its opposite is accuse.
65. (b) Exodus means mass departure; its opposite is influx.
66. (a) Nature here denotes a beautiful landscape, full of green vegetation.
67. (c) The author is highlighting the nature's beauty.
68. (b) The author mentions the impact of modernization and that we should be more careful not to destroy Nature while modernizing.
69. (b) The word struggle here refers to the efforts required to save the nature.
70. (c) It will ensure future existence if we preserve nature.
71. (a) More than one person were killed in the accident.
72. (a) Not a word did they speak to the unfortunate victims of the earthquake.
73. (a) The poor villagers have been waiting in bitter cold for more than four hours now.
74. (d)
75. (c) She inquired whether anyone had seen her baby.
76. (b) When I went outdoors, I found frost everywhere.
77. (d) 78. (a) 79. (b)
80. (d) Conscientious is the one who is guided by or in accordance with conscience or sense of duty and right and wrong.
81. (d)
82. (c) Obsolete means no longer in use.
83. (b) 84. (c)
85. (c) Ominous means giving the worrying impression that something bad is going to happen; threateningly inauspicious.
86. (a) Hindrance means something that interferes with (or delays) action or progress.
87. (b) Perjury means criminal offence of making false statements under oath.
88. (b) Exciting means creating or arousing excitement. Ex: After coming back from Switzerland, she gave an exciting account of her trip.
89. (c) Grab means get hold of or seize quickly and easily. Ex: She grabbed the opportunity that came her way.
90. (d) Execution means the act of performing; of doing something successfully; Ex: He executed the plan successfully.
91. (a) Desirable means worth having, seeking or achieving; Ex: a desirable job.
92. (a) Check means be careful or certain to do something; make certain of something; Ex: Check the door if it is closed.
93. (c) Qualifications
94. (c) 95. (d) 96. (d) 97. (d) 98. (d)
99. (d) 100. (c) 101. (a) 102. (a) 103. (c)
104. (c) 105. (b) 106. (d) 107. (a)
108. (d) Arihant is a Nuclear powered ballistic missile submarine.
109. (c) Option (c) is not in the list of principles of panchsheel.  
This agreement stated the five principles as:
1. Mutual respect for each other's territorial integrity and sovereignty.
  2. Mutual non-aggression.
  3. Mutual non-interference in each other's internal affairs.
  4. Equality and cooperation for mutual benefit.
  5. Peaceful co-existence.
110. (b)
111. (b) Emperor Akbar named Prayag as Allahabad - City of God- also called Allahabad in 1575 AD. The city of Allahabad is situated at the confluence of three rivers - Ganga, Yamuna



and the invisible Saraswati. Every 12th year when the waters are felt to be especially purifying, Allahabad holds a much greater festival called Kumbh Mela. Built by Emperor Akbar in 1583 AD, the Allahabad fort stands on the banks of the river Yamuna near the confluence site i.e SANGAM.

112. (b) 113. (c) 114. (a) 115. (d) 116. (a)

117. (a)

118. (c) This is because the scattering in red light is less than that of yellow colour. The longest visible wavelength is red and the shortest is violet. The wavelength of red light is more than yellow light.

119. (b)

120. (a) There are 4 players in a polo team.

121. (d) Hemophilia is a **hereditary defect**.

122. (a) In human body, vitamin A is stored in the **liver**.

123. (b) Ondometer is a **measuring instrument for frequency of electromagnetic waves**.

124. (b) **Methanoic acid** is a colorless, pungent smelling liquid with a boiling point 373.5 K. Due to the presence of aldehyde-like hydrogen, it is powerful reducing agent. It reduces Tollen's reagent and Fehling's solution.

It is used in **rubber, textile, dyeing, leather and electroplating industries**.

125. (d)

126. (d) The book "A China Passage" was written by John Kenneth Galbraith in which he wrote about his visit to China between September 4th to September 23rd 1972.

127. (d) Global 500 awards are the awards given by Global 500 Environment Forum for outstanding performance in the environment protection.

128. (c) The Pulitzer Prize is an award for achievements in newspaper and online journalism, literature, and musical composition in the United States.

129. (a) The National emblem, viz four lions standing back to back is an adaptation from Sarnath Lion Capital of Ashoka on 26th January 1950.

130. (a) The famous book Mankind and Mother Earth is written by prominent world historian Arnold Joseph Toynbee which summarizes his Magnum Opus earlier in his career with an afterword cautioning against Nuclear Proliferation.

131. (a) Paraffin wax is obtained from petroleum by dewaxing light lubricating oil stocks. It is used in candles, wax paper, polishes, cosmetics, and electrical insulators. It assists in extracting perfumes from flowers, forms a base for medical ointments, and supplies a waterproof coating for wood. In wood and paper matches, it helps to ignite the matchstick by supplying an easily vaporized hydrocarbon fuel.

132. (b) MF Hussain did not get Bharatiya Jnanpith award.

133. (b) Durban, South Africa will be the host of 2022 commonwealth game.

134. (b) Lord Clive converted the East India Company into regional power after winning the battle of Plassey.

135. (a) Sri Lanka celebrates its independence day on 4th February.

136. (a) Natural Radio activity was discovered by Henry Becquerel in 1895.

137. (c) The present chairman of ISRO is Alur Seelin Kiran Kumar.

138. (c) The Simon commission was established under the guidance of the then vice president Lord Irwin by the council of India.

139. (c) Mahatma Gandhi returned to India from South Africa permanently in 1917.

140. (a) The Battle of Plassey, 23 June 1757, was a decisive British East India Company victory over the Nawab of Bengal and his French allies, establishing Company rule in South Asia which expanded over much of the Indies for the next 190 years. The battle took place at Palashi, Bengal, on the river banks of the Bhagirathi River, about 150 km north of Calcutta, near Murshidabad, then capital of undivided

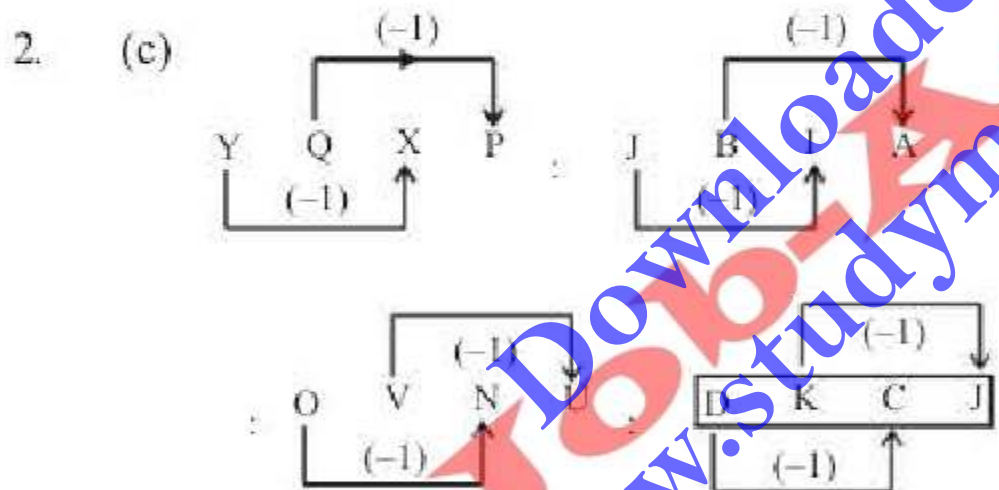


Bengal. The belligerents were Siraj-ud-daulah, the last independent Nawab of Bengal, and the British East India Company.

141. (d) Mangalayan. Mars Orbit Mission was launched on 5 November 2013 by the Indian Space Research Organisation (ISRO).
142. (b) Ruhr of India is known for its rich coal deposits in Jharkhand.
143. (b) Indian Space programme began in 1962.
144. (b) Bachpan Bachao Andolan was founded by Kailash Satyarthi to protect the right of children
145. (c) 146. (a) 147. (d) 148. (a)
149. (b) 150. (d)

### Practice Set-2

1. (a) Dehradun is capital of Uttarakhand. Similarly, Aizawl is capital of Mizoram.



3. (d) As,  $(1)^3 : 1$   
Similarly,  
 $(10)^3 : 1000$
4. (b) Here, only 63 is not belonging to group because it is divisible by 3.
5. (c) Mumbai, Kolkata and Cochin all are coastal city. Similarly, Chennai is also a coastal city.

6. (c)
- $C \xrightarrow{+2} E \xrightarrow{+2} G \quad J \xrightarrow{+2} L \xrightarrow{+2} N \quad Q \xrightarrow{+2} S \xrightarrow{+2} U$
- Similarly,  $H \xrightarrow{+2} J \xrightarrow{+2} L$

7. (c)
- 285    253    221    189    157
- ↓ -32   ↓ -32   ↓ -32   ↓ -32

8. (d)

PR ES EN TA TI ON → EN ES TA IT PR ON

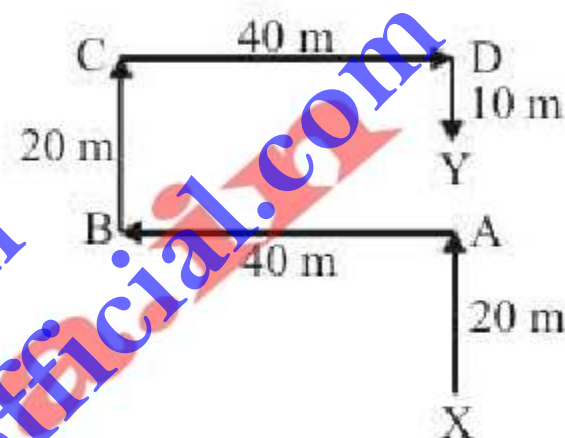
1 2 3 4 5 6 → 3 2 4 5 1 6

Similarly,

IN TE LL IG EN CE → LL TE IG EN IN CE

1 2 3 4 5 6 → 3 2 4 5 1 6

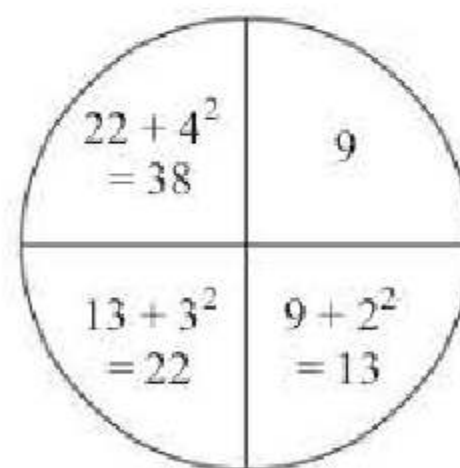
9. (d) RETENTION
10. (b) ba/ b ba a / b bbaaa/ b bbb a a aa
11. (b) Clearly, no. of students in the class =  $14 + 1 + 44 \Rightarrow 59$ .
12. (b)
13. (c)



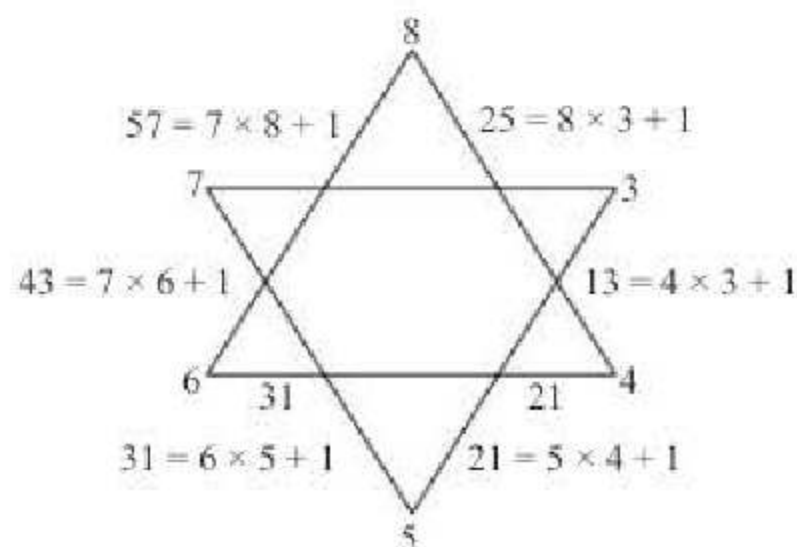
Required distance =  $XY = AX + AY$   
 $= 20 + 10$   
 $= 30 \text{ m, North}$

14. (b) Dollar — — Rupee  
Currency

15. (b)



16. (b)





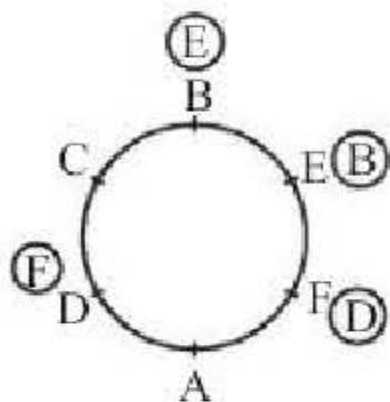
17. (b) Clearly, we have to first find two numbers whose difference is 2 and of which the smaller one is a perfect square and the bigger one a perfect cube.

Such numbers are 25 and 27.

Thus, Nitin is now 26 years old. Since the next perfect cube after 27 is 64,

So required time period =  $(64 - 26)$  years = 38 years.

18. (c)



Now, A is to the left of D.

19. (d) There is no 'O' letter in the keyword.

20. (d)

21. (a) The numbers 1, 2, 5 and 6 are on the adjacent faces of the number 3. So, the number 4 lies opposite 3.

22. (a) 23. (c) 24. (a)

25. (c)  $G \Rightarrow 04, 10, 22, 30, 43$

$O \Rightarrow 58, 65, 76, 86, 99$

$D \Rightarrow 01, 11, 24, 33, 40$

Option	G	O	D
(a)	10	43	65
(b)	95	79	42
(c)	30	65	40
(d)	00	10	35

26. (d) Clearly,  $\frac{1}{7} < \frac{1}{\sqrt{7}} = \frac{\sqrt{7}}{7} < \sqrt{7}$

$\Rightarrow \frac{1}{7}$  is the smallest number.

27. (b) The given equation =  $x^{1/3} + y^{1/3} = z^{1/3}$   
cubing both sides  
 $(x^{1/3} + y^{1/3})^3 = z$

$$\Rightarrow x + y + 3(x^{2/3})(y^{1/3}) + 3(x^{1/3})(y^{2/3}) = z$$

$$\Rightarrow x + y + 3[(x^{2/3})(y^{1/3}) + (x^{1/3})(y^{2/3})] = z$$

$$\Rightarrow x + y + 3(x^{1/3})(y^{1/3})(x^{1/3} + y^{1/3}) = z$$

$$\text{putting } x^{1/3} + y^{1/3} = z^{1/3}$$

$$\Rightarrow x + y + 3(x^{1/3})(y^{1/3})(z^{1/3}) = z$$

$$\Rightarrow x + y - z = -3(x^{1/3})(y^{1/3})(z^{1/3})$$

$$\Rightarrow (x + y - z)^3 = -3(x^{1/3})(y^{1/3})(z^{1/3})$$

$$\Rightarrow (x + y - z)^3 = -27xyz \text{ (cubing both sides)}$$

$$\Rightarrow (x + y - z)^3 = +27xyz = 0$$

28. (b) Let the no. of one rupee, 50 paise and 25 paise coins be  $2x$ ,  $3x$  and  $4x$  respectively.

According to question,

$$\text{₹} \left( 2x + \frac{3x}{2} + \frac{4x}{4} \right) = \text{Rs. } 216$$

$$\Rightarrow \frac{8x + 6x + 4x}{4} = 216$$

$$\Rightarrow x = 48$$

$$\therefore \text{Number of 50 paise coins} = 48 \times 3 = 144$$

29. (c) Quantity of milk =  $45 \times \frac{4}{5} = 36$  litres

$$\text{Quantity of water} = 45 \times \frac{1}{5} = 9 \text{ litres}$$

Let  $x$  litres of water be added to make the ratio 3 : 2

$$\text{Then, } \frac{36}{9+x} = \frac{3}{2}$$

$$\Rightarrow 72 = 27 + 3x \Rightarrow x = 15 \text{ litres}$$

30. (a) Let B joined after  $x$  months.

$$\text{Then, } 4500 \times 12 : 3000(12 - x) = 2 : 1$$

Ratio of their investments

$$= \frac{4500 \times 12}{3000(12 - x)} = \frac{2}{1}$$

$$\Rightarrow x = 3$$

31. (d) Let the exhaust tap empties the tank in  $x$  minutes.

$$\text{Then, } \frac{1}{12} + \frac{1}{15} - \frac{1}{x} = \frac{1}{20} \text{ or}$$



$$\frac{1}{x} = \frac{1}{12} + \frac{1}{15} - \frac{1}{20}$$

$$\text{or } \frac{1}{x} = \frac{5+4-3}{60} = \frac{6}{60} = \frac{1}{10} \text{ or } x = 10 \text{ min}$$

32. (d) In 1 day, work done by 12 men =  $\frac{1}{18}$

$$\text{In 6 days, work done by 12 men} = \frac{6}{18} = \frac{1}{3}$$

$$\text{Remaining work} = \frac{2}{3}$$

$$\text{Now, } m_1 \times d_1 \times w_2 = m_2 \times d_2 \times w_1$$

$$\text{or } 12 \times 18 \times \frac{2}{3} = 16 \times d_2 \times 1$$

$$\text{or } d_2 = \frac{4 \times 18 \times 2}{16} = 9 \text{ days}$$

33. (d) Let the speed of the stream be  $x$  km/h.  
Then, upstream speed =  $(15 - x)$  km/h.  
and downstream speed =  $(15 + x)$  km/h.

$$\text{Now, } \frac{30}{(15+x)} + \frac{30}{(15-x)} = 4.5$$

Solving these equations, we get  $x = 5$  km/h.

34. (b)  $AD \parallel BE$

$$\therefore \angle ADC = \angle DCB \text{ (alternate angles)}$$

$$\Rightarrow \angle ADB + 30^\circ = 85^\circ$$

$$\Rightarrow \angle ADB = 55^\circ$$

$$\text{and } \angle BAD = 90^\circ \quad (\text{given})$$

Now, in  $\triangle ABD$ ,

$$\angle ABD + \angle ADB + \angle BAD = 180^\circ$$

$$\Rightarrow x + 55^\circ + 90^\circ = 180^\circ$$

$$\Rightarrow x = 180^\circ - 145^\circ = 35^\circ$$

35. (c) Let numbers be  $x$  and  $y$ .

$\therefore$  Product of two numbers = their (LCM  $\times$  HCF)

$$\Rightarrow xy = 630 \times 9$$

$$\text{Also, } x + y = 153 \text{ (given)}$$

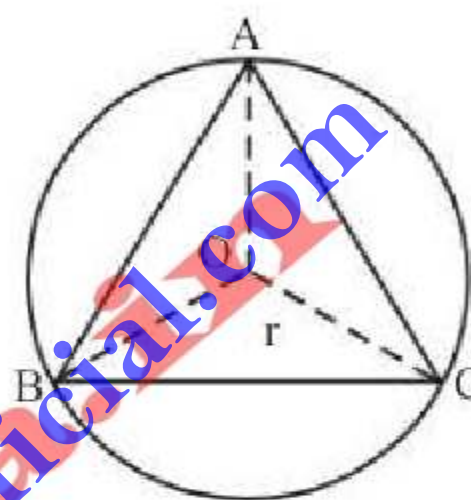
$$\text{since } x - y = \sqrt{(x + y)^2 - 4xy}$$

$$\Rightarrow x - y = \sqrt{(153)^2 - 4(630 \times 9)}$$

$$= \sqrt{23409 - 22680} = \sqrt{729} = 27$$

36. (b) Number of points is one, because circumcentre is the only point in the plane of a triangle, which is equidistant from the vertices of the triangle.

$$OA = OB = OC = r$$



37. (b) Principal (P) = Rs 25625

$$\text{Rate (r)} = 16\% = \frac{16}{4}\% = 4\%$$

$$\text{Time} = 12 \text{ months} = 4 \text{ quarters}$$

$$A = 25625 \left( 1 + \frac{4}{100} \right)^4 = 25625 \left( \frac{26}{25} \right)^4$$

$$25625 \times \frac{26}{25} \times \frac{26}{25} \times \frac{26}{25} \times \frac{26}{25} = ₹ 29977.62$$

$$\text{C.I.} = A - P = 29977.62 - 25625 = ₹ 4352.62$$

38. (d) Share of Urmila in dividend =  $\left( \frac{2}{6} \times 57834 \right)$

$$= ₹ 19278$$

39. (b) We have :

$x$  men to the work in 60 days and  $(x + 8)$  men do the work in

$(60 - 10 = ) 50$  days.

Then by "basic formula",  $60x = 50(x + 8)$

$$\therefore x = \frac{50 \times 8}{10} = 40 \text{ men.}$$



40. (b) The expression  $3x^3 - kx^2 + 4x + 16$  is divisible by  $x - \frac{k}{2}$ .

Then,  $x = \frac{k}{2}$  satisfy the equation

$$\Rightarrow 3\left(\frac{k}{2}\right)^3 - k\left(\frac{k}{2}\right)^2 + 4\left(\frac{k}{2}\right) + 16 = 0$$

$$\Rightarrow \frac{3k^3 - 2k^3 + 16k + 128}{8} = 0$$

$$\Rightarrow k^3 + 16k + 128 = 0$$

$$\Rightarrow (k+4)(k^2 - 4k + 32) = 0$$

$$\Rightarrow k+4=0$$

$$\Rightarrow k = -4$$

41. (a) Here  $d = a + 3$

$$a + a + 3 = 103$$

$$2a = 100$$

$$a = 50$$

So, numbers are 50, 51, 52 and 53

$$\therefore b \times c = 51 \times 52 = 2652$$

42. (a) Let  $f_1(x) = x^3 + mx^2 - x + 2m$

$$\text{and } f_2(x) = x^2 + mx - 2$$

$$\text{Let } m = 1$$

$$\therefore f_1(x) = x^3 + x^2 - x + 2$$

$$\text{and } f_2(x) = x^2 + x - 2 = (x+2)(x-1)$$

$$\text{When } x = 1,$$

$$f(1) = 1 + 1 - 1 + 2 \neq 0$$

$$\text{When } x = -2,$$

$$f(-2) = (-2)^3 + (-2)^2 - (-2) + 2 = 0$$

Required value of  $m$  is 1.

43. (d) Mean of  $y$  and  $\frac{1}{y} = M$

$$\Rightarrow \frac{y + \frac{1}{y}}{2} = M \Rightarrow y + \frac{1}{y} = 2M \quad \dots (i)$$

Now, mean of  $y^3$  and  $\frac{1}{y^3}$  is

$$\frac{y^3 + \frac{1}{y^3}}{2} = \frac{\left(y + \frac{1}{y}\right)^3 - 3\left(y + \frac{1}{y}\right)}{2}$$

$$\begin{aligned} \Rightarrow \frac{y^3 + \frac{1}{y^3}}{2} &= \frac{(2M)^3 - 6M}{2} \\ &= \frac{(2M) \left[ (2M)^2 - 3 \right]}{2} = M(4M^2 - 3) \end{aligned}$$

44. (a) Speed =  $\left(\frac{750}{150}\right) \text{ m/sec} = 5 \text{ m/sec}$

$$= \left(5 \times \frac{18}{5}\right) \text{ km/hr} = 18 \text{ km/hr.}$$

45. (c) Let the age of father and son be  $15x$  years and  $x$  years respectively.

$$\text{Now, according to the question, } \frac{15x + x}{2} = 16$$

$$\text{or, } x = \frac{16 \times 2}{16} = 2 \text{ years}$$

Hence age of the son = 2 years

46. (d) The required line is parallel to  $3x - 4y + 5 = 0$

$$\text{or } y = \frac{3}{4}x + \frac{5}{4} \Rightarrow \text{Their slopes are equal}$$

$$\therefore m = \frac{3}{4}$$

Also, it passes through  $(2, -3)$ . so  $y = mx + c$

$$\Rightarrow -3 = \frac{3}{4} \times 2 + c \Rightarrow c = -\frac{9}{2}$$

$\therefore$  The required equation is

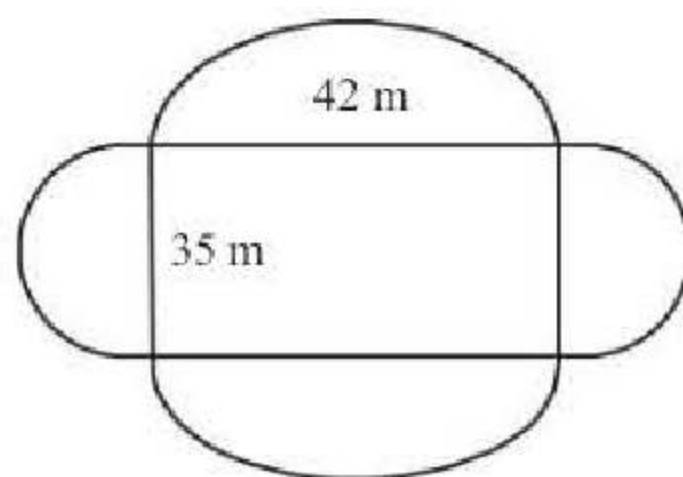
$$y = \frac{3}{4}x - \frac{9}{2}$$

$$\text{or } 3x - 4y = 18$$

47. (a)

48. (c)  $20 + 12 + 16 = 48$

49. (a) Area of the field = Area of rectangle + Area of circle with diameter 35 m + Area of circle with diameter 42 m.





$$= 42 \times 35 + 2 \times \frac{1}{2} \times \frac{22}{7} \times (21)^2 + 2 \times \frac{1}{2} \times \frac{22}{7} \times (17.5)^2$$

$$= 1470 + 1386 + 962.5 = 3818.5 \text{ m}^2$$

50. (d) Perimeter of the square = circumference of the circle

$$\text{We have, } 4 \times 11 = 2\pi r \Rightarrow r = \frac{4 \times 11}{2 \times \pi}$$

$$\text{Area of the circle} = \pi r^2$$

$$= \pi \times \left( \frac{4 \times 11}{2 \times \pi} \right)^2 = 49\pi$$

$$= 154 \text{ cm}^2$$

51. (d) The passage seems to be a part of someone's personal letter as it is addressed at many places by the word 'you'.

52. (a) The tone of the author sounds quite official and serious.

53. (b) The writer is talking in context of government service.

54. (c) The writer asks his reader to accept 'an official rank'.

55. (a) The writer implies significant worldly items.

56. (b) 57. (c) 58. (d) 59. (a)

60. (d) 61. (a) 62. (c) 63. (c)

64. (c) 65. (a) 66. (c) 67. (c)

68. (a)

69. (a) work hard is correct choice.

70. (a) Twenty kilometres is not a great distance in these days of fast moving vehicles.

71. (b) they are working as usual.

72. (c) Once I fall ill, it takes me long to recuperate. That is, I take a long time to recover my health or strength after I have been ill.

73. (b) When a cyclone affects an area, the people are deprived of their belongings. You then give them money, clothes, food etc. Such gifts to the poor and needy are called alms. Since they are given out of charity (kindness and tolerance), these gifts are also known as charity.

74. (d) Anathema means a formal curse by a pope or a council of the church. Therefore, 'curse' is the nearest meaning or synonym of Anathema.

75. (a) Debilitate means to make someone weak and infirm. Therefore, weaken is the nearest in meaning to Debilitate.

76. (a) Penchant means a strong or habitual liking for something. Therefore, liking is the nearest in meaning to Penchant.

77. (c) Indict means to charge someone with a crime or something wrong. Accuse also means the same, acquit means to free of charge.

78. (d) Vacillate means to move from one place to another and consistent means to stay the same, eradicate means to remove.

79. (b) Insolent means showing a rude and arrogant behaviour or lack of respect. Affable means good natured or easy to talk to. Therefore, Affable is the nearly opposite meaning of Insolent.

80. (b) Sceptic means a person who questions or doubts accepted opinions. Therefore, Believers which means a person who believes in the truth or existence of something is the nearly opposite in meaning to Sceptic.

81. (d) Refractory means stubborn or unmanageable. Therefore, manageable is nearly the opposite in meaning to Refractory.

82. (b) 83. (c)

84. (a) 'Dolorous' is the correctly spelt word which means feeling or expressing great sorrow or distress.

85. (b) 'Conduit' is the correctly spelt word which means a channel for conveying water or other fluid.

86. (c) 'Gregarious' is the correctly spelt word which means fond of company or sociable.

87. (b) 88. (b) 89. (d) 90. (d)

91. (c) The idiom "a fool's errand" means an attempt to do something that has no chance of success.

92. (b) 'To flog a dead horse' means to waste effort on something where there is no chance of succeeding.

93. (a) 'The alpha and the omega' means the beginning and the end.



94. (d) 'A bull in a China shop' means a person who breaks things or who often makes mistakes or causes damage in situations that requires careful thinking or behaviour.
95. (a) 'To hold something in leash' means to provide very little freedom to someone.
96. (b) The transformation follows the simple rules related to the transformation of an Assertive Sentence.
97. (b) The given sentence is in Passive form. Here subject is "the shops" and object is "Men, women and children". So, a sentence where "the shops" is used as the object and "men, women and children" is used as the Subject should be chosen as the answer. Here also, we should not miss any information supplied in the original sentence.
98. (b) He was seen leaving the house by me.
99. (d) The bull was pulled violently.
100. (a) I cannot wear this shirt any longer.
101. (a) Article 22 proceeds to guarantee certain fundamental rights to every arrested person.
102. (c) Hypermetropia Myopia is corrected by spectacles having concave lens. Near point of a person suffering from hypermetropia is more than 25cm.
103. (d) Cryogenics is the study of the production and behaviour of materials at very low temperatures.
104. (b) Some of the important factors of production are: (i) Land (ii) Labour (iii) Capital (iv) Enterprnuer. Land is a passive factor whereas labour is an active factor of production
105. (d) When total utility is maximum at the 5th unit, marginal utility is zero
106. (c) Revealed preference theory, pioneered by American economist Paul Samuelson, is a method of analyzing choices made by individuals
107. (a) One carat is equal to 0.2 grams
108. (c) Wood spirit is a poisonous colorless liquid used as a solvent and fuel; ingestion may cause blindness or death. Called also methyl or wood alcohol.
109. (d) Naphthalene is an organic compound with formula  $C_{10}H_8$ . It is the simplest polycyclic. Naphthalene is the most abundant single component of coal tar.
110. (d) Agronomy is the science and technology of producing and using plants for food, fuel, fiber, and land reclamation
111. (b) Guru Gobind Singh was The Tenth Nanak or the last of the Sikhpreachers to live.
112. (c) The Tattwabodhini Sabha ("Truth Propagating/Searching Society") was a group started in Calcutta on 6 October 1839 as a splinter group of the Brahmo Samaj, reformers of Hinduism and Indian Society. The founding member was Debendranath Tagore
113. (c) After the revolt, the British pursued the policy of divide and rule, towards the general populace.
114. (a) Prithvi (Sanskrit: prthvi "Earth") is a tactical surface-to-surface short-range ballistic missile. This class of Prithvi missile was inducted into the Indian Army in 1994
115. (b) FIFA's decision to award Russia the right to host the 2018 World Cup surprised many - including some of the country's leaders
116. (b) Habeas corpus ("You may have the body") is a recourse in law whereby a person can report an unlawful detention or imprisonment before a court, usually through a prison official
117. (d) Professor K.C. Wheare, who regards the American constitution as the model of a true federation has described the Indian constitution as 'quasi federal', that is 'a unitary state with subsidiary federal features rather than a federal state with subsidiary unitary features
118. (b) Many people believe Hitler was the personification of evil. In this Sibert Medal-winning biography, James Cross Giblin penetrates this façade and presents a picture of a complex person-at once a brilliant, influential politician and a deeply disturbed man. Giblin explores the forces that shaped the man as well as the social conditions that furthered his rapid rise to power.
119. (c) Cows are raised in many different countries around the world, mainly for the cowsnatural resources such as milk, meat



120. (c) Monera Kingdom- All the organisms of this kingdom are prokaryotes
121. (a) Anupama Mohan is one of the best-known disciples of Kuchipudi.
122. (a) 123. (b) 124. (a) 125. (b)
126. (c) Raja Todar Mal was the finance minister of the Mughal empire during Akbar's reign.
127. (b) Mahatma Gandhi returned to India from South Africa in 1915.
128. (c) Lord Irwin was the viceroy of India when Simon Commission visited India.
129. (d) NITI Aayog is the Government of India think tank established by PM Narendra Modi to replace Planning Commission.
130. (c) 'Kayakalp' is the innovative council of Indian Railways for innovation, technology development and manufacturing.
131. (b) Animals active at night are called Nocturnal.
132. (b) Durban, South Africa will host the 2022 Commonwealth Games.
133. (c) Serena Williams won the 2015 Australian Open (Women's singles) by defeating Maria Sharapova.
134. (a) Isotherm is a line on the map connecting points having the same temperature at a given time.
135. (a) Sir C. V. Raman's ground breaking work in the field of light scattering for which he was awarded the 1930 Nobel Prizes for physics.
136. (c) Henry Becquerel is associated with the discovery of Radioactivity.
137. (B)
138. (b) The Moon takes  $27\frac{1}{3}$  days to revolve around the earth.
139. (b)
140. (a)
141. (b) Arunima Sinha wrote the book "Born again on the mountain", which was launched by PM Narendra Modi in 2014.
142. (a) Sri Lanka celebrates its Independence Day on 4th February.
143. (b) Indian actor and producer Shashi Kapoor was awarded the Dadasaheb Phalke Award for the year 2014.
144. (a) Admiral Gorshkov is the Russian name of INS Vikramaditya.
145. (c) A. S. Kiran Kumar is the current chairman of Indian Space Research Organisation (ISRO).
146. (d) Ricky Kej won the Grammy at the 57th Annual Grammy awards for his album Winds of Samsara, a collaboration with South African flautist Wouter Kellerman.
147. (a)
148. (d)
149. (c)
150. (d)

### Practice Set-3

$$\begin{array}{ccc}
 \text{A} & \text{C} & \text{E} \\
 +5 \downarrow & +5 \downarrow & +5 \downarrow \\
 \text{F} & \text{H} & \text{J}
 \end{array}$$

$$\begin{array}{ccc}
 \text{O} & \text{Q} & \text{S} \\
 +5 \downarrow & +5 \downarrow & +5 \downarrow \\
 \boxed{\text{T} \quad \text{V} \quad \text{X}}
 \end{array}$$

Similarly,

2. (a) As, a saint practices meditation. Similarly, a scientist does research.

3. (c)  $18/3 - 1 = 5$   
 $12/3 - 1 = \boxed{3}$

4. (c)

$$\begin{array}{cccc}
 \text{H} & \xrightarrow{(-1)} & \text{G} & \xrightarrow{(-1)} & \text{F} & \xrightarrow{(-1)} & \text{E} \\
 \text{P} & \xrightarrow{(-1)} & \text{O} & \xrightarrow{(-1)} & \text{N} & \xrightarrow{(-1)} & \text{M} \\
 \text{D} & \xrightarrow{(-1)} & \text{C} & \xrightarrow{(-1)} & \text{B} & \xrightarrow{(-1)} & \text{A} \\
 \text{M} & \xrightarrow{(+6)} & \text{S} & \xrightarrow{(+1)} & \text{T} & \xrightarrow{(+1)} & \text{U}
 \end{array}$$

M S T U is odd word

6. (a)  $\text{F} \xrightarrow{+1} \text{G} \xrightarrow{+1} \text{H} \xrightarrow{+1} \text{I} \xrightarrow{+1} \text{J}$   
 $\text{A} \xrightarrow{+0} \text{A} \xrightarrow{+0} \text{A} \xrightarrow{+0} \text{A} \xrightarrow{+0} \text{A}$   
 $\text{G} \xrightarrow{-1} \text{F} \xrightarrow{+3} \text{I} \xrightarrow{-1} \text{H} \xrightarrow{+3} \text{K}$
7. (c)  $3 + 3 = 6$   
 $6 + 3 = 9$



$$9 + 6 = 15$$

$$15 + 9 = 24$$

$$24 + 15 = 39$$

$$39 + 24 = 63$$

$$63 + 39 = 102$$

8. (d) As,  $A + G + E = 1 + 7 + 5 = 13$   
Similarly,  $C + A + R = 3 + 1 + 18 = 22$
9. (c) As per dictionary

4                      3                      1                      2

Elocution → Embrace → Emplane → Empower

5

→ Equable.

10. (b) Words LUB and TUP are in consecutive order.

LUB/TUP/LUB/TUP/LUB/TUP/  
LUB/TUP

11. (b) Govind's age = 48 years  
According to question  
Prem's age =  $48/2 = 24$  years  
Prem's age seven years before =  $24 - 7$   
= 17 years.

12. (a)
- man  
(His) mother is the  
only daughter of (my)  
mother. lady
- Mother  
↓ (-)  
Mother = Lady  
↓ (-)  
Man  
(+)

13. (b)
- 

From the diagram, it is clear that Shankar started his journey from North to South.

14. (c) By options—
- (a)  $22 \times 7 + 3 - 9 = 148$   
 $154 + 3 - 9$   
 $157 - 9 = 148$  (Correct)

- (b)  $33 - 5 + 10 \times 20 = 228$   
 $33 - 5 + 200$   
 $200 + 33 - 5$   
 $233 - 5 = 228$  (Correct)
- (c)  $7 \times 28 + 3 - 52 = 127$   
 $196 + 3 - 52$   
 $199 - 52 = 147$  (Incorrect)
- (d)  $44 + 9 \times 6 - 11 = 87$   
 $44 + 54 - 11$   
 $98 - 11 = 87$  (Correct)

15. (a)

$$\begin{array}{ccc} 11 & 22 & 121 \\ 3 \left[ \begin{array}{l} 11 + 5 + 4 \times 3 \\ = 16 + 12 = 28 \end{array} \right] 45 & 45 \left[ \begin{array}{l} 22 + 20 + 5 \times 3 \\ = 42 + 15 = 57 \end{array} \right] 3 & 6 \left[ \begin{array}{l} 121 + 25 + 6 \times 5 \\ = 146 + 30 = 176 \end{array} \right] 5 \\ 5 & 5 & 25 \end{array}$$

16. (a)



$$\Rightarrow 63$$

$$\Rightarrow 7 \times 1 \times 9 = 63$$

$$\Rightarrow 3 \times 1 \times 7 \times 3 = 63$$

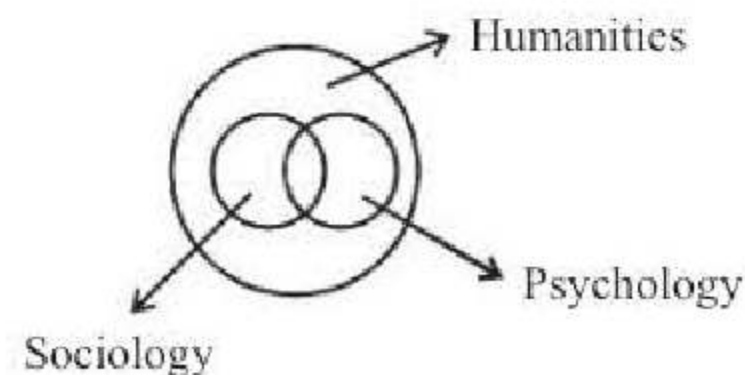
17. (d) Standing arrangement : (facing south)



Hence, Dhanush is standing at the middle of the row.

18. (d) Any written piece is recognised as song when it is sung by a singer. Therefore, only Conclusion I follows.

19. (a)



20. (a) The middle element adjacent to the right side line after rotating  $90^\circ$  anticlockwise. The bottom element goes up on the top and becomes enlarge.





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The top element becomes the inner figure of bottom element.

21. (c) By options—

(a) can not be formed as there is no 'E' in the given word.

(b) can not be formed as there is no 'D' in the given word.

(d) can not be formed as there is no 'E' and only 'U' in the given word.

So, option (c) can be formed.

22. (d) 23. (b) 24. (c)

25. (b)  $C \Rightarrow 02, 11, 20, 31, 43$

$A \Rightarrow 00, 14, 23, 34, 42$

$G \Rightarrow 56, 65, 77, 87, 97$

$E \Rightarrow 04, 13, 24, 33, 40$

Option	C	A	G	E
(a)	<del>95</del>	<del>82</del>	<del>34</del>	<del>14</del>
(b)	20	00	65	40
(c)	<del>14</del>	<del>20</del>	<del>41</del>	<del>86</del>
(d)	<del>00</del>	<del>24</del>	<del>41</del>	<del>95</del>

$$\begin{aligned}
 26. (a) \quad & 2 + \sqrt{2} + \frac{1}{2 + \sqrt{2}} - \frac{1}{2 - \sqrt{2}} \\
 &= 2 + \sqrt{2} + \frac{2 - \sqrt{2} - 2 - \sqrt{2}}{4 - 2} \\
 &= 2 + \sqrt{2} + \frac{(-2\sqrt{2})}{2} = 2 + \sqrt{2} - \sqrt{2} = 2
 \end{aligned}$$

$$27. (d) \quad \therefore 1.\overline{34} = \frac{134 - 1}{99} = \frac{133}{99}$$

$$\text{and } 4.\overline{12} = \frac{412 - 41}{90} = \frac{371}{90}$$

$$\begin{aligned}
 \therefore 1.\overline{34} + 4.\overline{12} &= \frac{133}{99} + \frac{371}{90} = \frac{1330 + 4081}{990} \\
 &= \frac{5411}{990} = 5\frac{461}{990}
 \end{aligned}$$

$$28. (c) \text{ Share of B + C} = \frac{1872}{9-3} \times (5+8) = ₹ 4056$$

29. (d) Equivalent % interest for compound rate of interest of 8% for 2 years

$$= 8 + 8 + \frac{8 \times 8}{100} = 16.64\%$$

$$\text{So, interest} = 16.64\% \text{ of } 3980 \approx 662$$

$$30. (d) \text{ Total time required} = \frac{14}{5} + \frac{14}{10}$$

$$= \frac{28+14}{10} = 4.2 \text{ hrs}$$

31. (d) 30 litres mixture contains 15 litres of water. When milk added to this, quantity of water will same in sauce (i.e. 15 l).

Let  $x$  l of pure milk to be added, then 30% of  $(30+x) = 15$   
solve,  $x = 20$

32. (c) There are  $5 + 7 = 12$  balls in the bag and out of these two balls can be drawn in  ${}^{12}C_2$  ways. There are 5 green balls, therefore, one green ball can be drawn in  ${}^5C_1$  ways; similarly, one red ball can be drawn in  ${}^7C_1$  ways so that the number of ways in which we can draw one green ball and the other red is  ${}^5C_1 \times {}^7C_1$ . Hence, P (one green and the other red)

$$= \frac{{}^5C_1 \times {}^7C_1}{{}^{12}C_2} = \frac{5}{1} \times \frac{7}{1} \times \frac{1 \times 2}{12 \times 11} = \frac{35}{66}$$

33. (c) Let the cost price = ₹  $x$

Profit = ₹  $x$

Cost price of 8 dozen pencil = ₹  $7x$

$$\text{Gain per cent} = \frac{x}{7x} \times 100$$

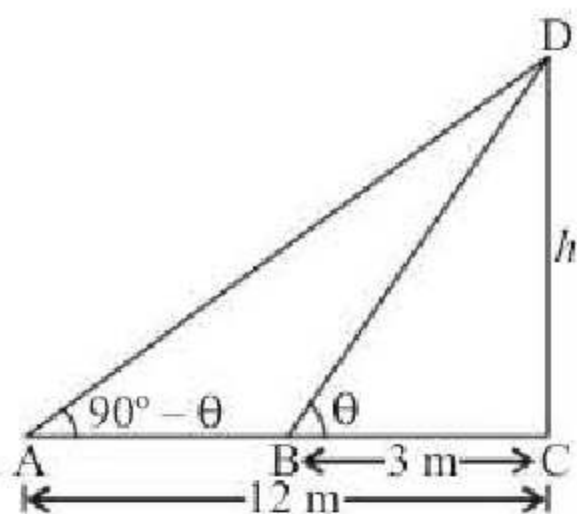
$$= \frac{100}{7} = 14\frac{2}{7}\%$$

34. (b) Let the height of the tower be  $h$  m and

$\angle CBD = \theta$  then  $\angle DAC = 90^\circ - \theta$

(Because both angles are complementary)





∴ In  $\triangle BCD$ ,

$$\tan \theta = \frac{CD}{BC} \Rightarrow \tan \theta = \frac{h}{3}$$

Now, in  $\triangle ACD$

$$\tan (90^\circ - \theta) = \frac{CD}{AC} \Rightarrow \cot \theta = \frac{h}{12}$$

$$\frac{1}{\tan \theta} = \frac{h}{12}$$

$$h \tan \theta = 12$$

Put the value of  $\tan \theta$

$$h \times \frac{h}{3} = 12$$

$$h^2 = 36 \quad \therefore h = 6$$

Then, height of tower = 6 m.

35. (a) We know that, the triangle of same segment of a circle makes an equal angles.

$$\therefore \angle XBY = \angle XAY = 45^\circ$$

$$\text{In } \triangle BXY, \angle BXY + \angle XBY + \angle BYX = 180^\circ$$

$$\Rightarrow 50^\circ + 45^\circ + \angle BYX = 180^\circ$$

$$(\because \angle BXY = 50^\circ)$$

$$\Rightarrow \angle BYX = 180^\circ - 95^\circ = 85^\circ$$

36. (c)  $2x + ky + 7 = 0 \Rightarrow ky = -2x - 7 \Rightarrow y =$

$$\frac{-2}{k}x - \frac{7}{k}$$

$$27x + 18y + 25 = 0 \Rightarrow 18y = -27x - 25$$

$$\Rightarrow y = \frac{3}{2}x + \frac{25}{18}$$

$$\therefore \frac{-2}{k} \times \frac{3}{2} = 1 \Rightarrow k = 3$$

37. (b) Let the three numbers in G.P. be  $a, ar, ar^2$ .

$$\text{Given } a + ar + ar^2 = 21 \Rightarrow a(1 + r + r^2) = 21$$

...(i)

$$\text{Also, } a^2 + a^2r^2 + a^2r^4 = 189 \Rightarrow a^2(1 + r^2 + r^4) = 189 \dots \text{(ii)}$$

So,

$$\frac{a^2(1 + r^2 + r^4)}{[a(1 + r + r^2)]^2} = \frac{189}{(21)^2} = \frac{189}{441} = \frac{3}{7}$$

$$\text{or, } \frac{1 + 2r^2 + r^4 - r^2}{(1 + r + r^2)^2} = \frac{3}{7}$$

$$\text{or, } \frac{(1 + r^2)^2 - r^2}{(1 + r + r^2)^2} = \frac{3}{7}$$

$$\text{or, } \frac{(1 + r^2 + r)(1 + r^2 - r)}{(1 + r + r^2)^2} = \frac{3}{7}$$

$$\text{or, } \frac{1 + r^2 - r}{1 + r + r^2} = \frac{3}{7}$$

$$\text{or, } 7(1 + r^2 - r) = 3(1 + r + r^2)$$

$$\text{or, } 4r^2 - 10r + 4 = 0$$

$$\text{or, } 2r^2 - 5r + 2 = 0$$

$$\text{or, } 2r^2 - 4r - r + 2 = 0$$

$$\text{or, } 2r(r - 2) - (r - 2) = 0$$

$$\text{or, } (r - 2)(2r - 1) = 0$$

$$\text{or, } r = 2, \frac{1}{2}$$

From equation (i)

$$a = \frac{21}{1 + r + r^2}$$

$$\therefore \text{For } r = 2, a = \frac{21}{1 + 2 + 4} \text{ and for } r = \frac{1}{2}, a = 12$$

Hence, the three numbers are 3, 6, 12 or 12, 6, 3

$$\text{Their product} = 3 \times 6 \times 12 = 216$$



38. (b) Given that,  $x + \frac{1}{y} = 1$

$$\Rightarrow xy + 1 = y \quad \dots(i)$$

and  $y + \frac{1}{z} = 1 \Rightarrow 1 - \frac{1}{z} = y$

$$\Rightarrow \frac{z-1}{z} = \dots(ii)$$

From eq. (ii),

$$y = \frac{z-1}{z}$$

Comparing eqn. (i) with (ii)

$$xy + 1 = \frac{z-1}{z}$$

$$\Rightarrow xyz + z = z - 1$$

$$\Rightarrow xyz = -1$$

39. (b) Given,  $AC^2 = AB \times CB$

$$\Rightarrow x^2 = 2 \times (2-x)$$

$$\Rightarrow x^2 = 4 - 2x$$



$$\Rightarrow x^2 + 2x - 4 = 0$$

$$\Rightarrow x = \frac{-2 \pm \sqrt{4+16}}{2 \times 1}$$

$$\Rightarrow x = -1 \pm \sqrt{5}$$

Now,  $BC = (3 \pm \sqrt{5}) = 3 \pm \sqrt{5}$

40. (b)  $\frac{37}{13} = 2 + \frac{1}{x + \frac{1}{y + \frac{1}{z}}}$

$$\Rightarrow \frac{37}{13} \text{ can be expressed as}$$

$$= 2 + \frac{1}{1 + \frac{2}{11}} = 2 + \frac{1}{1 + \frac{1}{5 + \frac{1}{2}}}$$

Now, this is compared by

$$2 + \frac{1}{x + \frac{1}{y + \frac{1}{z}}} = 2 + \frac{1}{1 + \frac{1}{5 + \frac{1}{2}}}$$

$$\boxed{\therefore z = 2}$$

41. (d)  $27 \times 1.2 \times 5.5262 \times 0.6$

$$= 27 \times 1 \frac{2}{9} \times 5 \frac{4736}{9000} \times \frac{6}{9}$$

$$= 27 \times \frac{11}{9} \times \frac{49736}{9000} \times \frac{6}{9}$$

$$= \frac{11 \times 49736 \times 2}{9000} = \frac{1094192}{9000} = 121.577$$

42. (d)  $8^{9.4} \times 4^{13.8} \times 64^{8.1} = 16^?$

$$8^{9.4} \times 4^{12.8} \times 64^{8.1} = 16^?$$

$$64^{4.7} \times 4^{12.8} \times 64^{8.1} = 16^?$$

$$64^{4.7+8.1} \times 4^{12.8} = 16^?$$

$$(64 \times 4)^{12.8} = 16^?$$

$$(256)^{12.8} = 16^?$$

$$16^{2 \times 12.8} = 16^?$$

$$16^{25.6} = 16^?$$

$$? = 25.6$$

43. (a) Let each side of the square be x km and let the average speed of the plane around the field be y km/h. Then,

$$\frac{x}{200} + \frac{x}{400} + \frac{x}{600} + \frac{x}{800} = \frac{4x}{y}$$

$$\Rightarrow \frac{25x}{2400} = \frac{4x}{y} \Rightarrow y = \left( \frac{2400 \times 4}{25} \right) = 384.$$

$\therefore$  Average speed = 384 km/h.

44. (a) A's one day's work =  $\frac{1}{6}$

B's one day's work =  $\frac{1}{8}$

C's one day's work =  $\frac{1}{12}$



A's share : B's share : C's share

$$= \frac{1}{6} : \frac{1}{8} : \frac{1}{12}$$

Multiplying each ratio by the L.C.M. of their denominators, the ratios become 4 : 3 : 2

$$\therefore \text{B's share} = \frac{1350 \times 3}{9} = \text{Rs. } 450$$

45. (c) Ratio of equivalent capitals of A, B and C for 1 month

$$= 35000 \times 12 : 20000 \times 5 : 15000 \times 7$$

$$= 35 \times 12 : 20 \times 5 : 15 \times 7 = 84 : 20 : 21$$

$$\text{Sum of the ratios} = 84 + 20 + 21 = 125$$

$$\therefore \text{B's share} = ₹ \left( \frac{20}{125} \times 84125 \right) = ₹ 13460$$

46. (d) Total executives recruited were 2953.

47. (d) Required ratio equals 1044 : 998

$$= 522 : 499$$

48. (a) Required average number of executives =  
sum of no. of all executives

$$= \frac{2965}{6} \approx 494$$

49. (a)  $\therefore$  Volume of pipe,  $V = \pi (r_1^2 - r_2^2) \times h$

$$= \frac{22}{7} [(3.5)^2 - (2.5)^2] \times 140$$

$$= \frac{22}{7} (12.25 - 6.25) \times 140$$

$$= 22 \times 6 \times 20 = 2640 \text{ cu cm}$$

50. (c) Volume of solid cube =  $(4)^3 = 64 \text{ cm}^3$

$$\text{Volume of recast cube} = (1)^3 = 1 \text{ cm}^3$$

$\therefore$  Total surface area of cube : Total surface area of recast cube

$$= x : y$$

$$\Rightarrow x : y = 6(4)^2 : 6(1)^2 \times 64 = 1 : 4$$

51. (b) An accomplice is a partner in crime. Thus option (b) is the answer.

52. (d) Imbiber means one who absorbs something. Impresario means a person who organizes concert and plays. Imitator

is the one who copies another person. Imposter is the pretender, so correct answer is option (d).

53. (d) Honest means truthful. Selfish is a person who just thinks about himself. Unscrupulous means dishonest. Conscientious means diligent or hardworking. Looking at the sentence, it is understood that the person is very hardworking. Thus option (d) is the best answer.

54. (a) Evoke means bring to mind and when a response is needed. Thus clearly option (a) is the answer. Provided means given with. Provoked means to incite. Prevent means to stop. Thus these meanings do not fit here.

55. (c)

56. (d) 'Impetus' means 'something that encourages a process or activity.'

57. (c) 'Philanderer' means 'a man who has sexual relations with different women.'

58. (c) Protagonist 'means person who takes the lead or the central figure of the narrative'. Some more synonyms are: Central character, Prime mover, Exponent, Hero, Exemplar, Mainstay.

59. (d) The word 'hospitable' means genial, welcoming, congenial, friendly, convivial, but welcoming is the most suitable word.

60. (c) The word 'disdain' means contempt, scorn, disrespect, dislike. From the given options 'hate' is the most suitable word.

61. (a) 'Procrastinate' means to delay or linger in a decision. 'Prompt' means done without delay.

62. (d) 'Proclivity' means a natural tendency (or inclination) to do something.

63. (c) Fabricate means make up something artificial or untrue while demolish means destroy completely which is just opposite.

64. (c) Gregarious denotes tending to form a group with others of the same species and unsociable is the opposite.

65. (d) Pragmatic means concerned with practical matters while idealistic means bounded with limits.



66. (c) The author says that we look even more foolish when we slip back into our old bad ways.
67. (b) The author says we fail in our attempts because we never have time to carry them out.
68. (d) The word inveterate means having a particular habit that is long-established and unlikely to change.
69. (c) The author implies that despite our repeated failures we still try one more time.
70. (b) The word formidable means inspiring fear or respect.
71. (d) If I were you, I would do it at once.
72. (c) They set a strong guard, lest anyone should escape.
73. (c) The matter called for an explanation of his conduct. Incorrect preposition is used.
74. (b) My detailed statement is respectfully submitted.
75. (a) I have been waiting for my friend since morning.
76. (a) He has been representing my constituency for the past five years.
77. (d) 78. (c) 79. (b)
80. (a) The underlined portion should be deleted.
81. (d) and indulging in other sports.
82. (b) I was told
83. (c) 84. (d) 85. (b) 86. (a)
87. (d) 88. (c) 89. (a) 90. (c)
91. (b) He was seen leaving the house by me.
92. (d) The bull was pulled violently.
93. (a) I cannot wear this shirt any longer.
94. (d) 95. (a) 96. (a) 97. (a)
98. (b) 99. (c) 100. (b)
101. (d) Netscape is an Internet browser that was popular during the early 1990's.
102. (a)
103. (d) Nitrogen dioxide ( $\text{NO}_2$ ) is not a component of biogas.
104. (c) The 23rd Session (1907) of the Congress was held at Surat. In the session, there was an open clash between the Moderates and the Extremists and ultimately it led to a split in the Congress.
105. (c)  $1 \text{ Bar} = 10^5 \text{ Pa}$ . Both bar and Pa are the unit of pressure.
106. (a) Fe and Mg metals are present in haemoglobin and chlorophyll respectively.
107. (b) The blood group of father of the child could be A or B or O.
108. (c) The All India Muslim League, a political organization was founded in 1906 by Aga Khan under the Nawab of Dhaka Salimullah. Its main purpose was to safeguard the political rights of Muslims in India.
109. (d) Motor Vehicle tax is not a source of tax revenue for the central government in India.
110. (d) Capital receipts and payments do not form part of current account of Balance of Payment.
111. (d) The 10th Schedule to the Indian Constitution is known as Anti-Defection Law. It was inserted by the 52nd Amendment Act 1985 to the Constitution. It sets the provisions for disqualification of elected members on the grounds of defection to another political party.
112. (d) Chikungunia is caused by chikenguniya virus which is an insect borne virus of genus *Alphavirus*. Symptoms show high fever, maculopapular rash, headache, etc.
113. (d)
114. (d) Vitamin-K adds in blood clotting. Vitamin-K acts as an essential cofactor for factor-II, VII, IX, X and also for proteins Z, C and S.
115. (c) Thomas Cup is associated with Badminton.
116. (b) First Battle of Panipat (1526) was fought between two mega-powers- Babur, then ruler of Kabul and Ibrahim Lodhi, king of Delhi Sultanate. It was fought near Panipat (present day Haryana). Babur won the battle and established the Mughal Empire. Second Battle of Panipat (1556) was fought between Akbar (Ruler of Mughal Dynasty) and Muhammad Adil Shah (ruler of Pashtan Suri Dynasty), along with his Prime Minister Hemu. Third Battle



of Panipat (1761) was fought between the Afghans and the Marathas. The battle lasted for two months which ultimately resulted in the defeat of Marathas and end of their dominance in India.

117. (d) Baking soda has sodium bicarbonate as the chief constituent. It decomposes on heating giving carbon dioxide. This causes dough, cakes, biscuits etc. to expand and become light.
118. (c) The Arthashastra is a treatise on Political philosophy. The book, written in Sanskrit, discusses theories and principles of governing a state. The meaning of Arthashastra is 'Science of Polity'. It is written by Kautilya.
119. (b) Thyroid gland in human body contains iodine. Deficiency of iodine creates goitre disease. Which is observed by the enlargement of larynx.
120. (a) 121. (d) 122. (b) 123. (a)
124. (a) 125. (b)
126. (b) Under Article 32 of the Constitution, an individual can directly move to the Supreme Court in Case of any violation of fundamental rights. Fundamental Rights are those rights which are essential for the growth of an individual's personality and are enjoyed by every citizen irrespective of caste, color, creed, race and sex.
127. (d) The Dandi March of Gandhi was an important part of the Indian Independence Movement. It was a direct action campaign of tax resistance and non-violent protest against British salt monopoly and triggered the wider Civil Disobedience Movement.
128. (d) Aihole inscription is found at Aihole in Karnataka state India, was written by the Ravikirti, court poet of Chalukya king, Pulakeshin II who reigned from 610 to 642 CE. The poetic verses of Ravikirti, in praise of the king, can be read in the Meguti temple, dated 634 CE.
129. (c) The filtration unit of kidney is known as nephron. Kidneys filter the nitrogenous waste products of the body through

nephron and throw them out in the form of urine. Kidneys and skin are the chief organs of excretion.

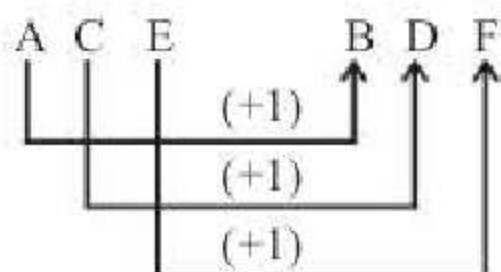
130. (b) Yeast is an important source of vitamin B. Yeasts is eukaryotic microorganisms classified in the kingdom Fungi, with 1,500 species (estimated to be 1% of all fungal species). Yeasts are unicellular, although some species with yeast forms may become multicellular through the formation of strings of connected budding cells known as pseudohyphae, or false hyphae, as seen in most molds.
131. (a) Godavari is the longest river of peninsular India. From its source to the Eastern Ghats, the Godavari River flows through gentle, somewhat monotonous terrain, along the way receiving the Darna, Purna, Manjra, Pranhita, and Indravati rivers. Upon entering the Eastern Ghats region, however, the river flows between steep and precipitous banks, its width contracting until it flows through a deep cleft only 600 feet (180 metres) wide, known as the Gorge.
132. (a) Minorities Rights Day is observed in India in 18th December. National Commission for Minorities celebrated Minorities Rights Day on 18 December 2012. Minorities Rights Day is celebrated on 18th December every year. The day is celebrated to protect rights of the minorities communities as well as bringing the better understanding among religious minorities in India.
133. (b) "Sattriya Nritya" is a classical dance form of India and has originated in Assam. Sattriya or Sattriya Nritya, is one among the eight principal classical Indian dance traditions. In the year 2000, the Sattriya dances of Assam received recognition as one of the eight classical dance forms of India.
134. (c) 135. (b) 136. (b)
137. (d) Jean Tirole has won Nobel Prize for his analysis of market power and regulation.



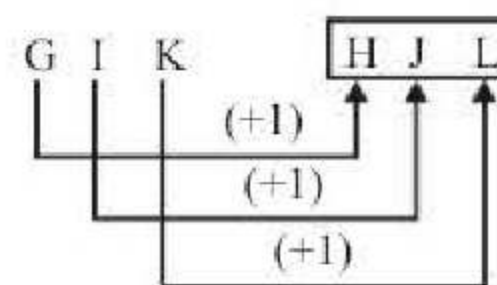
138. (c) The ozone layer is a layer in Earth's atmosphere that absorbs most of the Sun's UV radiation. It contains relatively high concentrations of ozone ( $O_3$ ), although it is still very small with regard to ordinary oxygen, and is less than ten parts per million, the average ozone concentration in Earth's atmosphere being only about 0.6 parts per million. The ozone layer is mainly found in the lower portion of the stratosphere from approximately 20 to 30 kilometres (12 to 19 miles) above Earth, though the thickness varies seasonally and geographically.
139. (b) Bilal Tanweer has been awarded with Shakti Bhatt First Book Prize- 2014 for his novel "The scatter here is too great".
140. (c)
141. (a) The Blue Revolution is related with fish production.
142. (c) Plimsol line is not a line of demarcation between two countries.
143. (c) The first major attempt in curriculum reconstruction in India was made in 1937 when Gandhiji propounded the idea of Basic Education.
144. (c) An equinox occurs twice a year, around 20 March and 22 September. If March 21 is an equinox then next equinox will be 23 September.
145. (d) Vitamin K is a group of structurally similar, fat-soluble vitamins that the human body needs for modification of certain proteins that are required for blood coagulation, and in bone and other tissue.
146. (d) 147. (c) 148. (a) 149. (b) 150. (b)

### Practice Set-4

1. (a) As,



Similarly

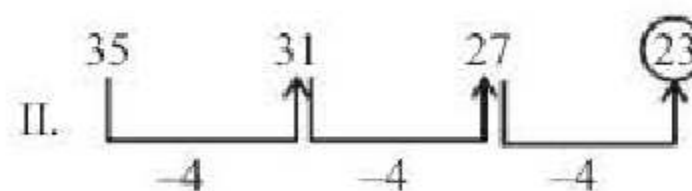
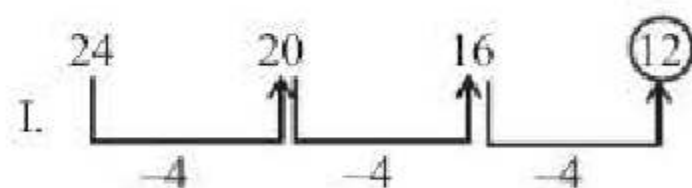


2. (d) A hive is a shelter for bees. Whereas, A eyrie is a large nest of an eagle.
3. (a)  $v \xrightarrow{(+1)} w$      $p \xrightarrow{(+1)} q$   
 $y \xrightarrow{(-1)} x$      $m \xrightarrow{(+1)} n$   
 $g \xrightarrow{(-1)} f$      $k \xrightarrow{(+1)} \ell$   
 $c \xrightarrow{(-1)} b$      $r \xrightarrow{(+1)} s$
4. (a) Except (a), all others are not divisible by 2nd term.
5. (b) Meaning full words

1                      2                      3                      4  
 Tilling  $\rightarrow$  Sowing  $\rightarrow$  Weeding  $\rightarrow$  Reaping.

6. (b)  $-1 \quad 0 \quad 3 \quad 8 \quad 15 \quad 24$   
 $\quad \quad +1 \quad +3 \quad +5 \quad +7 \quad +9$

7. (d) There are two numbers series:



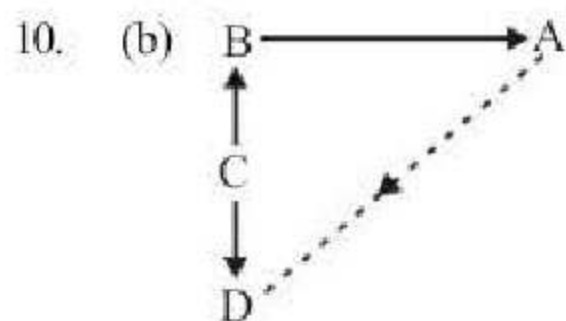
8. (d)

F I F T Y C A R T A R  
 $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$   
 Coded as  $\rightarrow$  C A C T Y P O L T O L

T A R I F F  
 $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$   
 Coded as T O L A C C



9. (c) rtxy/ sxyz/ rtxy/ sxyz.



It is clearly shown that, D is in south west of A.

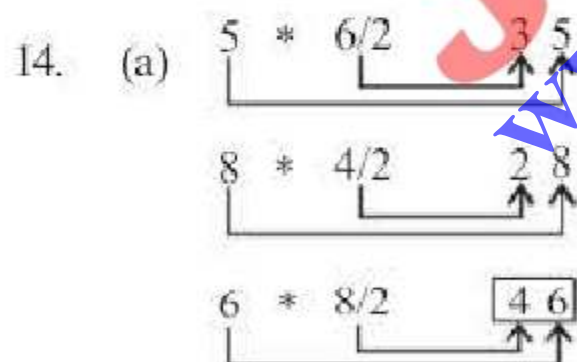
11. (c) Parliamentary

12. (a) The father of the boy's uncle → the grandfather of the boy and daughter of the grandfather → sister of father.

13. (d)

Regions	1	2	4	6	7	8	9	10
Persons ↓								
Boys □	✓	✓	×	×	×	×	✓	×
Girls △	×	×	✓	×	×	✓	×	×
Sober ○	×	✓	✓	✓	✓	×	×	×
Cricketer ▭	✓	✓	×	✓	×	×	×	✓

Region 2 presents the boys who are cricketer and sober.



15. (b)  $1 \times 2 \times 3 = 6$   
 $2 \times 3 \times 4 = 24$   
 $3 \times 4 \times 5 = 60$   
 $4 \times 5 \times 6 = 120$   
 $5 \times 6 \times 7 = 210$   
 $6 \times 7 \times 8 = 336$

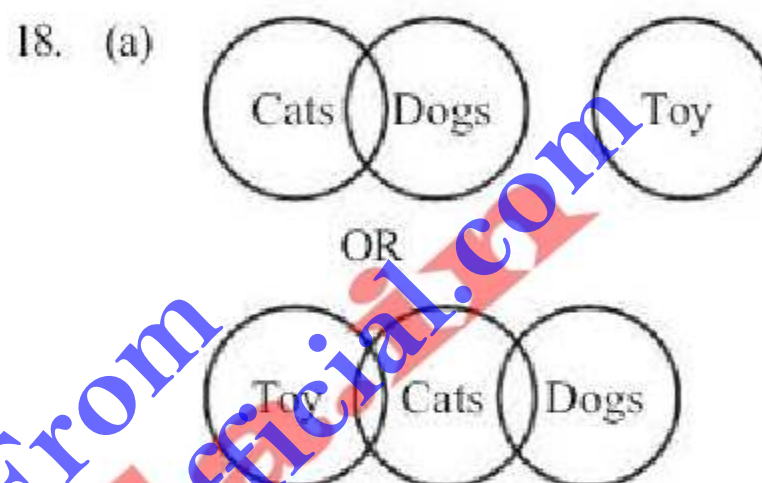
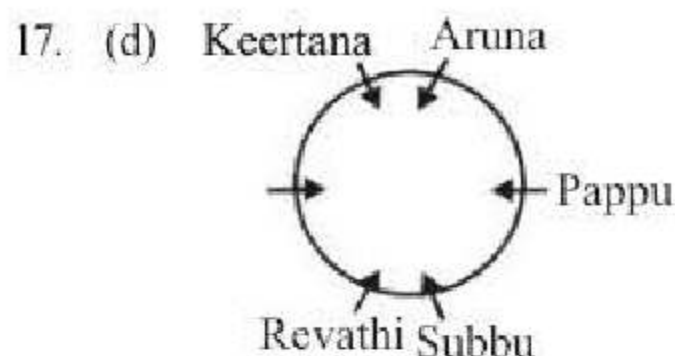
16. (d) First Column  
 $12 \times 3 + 4 = 40$

Second Column

$$15 \times 4 + 6 = 66$$

Third Column

$$16 \times 5 + 4 = \boxed{84}$$



Conclusion I : True

II : Complementary Pair

III : Complementary Pair

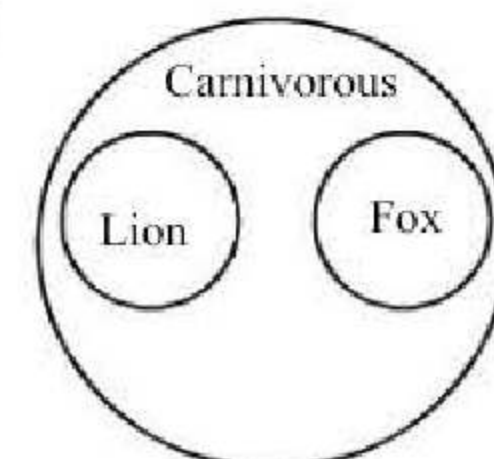
IV : False

So, only conclusion I and either II or III.

19. (d) Arrangement of words according to dictionary:

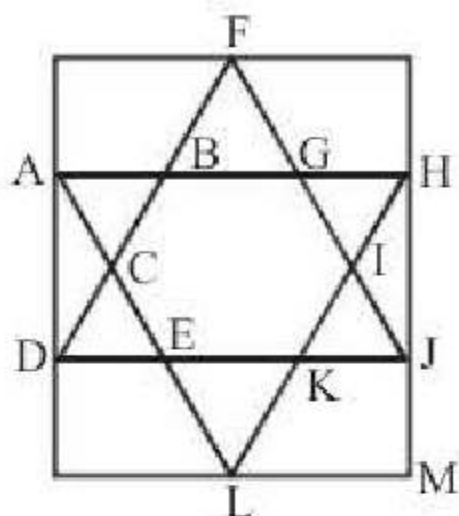
4. Manage  
 ↓  
 1. Matter  
 ↓  
 3. Mockery  
 ↓  
 2. Motive  
 ↓  
 5. Movies

20. (c)





21. (b) ANZFEQIS  
 22. (b)  
 23. (b) There are 12 triangles in the given square.



$\triangle ABC, \triangle ACD, \triangle ABD, \triangle AFD$   
 $\triangle FGB, \triangle HIG, \triangle HJI, \triangle IJK$   
 $\triangle HJK, \triangle HML, \triangle EKL, \triangle CED$

24. (d)

25. (b) 

L	A	N	E
↓	↓	↓	↓
31	87	32	97

26. (d)  
 $\sqrt{7.84} + \sqrt{0.0784} + \sqrt{0.000784} + \sqrt{0.00000784}$   
 $= \sqrt{\frac{784}{100}} + \sqrt{\frac{784}{10000}} + \sqrt{\frac{784}{1000000}} + \sqrt{\frac{784}{100000000}}$   
 $= \frac{28}{10} + \frac{28}{100} + \frac{28}{1000} + \frac{28}{10000}$   
 $= 2.8 + 0.28 + 0.028 + 0.0028 = 3.1108$

27. (d) On taking option (d).  
 The reverse digit of 451 is 154.  
 Now,  $154 + 297 = 451$  is equal to the original number.

28. (a) 40% of 50% of  $\frac{3}{4}$  of 3200  
 $= \frac{4}{10} \times \frac{5}{10} \times \frac{3}{4} \times 3200 = 4 \times 5 \times 3 \times 8 = 480$

29. (b) There are  $7 + 5 = 12$  balls in the bag and the number of ways in which 4 balls can be

drawn is  ${}^{12}C_4$  and the number of ways of drawing 4 black balls (out of seven) is  ${}^7C_4$ .  
 Hence, P (4 black balls)

$$= \frac{{}^7C_4}{{}^{12}C_4} = \frac{7.6.5.4}{1.2.3.4} \times \frac{1.2.3.4}{12.11.10.9} = \frac{7}{99}$$

Thus the odds against the event 'all black balls' are

$$(1 - \frac{7}{99}) : \frac{7}{99} \text{ i.e., } \frac{92}{99} : \frac{7}{99} \text{ or } 92 : 7$$

30. (c) Let the cost price of the watch = ₹x  
 After 40% marked price and 10% discount

$$= x \times \frac{90}{100} \times \frac{140}{100} = \frac{126x}{100}$$

$$\text{Profit} = \frac{126x}{100} - x = \frac{26x}{100}$$

According to question,  
 Pay 10% tax on profit

$$= \frac{26x}{100} \times \frac{90}{100} = 468$$

$$x = \frac{468 \times 100 \times 100}{26 \times 90} = ₹2000$$

31. (b) Let the number of men be n

Men	Days
42 ↓ n	25 ↑ 14

$$\therefore \frac{n}{42} = \frac{25}{14} \Rightarrow n = 75$$

32. (d) Volume of wire =  $\pi r^2 h$

$$\text{New radius of the wire} = \frac{r \times 90}{100} = \frac{9r}{10}$$

Let new length of the wire be L.

$\therefore$  Volume of new wire

$$= \pi \left( \frac{9r}{10} \right)^2 \times L = \frac{81}{100} \pi r^2 L$$

According to question,

$$\pi r^2 h = \frac{81}{100} \pi r^2 L \Rightarrow L = \frac{100}{81} h$$



$$\text{Increase in length} = \frac{100}{81}h - h = \frac{19}{81}h$$

$$\text{Percent increase} = \frac{19/81h}{h} \times 100\% = 23.46\%$$

$$= 23\% \text{ (approx)}$$

33. (c) Let the observation mean =  $x$   
 $\therefore$  Sum of 50 observations =  $50x$   
 According to question,

$$\therefore \frac{50x - 45}{49} = x$$

$$\Rightarrow 50x - 45 = 49x$$

$$\therefore x = 45$$

34. (b) Interest earned in 1st half of a year

$$= 20,000 \times \frac{1}{2} \times \frac{20}{100} = 2000$$

Similarly, During second half, interest earned = 2200

During second year, interest earned = 4840 (Note : Interest is calculated as compound)

Total interest earned at the end of two years  
 $= 2000 + 220 + 4840 = ₹9040$

35. (b) Total age of the family of five members = 24  
 $\times 5 = 120$

Total age of the family of five members before 8 years

$$= 120 - 5 \times 8 = 120 - 40 = 80$$

$$\text{So, required average age} = \frac{80}{5} = 16 \text{ yr.}$$

36. (b) H.C.F of co-prime numbers is 1.

37. (c) Suppose maximum marks =  $x$

$$\text{then } x \times \frac{35}{100} = 40 + 30 \Rightarrow x \times \frac{35}{100} = 70$$

$$\Rightarrow x = \frac{70 \times 100}{35} = 200 \text{ marks}$$

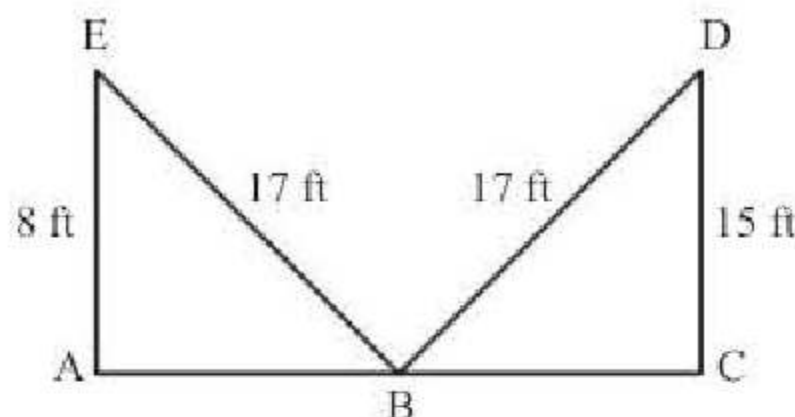
38. (a) S.P. = Rs 330, Gain = 10%

$$\therefore \text{C.P.} = \left( \frac{100}{100 + \text{Gain \%}} \right) \times \text{S.P.}$$

$$= \text{Rs } \frac{100}{100 + 10} \times 330$$

$$= \frac{100}{110} \times 330 = \text{Rs } 300.$$

39. (a)



In  $\triangle ABE$ ,

$$BE^2 = AE^2 + AB^2 \Rightarrow AB^2 = 17^2 - 8^2$$

$$\text{or } AB^2 = 289 - 64 = 225 \Rightarrow AB$$

$$AB = 15 \text{ ft}$$

In  $\triangle BCD$ ,

$$BD^2 = BC^2 + CD^2 \Rightarrow BC^2 = 17^2 - 15^2$$

$$= 289 - 225 = 64$$

$$\Rightarrow BC = 8 \text{ ft}$$

$$\therefore \text{Width of the street} = AB + BC = 15 + 8 = 23 \text{ ft}$$

40. (d)  $D = \left( \frac{R}{100} \right)^2 \times P$

$$P = D \times \left( \frac{100}{R} \right)^2 = \frac{1500 \times 10000}{25} = ₹6000$$

41. (d) Given,  $x + \frac{1}{x} = p$

$$\Rightarrow \left( x + \frac{1}{x} \right)^2 = p^2$$

$$\Rightarrow x^2 + \frac{1}{x^2} + 2 = p^2$$

$$\Rightarrow x^2 + \frac{1}{x^2} = p^2 - 2 \quad \dots (i)$$

$$\Rightarrow \left( x^2 + \frac{1}{x^2} \right)^3 = (p^2 - 2)^3$$



$$\Rightarrow x^6 + \frac{1}{x^6} + 3\left(x^2 + \frac{1}{x^2}\right) = p^6 - 8 - 6p^2(p^2 - 2)$$

$$\Rightarrow x^6 + \frac{1}{x^6} + 3(p^2 - 2) = p^6 - 8 - 6p^4 + 12p^2$$

[from equation (i)]

$$\Rightarrow x^6 + \frac{1}{x^6} = p^6 - 6p^4 + 9p^2 - 2$$

42. (a) Given,  $x + y + z = 0$

$$\therefore (x + y)(y + z)(z + x) = (-z)(-x)(-y) = -xyz$$

43. (a)  $M_1 = 40, D_1 = 8$  (As days and hrs both denote time)

$$W_1 = 60 \text{ (cutting of trees is taken as work)}$$

$$M_2 = 40 - 8 = 32, D_2 = 12, W_2 = ?$$

Putting the values in the formula

$$M_1 D_1 W_2 = M_2 D_2 W_1$$

$$\text{We have, } 40 \times 8 \times W_2 = 32 \times 12 \times 60$$

$$\text{or, } W_2 = \frac{32 \times 12 \times 60}{40 \times 8} = 72 \text{ trees.}$$

44. (a) In 2 minutes, he ascends = 1 metre

$$\therefore 10 \text{ metres, he ascends in 20 minutes.}$$

$$\therefore \text{He reaches the top in 21st minute.}$$

45. (b) Average age = 28.5

$$\therefore \text{Total age} = 28.5 \times 2 = 57$$

$$\therefore \text{Daughter's age} = \frac{5}{19} \times 57 = 15 \text{ years}$$

46. (d) % of female professionals =

$$= [20\% \text{ of } 21\% + 60\% \text{ of } 18\% + 40\% \text{ of } 11\% + 80\% \text{ of } 15\% + 40\% \text{ of } 19\% + 35\% \text{ of } 16\%]$$

$$= \frac{1}{100} [420 + 1080 + 440 + 1200 + 760 + 560]\%$$

$$= \frac{4460}{100}\% = 44.6\%$$

$$\therefore \% \text{ of male professionals}$$

$$= 100\% - 44.6\% = 55.4\%$$

$$\therefore \text{Required difference}$$

$$= (55.4 - 44.6)\% \text{ of } 10500$$

$$= 10.8\% \text{ of } 10500$$

$$= 10.8 \times 105 = 1134$$

47. (d) Required %

$$= \frac{20\% \text{ of } 21}{89\% \text{ of } 15} \times 100\% = \frac{20 \times 21}{80 \times 15} \times 100\%$$

$$\frac{420}{12} \approx 35\%$$

48. (a) Required ratio =  $\frac{60 \times 11}{20 \times 15} = 11:5$

49. (d)  $(4x)(3x) = 1728$

$$\Rightarrow x^2 = 144 \therefore x = 12$$

$$\Rightarrow \text{length} = 48; \text{breadth} = 36$$

$$\therefore \text{Required ratio} = \frac{36}{36 \times 48} = 1:48$$

50. (b)  $24 = 12 \times 2,$

$$36 = 12 \times 3,$$

$$48 = 12 \times 4,$$

$$\text{and } 72 = 12 \times 6$$

$$\therefore \text{HCF}(24, 36, 48, 72) = 12$$

$$\text{Total pieces} = 2 + 3 + 4 + 6 = 15$$

51. (d) The author narrates the story in the context of Europe.

52. (c) Buck up is an expression for the word cheer up.

53. (a) The Indian friend was being hopeless because the holiday was over.

54. (b) The author describes the typical English character.

55. (a) The author is trying to highlight the sorrows of Indian character.

56. (a) 57. (d) 58. (a) 59. (b) 60. (a)

61. (b) 62. (a) 63. (c) 64. (d) 65. (b)

66. (b) 67. (d) 68. (d) 69. (d)

70. (b) The accused denied having murdered anybody.

When you refuse something it means you do not accept it. To refuse to do something is to say that you won't do that. Where as to deny is something is not true. To deny somebody something is to refuse to give it to them.

71. (b) We need honest workers, not people of doubtful integrity.



Redoubtable (adj.) (Of a person): causing fear and respect

Doubtful : Uncertain, undecided and contingent, often use to admitting of doubt.

72. (d) By the time he arrived, everybody had gone home.

73. (a) 74. (b)

75. (c) Remorse is an emotion/action/feeling after the crime is done. Hatred is for the other people who saw/hear/ gone through crime but certainly not for the prisoner. Crime is done in anger and a cause. Obstinacy is stubbornness. Only emotion that suits the context is Remorse.

76. (c) If it would have been 'security' then it would have been 'provided' in the statement not 'subjected'. Exercise does not fit. Violation (to breach) is also out of place. Use of 'physical' in statement indicates 'violence'. It fits best in the blank.

77. (c) War is a negative word and it is synonym with mass destruction, death hence certainly has grim consequences. Happy, Pleasing, exciting all have positive sense, so can not be linked with war.

78. (b) 'Glean' means 'to gather ears of corn left'.

79. (d) 'Tactile' means 'connecting with your sense of touch'.

80. (b) 81. (d) 82. (b)

83. (b) 'Deferential' means behaviour that shows respect.

84. (d) 'Felicitous' means very suitable or giving a good result.

85. (b) 86. (d) 87. (d) 88. (a) 89. (d)

90. (b) Garrulous

91. (a) Marquee

92. (a) Puissant

93. (d) Disconcerting

94. (b) They sit by the window and watch the traffic.

95. (d) I started early for the station lest I should miss the train.

96. (a) 97. (d) 98. (d) 99. (d) 100. (c)

101. (d) A compiler is a special programme that processes statements written in a particular programming language and turns them into machine language or "code" that a computer's processor uses.

102. (b) A company organized for commercial purposes is called an enterprise. Classification of an enterprise into public or private sector is based on ownership of assets of the enterprise.

103. (c) Somatotrophin is produced by the anterior pituitary. It is a peptide hormone that induces growth, cell reproduction and regeneration.

104. (b) Gandhiji was elected President of the All-India Khilafat Conference which met at Delhi on November 23, 1919. They decided to withdraw all cooperation from the government if their demands were not met.

105. (a) Manipur does not have boundary with Bangladesh.

106. (c) The Namesake (2004) is the first novel by Jhumpa Lahiri.

107. (c) The Constitution of India was drafted by the constituent assembly and it was set up under the cabinet Mission plan on 16 May 1946. The members of the constituent assembly were elected by the Provincial assemblies by method of single transferable vote system of proportional representations. Members of the committee: Sardar Vallabhbhai Patel, K. M. Munshi, Acharya J.B kiplani . Lok Nayak Jai Prakash was not the member of the constituent assembly.

108. (c) Greenhouse gases catch the sun's radiation on its way back into space and reflect some of that warmth back to Earth, increasing temperatures. Carbon dioxide is known as greenhouse gas because of their ability to trap and reflect the sun's radiation back to Earth.

109. (b) A laser is a device that emits coherent light through a process called stimulated emission.



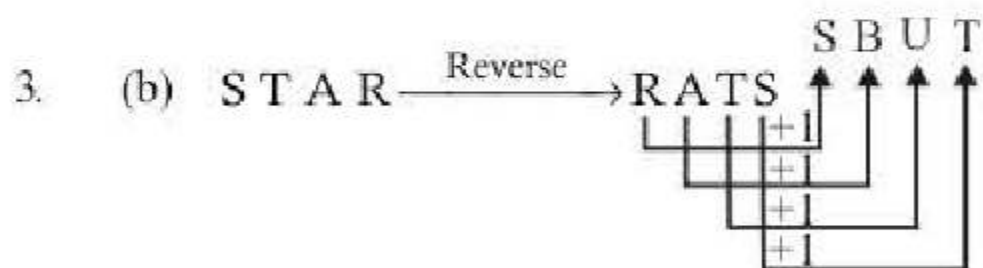
110. (c) Cowper's gland is related to reproductive system. Cowper's gland is the bulbourethral gland found in human males. They are found in pair and secrete viscous secretion called pre ejaculate that helps in coitus.
111. (a) Mist is a thin fog resulting from condensation in the air near to the earth's surface.
112. (a) Dyarchy was a system of double government introduced by British India.
113. (b) Mohammed Ali Jinnah was Indian Muslim politician, founder and first governor-general (1947-48) of Pakistan. As the first Governor-General of Pakistan, Jinnah worked to establish the new nation's government and policies, and to help settle the millions of Muslim migrants who had emigrated from the new nation of India to Pakistan after the partition. He is revered in Pakistan as Quaid-i-Azam.
114. (c) The Department of Economic Affairs (DEA) under Ministry of Finance is the nodal agency of the Union Government to formulate and monitor country's economic policies and programmes having a bearing on domestic and international aspects of economic management.
115. (c) Centrifugal force separates fat from milk.
116. (a) Total fixed costs are constant, so the average fixed cost curve diminishes with the output. Thus, the average fixed cost curve is a rectangular hyperbola.
117. (d) Malaria is a mosquito borne disease of humans and other animals caused by Plasmodium protozoan. Severe disease is largely caused by Plasmodium falciparum whereas mild forms are due to *P vivax*, *P oval* and *P malariae*.
118. (b) The focal length of a convex lens is shorter for blue light than for red.
119. (c) Ram Prasad Bismil was the famous freedom fighter who was involved in the historic Kakori train robbery. He was born in 1897 at Shahjahanpur, Uttar Pradesh. On 9th August, 1925, Ram Prasad Bismil along with his fellow followers looted the money of the British government from the train while it was passing through Kakori, Lucknow. Except Chandrashekhar Azad, all other members of the group were arrested. Ram Prasad Bismil along with others was given capital punishment. This great freedom fighter of India was executed on 19th December, 1927.
120. (c) Himadri Station is India's first Arctic research station located at Spitsbergen, Svalbard, Norway. It was inaugurated on the 1st of July, 2008 by the Minister of Earth Sciences.
121. (b) 122. (a) 123. (a) 124. (c) 125. (a)
126. (c) Operation Flood in India, a project of the National Dairy Development Board (NDDB) was the world's biggest dairy development program which made India, a milk-deficient nation, the largest milk producer in the world, surpassing the USA in 1998, with about 17 percent of global output in 2010-11, which in 30 years doubled the milk available per person, and which made dairy farming India's largest self-sustainable rural employment generator. All this was achieved not merely by mass production, but by production by the masses.
127. (c) powers and functions of the chief Election Commissioner
128. (a) Bahlul Khan Lodi was the founder of Lodi dynasty of the Delhi Sultanate in India upon the abdication of the last claimant from the previous Sayyid rule.
129. (b) Lieutenant-General Lord William Henry Cavendish-Bentinck, GCB, GCH, PC, known as Lord William Bentinck, was a British soldier and statesman. He served as Governor-General of India from 1828 to 1835.
130. (c)
131. (b) The Fundamental Rights can be suspended during the Emergency under Article 359 of the Constitution by the President of India.



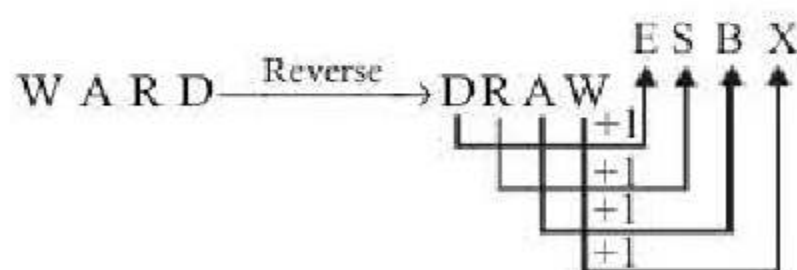
132. (b) 1191 - First Battle of Tarain in which Prithviraj Chauhan defeated Mohd. Ghorī. 1192 - Second Battle of Tarain in which Mohd. Ghorī defeated Prithviraj Chauhan.
133. (b) Emperor Akbar named Prayag as Allahabad - City of God - also called Allahabad in 1575 AD. The city of Allahabad is situated at the confluence of three rivers - Ganga, Yamuna and the invisible Saraswati. Every 12th year when the waters are felt to be especially purifying, Allahabad holds a much greater festival called Kumbh Mela. Built by Emperor Akbar in 1583 AD, the Allahabad fort stands on the banks of the river Yamuna near the confluence site i.e. SANGAM.
134. (b) Battle of Wandiwash decided the fate of French in India. Battle of Wandiwash, (Jan. 22, 1760), in the history of India, a confrontation between the French, under the comte de Lally, and the British, under Sir Eyre Coote. It was the decisive battle in the Anglo-French struggle in southern India during the Seven Years' War (1756-63).
135. (a) Gulf Stream is a warm ocean current. It flows along the North America and drifts towards western Europe, thus raising the temperature of western coast considerably.
136. (b) Recharging of ground water is the main advantage of rain water harvesting. Rainwater harvesting provides an independent water supply during regional water restrictions and in developed countries is often used to supplement the main supply. It provides water when there is a drought, can help mitigate flooding of low-lying areas, and reduces demand on wells which may enable ground water levels to be sustained.
137. (d) Lal Bahadur Shastri was the first posthumous recipient of Bharat Ratna in 1966. Lal Bahadur Shastri was the third Prime Minister of the Republic of India and a leader of the Indian National Congress party. Shastri joined the Indian independence movement in the 1920s.
138. (b) 139. (b) 140. (a) 141. (b)
142. (c) The Panch Prayag the five sacred river confluence is in the state of Uttarakhand. The five prayags are Vishnu Prayag, Nand Prayag, Karn Prayag, Rudra Prayag and Dev Prayag.
143. (b) Yashsvini is a health insurance scheme for the members of the cooperative bodies in Karnataka.
144. (a)
145. (a) Kaziranga National Park is a national park in the Golaghat and Nagaon districts of the state of Assam, India. A World Heritage Site, the park hosts two-thirds of the world's great one-horned rhinoceroses.
146. (a) 147. (b) 148. (d) 149. (d) 150. (d)

### Practice Set-5

1. (a) As,  $9 \times 3 - 3 = 24$   
 $3 \times 3 - 3 = 6$



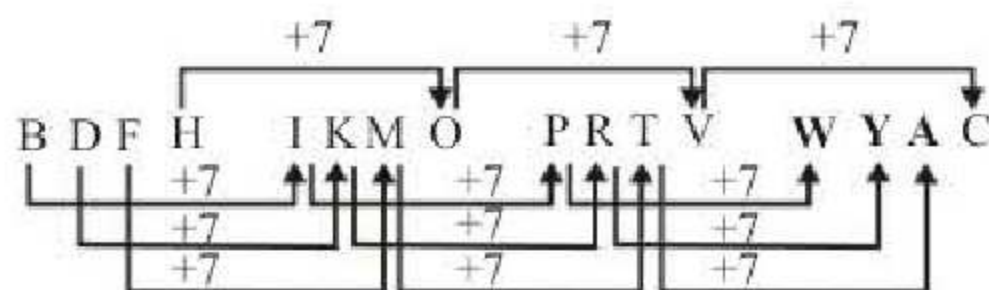
Similarly,



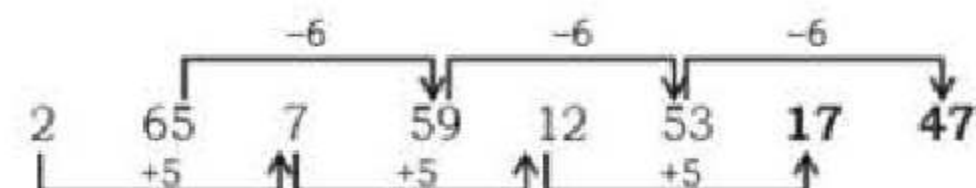
3. (c) Except in the number pair (7, 169) in all other number pairs both the numbers are perfect squares.  
 $(25, 49) \Rightarrow [(5)^2, (7)^2]$   
 $(121, 169) \Rightarrow [(11)^2, (13)^2]$   
 $(9, 25) \Rightarrow [(3)^2, (5)^2]$
4. (c) In the word MEET, the second and the third letters are the same.



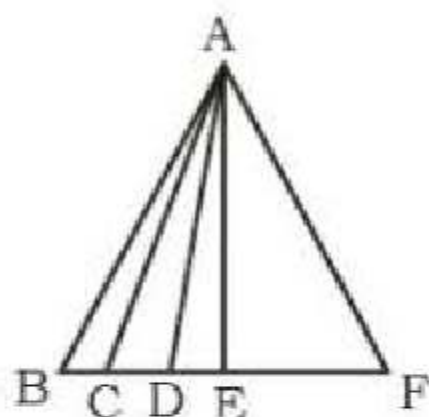
5. (a)



6. (c)



7. (d)



There are 10 triangles in the given figure –  
ABC, ABD, ABE, ABF, ACD, ACE, ACF,  
ADE, ADF, and AEF

8. (b) The correct order is:

3                      2                      4                      1                      5  
Mosquito → Cat → Tiger → Elephant → Whale

9. (d)

G    O    O    D    N    E    S    S  
↓+1 ↓-1 ↓+1 ↓-1 ↓+1 ↓-1 ↓+1 ↓-1  
H    N    P    C    O    D    T    R

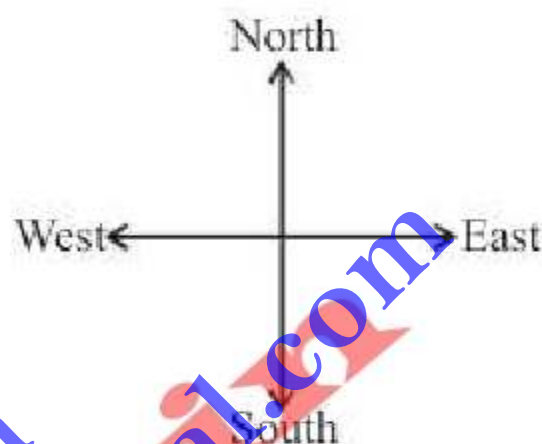
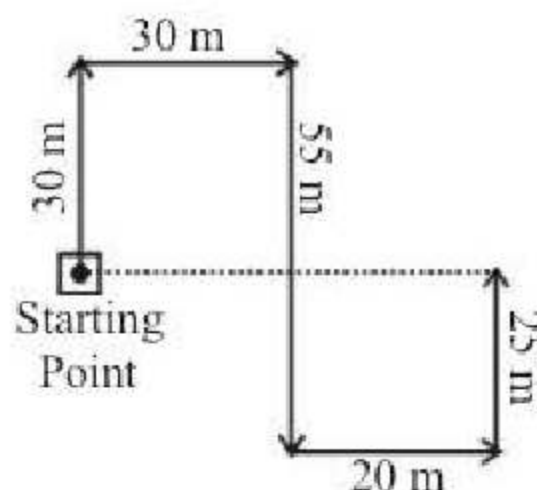
Similarly,

G    R    E    A    T    N    E    S    S  
↓+1 ↓-1 ↓+1 ↓-1 ↓+1 ↓-1 ↓+1 ↓-1  
H    Q    F    Z    U    M    F    R    T

10. (a) ALERT can not be formed as there is no 'R' in the word LEGALIZATION. Hence, (a) is the correct choice.

11. (b) The sequence BBCCA is repeated  
BBCCA/BBC CABBCCA/BBCCA

12. (b)



Required distance = 30m + 20 m = 50 m

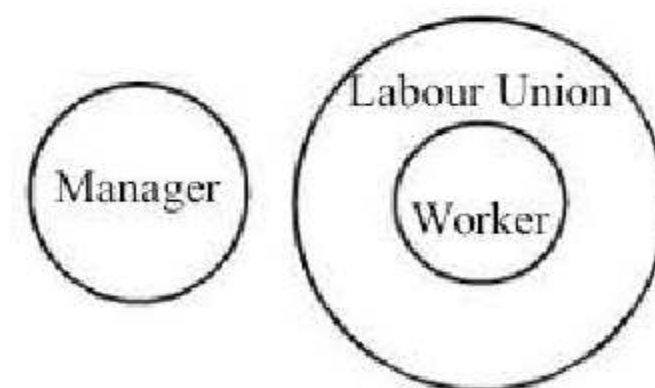
13. (d)

A man + his wife = 1 + 1 = 2  
His three sons + their wives = 3 + 3 = 6  
Three children in each one's family = 3 × 3 = 9  
Total members = 2 + 6 + 9 = 17

14. (d)

5<sup>th</sup> date of a month is Tuesday  
Friday will be on = 5 + 3  
= 8<sup>th</sup> of a month  
1<sup>st</sup> Friday is on 1<sup>st</sup> of a month  
2<sup>nd</sup> Friday is on 8<sup>th</sup> of a month  
3<sup>rd</sup> Friday will be on 15<sup>th</sup> of a month  
3 days after 15<sup>th</sup> = 15 + 3 = 18

15. (a)



16. (c)

Rahul's present age = 12 yrs,  
Paras                      "                      = 4 yrs  
Let Rahul be twice as old as Paras after x yrs from now.  
Then, 12 + x = 2 (4 + x)  
= 12 + x = 8 + 2x ⇒ x = 4  
Hence, Rahul's required age = 12 + x ⇒ 16 yrs



17. (c) As,  $(5 + 4 + 7)/2 = 8$

$(3 + 7 + 2)/2 = 6$

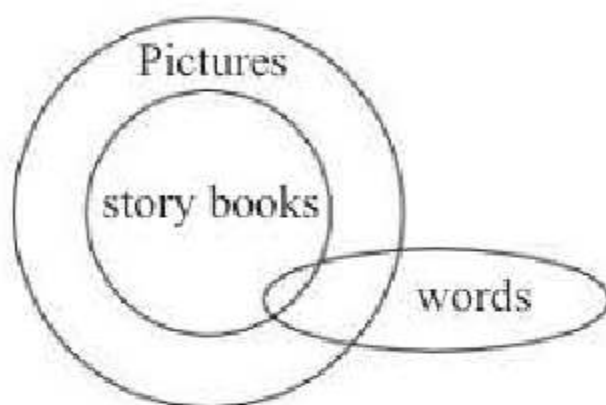
Similarly,

$(6 + 9 + 5)/2 = 10.$

18. (d) Putting the position of the letters in reverse order

$P = 11, S = 8, V = 5$  and  $Y = 2.$

19. (c)

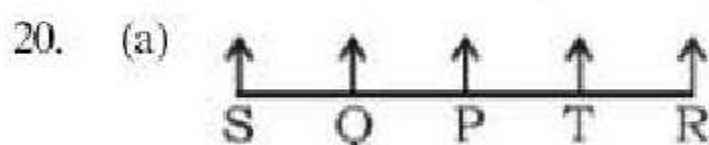


Conclusions : (a) False

(b) False

(c) True

(d) False



21. (a) 22. (c)

23. (b) The third figure in each row comprises of parts which are not common to the first two figures.

24. (c)

25. (b)	A	I	R	S
	↓	↓	↓	↓
	43	55	86	95

26. (c)  $\frac{1}{\sqrt{9}-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}}$

$-\frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-\sqrt{4}}$  (on rationalisation)

$= (\sqrt{9} + \sqrt{8}) - (\sqrt{8} + \sqrt{7}) + (\sqrt{7} + \sqrt{6})$

$-(\sqrt{6} + \sqrt{5}) + (\sqrt{5} + \sqrt{4})$

$= \sqrt{9} + \sqrt{4} = 3 + 2 = 5$

27. (a) Here,  $52 - 33 = 78 - 59 = 117 - 98 = 19$

Now,  $52 = 13 \times 2 \times 2$

$78 = 13 \times 2 \times 3$

$117 = 13 \times 3 \times 3$

$\therefore \text{LCM} = 13 \times 2 \times 2 \times 3 \times 3 = 468$

$\therefore \text{Required number} = 468 - 19 = 449$

Hence, the sum of digits is 17.

28. (c) Let the numerator and denominator of a fraction are  $x$  and  $y$ , respectively,

According to question,

$\frac{x-1}{y} = \frac{1}{3} \Rightarrow 3x - 3 = y \Rightarrow 3x - y = 3 \dots (i)$

and  $\frac{x}{y+5} = \frac{1}{4} \Rightarrow 4x - y = 5 \dots (ii)$

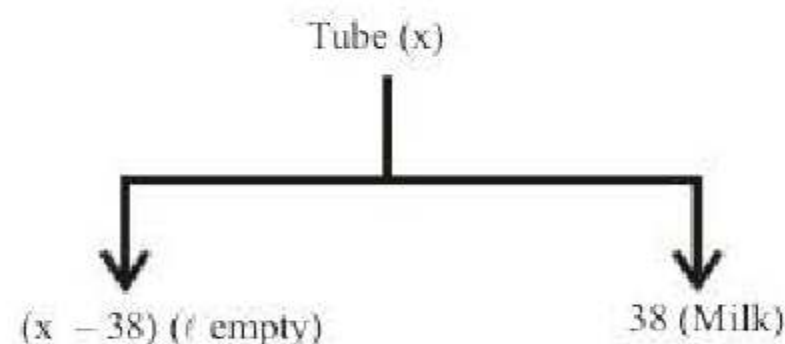
On solving eqs. (i) and (ii), we get

$x = 2$  and  $y = 3$

Required fraction

$= \frac{x-1}{y+5} = \frac{2-1}{3+5} = \frac{1}{8}$

29. (b) Let tub capacity  $x$  L.



Now,  $x \times \frac{95}{100} = 38$

$x = 40$  L,

Additional milk  $= 40 \text{ L} - 38 \text{ L} = 2 \text{ L}.$

30. (b) Profit will be shared in the ratio of

$11 \times 3 : 16.5 \times 3 : 8.25 \times 3$

$= 11 : 16.5 : 8.25$

$= 44 : 66 : 33$

Anil's share in the profit

$= \frac{33}{143} \times 19.5 = 4.5 \text{ lakh}$

50% of Anil's share  $= 2.25 \text{ lakh}$



31. (c) After 1st hit ball height will be  $= \frac{1}{2}(64)$   
 After 2nd hit ball height will be  $=$   
 $\left(\frac{1}{2}\right)^2 (64)$   
 .....  
 .....  
 .....  
 After 16th hit ball height will be

$$= \left(\frac{1}{2}\right)^{16} (64) = \frac{1}{2^{16}} (2^6) = 2^{-10} \text{ m}$$

32. (c) Given,  $A : B : C = \frac{1}{5} : \frac{1}{6} : \frac{1}{10} = 6 : 5 : 3$

$\therefore$  Share of A

$$= \frac{6}{6+5+3} \times 8400 = \frac{6}{14} \times 8400$$

$$= ₹ 3600$$

33. (a) Given that,

Number of male employees (M) = 45

Number of female employees (F) = 15

Mean salary of male employee ( $\bar{x}_M$ )

= ₹ 5000

Total number of employees = (M + F)

$$= 45 + 15 = 60$$

Mean salary of employees ( $\bar{x}_{MF}$ ) = ₹ 4800

Let mean salary of female employee is  $\bar{x}_F$

By formula,

$$\bar{x}_{MF} = \frac{M \bar{x}_M + F \bar{x}_F}{(M + F)}$$

$$\Rightarrow 4800 = \frac{45 \times 5000 + 15 \times \bar{x}_F}{60}$$

$$\Rightarrow 4800 \times 60 - 45 \times 5000 = 15 \times \bar{x}_F$$

$$\therefore \bar{x}_F = \frac{4800 \times 60 - 45 \times 5000}{15}$$

$$= \frac{288000 - 225000}{15} = \frac{63000}{15} = 4200$$

34. (d) Suppose number of passengers be x in the starting.

Number of passengers after 1<sup>st</sup> halt

$$= \left(x - \frac{x}{3}\right) + 120 = \frac{2x}{3} + 120$$

Number of passengers after 2<sup>nd</sup> halt

$$= \frac{1}{2} \left(\frac{2x}{3} + 120\right) + 100$$

According to question,

Number of passengers after 2<sup>nd</sup> halt

$$= \frac{1}{2} \left(\frac{2x}{3} + 120\right) + 100 = 240$$

$$\Rightarrow \frac{2x}{3} + 120 = (240 - 100) \times 2$$

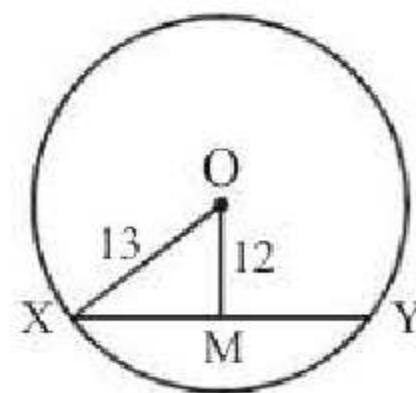
$$\Rightarrow \frac{2x}{3} = 280 - 120$$

$$\frac{2x}{3} = 160$$

$$x = \frac{160 \times 3}{2}$$

$$x = 240$$

35. (b) From figure,



$$XM = \sqrt{13^2 - 12^2}$$

$$= \sqrt{169 - 144} = 5$$

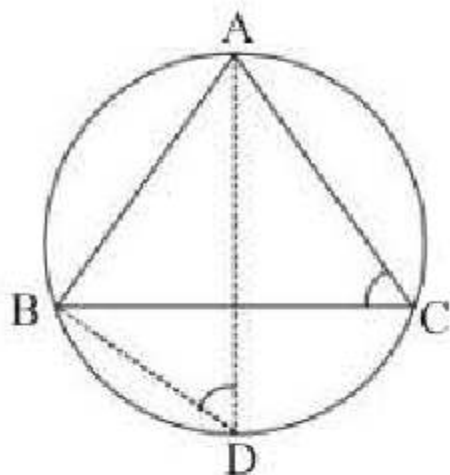
$\therefore$  Length of the chord =  $2 \times XM$

$$= 2 \times 5 = 10 \text{ cm}$$



36. (c)  $\angle ADC + \angle EDC = 180^\circ$   
 $\angle ADC + 120^\circ = 180^\circ$   
 $\angle ADC = 60^\circ$   
 $\angle ABC = \angle ADC = 60^\circ$   
 ( $\angle$ s in the same segment)

37. (b)



$\angle ADB = \angle ACB = 60^\circ$   
 (angles in the same segment are equal)

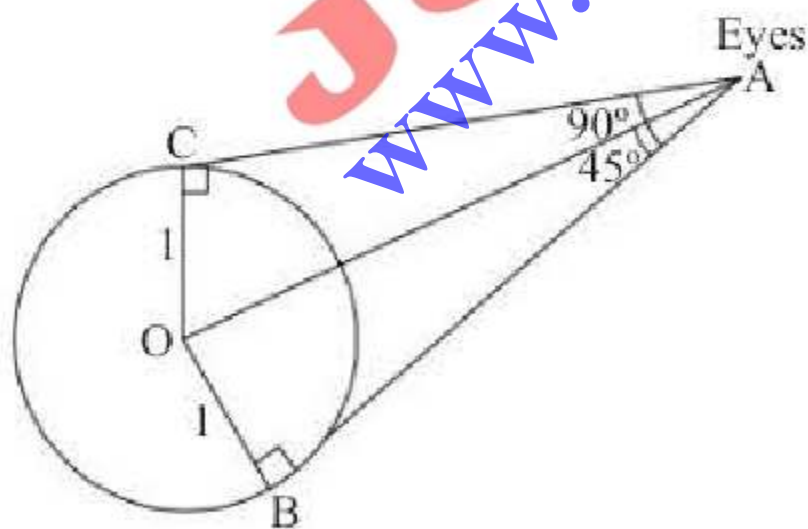
38. (b)  $x + \sqrt{3}y - 6 = 0 \Rightarrow \sqrt{3}y = -x + 6 \Rightarrow$   
 $y = \frac{-1}{\sqrt{3}}x + \frac{6}{3}$

$$\therefore m = \tan \theta = \frac{-1}{\sqrt{3}} = -\tan 30^\circ$$

$$= \tan (180^\circ - 30^\circ) = \tan 150^\circ$$

$$\therefore \theta = 150^\circ$$

39. (b) Let O = Centre of the balloon  
 OB = OC = Radii of the balloon



In  $\triangle OBA$ ,  $\sin 45^\circ$

$$= \frac{OB}{OA} \Rightarrow \frac{1}{\sqrt{2}} = \frac{1}{OA} \Rightarrow OA = \sqrt{2}$$

40. (c) Let  $\sqrt{\frac{x}{1-x}} = y$

$$\therefore y + \frac{1}{y} = \frac{13}{6} \Rightarrow (y^2 + 1)6 = 13y$$

$$\Rightarrow 6y^2 - 13y + 6 = 0 \Rightarrow 6y^2 - 9y - 4y + 6 = 0$$

$$\Rightarrow 3y(2y - 3) - 2(2y - 3) = 0$$

$$\Rightarrow (3y - 2)(2y - 3) = 0$$

$$\therefore y = \frac{2}{3} \text{ and } \frac{3}{2}$$

$$\text{When, we put } y = \frac{2}{3} \Rightarrow \frac{x}{1-x} = \frac{4}{9}$$

$$\Rightarrow 9x = 4 - 4x \Rightarrow x = \frac{4}{13}$$

$$\text{When we put } y = \frac{3}{2}$$

$$\frac{x}{1-x} = \frac{9}{4} \Rightarrow 4x = 9 - 9x$$

$$\therefore x = \frac{9}{13}$$

41. (a)  $\frac{1}{1+p+q^{-1}} + \frac{1}{1+q+r^{-1}} + \frac{1}{1+r+p^{-1}}$

$$= \frac{1}{1+p+\frac{1}{q}} + \frac{1}{1+q+\frac{1}{r}} + \frac{1}{1+r+\frac{1}{p}}$$

$$= \frac{q}{1+pq+q} + \frac{r}{r+rq+1} + \frac{p}{p+rp+1}$$

$$= \frac{q}{1+pq+q} + \frac{r}{\frac{1}{pq} + \frac{1}{p} + 1} + \frac{p}{p + \frac{1}{q} + 1}$$

( $\because pqr = 1$ )

$$= \frac{q}{1+pq+q} + \frac{rpq}{1+q+pq} + \frac{pq}{pq+1+q}$$



$$= \frac{q + rpq + pq}{1 + pq + q} \quad (\because pqr = 1)$$

$$= \frac{q + 1 + pq}{1 + pq + q} = 1$$

42. (b)

$$\begin{array}{r} 9x^2 - 2 \\ 3x - 1 \overline{) 27x^3 - 9x^2 - 6x - 5} \\ \underline{27x^3 - 9x^2} \phantom{- 5} \\ -6x - 5 \\ \underline{-6x + 2} \\ -7 \end{array}$$

$$\begin{aligned} 43. (a) & (a + b + c)^2 - (a - b - c)^2 \\ &= (a + b + c + a - b - c)(a + b + c - a + b + c) \\ &= 2a(2b + 2c) = 4a(b + c) \end{aligned}$$

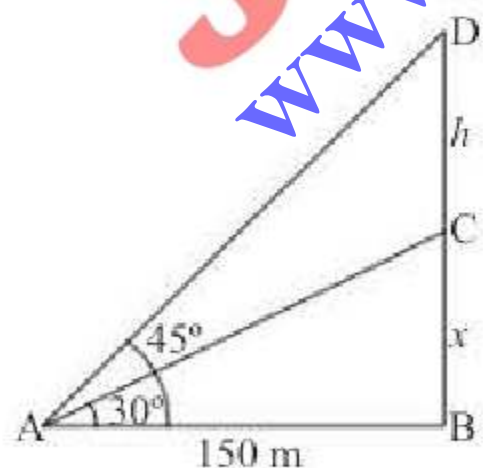
$$44. (b) \text{ Rest time} = \text{Number of rest} \times \text{Time for each rest}$$

$$= 4 \times 5 = 20 \text{ minutes}$$

Total time to cover 5 km

$$= \left( \frac{5}{10} \times 60 \right) \text{ minutes} + 20 \text{ minutes} = 50 \text{ minutes.}$$

$$45. (d) \text{ Let } BC = x \text{ m height of unfinished pillar and } CD = h \text{ m} = \text{Raised height of pillar}$$

In  $\triangle ABC$ ,

$$\tan 30^\circ = \frac{x}{150} \Rightarrow x = \frac{150}{\sqrt{3}}$$

and in  $\triangle ABD$ ,

$$\tan 45^\circ = \frac{h+x}{150} \Rightarrow 1 = \frac{h+x}{150}$$

$$\Rightarrow 150 = h + \frac{150}{\sqrt{3}} \quad [\text{from Eq. (i)}]$$

$$\Rightarrow \frac{150(\sqrt{3}-1)}{\sqrt{3}} = \Rightarrow$$

$$h = 150 \times \frac{(1.732-1)}{1.732}$$

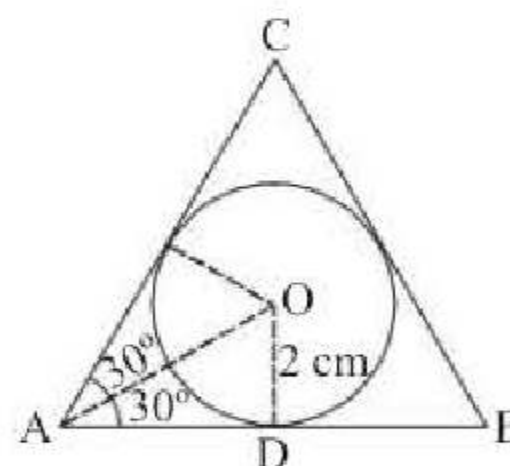
$$= \frac{150 \times 0.732}{1.732} = 63.39 \approx 63.4 \text{ m}$$

46. (b) Required % increase

$$= \frac{54}{418} \times 100 = 12.919 \approx 12.92\%$$

$$47. (c) \text{ Required \%} = \frac{510}{2854} \times 100 \approx 18\%$$

$$48. (d) \text{ Since, area of circle} = 4\pi \text{ cm}^2 \text{ (given)} \\ \Rightarrow \pi r^2 = 4\pi \Rightarrow r = 2 \text{ cm}$$



$$\text{In } \triangle OAD, \tan 30^\circ = \frac{OD}{AD} \Rightarrow AD = 2\sqrt{3} \text{ cm}$$

$$\text{Now, } AB = 2AD = 4\sqrt{3} \text{ cm}$$

 $\therefore$  Area of equilateral  $\triangle ABC$ 

$$= \frac{\sqrt{3}}{4} (AB)^2 = \frac{\sqrt{3}}{4} (4\sqrt{3})^2$$

$$= 12\sqrt{3} \text{ cm}^2$$

$$49. (c) x^4 - 1 = (x^2 - 1)(x^2 + 1) = (x - 1)(x + 1)(x^2 + 1) \text{ Now } x^4 - 2x^3 - 2x^2 - 2x - 3$$





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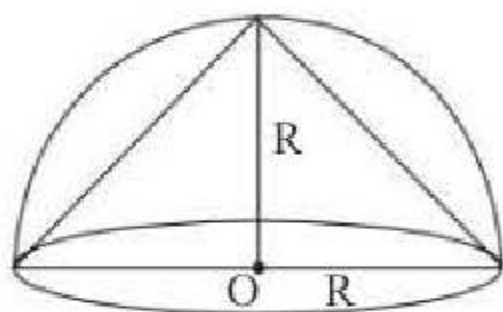
Putting  $x = -1$  in this equation gives 0, so  $(x+1)$  is a factor, divide  $x^4 - 2x^3 - 2x^2 - 2x - 3$  by  $(x+1)$  gives  $x^3 - 3x^2 + x - 3$

Now put  $x = 3$ , gives 0, so another factor is  $(x-3)$ , divide  $(x-3)$  gives  $x^2 + 1$  which cannot be further divided

So  $x^4 - 2x^3 - 2x^2 - 2x - 3 = (x^2 + 1)(x+1)(x-3)$

Now common factors in both expressions are  $(x^2 + 1)(x+1)$  which is the HCF.

50. (a) Volume of cone,  $C = \frac{1}{3} \pi R^2 H$



$$= \frac{1}{3} \pi R^3 \quad (\because H = R)$$

Volume of hemisphere,  $H = \frac{2}{3} \pi R^3$

$$\therefore C : H = \frac{1}{3} \pi R^3 : \frac{2}{3} \pi R^3 = 1 : 2$$

51. (b) 'With' is used for 'contentment'. All other options are not valid and do not have any sense.

52. (d) 'Disgrace to' is perfect as per Standard English Usage. 'for' can be used with disgrace as -

'His behaviour is a disgrace for all the love showered by society to his acts.' In this type of question it is very important to read and reread the sentence to get the true sense of the situation described in the statement.

53. (c) 54. (a) 55. (d)

56. (b) The word drowsy means half-asleep or sleepy.

57. (a) The author talks about the leisure and peace he was experiencing.

58. (d) The author mentions "In a moment the sole porter emerged from his midday nap".

59. (b) The author mentions a reference to the porter by "operated a signal that clanked noisily into position".

60. (c) The word placid means pleasantly calm or peaceful; unruffled; tranquil; serenely quiet or undisturbed.

61. (d) As are has been used in the first part of the sentence, the negating second part must have a compatible negative word which is obviously 'aren't'. hence, option (d) as no improvement is required.

62. (a) A basic grammar rule requires not to follow 'to' after using told as it already implies said to. Rest everything is correct making option (a) the correct choice.

63. (c) Unless means if not and it cannot follow a negative statement (double negative). Hence, do not work hard should be replaced with work hard. Thus option (c) is the answer.

64. (b) I wanted to see whether they had actually read the notes.

65. (c) They made him treasurer because they considered him honest and efficient.

66. (b) Having finished the paper early he had come out of the hall almost an hour before the bell rang.

67. (a)

68. (d) A talk on a religious or moral subject, especially one given during a church service and based on a passage from the Bible.

69. (c)

70. (d) Ambiguous means having more than one possible meaning.

71. (a) If someone or something is infallible, that means they are incapable of failure or error.

72. (c) 'Palpable' means 'easily noticed'.

73. (c) Usurp means to seize power or position of somebody else without right.

74. (c) 75. (a) 76. (d) 77. (b) 78. (c)

79. (a) 80. (b) 81. (b)

82. (a) 'Outlandish' means odd or strange.

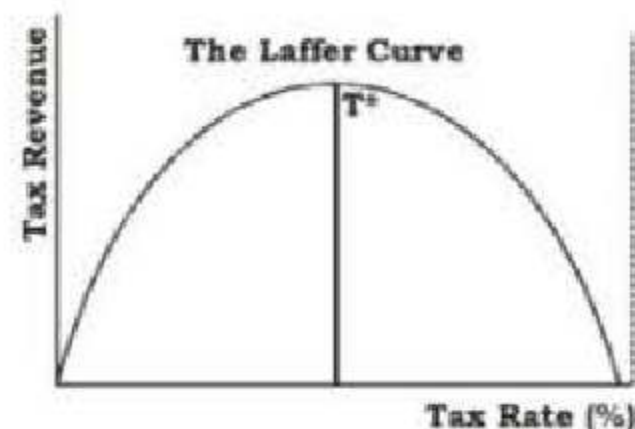


83. (d) 'Absolve' means to state officially that someone is not guilty.
84. (c)
85. (b) The word 'obligatory' means compulsory, mandatory, required whose opposite is optional or voluntary.
86. (d) The word 'obscure' means unclear whose opposite is clear.
87. (c) 88. (d) 89. (b) 90. (c) 91. (c)
92. (c) In the gap 7, 'Aron had not signalled anyone' is the right option. Other options simply do not fit in here.
93. (b) 'Solo' means 'any activity that is performed alone without assistance' which Aron did. Other options 'supervised' means under observation or under the direction of a superintendent or overseer, team means form a team and shared means have in common; held or experienced in common.
94. (c) In the gap 7, the word 'trapped' is the right option while suppressed means kept from public knowledge by various means; captive means a person who is confined; especially a prisoner of war and entangled means deeply involved especially in something complicated.
95. (d) In the context of paragraph, the 'life-changing' may rightly be fit in here as it changed Aaron's life with the amputation of one of his arms. Other options are not relevant.
96. (d)
97. (a) Add 'the' before 'more'. Here the sentence consists of two clauses- Principal and Subordinate, where the Principal clause should be given more stress by adding 'the' before 'more'.
98. (b) Delete 'pair of' before binocular because the word 'binocular' itself suggests a pair.
99. (b) 'a' should be replaced with 'the'. Here Kalidas is not Shakespeare but he is compared to Shakespeare.
100. (b) Delete 'all' before 'left'. Here the usage of 'all' is superfluous as 'the teacher as well as his students' itself signifies everyone.
101. (b) The communal question had become a baffling one as the Muslim League tightened its demand for Pakistan. Against the congress demand of "quit India", the Muslim League's new slogan was "Divide and quit". On March 21, 1943, Muslim League observed as Pakistan Day.
102. (a) The currency deposit ratio shows the amount of currency that people hold as a proportion of aggregate deposits. An increase in cash deposit ratio leads to a decrease in money multiplier. An increase in deposit rates will induce depositors to deposit more, thereby leading to a decrease in cash to Aggregate Deposit ratio.  
This will in turn lead to a rise in Money Multiplier.
103. (d) The chemical behaviour of an atom depends upon the number of Electrons orbiting around the nucleus.
104. (b) 105. (b) 106. (c)
107. (b) A boat will float when the weight of the water displaces equals the weight of the boat and anything will float if it is shaped to displace its own weight of water before it reaches the point where it will submerge. Floating of the boat works on the principle of buoyancy force which is an upward force exerted by a liquid, gas or other fluid, that opposes the weight of an immersed object.
108. (a) Alzheimer's disease affects the brain. The disease causes degeneration of brain tissues and nerve cells.
109. (b) Chemical name of Vitamin E is Tocopherols.
110. (c) The Indian Constitution does not recognize the property right as a fundamental right. In the year 1977, the 44th amendment eliminated the right to acquire, hold and dispose of property as a fundamental right. However, in another part of the Constitution, Article 300 (a) was inserted to affirm that no person shall be deprived of his property by the authority of law.



111. (d) Babur declared himself as the emperor at Panipat.
112. (d) Financial emergency in India has never been declared so far.
113. (a) A liquidity trap is a situation, described in the Keynesian Economics, in which injections of cash into the private banking system by a central bank fail to decrease interest rates and hence make monetary policy ineffective. A liquidity trap is caused when people hoard cash because they expect an adverse event such as deflation, insufficient aggregate demand, or war. Common characteristics of a liquidity trap are interest rates that are close to zero and fluctuations in the money supply that fail to translate into fluctuations in price levels.
114. (a) The book "The Unseen Indira Gandhi" has been authored by Dr. KP Mathur, who was the personal physician of the former Prime Minister Indira Gandhi for nearly 20 years till her assassination in 1984. The foreword of the book was written by her granddaughter Priyanka Gandhi Vadra. The book provides some interesting peeps into the responses of Mrs. Gandhi's to challenges both personal and political.
115. (d) Biomagnification, also known as bioamplification or biological magnification, is the increasing concentration of a substance, such as a toxic chemical, in the tissues of organisms at successively higher levels in a food chain.
116. (c) On 21st October, 1943, Subhas Chandra Bose proclaimed the formation of the Provisional Government of Free India at the Cathay Cinema Hall. Two days later, he declared war on Britain and the United States. With help from the Japanese, he reorganised and rejuvenated the *Azad Hind Fauj* (also called the Indian National Army). He lobbied aggressively for funds in Malaya and other parts of Southeast Asia and launched a recruitment drive for the *Azad Hind Fauj*.

117. (b) The Laffer curve, invented by Arthur Laffer, shows the relationship between tax rates and tax revenue collected by governments. The chart below shows the Laffer Curve:



118. (c) Cerebral palsy (CP) is a group of permanent movement disorders that appear in early childhood. Signs and symptoms vary between people. Often, symptoms include poor coordination, stiff muscles, weak muscles, and tremors. There may be problems with sensation, vision, hearing, swallowing, and speaking. Often babies with cerebral palsy do not roll over, sit, crawl, or walk as early as other children their age. Difficulty with the ability to think or reason and seizures each occurs in about one third of people with CP.
119. (a) The World Bank Group consists of –
- International Bank for Reconstruction and Development (IBRD), established in 1945, which provides debt financing on the basis of sovereign guarantees;
  - International Finance Corporation (IFC), established in 1956, provides various forms of financing without sovereign guarantees, primarily to the private sector;
  - International Development Association (IDA), established in 1960, provides concessional financing (interest-free loans or grants), usually with sovereign guarantees;
  - International Centre for Settlement of Investment Disputes (CSID), established in 1965, which works with governments to reduce investment risk;



- Multilateral Investment Guarantee Agency (MIGA), established in 1988, which provides insurance against certain types of risk, including political risk, primarily to the private sector.

India is a member of four of the five constituents of the World Bank Group viz., International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA). India is not a member of ICSID (International Centre for Settlement of Investment Disputes).

120. (d) A search light produces an intense parallel beam of light. This requires a reflector of large aperture. When a source is placed at the focus of a large concave mirror only the paraxial rays (not the marginal rays) are reflected as parallel beam, but when a source is placed at the focus of parabolic mirror all the rays are reflected as an intense parallel beam.
121. (a) ATF is **Aviation Turbine Fuel** related to Civil Aviation.
122. (c)
123. (d) Dhanush is the naval variant of the Prithvi missile.
124. (c) 125. (d)
126. (a) According to the Indian Constitution, 14 members can be nominated to both the houses of parliament by the President. This is the legislative power of the President where he nominates 12 members to the Rajya Sabha and if not adequately represented 2 Anglo-Indian members to the Lok Sabha.
127. (d) A presidential system is a republican system of government where a head of government is also head of state and leads an executive branch that is separate from the legislative branch. The United States, for instance, has a presidential system. Popular election of President, no overlap in membership and fixed term of office are

the main criteria of Presidential form of Government.

128. (d) Akbar introduced the Mansabdari system. This system came under the military reforms of Akbar. Under this system each officer was assigned a rank (mansab). Varying from 10 to 10,000, the mansab carried the Zat (the personal status and salary) and Sawar (the number of cavalry men to be maintained).
129. (d) Moraines are formed in glacial regions. Moraine is accumulation of rock debris (till) carried or deposited by a glacier. The material, which ranges in size from blocks or boulders (usually faceted or striated) to sand and clay, is unstratified when dropped by the glacier and shows no sorting or bedding.
130. (c) 131. (e)
132. (a) Mahabalipuram temple is known as 'Seven-Pagodas'.
133. (d) 134. (d)
135. (a) Ministry of Culture and the Rupayan Sansthan has signed an MoU to set up a National Cultural Audio-Visual Archives in Jodhpur with the aim to preserve cultural heritage of the country.
136. (a) 137. (c) 138. (d) 139. (d)
140. (d) 141. (c) 142. (a) 143. (d)
144. (a) Himalayas is one of the youngest mountain ranges in the world, situated in the northern border of India and spread across six Asian countries - India, Pakistan, Bhutan, Afghanistan, China and Nepal. The Himalayas contains some of the highest peaks in the world that includes Mount Everest, Karakoram and Kanchenjunga.
145. (b) 146. (b) 147. (c)
148. (b) 149. (d) 150. (c)

### Practice Set-6

1. (d) A palace is the official home of a King. Similarly,  
An igloo is a small round house of an Eskimo.



2. (c)  $A \xrightarrow{+5} F \xrightarrow{+5} K \xrightarrow{+5} P$   
 $D \xrightarrow{+5} I \xrightarrow{+5} N \xrightarrow{+5} S$   
 $W \xrightarrow{+5} B \xrightarrow{+5} G \xrightarrow{+5} L$   
 $O \xrightarrow{+5} T \xrightarrow{+5} Y \xrightarrow{+5} D$

3. (d)  $12 : 20 :: 30 : 42$   
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$   
 $(3 \times 4) \quad (4 \times 5) \quad (5 \times 6) \quad (6 \times 7)$

4. (a) All others except (a) are prime numbers.  
 5. (b) Lotus grows in the water but rest grow on the land.

6. (c)  
 $B \xrightarrow{+2} D \xrightarrow{+2} F, C \xrightarrow{+3} F \xrightarrow{+3} I, D \xrightarrow{+4} H \xrightarrow{+4} L,$   
 $E \xrightarrow{+5} J \xrightarrow{+5} O$

7. (b) Each of the numbers is doubled and 1, 2, 3, 4, 5, 6 is added in turn, so  $89 \times 2 + 6 = 184$ .

8. (a)
- |      |    |    |    |
|------|----|----|----|
| 1    | 2  | 3  | 4  |
| DEPU | TA | TI | ON |
- Coded  $\rightarrow$ 

ON	TA	DEPU	TI
4	2	1	3
- Similarly,
- |      |    |    |    |
|------|----|----|----|
| 1    | 2  | 3  | 4  |
| DERI | VA | TI | ON |
- Coded  $\rightarrow$ 

ON	VA	DERI	TI
4	2	1	3

9. (b)  
 5                  1                  3                  2                  4  
 Force  $\rightarrow$  Forecast  $\rightarrow$  Foreign  $\rightarrow$  Forget  $\rightarrow$  Forsook

10. (a) The sequence is a bcd d abcd d abcd d abcd d abc.

11. (d) Clearly, number of students in the class  
 $= (6 + 1 + 25) = 32$

12. (b)
- 

Now, Reshma is going to south direction

13. (b) Seema > Sohan > Seeta ... (i)  
 Deepti > Sweta > Seema ... (ii)

Combining (i) and (ii) we get

Deepti > Sweta > Seema > Sohan > Seeta

14. (b) 3 represents the area common to all types.

15. (b)  $24 \div 6 \times 4 + 9 - 8$

$$4 \times 4 + 9 - 8$$

$$16 + 9 - 8$$

$$25 - 8 = 17$$

16. (b) Mani's Age = 60 years

$$\text{Prabhu's Age} = 60/2 = 30 \text{ years}$$

$$\text{Romana's Age} = 30/2 = 15 \text{ years}$$

17. (d)  $14 + 9 = 23$

$$9 \times 5 = 45$$

$$23 + 45 = 68$$

18. (d)  $3 + 4 + 3 = 10$

$$4 + 6 + 4 = 14$$

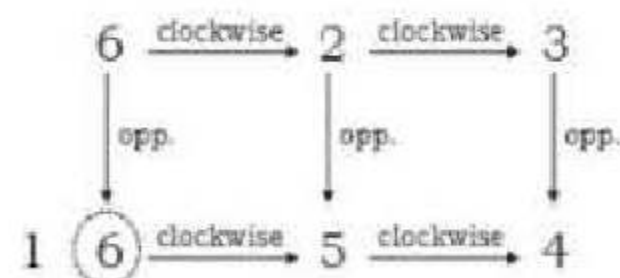
$$8 + 6 + 6 = 20$$

$$8 + 3 + 8 = 19$$

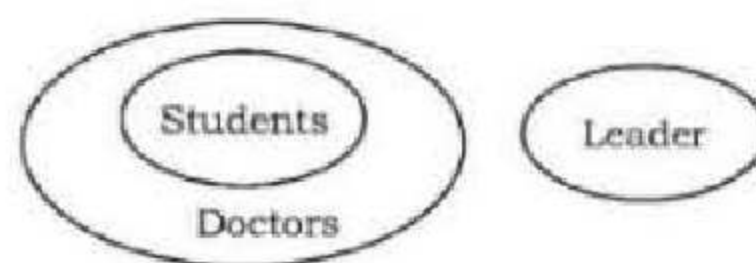
19. (a)
- 

These are twelve triangles in the above figure—ABE, AFE, DFE, DGE, GCE, CBE, ABC, DBC, DAB, ADC, AED and CED

20. (c) According to the dice I and III



21. (b)



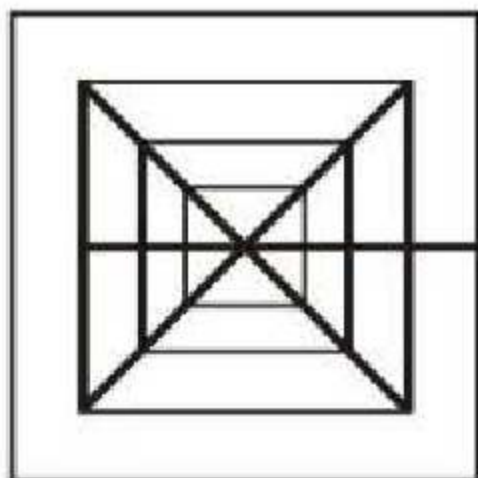
Conclusion- I  $\times$

II  $\checkmark$

22. (c) 23. (c)



24. (a)



$$= 11250 \times \frac{100}{90} = ₹12500$$

Total cost of TV after transport and installation

$$= 12500 + 800 + 150 = ₹13450$$

To earn 15% profit, he must sell at

$$13450 \times \frac{115}{100} = ₹15467.50$$

25. (c)

$$\begin{array}{ccccc} \text{F} & \text{A} & \text{I} & \text{T} & \text{H} \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 31 & 34 & 23 & 76 & 79 \end{array}$$

26. (b) From the given alternatives,

$$97 \times 98 = 9506$$

∴ Smaller number = 97

27. (c)

$$9 + 2\sqrt{14} = (\sqrt{7})^2 + (\sqrt{2})^2 + 2\sqrt{7} \times \sqrt{2}$$

$$= (\sqrt{7} + \sqrt{2})^2$$

$$\therefore \sqrt{9 + 2\sqrt{14}} = (\sqrt{7} + \sqrt{2})$$

28. (d)

Work done by tap B in 1 min

$$= \frac{1}{40} - \frac{1}{60} = \frac{3-2}{120} = \frac{1}{120}$$

Total time taken by the tap B to fill the tank is 120 min.

29. (a)

Required no. of ways

$$= {}^2P_2 \times {}^4P_4 = 48$$

29. (c)

When 2nd train starts i.e. at 7 AM (1 hr after 6 AM), distance covered by first train is 60 km (i.e. in 1 hr).

Now 2nd train also starts and distance between them is now  $(480 - 60) = 420$  km

Both coming in opposite direction, so relative speed  $= (60 + 80) = 140$  km/hr

So time  $= 7:00 \text{ AM} + (420/140) = 7:00 \text{ AM} + 3 \text{ hrs} = 10:00 \text{ AM}$

30. (c)

31. (d)

Cost price of TV when discount is not offered

32. (b)

$$\text{Given, } P:Q = \frac{3}{5}:\frac{5}{7} \quad \dots(i)$$

$$Q:R = \frac{3}{4}:\frac{2}{5} \quad \dots(ii)$$

From Eq. (i),

$$P:Q = \frac{3}{5} \times \frac{5}{4} : \frac{5}{7} \times \frac{3}{4}$$

$$= \frac{9}{20} : \frac{15}{28} \quad \dots(iii)$$

From Eq. (ii),

$$Q:R = \frac{3}{4} \times \frac{5}{7} : \frac{2}{5} \times \frac{5}{7}$$

$$= \frac{15}{28} : \frac{2}{7} \quad \dots(iv)$$

From equations (iii) and (iv),

$$P:Q:R = \frac{9}{20} : \frac{15}{28} : \frac{2}{7}$$

33. (d)

$$34. (a) \quad \frac{2}{3} \times \frac{3}{4} \times \frac{1}{5} \times a = 15; a = \text{Number}$$

$$\Rightarrow a = 150$$

$$\text{Then } 30\% \text{ of } a = \frac{30}{100} \times 150 = 45$$

35. (c)

Circumference of the circle

$$= \pi \times \text{diameter}$$

$$= \frac{22}{7} \times 56 = 176 \text{ cm}$$



∴ Perimeter of the square

$$= (272 - 176) = 96 \text{ cm}$$

∴ Side of the square

$$= \left( \frac{96}{4} \right) = 24 \text{ cm}$$

∴ Area of the square

$$= (24 \times 24) = 576 \text{ sq cm}$$

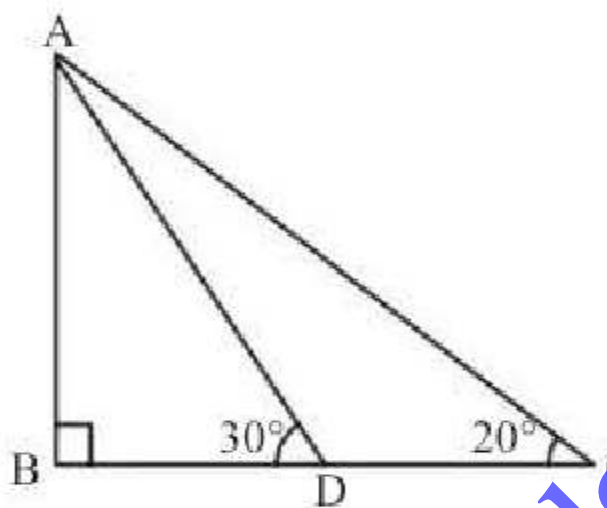
∴ Area of the circle =  $\pi r^2$

$$= \frac{22}{7} \times 28 \times 28 = 2464 \text{ sq cm.}$$

∴ Required sum

$$= (576 + 2464) \text{ sq cm} = 3040 \text{ sq cm}$$

36. (a) In  $\triangle ADC$ ,



$$\angle ADC = 180^\circ - 30^\circ = 150^\circ$$

$$\therefore \angle DAC = 180^\circ - (150^\circ + 20^\circ) = 10^\circ$$

37. (d) Let the average speed be  $x$  km/h.  
and Total distance =  $y$  km. Then,

$$\frac{0.2}{10}y + \frac{0.6}{30}y + \frac{0.2}{20}y = \frac{y}{x}$$

$$\Rightarrow x = \frac{1}{0.05} = 20 \text{ km/h}$$

38. (c) Here,  $r_1 = 9$  cm and  $r_2 = 4$  cm

$$r_1 + r_2 = 9 + 4 = 13 \text{ cm}$$

$$\text{and } r_1 - r_2 = 9 - 4 = 5 \text{ cm}$$

$$\text{Also, } d = 13 \text{ cm}$$

$$\text{Here, } d = r_1 + r_2 = 13 \text{ cm}$$

Hence, two circles touch each other externally, so there are three common tangents.

39. (d) (Man + Son)'s one day's work =  $\frac{1}{8}$

$$\text{Man's one day's work} = \frac{1}{10}$$

$$\Rightarrow \text{Son's one day's work} = \frac{1}{8} - \frac{1}{10} = \frac{1}{40}$$

∴ Son can do it in 40 days.

40. (c) Given,  $(3.7)^x = (0.037)^y = 10000$

$$\Rightarrow (3.7)^x = 10^4 \text{ and } (0.037)^y = 10^4$$

$$\Rightarrow 37 = 10^{\frac{4}{x}+1} \text{ and } 37 = 10^{\frac{4}{y}+3}$$

$$\Rightarrow 10^{\frac{4}{x}+1} = 10^{\frac{4}{y}+3} \Rightarrow \frac{4}{x} + 1 = \frac{4}{y} + 3$$

$$\therefore \frac{4}{x} - \frac{4}{y} = 3 - 1 \Rightarrow \frac{1}{x} - \frac{1}{y} = \frac{1}{2}$$

41. (e) Given,  $3^x + 27(3^{-x}) = 12$

$$\text{Let } 3^x = y$$

$$\therefore y + \frac{27}{y} = 12$$

$$\Rightarrow y^2 - 12y + 27 = 0$$

$$\Rightarrow y^2 - 9y - 3y + 27 = 0$$

$$\Rightarrow (y - 3)(y - 9) = 0 \Rightarrow y = 3, 9$$

$$\text{when } y = 3; \quad \text{when } y = 9$$

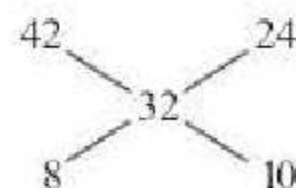
$$\Rightarrow 3^x = 3 \quad 3^x = 9$$

$$\therefore x = 1 \quad x = 2$$

$x = 1, 2$  are value of  $x$ .

42. (b) Cost price of mixture =  $40 \times \frac{100}{125} P = 32P$  per kg

By the rule of fraction



Ratio = 4 : 5

Thus, for every 5 kg of salt at 24 P, 4 kg of salt at 42P is used.

$$\therefore \text{the required no. of kg} = 25 \times \frac{4}{5} = 20.$$



43. (c)  $A : B = 3 : 4$   
 $B : C = 8 : 10$   
 $C : D = 15 : 17$   
 $A : B : C : D = 3 \times 8 \times 15 : 4 \times 8 \times 15 : 4 \times 10 \times 15$   
 $: 4 \times 10 \times 17$   
 $= 9 : 12 : 15 : 17$

44. (d) Required difference =

$$\left[ 5000 \left( 1 + \frac{12}{100} \right)^2 - 5000 \right] - \frac{5000 \times 12 \times 2}{100}$$

$$= 5000 \left( \frac{28}{25} \times \frac{28}{25} - 1 \right) - 1200$$

$$= 5000 \left( \frac{784 - 625}{625} \right) - 1200 = ₹ 72$$

45. (d) No of persons from village C

$$= 32\% \text{ of } 5800 = 1856$$

From village C 50% of 1856 = 928 persons favourite fruit is mango.

28% of 5800 = 1624 people's favourite fruit is mango

$$\therefore \text{Required \%} = \frac{928}{1624} \times 100 = 57\%$$

46. (d) People in village D = 25% of 5800 = 1450

$\therefore$  Required no. of people

$$= \{100 - (20 + 12)\} \% \text{ of } 1450$$

$$= 68\% \text{ of } 1450 = 986$$

47. (c) Required no. = 15% of 5800 = 870

48. (a)  $\therefore$  Volume of pipe,  $V = \pi(r_1^2 - r_2^2) \times h$

$$= \frac{22}{7} [(3.5)^2 - (2.5)^2] \times 140$$

$$= \frac{22}{7} (12.25 - 6.25) \times 140$$

$$= 22 \times 6 \times 20 = 2640 \text{ cu cm}$$

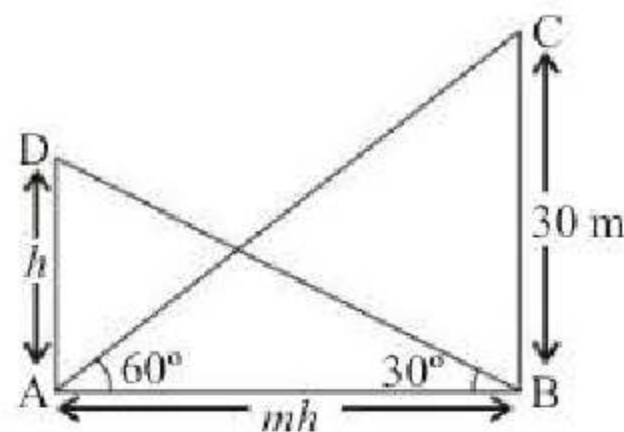
49. (c) Volume of solid cube =  $(4)^3 = 64 \text{ cm}^3$

$$\text{Volume of recast cube} = (1)^3 = 1 \text{ cm}^3$$

$\therefore$  Total surface area of cube : Total surface area of recast cube =  $x : y$

$$\Rightarrow x : y = 6(4)^2 : 6(1)^2 \times 64 = 1 : 4$$

50. (b) Let the height of shorter tower be  $h$  then distance between two tower =  $hm$ .



$$\text{In } \triangle ABD, \tan 30^\circ = \frac{h}{mh} \Rightarrow \frac{1}{\sqrt{3}} = \frac{1}{m}$$

$$\therefore m = \sqrt{3}$$

51. (d) During the hot summer days author and Jack were lazing around the house and yards.

52. (b) They were planning for some adventurous trip to an unknown place.

53. (c) Their mother had already packed all the good clothes for their upcoming trip.

54. (c) The plate camera was one of the ingenious artefacts made by Jack.

55. (d) The author mentions Father and Jack's trip to Ropley to see and rent a cottage there.

56. (a) The word 'prejudice' will fill in the blank because here it means something or opinion which is not based on reason or experience and hence it seems to get conflicted with original thoughts.

57. (d) The phrase 'stands as' will fill in the blank because it means to signify.

58. (d) The phrase 'as well as of a' will fill in the blank as children are considered to shape the future of a nation along with carrying the goodwill of a family.

59. (b) The word 'averted' will fill in the blank. It is also the synonym for the word 'avoid' and hence it can be understood that if strict measures were taken then the tragedy would have been avoided.

60. (a) The word 'behind' will fill in the blank. The sentence means that the deceased (the person who recently died), left behind him two young children.



61. (b) 62. (c) 63. (b) 64. (c) 65. (b)  
 66. (a) 67. (b) 68. (b) 69. (d) 70. (b)  
 71. (b) 72. (d) 73. (b) 74. (a) 75. (c)  
 76. (a)  
 77. (d) If you are discomfited by something, it causes you to feel slightly embarrassed or confused. In other words, it, frustrates you.  
 78. (b) Wrath is extreme anger.  
 79. (c) If you abstain from something, you deliberately do not do it. Abstinence, however, is a particular kind of abstaining—that from alcoholic drink, sex etc, often for health or religious reasons. If you abstain from drinking, you do not get drunk. Abstinence does not refer to “drink” only,  
 80. (d) 81. (c)  
 82. (a) An elevation is a ‘piece of ground that is higher (elevated) than the area around it. A depression in a surface is an area which is lower (depressed) than the parts surrounding it.  
 83. (c) 84. (d) 85. (b) 86. (d) 87. (b)  
 88. (c) 89. (a)  
 90. (b) When you say 'either now or never', it means that you must do something immediately because you will not get another opportunity. Other options are simply out of context.  
 91. (a) When two pairs of words are connected with 'yet', they should usually be in contrast; despite anything to the contrary (usually following a concession); e.g. He was a stern yet fair master. Other options are just not relevant.  
 92. (a) In gap 92 the interjection 'phew!' rightly fits as it is used to express relief, fatigue, surprise, or disgust which is also the case here. Other options are out of context.  
 93. (a) Here 'were hiding' is the right form of the verb. Other options do not fit in here.  
 94. (b) 95. (d) 96. (d) 97. (c) 98. (a)  
 99. (a) 100. (b)  
 101. (b) The Theosophical Society was formed by Helena Petrovna Blavatsky, Henry Steel Olcott, William Quan Judge and others in November 1875 in New York. The aim of the society was to promote spiritual principles and search for truth known as Theosophy.  
 102. (c) Chlorofluoro carbon ( $\text{CF}_2\text{Cl}_2$ ) is also known as freon. It is used as refrigerants in refrigerators and air conditions. It is also used as propellant in aerosols and foams.  
 103. (c) The amount of water vapour in the air at any given time is usually less than that required to saturate the air. The relative humidity is the percent of saturation humidity, generally calculated in relation to saturated vapour density.  

$$\text{Relative Humidity} = \frac{\text{actual vapor density}}{\text{saturation vapor density}} \times 100\%$$
  
 104. (a) The country's first railway, built by the Great Indian Peninsula Railway (GIPR), opened in 1853 between Bombay and Thane.  
 105. (d) Tansen, who was one of the nine jewels or navaratnas in the court of Emperor Akbar, was born in a Hindu family at Behat near Gwalior in the Madhya Pradesh state. Father of Tansen was Makarand Pande, who named him Ramtanu Pandey.  
 106. (d) Cyclical unemployment is unemployment that results when the overall demand for goods and services in an economy cannot support full employment. It occurs during periods of slow economic growth or during periods of economic contraction.  
 107. (b) According to Article 243 (I) the governor of the state shall set up the Finance Commission within the period of one year. State Finance Commissions receive grants from the Finance Commission that is set up by the central government.  
 108. (c) Muhammad Ali Jinnah drafted the constitution of Muslim league 'The green Book'.  
 109. (a) Bluetooth technology allows wireless communications between equipments.  
 110. (c) The Arthasastra is a treatise on Political philosophy. The book, written in Sanskrit,



- discusses theories and principles of governing a state. The meaning of Arthashastra is 'Science of Polity'. It is written by Kautilya.
111. (c) Lord Dufferin was the Viceroy of India at the time of the formation of Indian National Congress.
112. (c) Diamond occurs in its purest form of carbon black in nature.
113. (b) Shankaracharya philosophy is called Advaita. The Advaita Vedanta focuses on the basic concepts as Brahman, atman, vidya (knowledge), avidya (ignorance), maya, karma and moksha.
114. (d) Special Drawing Rights (SDRs) are an international type of monetary reserve currency, created by the International Monetary Fund (IMF) in 1969, which operate as a supplement to the existing reserves of member countries.
115. (b) Inferior goods have a negative (less than 0) income elasticity of demand meaning that demand falls as income rises.
116. (c) 7th Schedule gives allocation of powers and functions between Union & States. It contains 3 lists:  
Union List (97 Subjects)  
States List (66 Subjects)  
Concurrent List (52 Subjects)
117. (b) Details of Citizenship are mentioned in part II (Article 5-11) of the constitution.
118. (c) The origins of the game in Manipur are traced to early precursors of Sagol Kangjei. This was one of three forms of hockey in Manipur, the other ones being field hockey (called Khong Kangjei) and wrestling-hockey (called Mukna Kangjei). In Manipur, polo is traditionally played with seven players to a side.
119. (c) This is the autobiography of Naseeruddin Shah.
120. (c) Influenza is caused by virus and all other three diseases are bacterial, Influenza, generally called flu, is an infectious disease caused by RNA viruses of family Orthomyxoviridae.
121. (b)
122. (d)
123. (a)
124. (a)
125. (d)
126. (d) The concept of Concurrent List in Indian Constitution is borrowed from the Constitution of Australia. The Concurrent List or List-III is a list of 52 items (though the last item is numbered 47) given in Part XI of the Constitution of India, concerned with relations between the Union and States. This part is divided between legislative and administrative powers. The legislative section is divided into three lists: Union List, State List and Concurrent List.
127. (a) Calcutta with Robert Clive is wrongly matched. Lord Curzon was associated with Calcutta. Lord Curzon felt that the Bengal province was too big to be administered efficiently and so he wanted to split it into two provinces, one of which had Dacca as its capital.
128. (d) The Crimean War came to an end by the treaty of Paris. Crimean War, (October 1853-February 1856), war fought mainly on the Crimean Peninsula between the Russians and the British, French, and Ottoman Turkish, with support from January 1855 by the army of Sardinia-Piedmont. The resulting Treaty of Paris, signed on March 30, 1856, guaranteed the integrity of Ottoman Turkey and obliged Russia to surrender southern Bessarabia, at the mouth of the Danube.
129. (a) The Himalayan Mountain Range is an example of fold mountain. They are known as fold mountains because the mountains extend for 2500 km in length in a series of parallel ridges or folds and consist of three folds namely Himadri, Himachal, Shiwalik.
130. (a) The depletion of Ozone layer is mainly due to chlorofluorocarbons. A chlorofluorocarbon is an organic compound that contains only carbon, chlorine, and fluorine, produced as a volatile derivative of methane, ethane, and propane. They are also commonly known by the DuPont brand name Freon.



131. (d) Sankaradeva was an erudite scholar, a prolific writer, a versatile saint-poet of unlimited merit, a lyricist of universal acceptance, a musician of high calibre, a pioneer in the field of Assamese prose, drama and dramatic performances, a painter and above all the greatest religious teacher-preacher-leader of the medieval Vaisnava movement in Assam which is rightly known as the Sankaradeva Movement.

132. (c) Saffron, a spice derived from the dried stigmas of the saffron crocus. (crocus sativus) a small plant about a foot tall. Each flower has three female parts. (stigmas) two male parts. (stamens) each stigma is red or dark red in color towards the top and yellow towards the bottom of the stigma, where it is attached to the flower.

133. (d) 134. (c) 135. (d)

136. (b) Two home Rule leagues were started in 1915-16 – one under the leadership of Lokmanya Tilak at Poona and other under the leadership of Anne Basent and S. Subramanya Iyer at Madras.

137. (c) Three-tier system of Panchayati Raj consists of Gram Panchayat, Panchayat Samiti and Zila Parishad.

138. (d) 'Sarva Siksha Abhiyan' is aimed at the education of children between 6-14 years.

139. (b) 140. (a) 141. (a) 142. (a)

143. (a) 144. (a)

145. (c) Middle luminous zone of a candle flame is the hottest.

146. (d) 147. (c) 148. (b) 149. (a)

150. (d)

### Practice Set-7

1. (b) A petal is a part of a flower; a tire is a part of a bicycle.

2. (d) First number = 8 and the sum of the digits of the second number is  $2 + 8 = 10$ .  
Thus, the difference of the first number and the sum of the digits of second number is  $10 - 8 = 2$ .

Similarly, the sum of the digits of third number is  $2 + 7 = 9$ .

Hence, the sum of digits of fourth number should be 2 more than 9 i.e. 11 and  $6 + 5 = 11$

Hence, (d) 65 is the correct option.

3. (d) First letter move 3 step forward and second letter move 2 step forward.

4. (a) Google is a search engine while others are internet browsers.

5. (a) 1st Letter:

$L \xrightarrow{+1} M \xrightarrow{+1} N \xrightarrow{+1} O \xrightarrow{+1} \boxed{P}$

2nd Letter :

$X \xrightarrow{-4} T \xrightarrow{-4} P \xrightarrow{-4} L \xrightarrow{-4} \boxed{H}$

3rd Letter:

$F \xrightarrow{+4} J \xrightarrow{+4} N \xrightarrow{+4} R \xrightarrow{+4} \boxed{V}$

6. (c)  $16 = 5 \times 3 + 1$ ,  $51 = 16 \times 3 + 3$ ,  
 $158 = 51 \times 3 + 5$

$\therefore$  Next term =  $158 \times 3 + 7 = 481$

7. (b) The pattern is, aabbcc/aabbcc/aabbcc.  
The pattern aabbcc is repeated.

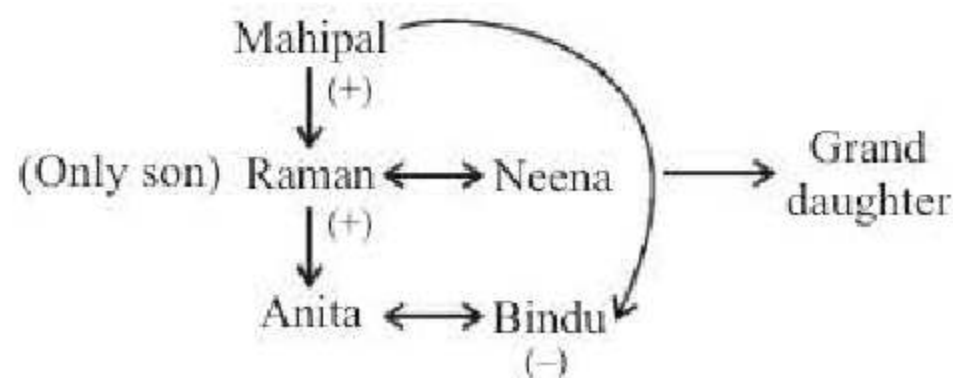
8. (b) MUSCLE

9. (c) Each letter in the word is moved one step backward to obtain the corresponding letter of the code.

10. (a) The first, second, third, fourth, fifth and sixth letters of the word are respectively moved two, three, four, five, six and seven steps forward to obtain the corresponding letters of the code.

11. (b) There is no 'U' in the word INFLATIONARY.

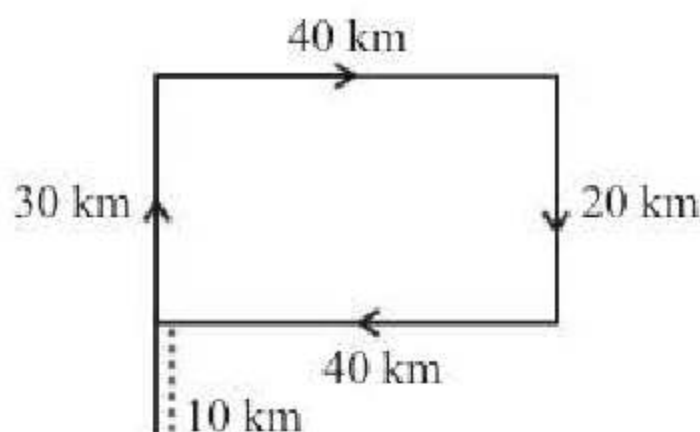
12. (d)



Hence, Bindu is the grand daughter of Mahipal.



13. (d)



14. (b) In the original group of digits '7' is fourth from the right, which is interchanged with '9'. The new series is 2781359046. 9 will be 4th from the right end.

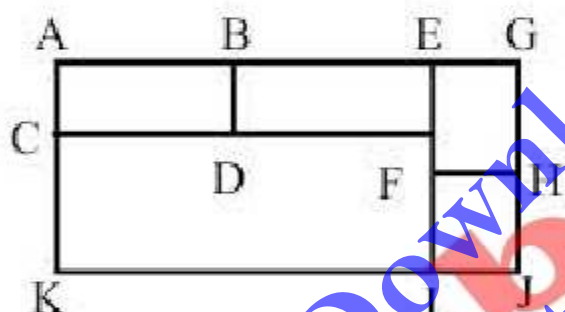
15. (c) The correct order is:

Pressure	Rain	Flood	Protect	Relief
2	4	5	1	3

16. (d) Lady's mother's husband → Lady's father  
 Lady's father's sister → Lady's Aunt.  
 So, Lady's aunt is man's aunt and therefore lady is man's sister.

17. (a)

18. (d)



□ ABCD, □ BEDF, □ EGFH, □ FHJ,  
 □ AECF, □ EGJI, □ CFJK, □ AGJK,  
 □ AEIK

19. (d) On interchanging  $-$  and  $\div$ ,

We get the equation as

$$5 + 3 \times 8 \div 12 - 4 = 3$$

$$\text{or } 5 + 3 \times 2/3 - 4 = 3$$

$$\text{or } 3 = 3, \text{ which is true}$$

20. (b)  $7 + 2^2 + 5 = 16$

$$9 + 4^2 + 7 = 32$$

$$8 + 3^2 + 6 = \textcircled{23}$$

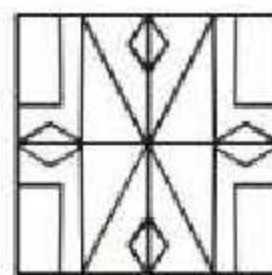
21. (c)  $3 + 9 - 5 = 7$

$$2 + 8 - 6 = 4$$

$$4 + 7 - 5 = \textcircled{6}$$

22. (d)

23. (c)



24. (c)

25. (b) When the sheet in fig. (X) is folded to form a cube, then 'F' appears opposite 'C' and 'A' appears opposite 'D'. Therefore, the cube in fig. (A) which shows 'F' adjacent to 'B', the cube in fig. (C) which shows 'E' adjacent to 'C' and the cube in fig. (D) which shows 'A' adjacent to 'D' cannot be formed.

26. (c) LCM of 3 and 5 = 15

Number divisible by 15 are 15, 30, 45 ..... 300.

Let total numbers are  $n$

$$300 = 15 + (n - 1) \times 15$$

$$300 = 15 + 15n - 15$$

$$\Rightarrow n = 20$$

27. (b)  $3 \div \left[ (8 - 5) \div \left\{ (4 - 2) \div \left( 2 + \frac{8}{13} \right) \right\} \right]$

$$\Rightarrow 3 \div \left[ (3) \div \left( 2 \div \frac{34}{13} \right) \right]$$

$$\Rightarrow 3 \div \left[ (3) \div \left( 2 \times \frac{13}{34} \right) \right]$$

$$\Rightarrow 3 \div \left[ \frac{3 \times 34}{13 \times 2} \right]$$

$$\Rightarrow \frac{3 \times 13 \times 2}{3 \times 34} = \frac{13}{17}$$

28. (a) First S.P. =  $\frac{46000 \times 88}{100} = ₹ 40480$

$$\text{Second S.P.} = \frac{40480 \times 112}{100} = ₹ 45337.6$$

$$\therefore \text{Loss} = ₹ (46000 - 45337.6) = ₹ 662.4$$



29. (d) Total amount spent

$$= \left( \frac{591}{3} + \frac{45}{60} \times 780 \right) \text{paise}$$

$$= (197 + 585) \text{paise}$$

$$= 782 \text{paise} = ₹ 7.82$$

30. (c) Amount received by R = ₹ 7x

Amount received by Q = ₹ 5x

So difference = 7x - 5x

$$7x - 5x = 4000$$

$$\therefore x = 2000$$

Amount received by

$$P = 2000 \times 3 = ₹ 6000$$

$$Q = 2000 \times 5 = ₹ 10,000$$

$$\text{Total amount} = 6,000 + 10,000 = 16,000$$

31. (b) Relative speed of two trains

$$= \frac{180 + 270 \text{ m}}{10.8 \text{ s}} = \frac{4500 \text{ m}}{108 \text{ s}}$$

$$= \frac{4500}{108} \times \frac{18 \text{ km}}{5 \text{ h}} = 150 \text{ km/hr}$$

$$\text{Speed of second train} = 150 - 60 = 90 \text{ km/h.}$$

32. (c)  $300000 \left[ 1 + \frac{20}{100} \right]^t = 746496$

$$\therefore \left[ \frac{6}{5} \right]^t = \frac{746496}{300000} = \frac{7776}{3125} = \left( \frac{6}{5} \right)^5$$

$$t = 5$$

33. (d) Shyam alone worked for 10 days. So work

$$\text{done by him} = \frac{10}{40} = \frac{1}{4}$$

$\therefore$  (Ravi + Shyam) have done

$$1 - \frac{1}{4} = \frac{3}{4} \text{ of the work.}$$

(Ravi + Shyam) do  $\frac{3}{4}$  of the work in

$$24 \times \frac{3}{4} = 18 \text{ days}$$

34. (c) Let the number be x

According to question  $20\% \text{ of } x = 30\% \text{ of } 40$

$$\Rightarrow \frac{x \times 20}{100} = \frac{40 \times 30}{100}$$

$$\Rightarrow x = \frac{40 \times 30}{20} = 60$$

35. (c) The smallest angle of the triangle is half of the largest angle.

$\therefore$  Ratio of the three angle = 4 : 3 : 2

$$\therefore 4x + 3x + 2x = 180^\circ$$

$$\therefore 9x = 180^\circ$$

$$\therefore x = 20^\circ$$

$\therefore$  required difference =  $4x - 2x$

$$= 2x = 2 \times 20^\circ = 40^\circ$$

36. (b) Let uncle's present age = x

Rahim's present age = y

$$x - y = 30$$

...(i)

After 7 year

$$(x + 7) + (y + 7) = 66$$

$$x + y + 14 = 66$$

$$x + y = 52$$

...(ii)

combining (i) and (ii) we get

$$(x + y = 52) + (x - y = 30)$$

$$2x = 82$$

$$x = 41$$

Uncle's age is 41

37. (b) Let S.P. = Rs 100. Then, C.P. = Rs 96; Profit = Rs 4.

$\therefore$  Profit %

$$= \left( \frac{4}{96} \times 100 \right) \% = \frac{25}{6} \% = 4.17\% \approx 4.2\%$$

38. (b) Given,

$$\frac{3}{x+y} + \frac{2}{x-y} = 2 \quad \dots (i)$$

$$\text{and } \frac{9}{x+y} - \frac{4}{x-y} = 1 \quad \dots (ii)$$

$$\text{Let } \frac{1}{x+y} = a \text{ and } \frac{1}{x-y} = b$$



$$\therefore 3a + 2b = 2 \quad \dots \text{(iii)}$$

$$9a - 4b = 1 \quad \dots \text{(iv)}$$

On multiplying equation (iii) by 2 and addition of equation (iv) and new one, then we get

$$6a + 4b = 4$$

$$9a - 4b = 1$$

$$\hline 15a = 5$$

$$\Rightarrow a = \frac{5}{15} = \frac{1}{3}$$

$$\therefore \frac{1}{x+y} = \frac{1}{3}$$

$$\Rightarrow x+y=3 \quad \dots \text{(v)}$$

On putting the value of (a) in equation (iii), we get

$$3 \times \frac{1}{3} + 2b = 2$$

$$\Rightarrow 2b = 2 - 1 = 1$$

$$\Rightarrow b = \frac{1}{2} \Rightarrow \frac{1}{x-y} = \frac{1}{2}$$

$$\Rightarrow x-y=2 \quad \dots \text{(vi)}$$

$$\therefore x+y=3$$

$$\frac{x-y=2}{2x} = 5$$

$$\Rightarrow x = \frac{5}{2}$$

From equation (v)

$$y = 3 - \frac{5}{2} = \frac{1}{2}$$

$$\therefore \frac{x}{y} = \frac{\frac{5}{2}}{\frac{1}{2}} = 5$$

39. (b) Given that, mean of 100 values is 45

$$\therefore \text{Sum of 100 values, i.e. } \sum_{i=1}^{100} x = 45 \times 100 \\ = 4500$$

According to condition,

$$\sum_{i=1}^{40} (x_i + 15) + \sum_{i=41}^{100} (x_i - 5)$$

$$= \sum_{i=1}^{40} x_i + 15 \times 40 + \sum_{i=41}^{100} x_i - 5 \times 60$$

$$= \left( \sum_{i=1}^{40} x_i + \sum_{i=41}^{100} x_i \right) + 600 - 300$$

$$= \sum_{i=1}^{100} x_i + 300$$

$$= 4500 + 300 = 4800 \quad [\text{from equation (i)}]$$

$$\therefore \text{New mean} = \frac{4800}{100} = 48$$

40. (b) Let number be  $x$ , then its reciprocal be  $\frac{1}{x}$ .

According to question,

$$x^2 + \frac{1}{x^2} = 3 \left( x^2 - \frac{1}{x^2} \right)$$

$$\therefore x^2 + \frac{1}{x^2} = 3x^2 - \frac{3}{x^2} \Rightarrow 2x^2 = \frac{4}{x^2}$$

$$\Rightarrow x^4 = 2 \Rightarrow x = (2)^{1/4}$$

$$41. (c) P(x) = ax^3 + 3x^2 - 8x + b$$

$$\therefore P(-2) = -8a + 12 + 16 + b = 0$$

$$\Rightarrow -8a + b + 28 = 0$$

...(i)

$$\Rightarrow P(2) = 8a + 12 - 16 + b = 2$$

$$\Rightarrow 8a + b - 4 = 0$$

...(ii)

By equation (i) + (ii)

$$2b + 24 = 0$$

$$\Rightarrow b = -\frac{24}{2} = -12$$

From equation (i),

$$-8a - 12 + 28 = 0$$

$$\Rightarrow -8a = -16 \Rightarrow a = 2$$



42. (a) By option (a),

$$\frac{-7}{10} < \frac{-2}{3} < \frac{-5}{8}$$

Here LCM of (3, 8, 10) = 120

$$\frac{-7}{10} \times 120 < \frac{-2}{3} \times 120 < \frac{-5}{8} \times 120$$

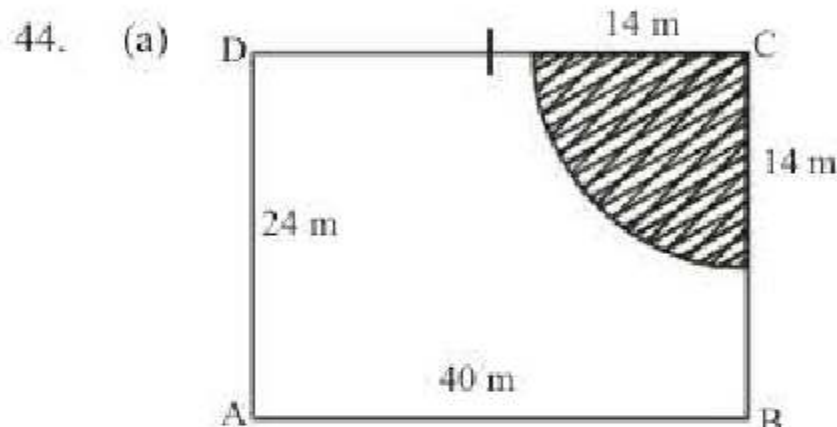
$$-84 < -80 < -75$$

So this is correct.

43. (c) Two digit numbers which are divisible by 3 are 12, 15, 18, ..., 99;

$$\text{So, } 99 = 12 + (n-1) \times 3.$$

$$n = 30$$



Area of the shaded portion

$$= \frac{1}{4} \times \pi (14)^2 = 154 \text{ m}^2$$

45. (c) After 5 minutes (before meeting), the top runner covers 2 rounds i.e., 400 m and the last runner covers 1 round i.e., 200 m.

$\therefore$  Top runner covers 800 m race in 10 minutes.

46. (a) Required average number of students

$$= \frac{1}{5 \times 100} [35 \times 17500 + 45 \times 25000 + 30 \times 35300 + 48 \times 23000 + 30 \times 32400]$$

$$= \frac{1}{5} [6125 + 11250 + 10590 + 11040 + 9720]$$

$$= \frac{1}{5} \times 48725 = 9745$$

47. (d) D = 5520

48. (d) To calculate faster, instead of finding all the students of Arts and Science stream first and then subtracting, let's assume that in each college Science students are more and keep subtracting the number of Arts

students from the number of Science students collegewise.

$$\begin{aligned} \text{Difference} &= (40\% \text{ of } 17500 - 25\% \text{ of } 17500) \\ &+ (40\% \text{ of } 25000 - 15\% \text{ of } 25000) + (55\% \text{ of } 35300 - 15\% \text{ of } 35300) \\ &+ (24\% \text{ of } 23000 - 28\% \text{ of } 23000) + (41\% \text{ of } 32400 - 29\% \text{ of } 32400) \end{aligned}$$

$$= (15 \times 175) + (25 \times 250) + (40 \times 353) + (-4 \times 230) + (12 \times 324)$$

$$= 2625 + 6250 + 14120 - 920 + 3888$$

$$= 25963$$

49. (b) According to question

Surface area of sphere = 3 (Volume of sphere)

$$\Rightarrow 4\pi r^2 = 3 \times \frac{4}{3} \pi r^3 \Rightarrow r = 1$$

$$\therefore \text{Diameter} = 2r = 2 \text{ cm}$$

50. (d) The stack is in the form having vertical cross section of trapezium.

Volume of Earth in the stack = Area of cross section of trapezium  $\times$  Height

$$\begin{aligned} \therefore \text{Volume} &= \frac{1}{2} \times (10 + 5) \times 2 \times 8 \\ &= 15 \times 8 \text{ m}^2 \end{aligned}$$

According to the question,

Volume of Earth to be spread = (Area of field)  $\times$  Level raised

$$\begin{aligned} \therefore \text{Level raised} &= \frac{15 \times 8}{100 \times 80} = \frac{15}{1000} \text{ m} \\ &= 1.5 \text{ cm} \end{aligned}$$

51. (b) 52. (c) 53. (a) 54. (a) 55. (b)

56. (a) 57. (c) 58. (c) 59. (b) 60. (d)

61. (d) 62. (c) 63. (d) 64. (c) 65. (b)

66. (a)

67. (d) Use 'study seriously'. 'To' should not be separated from its verb by inserting any adverb between the two. The split infinitive is grammatically wrong.

For Example - I advised him to carefully carry the bag. Say 'to carry carefully'.

68. (d) Use 'few' in place of 'little'. 'Little' is used for uncountable nouns, while 'few' is used for countable nouns. Using 'the' before



'few' gives the sense of 'some but all'.

For Ex: -

- (i) He lost the few friends he had. (not many friends, but all of them)
- (ii) I have little money to buy a house. (hardly any money)

69. (d) 70. (a) 71. (b) 72. (b) 73. (b)

74. (a) 75. (b) 76. (c) 77. (b) 78. (d)

79. (c) 80. (b) 81. (d) 82. (d) 83. (a)

84. (c) 85. (c) 86. (d) 87. (d) 88. (a)

89. (b) 90. (d)

91. (d) The passage speaks of the federation of Yugoslavia A, B that has come apart C due to ethnic conflict D in its different regions.

92. (c) The division of plan and non-plan funds into two parts C is artificial D. Yet there is some merit in it. A as distinct from consumption B because it draws our attention to development expenses D.

93. (d)

94. (a) C will be the first part since it contains the subject, B cannot precede A as in (c) because B describes what is in A, so B will follow A and D.

95. (c) B contains the subject 'the child' and is thus the first part. A will follow B because it is a passive sentence and the verb will be followed by the doer.

96. (d) 97. (a) 98. (c) 99. (b) 100. (a)

101. (c) The four classes were mentioned in Purush Sukta in 10th mandal of Rigveda.

102. (b) According to the Article 243 K (1), the chief of the State Election Commission is appointed by the Governor.

103. (a) Blue-green algae or Cyanobacteria are microscopic cells that grow naturally in Australian fresh and salt waters. They are a type of bacteria, but in some ways act like plants by using sunlight to manufacture carbohydrates from carbon dioxide and water, a process known as photosynthesis. In doing so, they release oxygen. They grow in dams, rivers, creeks, reservoirs, lakes and even hot springs.

104. (b) Non-plan expenditure is largely the revenue expenditure of the government, although it also includes capital expenditure. It covers all expenditure not included in the Plan Expenditure. Non-Plan Expenditure constitutes the biggest proportion of the government's total expenditure. The biggest items of Non-Plan Expenditure are interest payments and debt servicing, defence expenditure and subsidies. For defence services, both revenue and capital expenditure are incurred.

105. (c) Any session of the state legislation is prorogated by the Governor.

106. (b)

107. (d) Hathigumpha inscription was built by Kharvela in Odisha, near Bhubaneswar.

108. (d) The right to equality before the law contained in article 14 of the Constitution of India is available to all persons whether natural or legal.

109. (c) The adjournment motion is thus an extraordinary procedure which, if admitted, leads to setting aside the normal business of the House for discussing a definite matter of urgent public importance.

110. (c) "The Man who Divided India" was written by Rafiq Zakaria.

111. (c) Peshawar was known as Purushpur in ancient times. It was the capital of Kushana ruler Kanishka.

112. (a) Mayo came in India in 1869. He founded Mayo College in Ajmer. He was killed by an Afghan in 1872.

113. (a) Erythroblastosis fetalis is hemolytic anemia in the fetus (or neonate, as erythroblastosis neonatorum) caused by transplacental transmission of maternal antibodies to fetal RBCs. The disorder usually results from incompatibility between maternal and fetal blood groups, often Rh0(D) antigens. Diagnosis begins with prenatal maternal antigenic and antibody screening and may require paternal screening, serial measurement of



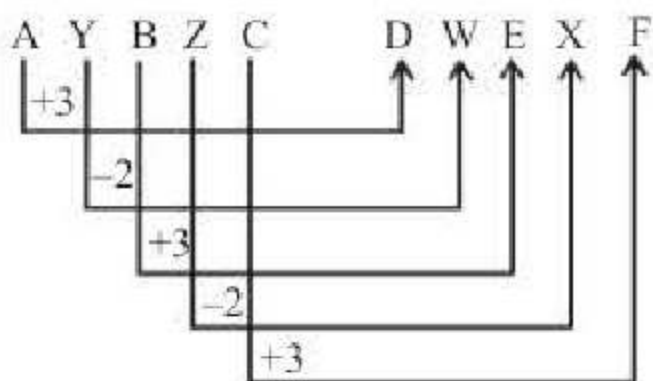
- maternal antibody titers, and fetal testing. Treatment may involve intrauterine fetal transfusion or neonatal exchange transfusion. Prevention is Rh0(D) immune globulin injection for women at risk.
114. (a) Effective Revenue Deficit is the difference between revenue deficit and grants for creation of capital assets. In other words, the Effective Revenue Deficit excludes those revenue expenditures which were done in the form of grants for creation of capital assets aka GoCA.  
Such grants include the grants given under:  
Pradhan Mantri Gram Sadak Yojana  
Accelerated Irrigation Benefit Programme  
Jawaharlal Nehru National Urban Renewal Mission  
MGNREGA etc.
115. (d) Eosin is a dye used to prepare red ink.
116. (d) India joined the IMF on December 27, 1945, as one of the IMF's original members. India accepted the obligations of Article VIII of the IMF Articles of Agreement on current account convertibility on August 20, 1994.
117. (c)
118. (c) The air bubble will behave as a diverging lens due to its bulging curvature.
119. (a) 120. (c) 121. (b) 122. (c) 123. (b)
124. (d) 125. (a)
126. (a)
127. (a) The first sermon of Buddha made at Sarnath is called Dharmachakra Parivartan.
128. (c) When Alexander invaded India, Nandas were the rulers of Magadha.
129. (c) Best answer is c as Tukaram (1608–1650) was a Marathi Bhakti poet and a devotee of Lord Krishna. Time period of Jahangir was 1605-1627.
130. (d) Lord Wellesley founded Fort William College at Calcutta.
131. (c)
132. (c) On 12 March, 1930, Gandhi started his civil disobedience movement by starting Dandi March from Sabarmati Ashram in Gujarat and reached Dandi on 6 April 1930 and broke the salt law.
133. (a)
134. (d) Victoria waterfalls is associated with the river Zambezi which is situated in Africa.
135. (d) Right to 'constitutional Remedies' has been described by Dr. Ambedkar as "The heart and soul of the constitution."
136. (b) Capacitor is a device which stores electric charge.
137. (c)
138. (c) Switzerland defeated France by 3-1 to win Davis Cup- 2014.
139. (a) Boxer Manoj Kumar received the Arjuna Award after he filed a case in the Delhi High Court.
140. (c) Peking University, one of the oldest Chinese universities, conferred the title of Honorary Professor to Dr. Kalam.
141. (a) The Narrow Road to the Deep North is set in the background of World War II and give details about life of Prisoners of War.
142. (d) Patrick Madiamo who has been hailed as "Marcel Proust of our time" has been awarded with the Nobel Prize for Literature.
143. (c) 144. (c) 145. (c) 146. (a) 147. (b)
148. (c) 149. (d) 150. (d)

### Practice Set-8

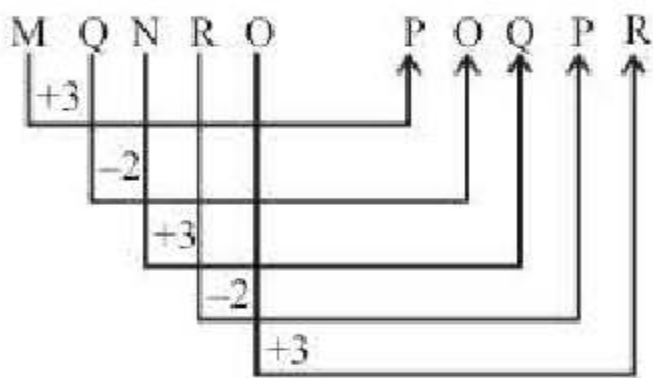
- (c) TVX: Each letter of the first group is moved five steps forward to obtain the corresponding letter of the second group.
- (a) A saint practices meditation. While, a scientist does research.
- (c) The relationship is  $x : x(x+1)$
- (d) All except Lord Tennyson were either the Governor-General or the Viceroy of India.
- (c) After a close look you will get that except 360 each number is one more than square of a natural number, i.e.,  $226 = 15^2 + 1$ ;  $290 = 17^2 + 1$ ;  $170 = 13^2 + 1$ .



6. (c) The Pattern is—

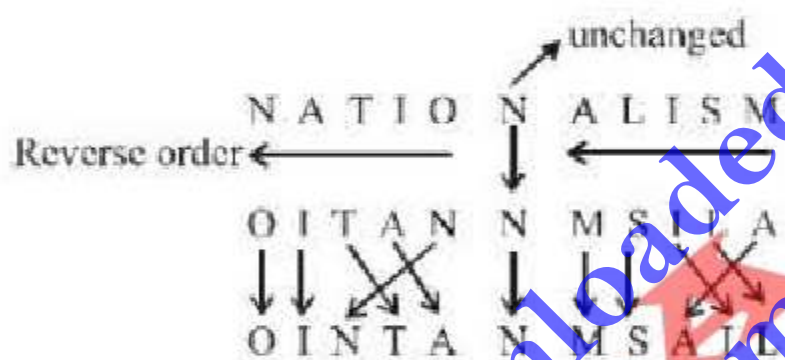


Therefore,



7. (d)  $8 \times 2 - 1 = 15$ ,  $15 \times 2 - 2 = 28$ ,  $28 \times 2 - 3 = 53$ ,  
 $53 \times 2 - 4 = 102$

8. (b)



Similarly,



9. (a) The colour of sunflower is yellow and yellow is called 'red'. Hence sunflower is red.

10. (c) Woman's Mother's husband



Woman's father

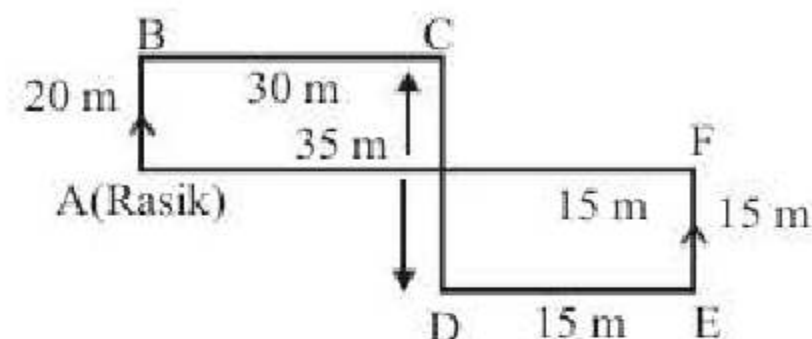
Woman's father's sister  $\longrightarrow$  Woman's Aunt.

Since, woman's aunt is man's aunt

$\therefore$  Woman is sister of man.

11. (d) The movements of Rasik from A to F are as shown in figure.

Since  $CD = AB + EF$ , so F lies in line with A. Rasik's distance from original position  $A = AF = (AG + GF) = (BC + DE) = (30 + 15) \text{ m} = 45 \text{ m}$ . Also, F lies to the east of A.



12. (b) There are  $(25 - 11 - 1) = 13$  boys between Akash and Nikhil.

13. (b)  $Q > S$ ,  $P > Q$ ,  $R > Q$

Age: As,  $Q > S$ ,  $P > Q$ ,  $R > Q$

Also, P is the oldest.

$\therefore P > R > Q > S$

Richness: As,  $P > Q$ ,  $S > P$

Also R is the richest.

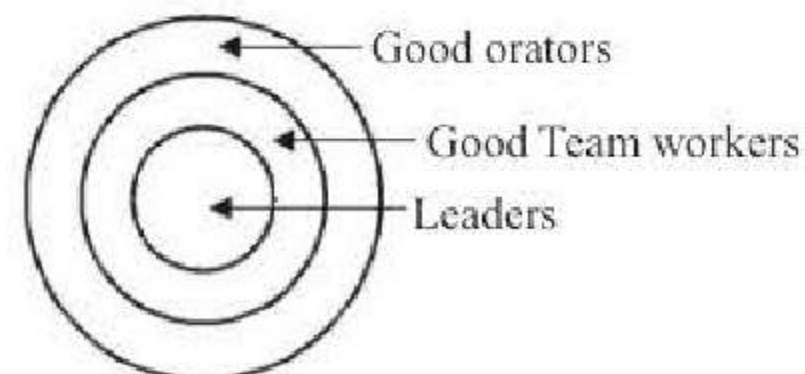
$\therefore R > S > P > Q$

14. (b) Clearly, the given words when arranged in the order of various events as they occur in man's life, term the sequence: Birth – Education – Marriage – Death – Funeral. So the correct order becomes 1 5 4 2 3

15. (c) Capsules are different from injection but both are used as antibiotics.

16. (a) Conclusions I: True

Conclusions II: False



17. (a)

$$\begin{array}{l} - \Rightarrow +, + \Rightarrow \times \\ + \Rightarrow -, \times \Rightarrow + \end{array}$$

Option (a) :  $6 \div 20 \times 12 + 7 - 1 = 70$



$$\begin{aligned}\text{L.H.S.} &= 6 - 20 + 12 \times 7 \div 1 \\ &= 6 - 20 + 84 \\ &= 90 - 20 = 70 \text{ R.H.S.}\end{aligned}$$

18. (c)  $2 \times 7 \times 9 = 126$

$$7 \times 3 \times 8 = 168$$

$$9 \times 4 \times x = 216$$

$$\Rightarrow x = 6$$

19. (b)  $4^2 + 1^2 + 2^2 + 3^2 = 30$

$$6^2 + 3^2 + 4^2 + 15 = 286$$

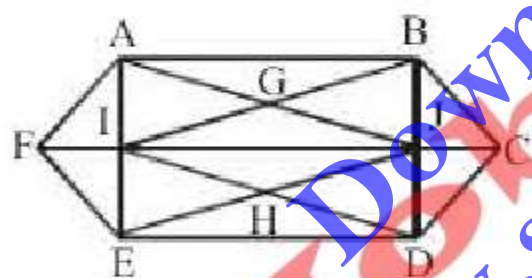
$$3^2 + 4^2 + x + 12^2 = 218$$

$$169 + x = 218$$

$$x = 218 - 169 = \sqrt{49} = 7$$

20. (c) When the sheet shown in fig. (X) is folded to form a cube, then the face with shading lies opposite to the free bearing a square, the face bearing a dot lies opposite to a blank face and the face bearing a circle (with a '+' sign inside it) lies opposite to another blank face. The cubes in figures (2) and (4) have the shaded face adjacent to the face bearing a square. Therefore, the cubes in these two figures cannot be formed. Hence, only cubes in figures (1) and (3) can be formed.

21. (c)



The triangles are:

$\triangle FAE$ ;  $\triangle FAI$ ;  $\triangle FIE$ ;  $\triangle CBD$ ;

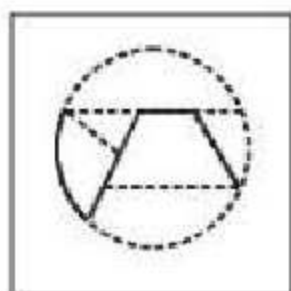
$\triangle CBJ$ ;  $\triangle CJD$ ;  $\triangle AIJ$ ;  $\triangle BJI$ ;

$\triangle BJA$ ;  $\triangle AIB$ ;  $\triangle IED$ ;  $\triangle JDE$ ;

$\triangle JDI$ ;  $\triangle IEJ$ ;  $\triangle GAB$ ;  $\triangle GAI$ ;

$\triangle GJI$ ;  $\triangle GJB$ ;  $\triangle HJI$ ;  $\triangle HDE$ ;

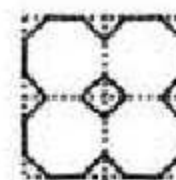
22. (b)  $\triangle HEI$ ;  $\triangle HJD$ ;  $\triangle AJF$ ;  $\triangle EFJ$ ;  
 $\triangle BCI$ ;  $\triangle CDI$ ;  $\triangle IBD$ ;  $\triangle JEA$ .



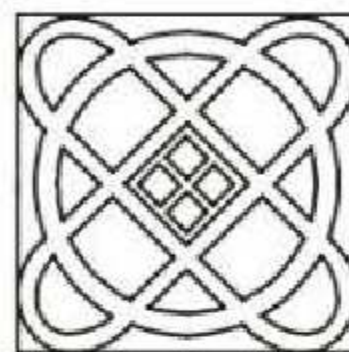
23. (c) Unfolded step I



step II



24. (c)



25. (d) DRUK cannot be formed using TRIVANDRUM as it does not contain letter 'K'.

26. (a) Complete remainder  $= d_1 d_2 r_3 + d_1 r_2 + r_1$   
 $= 8 \times 5 \times 4 + 3 \times 2 + 1 = 67$

Divided 67 by 8, 5 and 3, the remainders are 3, 3, 1.

27. (b) Clearly, unit's digit in the given product = unit's digit in  $7^{153} \times 1^{72}$ .

Now,  $7^4$  gives unit digit 1.

$\therefore 7^{153}$  gives unit digit  $(1 \times 7) = 7$ .

Also  $1^{72}$  gives unit digit 1.

Hence, unit's digit in the product  $= (7 \times 1) = 7$ .

28. (d) CP of wheat  $= 30 \times 45 = ₹1350$

40% of 30 kg  $= 12$  kg

SP of 12 kg  $= 12 \times 50 = ₹600$

For 25% profit, total SP of all the wheat is

$$1350 \times \frac{125}{100} = 1350 \times \frac{5}{4} = ₹ \frac{6750}{4} = ₹1687.5$$

Remaining wheat  $(30 - 12) = 18$  kg.

Rate of remaining wheat

$$= \frac{1087.5}{18} \approx ₹60$$

29. (d) Given that

$$1 \text{ Goats} = \frac{3}{2} \text{ sheeps.}$$

Now, 2 goats + 9 sheeps



$$= 2 \times \frac{3}{2} \text{ sheeps} + 9 \text{ sheeps}$$

$$= 12 \text{ sheeps}$$

$$\text{Here } M_1 D_1 = M_2 D_2$$

$$\Rightarrow 6 \times 50 = 12 \times d_2$$

$$d_2 = 25 \text{ days}$$

30. (d) Let the third number be 100. Then, the first and second numbers will be 20 and 50, respectively.

$$\text{Required \%} = \frac{20}{50} \times 100 = 40\%$$

31. (a) Let the cost of production of the table be ₹ x. Then, 125% of 115% of 110% of x = 1265

$$\Rightarrow \frac{125}{100} \times \frac{115}{100} \times \frac{110}{100} \times x = 1265$$

$$\Rightarrow \frac{253}{160} x = 1265 \Rightarrow x = \left( \frac{1265 \times 160}{253} \right) = ₹ 800$$

32. (b) Rest part =  $1 - \left( \frac{1}{3} + \frac{1}{6} \right) = \frac{1}{2}$

Rate % per annum on total sum

$$= \left( \frac{1}{3} \times 3 \right) + \left( \frac{1}{6} \times 6 \right) + \left( \frac{1}{2} \times 8 \right) = 6\%$$

$$\therefore P = \frac{600 \times 100}{6 \times 2} = ₹ 5,000$$

33. (b) Difference =  $\frac{PR^2}{10000}$

$$\Rightarrow 6 = \frac{P \times 5 \times 5}{10000}$$

$$\Rightarrow 6 \times 400 = ₹ 2400.$$

34. (a) 50 men complete 0.4 work in 25 days. Applying the work rule,

$$m_1 \times d_1 \times w_2 = m_2 \times d_2 \times w_1$$

we have,

$$50 \times 25 \times 0.6 = m_2 \times 25 \times 0.4$$

$$\text{or } m_2 = \frac{50 \times 25 \times 0.6}{25 \times 0.4} = 75 \text{ men}$$

Number of additional men required

$$= (75 - 50) = 25$$

35. (d) Let after t hours they meet then,

$$3t + 4t = 17.5 \Rightarrow t = 2.5$$

$$\therefore \text{Time} = 10 \text{ am} + 2.5 \text{ h} = 12 : 30 \text{ pm}$$

36. (c) Here  $x_1 = 4$ ,  $x_2 = -2$ ,  $y_1 = -1$ ,  $y_2 = 4$

$$\text{and } m_1 = 3 \text{ and } m_2 = 5$$

$$\therefore x = \frac{m_1 x_2 + m_2 x_1}{m_1 + m_2} = \frac{3(-2) + 5(4)}{3 + 5} = \frac{7}{4}$$

and

$$y = \frac{m_1 y_2 + m_2 y_1}{m_1 + m_2} = \frac{3(4) + 5(-1)}{3 + 5} = \frac{7}{8}$$

$$\therefore \text{The required point is } \left( \frac{7}{4}, \frac{7}{8} \right)$$

37. (a) Let Sudha's and Neeta's present ages be 6x and 7x years respectively.

According to the question,

$$\frac{6x - 5}{7x - 5} = \frac{5}{6}$$

$$\Rightarrow 36x - 30 = 35x - 25$$

$$\Rightarrow x = 5$$

$$\therefore \text{Sudha's present age} = 6 \times 5 = 30 \text{ years}$$

38. (b) Let the common base be x m.

Now, area of the triangle = area of the parallelogram

$$\frac{1}{2} \times x \times \text{Altitude of the triangle} = x \times 100$$

$$\text{Altitude of the triangle} = 200 \text{ m}$$

39. (c) After 5 minutes (before meeting), the top runner covers 2 rounds i.e., 400 m and the last runner covers 1 round i.e., 200 m.

$$\therefore \text{Top runner covers 800 m race in 10 minutes.}$$



40. (b) The equation of the line is

$$\frac{(y - y_1)}{(x - x_1)} = \frac{(y_2 - y_1)}{(x_2 - x_1)}$$

$$\text{i.e., } \frac{(y - 1)}{(x + 1)} = \frac{-4 - 1}{2 + 1} \Rightarrow \frac{y - 1}{x + 1} = \frac{-5}{3}$$

$$\Rightarrow 3y - 3 = -5x - 5 \Rightarrow 5x + 3y + 2 = 0$$

41. (b) X's one day's work =  $\frac{1}{25}$ th part of whole work.

$$Y\text{'s one day's work} = \frac{1}{30}\text{th part of whole work.}$$

$$\text{Their one day's work} = \frac{1}{25} + \frac{1}{30} = \frac{1}{150}\text{th}$$

part of whole work.

Now, work is done in 5 days

$$= \frac{11}{150} \times 5 = \frac{11}{30}\text{th of whole work}$$

$$\therefore \text{Remaining work} = 1 - \frac{11}{30} = \frac{19}{30}\text{th of}$$

whole work

$$\text{Now, } \frac{1}{30}\text{th work is done by Y in one day.}$$

$$\therefore \frac{19}{30}\text{th work is done by Y in}$$

$$\frac{1}{1/30} \times \frac{19}{30} = 19\text{ days}$$

42. (b) Error = 1 kg - 960 g  
= 1000 g - 960 g = 40 g.

$$\therefore \text{Gain \%} = \frac{40}{1000 - 40} \times 100$$

$$= \frac{40}{960} \times 100 = 4\frac{1}{6}\%$$

43. (d)  $x = 2 + \sqrt{3}$

$$\frac{1}{x} = \frac{1}{2 + \sqrt{3}} \times \frac{2 - \sqrt{3}}{2 - \sqrt{3}} = 2 - \sqrt{3}$$

$$x^2 + \frac{1}{x^2} = \left(x + \frac{1}{x}\right)^2 - 2$$

$$= (2 + \sqrt{3} + 2 - \sqrt{3})^2 - 2$$

$$= 16 - 2 = 14$$

44. (c)  $a^2 + b^2 + c^2 = 2a - 2b - 2$

$$(a^2 - 2a + 1) + (b^2 + 2b + 1) + c^2 = 0$$

$$(a - 1)^2 + (b + 1)^2 + c^2 = 0$$

This equation is possible if

$$a - 1 = 0, b + 1 = 0 \text{ and } c = 0$$

$$a = 1, b = -1, c = 0$$

$$3a - 2b + c = 3 \times 1 - 2 \times (-1) + 0$$

$$= 3 + 2 = 5$$

45. (a) Working with the options, for  $x = 0$ , the least value of

$$f(x) = 3^x + 3^{-x} = 2$$

Alternate :

$$\text{Let } A = 3^x \text{ and } \frac{1}{A} = 3^{-x}$$

$$\Rightarrow \text{Both are positive.}$$

Now, A.M. of  $A$  and  $\frac{1}{A}$  is greater than or equal to their G.M.

$$\text{i.e. } \frac{A + \frac{1}{A}}{2} \geq \sqrt{A \cdot \frac{1}{A}}$$

$$\text{or } A + \frac{1}{A} \geq 2$$

$$\text{or } 3^x + 3^{-x} \geq 2.$$

46. (d) Required difference

$$= \left(\frac{19 - 11}{100}\right) \times 120000 = 9600$$

47. (c) Required percentage

$$= \frac{10200}{120000} \times 100 = 8.5\%$$



48. (d) Estimated cost of furniture and miscellaneous expenditures

$$= \left( \frac{13+8}{100} \right) \times 120000 = 25200$$

Actual cost of furniture

$$= \frac{88}{100} \times \frac{13}{100} \times 120000 = 13728$$

Actual cost of furniture and miscellaneous expenditure

$$= 13728 + 10200 = 23928$$

Total expenditure of the family

$$= 120000 - 25200 + 23928 = 118728$$

49. (a) Let the breadth of the rectangular plot be  $x$  metre.

$$\therefore \text{Length} = 3x \text{ metre}$$

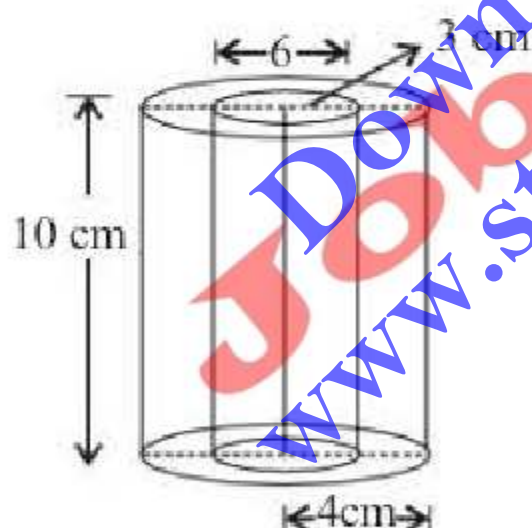
According to the question,

$$3x \times x = 7803$$

$$\Rightarrow x^2 = \frac{7803}{3} = 2601$$

$$\therefore x = \sqrt{2601} = 51 \text{ metre}$$

50. (d) Internal diameter of the tube = 6 cm



$$\therefore \text{Internal radius } (r) = 3 \text{ cm}$$

$$\text{Height of the tube } (h) = 10 \text{ cm}$$

$$\text{Thickness of the metal} = 1 \text{ cm}$$

$$\therefore \text{Outer radius } (R) = \text{Thickness of the metal} + \text{Internal radius} = 1 + 3 = 4 \text{ cm}$$

$$\therefore \text{Outer curved surface area}$$

$$= 2\pi rh + \pi R^2 + \pi(R^2 - r^2)$$

$$= 2\pi(3)(10) + \pi(4)^2 + \pi(16 - 9)$$

$$= 60\pi + 16\pi + 7\pi = 83\pi \text{ sq cm}$$

51. (c) 52. (c) 53. (b) 54. (d) 55. (c)  
 56. (a) 57. (d) 58. (b) 59. (c) 60. (d)  
 61. (d) 62. (a) 63. (d) 64. (b) 65. (b)  
 66. (d) 67. (a) 68. (b)  
 69. (d) The word 'Tepid' means moderately warm; Luke warm which is nearest in meaning to 'Lukewarm' which is option (d), therefore, (d) is the correct answer. The other 3 words have following meanings: Irreversible - incapable of being changed; Causing fatigue - something that leads to mental exertion; Fast moving - speedy.  
 70. (a) The word 'probity' means integrity or uprightness, honesty which is nearest in meaning to integrity which is option (a), therefore, (a) is the correct answer. The other 3 words have following meanings: Impudence - insolence; Profane - irreverent; Preface - an introductory part.  
 71. (b) The word 'Musty' means absolute, out dated or stale food which is nearest in meaning to 'stale' which is option (b), therefore, (b) is the correct answer. The other 3 words have following meanings: Certainty - something certain; Modern - not ancient or remote; Mysterious - implying or suggesting a mystery.  
 72. (b) 73. (c) 74. (b) 75. (a) 76. (d)  
 77. (d) 78. (a) 79. (c) 80. (a)  
 81. (a) B is the opening line, as it introduces the narrative. This will be followed by A, which furthers the narrative. D is the reply to question asked in A and C has the rebuttal to the answer given in D, So the sequences is BADC.  
 82. (b) D is the opening sentence followed by A, which introduces the second subject. Then will be B, which has the pronoun subject 'he' referring to the noun subject in A. Since A ends with a negative verb - fails, the following sentence can be positive only if preceded by the conjunction but, so B will followed C.



83. (c) Liberal is the appropriate answer. Liberal means having political or social views favouring reform and progress. Orthodox denotes adhering to what is commonly accepted. Rigid means incapable of or resistant to bending while flamboyant means elaborately or excessively ornamented.
84. (b) 'Have decided' is the right answer. Have been decided, are deciding, could have decided do not agree with the pattern of sentence.
85. (a) Testimony denotes something that serves as evidence. Her efforts are a testimony to her devotion. Evidence, declaration, witness are not to the purpose.
86. (c) Open is the right word which can fill in. Other options powerful, engaging, systematic are just out of context.
87. (d) 88. (d) 89. (a) 90. (d) 91. (b)
92. (a) 93. (c) 94. (c) 95. (d) 96. (a)
97. (b) 98. (b) 99. (a) 100. (b) 101. (d)
102. (a) Therigatha was a part of the Buddhist literature.
103. (a) 104. (d) 105. (a)
106. (a) Our country is mentioned in the constitution by the name of India and Bharat
107. (c) Per capita Income of a country derived from National Income and population both.
108. (b) NAFED implements the price support scheme (PSS).
109. (c) 'Udyog Bandhu' is a committee to assist industrial units in solving time bound establishment and related problems.
110. (a) Scalars are quantities that have magnitude only; they are independent of direction. Vectors have both magnitude and direction. Momentum is the product of the mass and velocity of an object ( $p = mv$ ). Momentum is a vector quantity, since it has a direction as well as a magnitude. The rest of quantities in option pressure, work and energy have magnitude but not direction.
111. (a) Washing machine works on the principle of centrifugation. Centrifugation is a process that involves the use of the centrifugal force for the separation of mixtures with a centrifuge, used in industry and in laboratory settings. More-dense components of the mixture migrate away from the axis of the centrifuge, while less-dense components of the mixture migrate towards the axis.
112. (a) Fuel value can be expressed in terms of calorific value of fuel. The calorific value of a fuel is the amount of heat produced by burning 1 kg of fuel. Hydrogen has the highest calorific value of (141,790 KJ/kg) thus have highest fuel value. Calorific value of charcoal, natural gas and gasoline are (29,600; 43,000; 47,300 kJ/kg) respectively. Natural gas majorly consists of methane.
113. (a)
114. (a) Thyroxine hormone and tri-iodothyronine hormone are secreted by thyroid follicular cells of thyroid gland. The major component of thyroxine hormone is iodine. Deficiency of iodine causes goitre in human.
115. (d) The major component of honey is fructose.
- Composition of honey in (percentage)
- |              |        |                |
|--------------|--------|----------------|
| Fructose     | — 38.2 | Sucrose — 1.5  |
| Glucose      | — 31   | Minerals — 0.5 |
| Water        | — 17.1 |                |
| Maltose      | — 7.2  |                |
| Carbohydrate | — 4.2  |                |
116. (c) Generally blindness is caused by the dryness and hardness of cornea. Cornea is a clear layer which helps passing of light. It is an outer layer and can be transfer from one person to another.



117. (d) Octopus is an animal of class-Cephalopoda and phylum Mollusca. The shell is absent. It is found at bottom of the sea. It kills its prey with poisonous saliva. It can change its colour.

118. (a) 119. (c) 120. (d) 121. (c)

122. (b) The BASIC countries are a bloc of four large developing countries comprises Brazil, South Africa, India and China formed by an agreement on 28 November 2009. The four committed to reduce greenhouse gas emission.

123. (a) 124. (a) 125. (b) 126. (b)

127. (a) 128. (b) 129. (b) 130. (a)

131. (a) 132. (c) 133. (c) 134. (a)

135. (b) 136. (d) 137. (b) 138. (a)

139. (c) 140. (d) 141. (b) 142. (c)

143. (a) 144. (c) 145. (c) 146. (a)

147. (d) 148. (d) 149. (a) 150. (d)

### Practice Set-9

1. (b) First is an instrument to measure the second.

2. (b)

H	E	A	T	E	R
+3 ↓	-3 ↓	+3 ↓	-3 ↓	+3 ↓	-3 ↓
K	B	D	Q	H	O

Similarly,

C	O	O	L	E	R
+3 ↓	-3 ↓	+3 ↓	-3 ↓	+3 ↓	-3 ↓
F	L	R	I	H	O

3. (d)  $12 = 3^2 + 3$ ,  $30 = 5^2 + 5$ ;  
 $20 = 4^2 + 4$ ;  $? = 6^2 + 6$

4. (a) Microbe is living organism others are scientific apparatus.

5. (d)

6. (a) 1st letter moves -2 steps each time.  
 2nd letter moves +1, +2, +3, +4 steps respectively.

3rd letter moves +2, +3, steps alternatively.

7. (c)  $1^3 + 1^2 = 2$ ,  $2^3 + 2^2 = 12$ ,  $3^3 + 3^2 = 36$  and so on  $\therefore 6^3 + 6^2 = 252$

8. (a)

	O	U	T	C	O	M	E
	+2 ↓	+2 ↓	+3 ↓	+2 ↓	+2 ↓	+2 ↓	+0 ↓
Coded as →	O	Q	W	W	E	Q	O

	R	E	F	R	A	C	T
	+2 ↓	+2 ↓	+3 ↓	+2 ↓	+2 ↓	+2 ↓	+0 ↓
Coded as →	R	T	Q	I	T	C	E

9. (b) A = 1

P	A	T
16	1	20

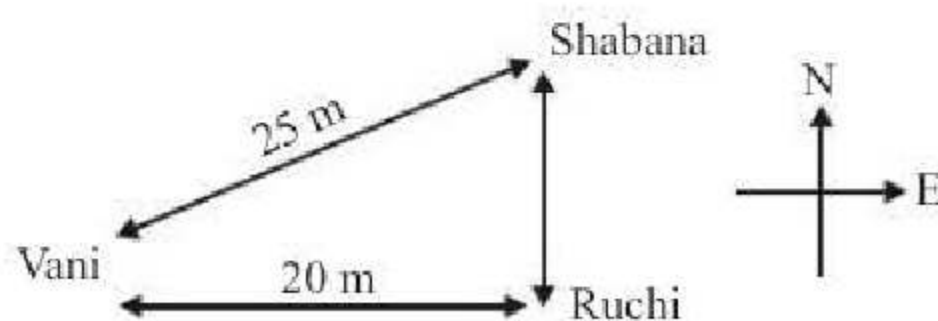
$16 + 1 + 20 = 37$

T	A	P
20	1	16

$20 + 1 + 16 = 37$

10. (a) Father of Rajesh's brother is the father of Rajesh. Rajesh's father is the only son of Neha's grandfather. Hence, Rajesh's father is Neha's father. So, Neha is the sister of Rajesh.

11. (c)



12. (b) New arrangement of numbers is as follows:  
 15698372

Hence, third number from right end is 3.



13. (a) Total boys

$$= \left[ \begin{array}{cc} \text{Mahendra's} & \text{Surendra's} \\ \text{place} & \text{place} \\ \text{from left} & \text{from right} \end{array} \right] +$$

$$\left[ \begin{array}{c} \text{Boys between} \\ \text{them} \end{array} \right]$$

$$= [17 + 18] + 8 = 43$$

14. (b)
- $(5 - 1) \times (6 - 3) = 12$

$$(7 - 3) \times (8 - 3) = 20$$

$$(7 - 2) \times (6 - 3) = 15$$

15. (c) As,
- $3 \times 7 = 21$
- ,
- $11 \times 7 = 77$

$$4 \times 9 = 36, 12 \times 9 = 108$$

$$\text{Therefore, } 14 \times 8 = 112$$

$$? \times 8 = 24$$

$$\boxed{? = 3}$$

16. (c) Silver jubilee - 25 yr.


Golden jubilee - 50 yr.

Diamond jubilee - 75 yr.

Centenary - 100 yr

Millennium - 1000 yr.

17. (b) SIGNAL

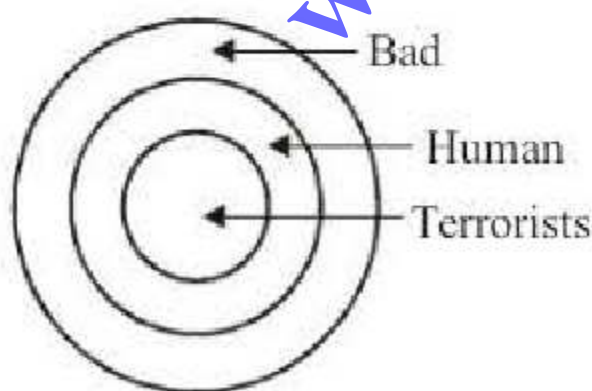
18. (c) Area common to
- 
- and
- 
- .

19. (a) Conclusions:

I. (True)

II. (True)

Hence, option (a) is the correct answer.



20. (b)
- $6 \times 4 - 9 = 15$

21. (c) By options -

$$(a) 22 \times 7 + 3 - 9 = 148$$

$$154 + 3 - 9$$

$$157 - 9 = 148 \text{ (correct)}$$

$$(b) 33 - 5 + 10 \times 20 = 228$$

$$33 - 5 + 200$$

$$200 + 33 - 5$$

$$233 - 5 = 228 \text{ (correct)}$$

$$(c) 7 \times 28 + 3 - 52 = 127$$

$$196 + 3 - 52$$

$$199 - 52 = 147 \text{ (incorrect)}$$

$$(d) 44 + 9 \times 6 - 11 = 87$$

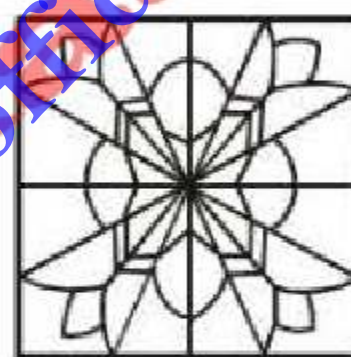
$$44 + 54 - 11$$

$$98 - 11 = 87 \text{ (correct)}$$

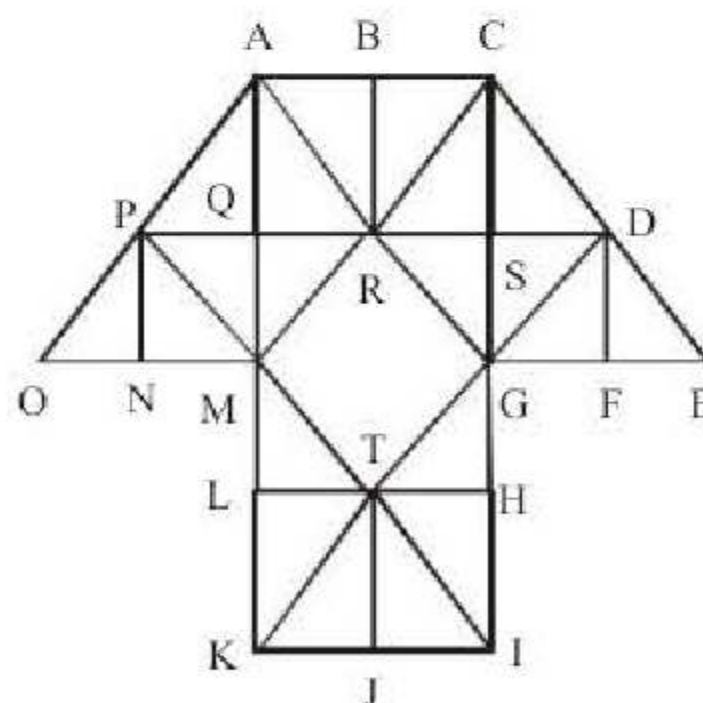
22. (c) From figures (i), (ii) and (iii), we conclude that 3, 4, 2 and 6 lie adjacent to 5. Therefore, 1 must lie opposite 5.

From figures (i), (iii) and (iv), we conclude that 4, 5, 6 and 1 lie adjacent to 3. Therefore, 2 must lie opposite 3. Now, we have 1 opposite 5 and 2 opposite 3. Hence, 4 must lie opposite 6.

23. (b)



24. (c)



The simplest triangles are:

$\triangle PNO$ ;  $\triangle PNM$ ;  $\triangle MPQ$ ;

$\triangle MQR$ ;  $\triangle AQP$ ;  $\triangle AQR$ ;

$\triangle BRA$ ;  $\triangle BRC$ ;  $\triangle SRC$ ;

$\triangle SCD$ ;  $\triangle SGR$ ;  $\triangle SGD$ ;





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$\triangle DFG$ ;  $\triangle DFE$ ;  $\triangle TLM$ ;

$\triangle TJK$ ;  $\triangle TLK$ ;  $\triangle TIH$ ;

The triangles composed of two components are:

$\triangle PON$ ;  $\triangle PMA$ ;  $\triangle APR$ ;

$\triangle RAM$ ;  $\triangle RAC$ ;  $\triangle RGC$ ;

$\triangle DGC$ ;  $\triangle DGE$ ;  $\triangle MPR$ ;

$\triangle GRD$ ;  $\triangle DGE$ ;  $\triangle TMK$ ;

$\triangle TKI$ ;  $\triangle TIG$

The triangles composed of four components are:

$\triangle AMO$ ;  $\triangle AMC$ ;  $\triangle CAG$ ;

$\triangle CGE$ ;  $\triangle MKI$ ;  $\triangle GIK$ ;

Other triangles are :  $\triangle SPI$ ;  $\triangle DQK$

Total number of triangles

$$18 + 14 + 6 + 2 = 40$$

25. (c)

26. (d) Required number

$$= \left( 6\frac{3}{5} - 3\frac{4}{5} \right) \times 355$$

$$= \left( \frac{33}{5} - \frac{19}{5} \right) \times 355$$

$$= \frac{14}{5} \times 355 = 994$$

27. (c) Let  $x$  be the number of times, then

$$79x + 43759 = 50,000$$

$$\Rightarrow x = (50000 - 43759) \div 79 = \frac{6241}{79} = 79$$

28. (c) Total number of sweets

$$= 65 \times 65 \times \frac{20}{100} + 4 \times 65 \times \frac{40}{100}$$

$$= 845 + 104 = 949$$

29. (c) Initial area of the carpet

$$= 3 \times (3 \times 1.44) \text{ sq. metre}$$

$$= 12.96 \text{ sq. metre}$$

After corresponding changes in dimensions,

Area of the carpet

$$= \left( 3 \times \frac{125}{100} \right) \times \left( 3 \times 1.44 \times \frac{140}{100} \right)$$

$$= 22.68 \text{ sq. metre}$$

$\therefore$  Increase in area

$$= (22.68 - 12.96) \text{ sq. metre}$$

$$= 9.72 \text{ sq. metre}$$

$\therefore$  Increase in the cost

$$= ₹ (9.72 \times 45)$$

$$= ₹ 437.4$$

30. (b) In 60 gm. of mixture,

Quantity of water

$$= 60 \times \frac{75}{100} = 45 \text{ gm}$$

Quantity of milk = 15 gm

After mixing 15 gm of more water, Quantity of water in new mixture

$$= 45 + 15 = 60 \text{ gm}$$

$\therefore$  Quantity of water in 75 gm of mixture = 60 gm

$\therefore$  100 gm of mixture will contain

$$= \frac{60}{75} \times 100 = 80\% \text{ of water}$$

31. (d) Third number

$$= 290 - 2 \times 48.5 - 2 \times 53.5$$

$$= 290 - 97 - 107 = 86$$

32. (c) Let average weight of girls =  $x$

$$\begin{aligned} \text{Total weight of the boys} &= 40 \text{ kg} \times 15 \\ &= 600 \text{ kg.} \end{aligned}$$

Average weight

$$= \frac{\text{Total weight of girls} + \text{Total weight of boys}}{\text{No. of boys} + \text{No. of girls}}$$

$$\Rightarrow 38.4 = \frac{600 + 10 \times x}{15 + 10}$$

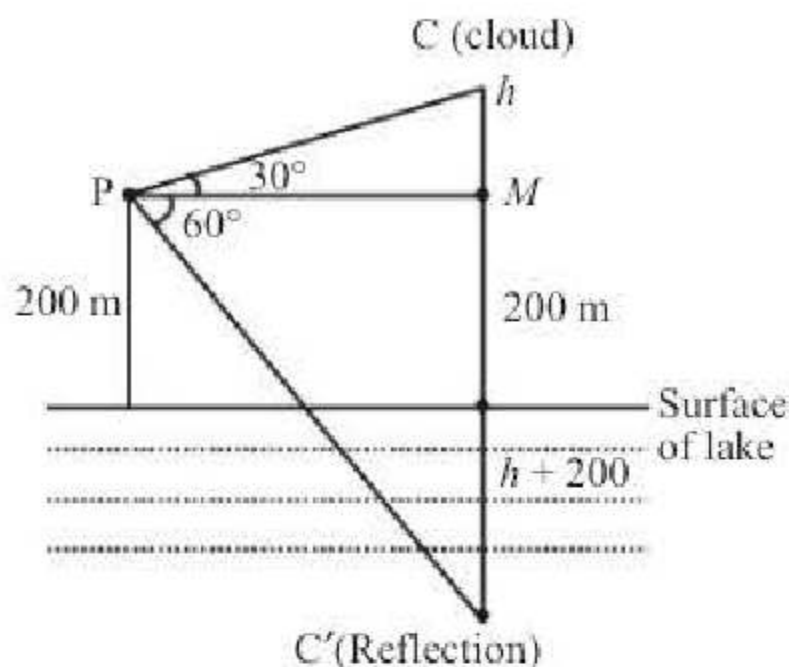
$$\Rightarrow 38.4 = \frac{600 + 10x}{25}$$

$$\Rightarrow 38.4 \times 25 = 600 + 10x$$

$$\therefore x = 36 \text{ kg}$$



33. (c)



$$\tan 30^\circ = \frac{h}{PM} \Rightarrow PM = \sqrt{3}h$$

$$\tan 60^\circ = \frac{h + 400}{PM} \Rightarrow PM = \frac{h + 400}{\sqrt{3}}$$

$$\sqrt{3}h = \frac{h + 400}{\sqrt{3}} \Rightarrow 3h - h = 400$$

$$\Rightarrow 2h = 400$$

$$\Rightarrow \text{So, height of the cloud} = 200 + 200 = 400 \text{ m}$$

34. (c) Let C completes the work in x days.

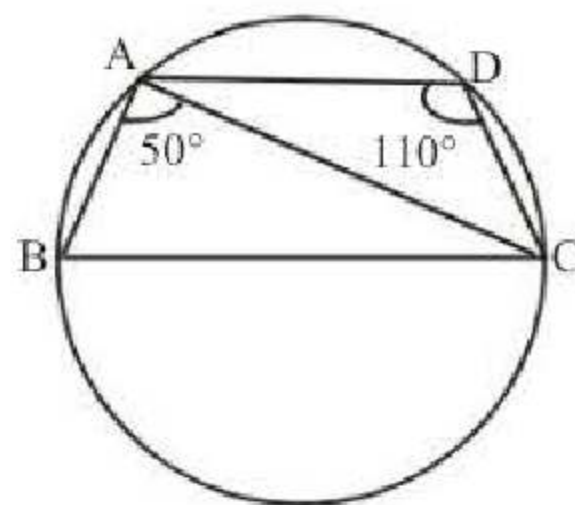
$$\text{Work done by (A + B) in 1 day} = \frac{1}{10}$$

$$\text{Work done by (B + C) in 1 day} = \frac{1}{18}$$

$$\text{A's 5 days' work} + \text{B's 10 days' work} + \text{C's 15 days' work} = 1$$

$$\text{or } (A + B)\text{'s 5 days' work} + (B + C)\text{'s 5 days' work} + \text{C's 10 days' work} = 1$$

$$\text{or } \frac{5}{10} + \frac{5}{18} + \frac{10}{x} = 1 \quad \text{or } x = 45 \text{ days}$$

35. (a)  $\angle ABC + \angle ADC = 180^\circ$  (sum of opposite angles of cyclic quadrilateral is  $180^\circ$ )

$$\Rightarrow \angle ABC + 110^\circ = 180^\circ$$

(ABCD is a cyclic quadrilateral)

$$\Rightarrow \angle ABC = 180 - 110 \Rightarrow \angle ABC = 70^\circ$$

( $\because AD \parallel BC$ )
 $\therefore \angle ABC + \angle BAD = 180^\circ$  (Sum of the interior angles on the same side of transversal is  $180^\circ$ )

$$70^\circ + \angle BAD = 180^\circ$$

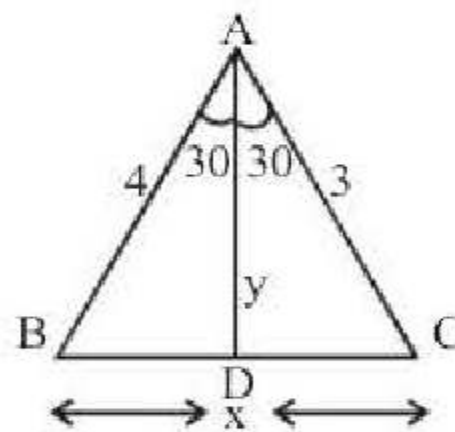
$$\Rightarrow \angle BAD = 180^\circ - 70^\circ = 110^\circ$$

$$\Rightarrow \angle BAC + \angle DAC = 110^\circ$$

$$\Rightarrow 50^\circ + \angle DAC = 110^\circ$$

$$\Rightarrow \angle DAC = 110^\circ - 50^\circ = 60^\circ$$

36. (b)



Using the theorem of angle bisector,

$$\frac{BD}{DC} = \frac{AB}{AC} = \frac{4}{3}$$

$$\Rightarrow BD = \frac{4}{7}x \quad \& \quad DC = \frac{3}{7}x$$

$$\text{In } \triangle ABD, \text{ by sine rule, } \frac{\sin 30^\circ}{4/7x} = \frac{\sin B}{y} \dots (i)$$

$$\text{In } \triangle ABC, \text{ by sine rule; } \frac{\sin 60^\circ}{x} = \frac{\sin B}{3}$$



$$\text{or } \frac{\sqrt{3}}{2x} = \frac{\sin 30^\circ y}{4/7x \times 3}$$

[putting the value of  $\sin B$  from (i)]

$$\Rightarrow y = \frac{\sqrt{3}}{2x} \times \frac{4}{7}x \times 3 \times \frac{2}{1} = \frac{12\sqrt{3}}{7}$$

37. (a) Suppose ₹  $x$  was lent at 6% per annum.

$$\text{Thus, } \frac{x \times 6 \times 5}{100} + \frac{(7000 - x) \times 4 \times 5}{100} = 1600$$

$$\text{or, } \frac{3x}{10} + \frac{7000 - x}{5} = 1600$$

$$\text{or, } \frac{3x + 14,000 - 2x}{10} = 16000$$

$$\therefore x = 16000 - 14000 = ₹ 2000$$

38. (b) Ratio of times taken by A and B = 100 : 130  
= 10 : 13.

Suppose B takes  $x$  days to do the work.

Then, 10 : 13 :: 23 :  $x$

$$\Rightarrow x = \left( \frac{23 \times 13}{10} \right) \Rightarrow x = \frac{299}{10}$$

$$\text{A's 1 day's work} = \frac{1}{23}, \text{ B's 1 day's work} = \frac{1}{\frac{299}{10}}$$

$$= \frac{10}{299}$$

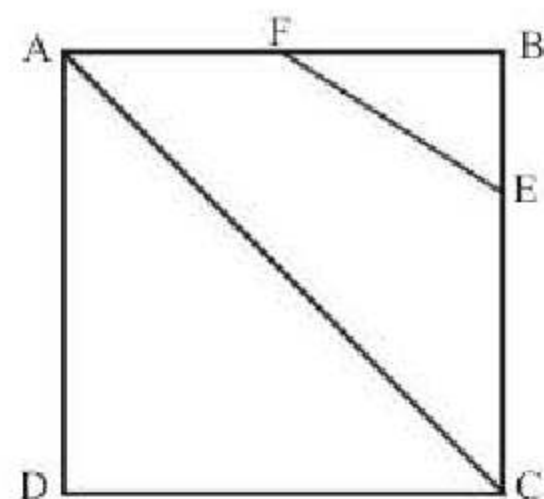
(A + B)'s 1 day's work

$$= \left( \frac{1}{23} + \frac{10}{299} \right) = \frac{23}{299} = \frac{1}{13}$$

$\therefore$  A and B together can complete the job in 13 days.

39. (b) Let the side of the square be  $x$ , then

$$BE = \frac{x}{3} \text{ and } BF = \frac{x}{2}$$



$$\text{Area of } \triangle FEB = \frac{1}{2} \times \frac{x}{3} \times \frac{x}{2} = \frac{x^2}{12}$$

$$\text{Now, } \frac{x^2}{12} = 108$$

$$\Rightarrow x^2 = 108 \times 12 = 1296$$

In  $\triangle ADC$ , we have

$$AC^2 = AD^2 + DC^2$$

$$= x^2 + x^2 = 2x^2$$

$$= 2 \times 1296 = 2592$$

$$\text{or } AC = \sqrt{2592} = 36\sqrt{2}$$

$$40. (c) \frac{1}{1+a} + \frac{1}{1+b} + \frac{1}{1+c} \quad \dots(i)$$

Given that,

$$a^2 = b + c$$

$$a + a^2 = a + b + c$$

$$a(a+1) = a + b + c$$

$$a+1 = \frac{a+b+c}{a}$$

$$\frac{1}{a+1} = \frac{a}{a+b+c}$$

Similarly,

$$\frac{1}{b+1} = \frac{b}{a+b+c}$$

$$\frac{1}{c+1} = \frac{c}{a+b+c}$$



Put in eq. (i)

$$\therefore \frac{a}{a+b+c} + \frac{b}{a+b+c} + \frac{c}{a+b+c}$$

$$= \frac{a+b+c}{a+b+c} = 1$$

41. (b) Given that,  $x + \frac{1}{y} = 1$

$$\Rightarrow xy + 1 = y \quad \dots(i)$$

and  $y + \frac{1}{z} = 1$

$$\Rightarrow 1 - \frac{1}{z} = y$$

$$\Rightarrow \frac{z-1}{z} = y \quad \dots(ii)$$

From eq. (ii),

$$y = \frac{z-1}{z}$$

Comparing eqn. (i) with (ii)

$$xy + 1 = \frac{z-1}{z}$$

$$\Rightarrow xyz + z = z - 1$$

$$\Rightarrow xyz = -1$$

42. (a)  $p = 999$  (Given)

Expression  $\Rightarrow \sqrt[3]{p^3 + 3p^2 + 3p + 1}$

$$\Rightarrow \sqrt[3]{(p+1)^3}$$

$$\Rightarrow p + 1 = 999 + 1 = 1000$$

43. (a) Gain = S.P. of 33 metres – C.P. of 33 metres

$$= \text{S.P. of 11 metres}$$

$$\Rightarrow \text{S.P. of 22 metres} = \text{C.P. of 33 metres}$$

$$\therefore \% \text{ gain} = \frac{\text{gain}}{\text{C.P. of metres}} \times 100$$

$$= \frac{\text{S.P. of 11 metres}}{\text{C.P. of 33 metres}} \times 100$$

$$= \frac{\text{S.P. of 11 metres}}{\text{S.P. of 22 metres}} \times 100 = \frac{11}{22} \times 100 = 50\%$$

44. (d) Suppose Income of B = ₹ x

$$\text{Income of A} = \frac{150}{100} \times x = ₹ \frac{3x}{2}$$

$$\text{Income of C} = \frac{120}{100} \times \frac{3x}{2}$$

$$\frac{6}{5} \times \frac{3x}{2} = \frac{9x}{5}$$

$$\therefore x + \frac{3x}{2} + \frac{9x}{5} = 86000$$

$$\frac{10x + 15x + 18x}{10} = 86000$$

$$43x = 860000$$

$$x = 20000$$

$$\therefore \text{income of C} = \frac{9}{5} \times 20000 = ₹ 36000$$

45. (a) Let the length of the journey = x km.

$\therefore$  Journey rides by horse cart

$$= x \left( 1 - \frac{1}{2} - \frac{1}{3} \right) = \frac{1}{6} x \text{ km.}$$

Then, total time taken to complete journey

$$= \frac{31}{5} \text{ hr}$$

$$\Rightarrow t_1 + t_2 + t_3 = \frac{31}{5}$$

$$\Rightarrow \frac{x}{2} \times \frac{1}{4} + \frac{x}{3} \times \frac{1}{12} + \frac{x}{6 \times 9} = \frac{31}{5}$$

$$\Rightarrow x = \frac{31}{5} \times \frac{216}{37} = 36.2 \text{ km} \approx 36 \text{ km}$$

46. (d) New quantity of item D

$$= 40 \times \frac{150}{100} = 60 \text{ quintal}$$

New price/kg of item D

$$= 90\% \text{ of ₹ } 12.5$$

$$= 12.5 \times \frac{90}{100} = ₹ 11.25/\text{kg}$$



$$\begin{aligned} \therefore \text{Total price} \\ &= ₹(60 \times 100 \times 11.25) \\ &= ₹67500 \end{aligned}$$

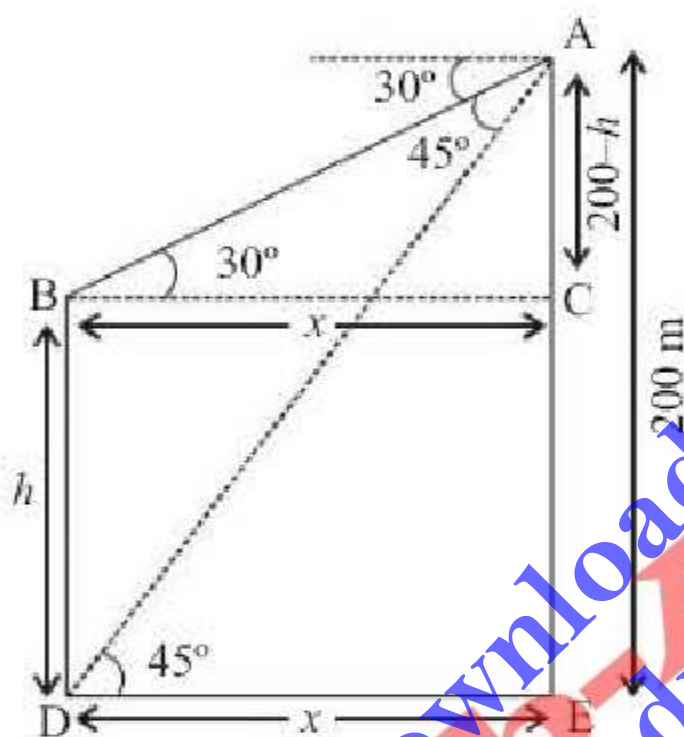
47. (d) Required average price/kg

$$\begin{aligned} &= ₹ \left( \frac{17.5 + 10 + 7.5}{3} \right) \\ &= ₹ \frac{35}{3} = ₹11.67 \end{aligned}$$

48. (a) Required ratio

$$\begin{aligned} &= 15 \times 25 : 10 \times 35 \\ &= 3 \times 5 : 2 \times 7 = 15 : 14 \end{aligned}$$

49. (d)



$$\text{In } \triangle ACB, \tan 30^\circ = \frac{200 - h}{x} = \frac{1}{\sqrt{3}}$$

$$= \frac{500 - h}{x}$$

$$\Rightarrow x = (200 - h)\sqrt{3} \quad \dots (i)$$

In  $\triangle ADE$ ,

$$\tan 45^\circ = \frac{200}{x}$$

$$\Rightarrow 1 = \frac{200}{x} \Rightarrow x = 200 \text{ m}$$

From Eq. (i)

$$200 = (200 - h)\sqrt{3}$$

$$\Rightarrow h = 200 \left( \frac{\sqrt{3} - 1}{\sqrt{3}} \right) \text{ m}$$

50. (d) The stack is in the form having vertical cross section of trapezium.

$\therefore$  Volume of Earth in the stack = Area of cross section of trapezium  $\times$  Height

$$\therefore \text{Volume} = \frac{1}{2} \times (10 + 5) \times 2 \times 8 = 15 \times 8 \text{ m}^2$$

According to the question,

Volume of Earth to be spread = (Area of field)  $\times$  Level raised

$$\therefore \text{Level raised} = \frac{15 \times 8}{100 \times 80} = \frac{15}{1000} \text{ m} = 1.5 \text{ cm}$$

51. (a) 52. (b) 53. (b) 54. (c) 55. (b)  
 56. (c) 57. (a) 58. (b) 59. (c) 60. (a)  
 61. (b) 62. (a) 63. (b) 64. (d) 65. (b)  
 66. (b) 67. (c) 68. (b) 69. (c) 70. (b)  
 71. (c) 72. (d) 73. (b) 74. (d)  
 75. (c) Replace 'to' with 'with'. 'Agree to' is used for agreement to a plan or proposal, while 'Agree with' is used for agreement with a person.  
 76. (a) No error. The sentence is correct.  
 77. (a) 78. (d) 79. (b) 80. (d) 81. (b)  
 82. (c) 83. (c) 84. (d) 85. (d) 86. (a)  
 87. (c) 88. (b) 89. (b) 90. (d) 91. (c)  
 92. (c) 93. (a) 94. (d) 95. (a)  
 96. (b) He was elected Mayor by the people.  
 97. (b) He was seen picking up a gun by someone.  
 98. (c) 99. (a) 100. (b)  
 101. (d) It was constituted by Shivaji in Maratha administration.  
 102. (c) Bengal Gazette was published by James Augustus Hickey in 1780.  
 103. (c) Jatindra Nath Das (27 October 1904 - 13 September 1929), also known as Jatin Das, was an Indian freedom fighter and revolutionary. He died in Lahore jail after a continuous hunger strike for 63 days demanding equality for Indian prisoners and undertrials.



104. (d) 'Federal' term is not used in the preamble of the Indian constitution.
105. (b) The Prime Minister of India is the head of the Central Government.
106. (c) There are 5 types of writs can be issued by the Supreme Court
107. (d) The Indian Economy is characterised by pre-dominance of agriculture, low per capita income and massive unemployment.
108. (d) The Green Revolution in India has contributed to inter-regional, inter-class and inter-crop inequality.
109. (c) Middle luminous zone of a candle flame is the hottest.
110. (d)
111. (c) In Astigmatism, eye cannot see objects in two orthogonal directions clearly simultaneously. This abnormality is removed by using cylindrical lens.
112. (d) Fertilizers are those compounds which provide essential primary nutrients (nitrogen, phosphorus and potassium) required for healthy growth of plants and crops. Nitrogenous fertilizer provide nitrogen, phosphatic fertilizer provide phosphorus whereas potash fertilizer provide potassium to soil. NPK fertilizers are mixed fertilizers. They provide all three essential nutrients (nitrogen, phosphorus and potassium). NPK fertilizers contains nitrogen, phosphorus and potassium in different proportion depending upon the requirement of soil.
113. (a) Fluorine is the most reactive among all halogens. However the reactivity decreases from  $F_2$  to  $I_2$  (from top to bottom of group) may be attributed to
- (1) Low dissociation enthalpies
  - (2) High electron affinities
114. (d) Potato tuber bears buds in small pits known as eyes. Buds develops to branches. Some of the branches become green, erect & leafy stems that grow horizontally under ground.
115. (b) Athlete's Foot disease is caused by parasitic fungus of genus *Trichophyton*. Scaling, flaking and itching of affected areas are the symptoms of this disease. This disease transmitted in moist areas where people walk bare foot.
116. (b) Chlorophyll is a tetrapyrrole ring system that chelate the magnesium ion. The tetrapyrrole ring system that chelates this magnesium shows a conjugated double bond. This bond provide the light absorption feature to chlorophyll and gives it green colour.
117. (d) The stomach is divided into two parts fundic and pyloric region. The pyloric region opens into small intestine through pyloric valve of pylorus.
118. (a) 119. (c) 120. (d) 121. (c) 122. (b)
123. (c) 124. (b) 125. (b) 126. (b) 127. (c)
128. (b) 129. (b) 130. (a) 131. (a) 132. (b)
133. (b) 134. (a) 135. (b) 136. (d) 137. (c)
138. (a) 139. (d) 140. (b) 141. (c) 142. (c)
143. (d) 144. (b) 145. (c) 146. (b) 147. (d)
148. (c) 149. (c) 150. (b)

### Practice Set-10

1. (c) The words in each pair are synonyms.

2. (c)

P	A	P	E	R
+3 ↓	+2 ↓	+4 ↓	+2 ↓	+5 ↓
S	C	T	G	W

Similarly,

M	O	T	H	E	R
+3 ↓	+2 ↓	+4 ↓	+2 ↓	+5 ↓	+2 ↓
P	Q	X	J	J	T

3. (a)
- $$210 = (15)^2 - 15$$
- $$380 = (20)^2 - 20$$
- $$182 = (14)^2 - 14$$
- $$(19)^2 - 19 = 342$$
- 15 + 5 = 20  
14 + 5



4. (d)

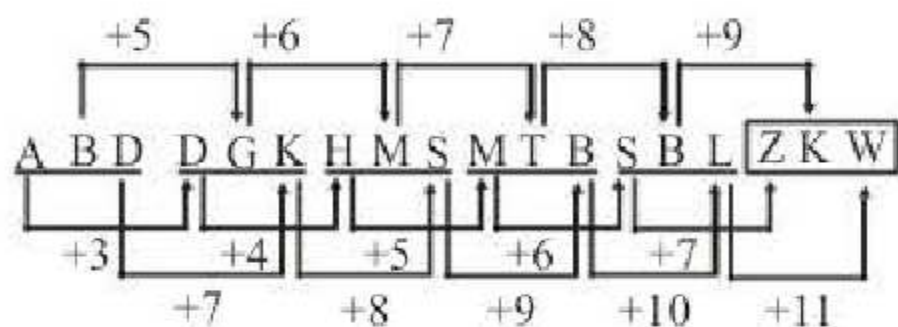
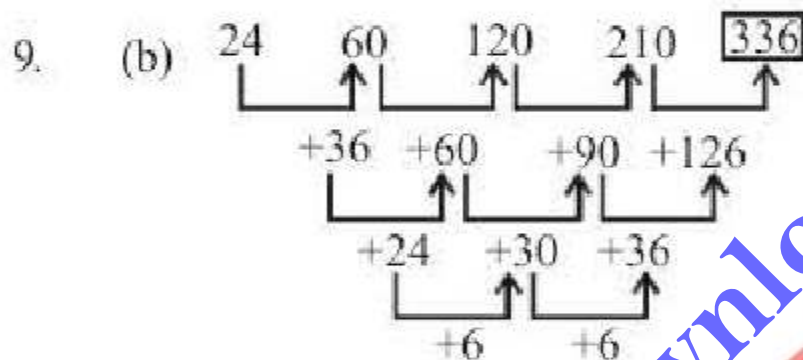
5. (b) Pattern is—

$$P \xrightarrow{+2} R \xrightarrow{-3} O \xrightarrow{+2} Q \xrightarrow{-3} N$$

So that, DECEG is out.

6. (a) Only 117-143 is divisible by 13. Therefore, it is odd one out.

7. (d)

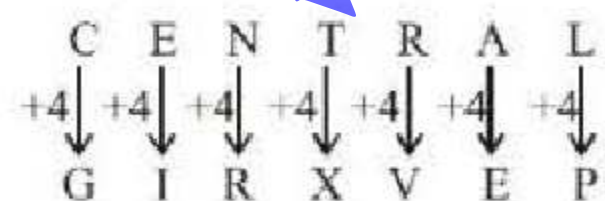
8. (d) Each number is 15 multiplied by a prime number i.e.  $15 \times 11$ ,  $15 \times 13$ ,  $15 \times 17$ ,  $15 \times 19$ ,  $15 \times 23$ , .....So, missing term =  $15 \times 29 = 435$ .

10. (b)

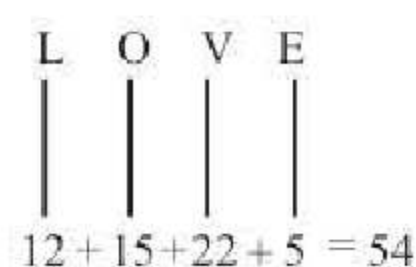


Coded as: G S V R I V

Similarly,



11. (b)



$$\frac{54}{2} = 27$$

Similarly,



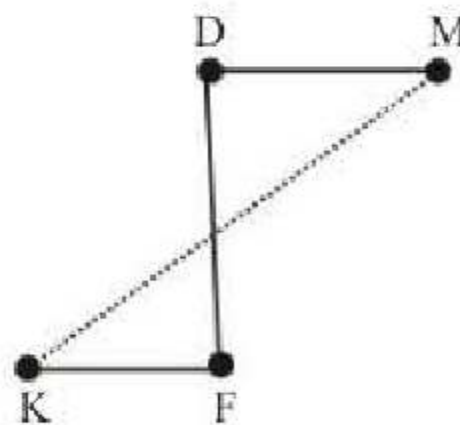
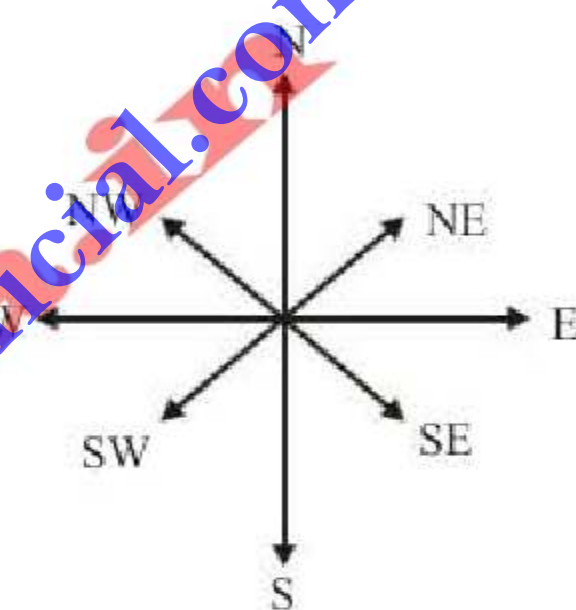
$$\frac{36}{2} = 18$$

12. (d) A is the sister of B and B is the son/daughter of C. So, A is the daughter of C.

Also, D is the father of C.

Thus, A is the granddaughter of D.

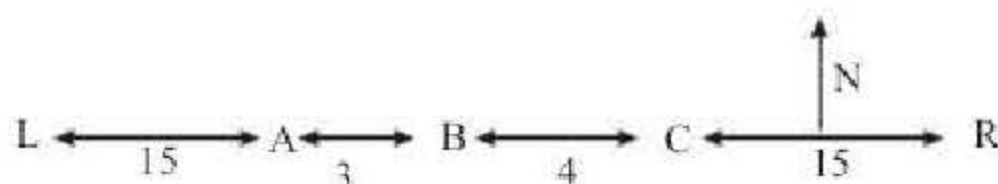
13. (c)



M is to the North-East of K.

14. (b) If the first working day happened to be Tuesday then 8th, 15th, 22nd and 29th of the month will be Tuesday. Hence, the last day of the month will be Wednesday (since, number of days in the month is 30). Thus, the next casual leave will be on Thursday.

15. (b)

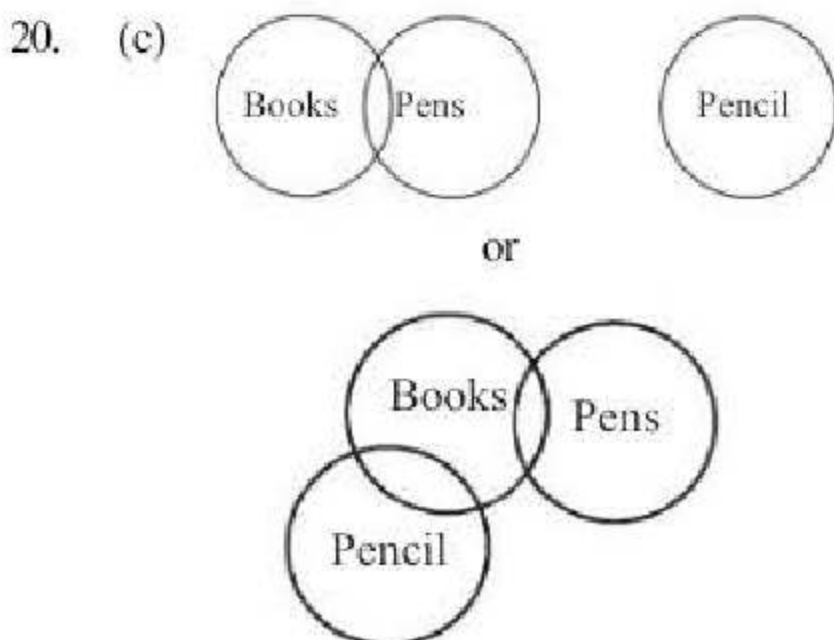
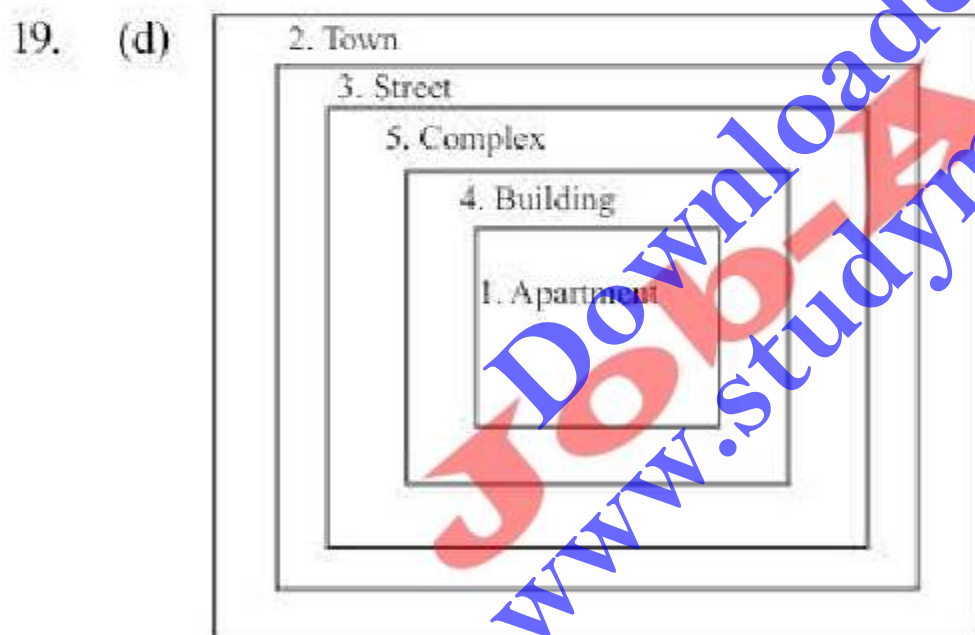




Clearly, according to the given conditions, there are 15 boys to the left of A, as well as to the right of C. Also, B lies between A and C such that there are 3 boys between A and B and 4 boys between B and C. So, number of boys in the row =  $(15 + 1 + 3 + 1 + 4 + 1 + 15) = 40$ .

16. (c) Total students  
 $= [\text{Malay's place from starting} + \text{Malay's place from end}] - 1$   
 $= [13 + 17] - 1 = 29$   
 Number of passed students  
 $= [\text{Malay's place from starting} + \text{Malay's place from end}] - 1$   
 $= [8 + 13] - 1 = 20$   
 $\therefore$  Number of failed students =  $29 - 20 = 9$

17. (b)  $5 \times 3 + 1 = 16$ ;  $9 \times 3 + 2 = 29$ ;  
 $16 \times 3 + 1 = 49$ ;  $29 \times 3 + 2 = 89$ ;  
 $15 \times 3 + 3 = 48$ ;  $48 \times 3 + 3 = 147$ .
18. (b)  $(7 + 9 + 5 + 4) \times 2 - 10 = 40$   
 $(17 + 8 + 3 + 6) \times 2 - 14 = 54$   
 $(10 + 21 + 6 + 3) \times 2 - 18 = 62$

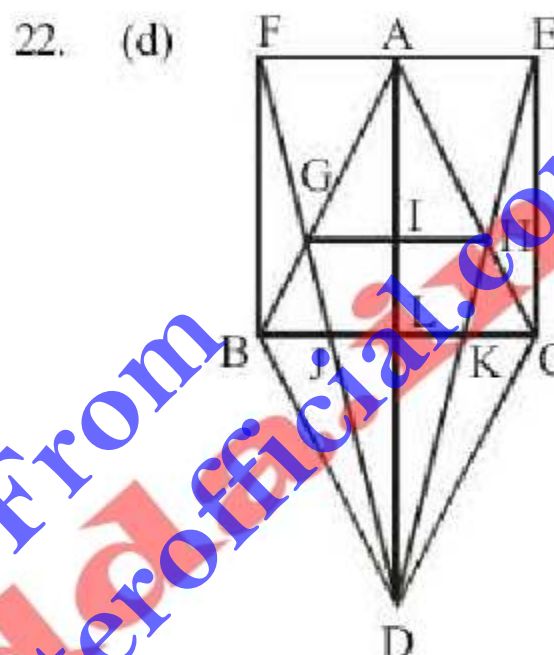


### Conclusions:

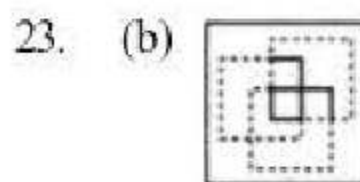
- I. False  
 II. False

Hence, either I, II follows

21. (a) Solve by options, we can check all the options one by one.  
 $25 \div 5 \times 20 + 27 - 7 \Rightarrow 5 \times 20 + 27 - 7$   
 $\Rightarrow 100 + 27 - 7$   
 $120 = 120$



$\triangle FDE, \triangle ACD, \triangle ABD,$   
 $\triangle FBD, \triangle ABC, \triangle BCD,$   
 $\triangle BKD, \triangle BLD, \triangle BJD,$   
 $\triangle JCD, \triangle JKD, \triangle LDJ, \triangle LCD,$   
 $\triangle LKD, \triangle HDC, \triangle KDC, \triangle EDC,$   
 $\triangle HKC, \triangle EKC, \triangle AEC, \triangle EHC,$   
 $\triangle AEH, \triangle AGH, \triangle AIH, \triangle AGI,$   
 $\triangle AFB, \triangle AGF, \triangle FBG$   
 $\therefore$  Total 28 triangles.



24. (a) The water image of 'a' is 'g', 'b' is 'p', 'S' is 'z', 'e' is 'e', 'n' is 'u', 'c' is 'c' and 'e' is 'e'.
25. (b) 1 dot in rect and circle. One dot in train n circle, so only 4th figure can have these 2 dots



26. (a) Let the number be  $z$ . Now  $385 = 5 \times 7 \times 11$

5	$z$	Remainders
7	$y$	4
11	$x$	6
	102	10

$$x = 11 \times 102 + 10 = 1132$$

$$y = 7x + 6 = 7 \times 1132 + 6 = 7930$$

$$z = 5y + 4 = 5 \times 7930 + 4 = 39654$$

27. (b) Divisor = [Sum of remainders]  
 - [Remainder when sum is divided]  
 $= 11 + 21 - 4 = 28$

28. (c) Let C.P. = ₹ 100. Then M.P. = ₹ 120 and  
 S.P. = ₹ 108

$$\% \text{ discount} = \left( \frac{12}{120} \times 100 \right) \% = 10\%$$

29. (a) Let the sum invested in Scheme A be ₹  $x$   
 and that in Scheme B be ₹  $(13900 - x)$ .

Then,

$$\left( \frac{x \times 14 \times 2}{100} \right) + \left[ \frac{(13900 - x) \times 11 \times 2}{100} \right] = 3508$$

$$\Rightarrow 28x - 22x = 350800 - (13900 \times 22)$$

$$\Rightarrow 6x = 45000$$

$$\Rightarrow x = 7500.$$

$$\text{So, sum invested in Scheme B} = ₹ (13900 - 7500) = ₹ 6400.$$

30. (b) Required difference =  $\frac{PR^2}{(100)^2}$

$$\Rightarrow \frac{4000 \times 5 \times 5}{100 \times 100} = ₹ 10$$

31. (c) Let the profit =  $x$

$$\text{Profit of A} = \frac{9x}{10}, \text{ Remaining profit} = \frac{x}{10}$$

$$\text{Profit of B} = \frac{x}{20}$$

$$\text{Profit of C} = \frac{x}{20}$$

$$\begin{aligned} \text{Ratio of profit} &= \frac{9}{10} : \frac{1}{20} : \frac{1}{20} \\ &= 18 : 1 : 1 \end{aligned}$$

A's income is increased by ₹ 270. When profit rises 3%

$$\text{Investment of A} = \frac{270}{3} \times 100 = ₹ 9000.$$

If investment of A, B and C =  $18x$ ,  $x$  and  $x$   
 $18x = 9000$

$$x = 500$$

B's investment = ₹ 500.

C's investment = ₹ 500.

32. (d)  $(P + Q + R)$ 's 1 hour's work =

$$\left( \frac{1}{8} + \frac{1}{10} + \frac{1}{12} \right) = \frac{37}{120}$$

Work done by P, Q and R in 2 hours =

$$\left( \frac{37}{120} \times 2 \right) = \frac{37}{60}$$

$$\text{Remaining work} = \left( 1 - \frac{37}{60} \right) = \frac{23}{60}$$

$(Q + R)$ 's 1 hour's work

$$= \left( \frac{1}{10} + \frac{1}{12} \right) = \frac{11}{60}$$

Now,  $\frac{11}{60}$  work is done by Q and R in 1 hour.

So,  $\frac{23}{60}$  work will be done by Q and R in

$$\left( \frac{60}{11} \times \frac{23}{60} \right) = \frac{23}{11} \text{ hours} \approx 2 \text{ hours.}$$

So, the work will be finished approximately 2 hours after 11 a.m., i.e., around 1 p.m.

33. (a) Let the length of the journey =  $x$  km.

$\therefore$  Journey rides by horse cart

$$= x \left( 1 - \frac{1}{2} - \frac{1}{3} \right) = \frac{1}{6} x \text{ km.}$$



Then, total time taken to complete journey

$$= \frac{31}{5} \text{ hr}$$

$$\Rightarrow t_1 + t_2 + t_3 = \frac{31}{5}$$

$$\Rightarrow \frac{x}{2} \times \frac{1}{4} + \frac{x}{3} \times \frac{1}{12} + \frac{x}{6 \times 9} = \frac{31}{5}$$

$$\Rightarrow x = \frac{31}{5} \times \frac{216}{37} = 36.2 \text{ km} \approx 36 \text{ km}$$

$$\begin{aligned} 34. \quad (a) \quad & x^2 + y^2 + 2x + 1 = 0 \\ \Rightarrow & x^2 + 2x + 1 + y^2 = 0 \\ \Rightarrow & (x+1)^2 + y^2 = 0 \\ \Rightarrow & x+1 = 0 \Rightarrow -1 \text{ and } y = 0 \\ \therefore & x^{31} + y^{35} = -1 \end{aligned}$$

$$\begin{aligned} 35. \quad (a) \quad & 2^x = 3^y = 6^{-z} = k \\ \Rightarrow & 2 = k^{\frac{1}{x}}; 3 = k^{\frac{1}{y}}; 6 = k^{-\frac{1}{z}} \\ \therefore & 2 \times 3 = 6 \end{aligned}$$

$$\begin{aligned} \Rightarrow & k^{\frac{1}{x}} \times k^{\frac{1}{y}} = k^{-\frac{1}{z}} \Rightarrow k^{\frac{1}{x} + \frac{1}{y}} = k^{-\frac{1}{z}} \\ \Rightarrow & \frac{1}{x} + \frac{1}{y} = -\frac{1}{z} \Rightarrow \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 0 \end{aligned}$$

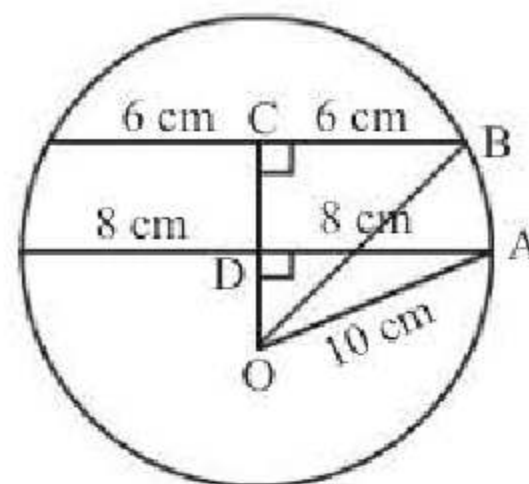
$$\begin{aligned} 36. \quad (c) \quad & m + \frac{1}{m-2} = 4 \\ & m^2 - 6m + 9 = 0 \\ & (m-3)(m-3) = 0 \\ & m = 3 \\ & m-2 = 1 \end{aligned}$$

$$\begin{aligned} \text{Now } & (m-2)^2 + \frac{1}{(m-2)^2} \\ & = 1^2 + \frac{1}{1^2} = 2 \end{aligned}$$

$$\begin{aligned} 37. \quad (b) \quad & \text{usual time} \times \left( \frac{4}{5} - 1 \right) = \frac{-30}{60} \\ \Rightarrow & \text{usual time} = \frac{1}{2} \times 5 = 2\frac{1}{2} \text{ hr} \end{aligned}$$

$$38. \quad (a) \quad \frac{(3-5)}{x-2} = 2 \Rightarrow 2x-4 = -2 \Rightarrow 2x = 2 \Rightarrow x = 1$$

39. (b)



In  $\triangle ADO$ ,

$$\begin{aligned} OD &= \sqrt{(AO)^2 - AD^2} \\ &= \sqrt{100\text{cm}^2 - 64\text{cm}^2} = 6 \text{ cm} \end{aligned}$$

In  $\triangle BCO$ ,

$$\begin{aligned} OC &= \sqrt{OB^2 - CB^2} \\ &= \sqrt{100\text{cm}^2 - 36\text{cm}^2} = 8 \text{ cm} \end{aligned}$$

Distance between chords =  $OC - OD = 2 \text{ cm}$

$$\begin{aligned} 40. \quad (a) \quad & \text{Required average age} = \\ & \left( \frac{15 \times 36 + 12 \times 16}{36 + 12} \right) \text{ years} \\ & = \left( \frac{540 + 192}{48} \right) \text{ years} = \left( \frac{732}{48} \right) \text{ years} = \\ & 15.25 \text{ years.} \end{aligned}$$

41. (c) Let C completes the work in  $x$  days.

$$\text{Work done by (A+B) in 1 day} = \frac{1}{10}$$

$$\text{Work done by (B+C) in 1 day} = \frac{1}{18}$$

A's 5 days' work + B's 10 days' work + C's 15 days' work = 1

or (A+B)'s 5 days' work + (B+C)'s 5 days' work + C's 10 days' work = 1

$$\text{or } \frac{5}{10} + \frac{5}{18} + \frac{10}{x} = 1 \text{ or } x = 45 \text{ days}$$



$$42. (d) \frac{1}{2}[4 - (2 + 16) + 3(-16 - 4) + 3(4 + 2)]$$

$$= \frac{1}{2}[56 - 60 + 18] = 7$$

$$43. (b) \text{ Interest for one year}$$

$$= ₹ 212.50 \times \frac{3}{100} \times 1 = ₹ \frac{51}{8}$$

Thus in 8 years, the interest is ₹51.

$$44. (b) \text{ Let S.P.} = ₹100. \text{ Then, C.P.} = ₹96; \text{ Profit} = ₹4.$$

∴ Profit %

$$= \left( \frac{4}{96} \times 100 \right) \% = \frac{25}{6} \% = 4.17\% \approx 4.2\%$$

$$45. (d) x + x + 2 + x + 4 + x + 6 = 4 \times 36$$

$$\Rightarrow 4x + 12 = 144 \Rightarrow 4x = 144 - 12$$

$$\Rightarrow 4x = 132 \Rightarrow x = \frac{132}{4} = 33$$

$$46. (d) \text{ Total number of students studying B.Sc. in all the colleges together}$$

$$= 350 + 325 + 300 + 375 + 425$$

$$= 1775$$

$$47. (c) \text{ Total number of students studying B.Sc. in colleges C and E}$$

$$= 300 + 425 = 725$$

$$\text{Total number of students studying B.A. in colleges A and B}$$

$$= 275 + 300 = 575$$

$$\therefore \text{ Required ratio} = 725 : 575$$

$$= 29 : 23$$

$$48. (a) \text{ Total number of students studying in different streams in all the colleges:}$$

$$\text{B.Sc.} \rightarrow 1775$$

$$\text{B.A.} \rightarrow 275 + 300 + 325 + 450 + 325 = 1675$$

$$\text{B.Com.} \rightarrow 425 + 475 + 325 + 425 + 225 = 1875$$

$$\therefore \text{ Required ratio}$$

$$= 1775 : 1675 : 1875$$

$$= 71 : 67 : 75$$

$$49. (a) \text{ Volume of the bucket} = \text{volume of the sand emptied}$$

$$\text{Volume of sand} = \pi (21)^2 \times 36$$

Let  $r$  be the radius of the conical heap.

$$\text{Then, } \frac{1}{3} \pi r^2 \times 12 = \pi (21)^2 \times 36$$

$$\text{or } r^2 = (21)^2 \times 9 \text{ or } r = 21 \times 3 = 63$$

$$50. (c) \text{ Volume of the liquid in the cylindrical vessel} = \text{Volume of the conical vessel}$$

$$= \left( \frac{1}{3} \times \frac{22}{7} \times 12 \times 12 \times 50 \right) \text{ cm}^3$$

$$= \left( \frac{22 \times 4 \times 12 \times 50}{7} \right) \text{ cm}^3.$$

Let the height of the liquid in the vessel be  $h$ .

$$\text{Then, } \frac{22}{7} \times 10 \times 10 \times h = \frac{22 \times 4 \times 12 \times 50}{7}$$

$$\text{or } h = \left( \frac{4 \times 12 \times 50}{10 \times 10} \right) = 24 \text{ cm.}$$

$$51. (d) \quad 52. (b) \quad 53. (b) \quad 54. (c) \quad 55. (c)$$

$$56. (a) \quad 57. (a) \quad 58. (a) \quad 59. (a) \quad 60. (d)$$

$$61. (b) \quad 62. (b) \quad 63. (b) \quad 64. (d) \quad 65. (d)$$

$$66. (c) \quad 67. (a) \quad 68. (b) \quad 69. (d) \quad 70. (c)$$

$$71. (d) \quad 72. (a) \quad 73. (d) \quad 74. (b) \quad 75. (a)$$

$$76. (c) \quad 77. (a)$$

$$78. (b) \text{ 'has come' is the correct option because the verb will agree with the first subject.}$$

$$79. (b) \text{ adjacent always takes the preposition 'to'.$$

$$80. (b) \text{ Grapes cannot be the subject of the sentence; hence it should be 'Grapes cannot be gathered.....'}$$

$$81. (b) \quad 82. (d) \quad 83. (b) \quad 84. (b) \quad 85. (c)$$

$$86. (b) \quad 87. (a) \quad 88. (b) \quad 89. (d) \quad 90. (c)$$

$$91. (b) \quad 92. (c)$$

$$93. (c) \text{ The word 'remedial' means aimed at solving a problem which is similar in meaning to 'corrective'.$$

$$94. (a) \text{ The word 'trivial' means not worth considering, insignificant etc., which is similar in meaning to 'unimportant'.$$



95. (a) The word 'Incredible' means beyond belief, unbelievable, unimaginable etc. which is similar in meaning to 'hard to believe'.
96. (c)      97. (a)      98. (d)
99. (c)      100. (d)      101. (a)
102. (d)      103. (a)      104. (a)
105. (b)      106. (a)      107. (c)
108. (b)      109. (b)      110. (d)
111. (c)      112. (d)      113. (b)
114. (c)      115. (c)      116. (a)
117. (c)      118. (a)      119. (d)
120. (a)      121. (a)      122. (d)
123. (d)      124. (a)      125. (c)
126. (b)      127. (a)      128. (d)
129. (b)      130. (a)      131. (b)
132. (b)      133. (c)      134. (c)
135. (a)      136. (d)      137. (c)
138. (a)      139. (b)      140. (b)
141. (b)      142. (b)      143. (a)
144. (b)      145. (c)      146. (a)
147. (b)      148. (d)      149. (d)
150. (b)

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