

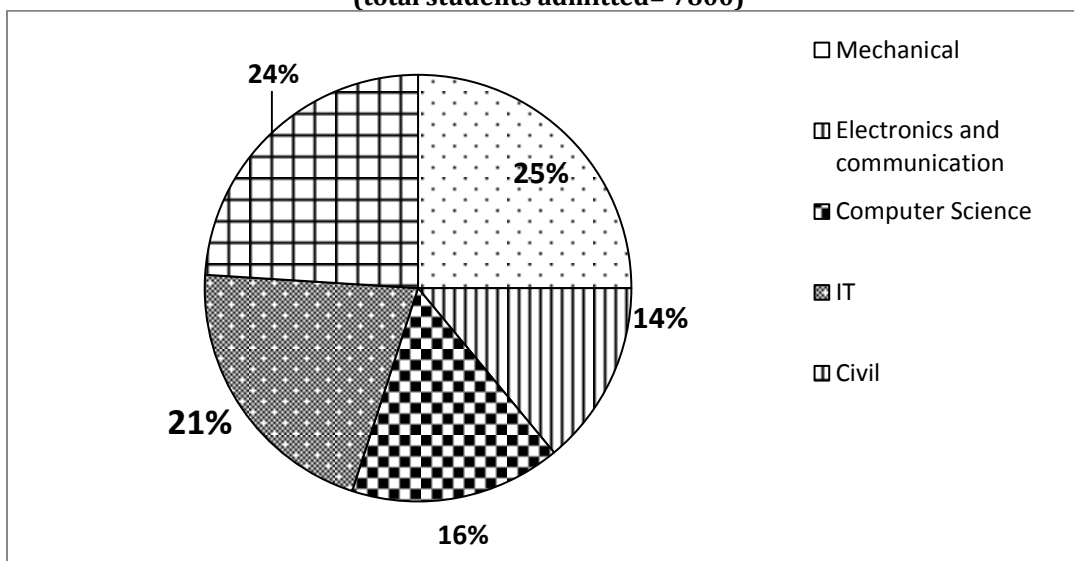
**Directions (51 –55) : Study the information carefully and answer the following questions.**

A total of 1650 employees are working in a company in different departments. The ratio of male employees to female employees in the organisation is 86 : 79. There are total 5 departments in the company i.e. Product Development, Sales and marketing, R& D and reinvestment, 'Finance' and HR. Total 198 males work in "Product Development department". 18% employees works in Sales and marketing department, in which male to female ratio is 5 : 4. In Finance department, 77 males are working and the number of females in this department is  $\frac{5}{7}$  of the number of males. The number of males in Sales and marketing department is equal to number of females in Product Development department. The number of males of Finance department is half of the number of males in HR department. Male to female ratio in R& D and reinvestment department is 14 : 19.

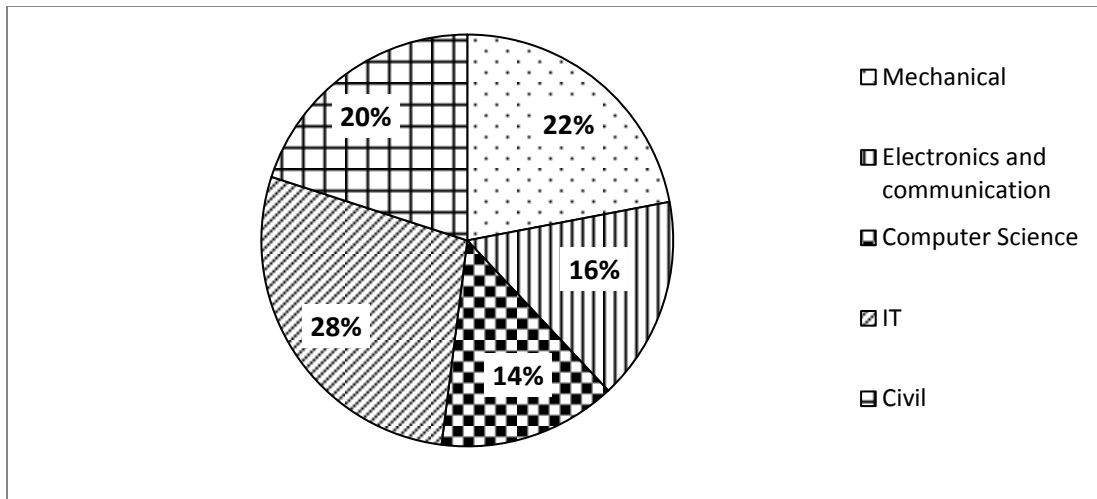
51. No. of males in R& D and reinvestment department is now much more than females in Product Development department?  
(a) 99 (b) 91  
(c) 109 (d) 105 (e) None of these
52. Females in R& D and reinvestment department is what percent of total number of females in the company (approximate)?  
(a) 44.7% (b) 45.7%  
(c) 48.9% (d) 49.2% (e) 38.9%
53. No. of Females in Finance department is what percent less than the no. of females in Product Development department?  
(a)  $33\frac{1}{3}$  (b)  $66\frac{2}{3}$   
(c) 61 (d) 70 (e) None of these
54. What is the difference between no. of male employees of Product Development, Sales and marketing and HR department together and no. of females of Product Development, Finance and R& D and reinvestment department together?  
(a) 54 (b) 64  
(c) 35 (d) 96 (e) None of these
55. If the  $\frac{5}{12}$  of the females of the Sales and marketing department are shifted in HR department. Then males in HR department is what times of no. of females in the same department. (round off to 2 decimal places).  
(a) 1.07 (b) 1.17  
(c) 1.27 (d) 1.37  
(e) 1.32

**Directions (56-60): Study the Pie- Chart carefully and answer the following Questions.**

**Percentage breakup of students admitted in different Streams in an engineering college  
(total students admitted= 7800)**



**Percentage break up of Girls admitted in these streams out of the total girls.  
(total girls admitted =4550)**



56. What is the percentage of boys admitted in IT branch over the total students admitted in the same stream? (Round off to 2 decimal places)
- (a) 24.24% (b) 24.22%  
 (c) 28.32% (d) 22.22% (e) 22.24%
57. How many boys are admitted in IT and mechanical together?
- (a) 1311 (b) 1312  
 (c) 1313 (d) 1314 (e) None of these
58. Number of girls admitted in Computer science and Electronics and communication together is approximately what percent of the number of boys admitted in Civil and Computer Science together?
- (a) 86 (b) 87  
 (c) 88 (d) 89 (e) 90
59. Number of boys Admitted in Electronics and communication is what percent of total number of students in the school (rounded off to two digits after decimal)?
- (a) 4.96 (b) 4.67 (c) 5.23  
 (d) 4.23 (e) 5.67
60. What is the respective ratio of no. of girls admitted in computer science to the number of boys admitted in IT?
- (a) 8:5 (b) 3:2  
 (c) 2:3 (d) 5:4 (e) None of these

**Directions (61-65): In each of the following questions, one number is missing in the series. You have to understand the pattern of the series and then insert the missing number.**

61. 119 166 221 284 ? 434  
 (a) 355 (b) 304  
 (c) 329 (d) 325 (e) 314
62. 947 947 922 1022 797 1197 ?  
 (a) 472 (b) 702  
 (c) 604 (d) 572 (e) 482
63. 39 160 241 290 ? 324 325  
 (a) 305 (b) 302  
 (c) 304 (d) 315 (e) 310
64. 24 32 91 337 1473 ? 45829  
 (a) 7481 (b) 7081  
 (c) 7261 (d) 7381 (e) 7581
65. 547 467 477 437 447 ?  
 (a) 456 (b) 475  
 (c) 478 (d) 447 (e) 427

**Directions (66-70): What appropriate value should come in place of question mark (?) in the following questions :**

66.  $(13.68)^2 - (4.78)^2 + (8.28)^3 - (5.24)^3 = ?$   
 (a) 600 (b) 520 (c) 624  
 (d) 636 (e) 612
67.  $\sqrt{1024.002} \div 3.996 \div 9.98 + 29 = ?$   
 (a) 3 (b) 9 (c) 30  
 (d) 90 (e) 80
68.  $\sqrt{7} = (1248.28 + 51.7) \div 99.9 - 7.98$

- (a) 49 (b) 81 (c) 64  
 (d) 16 (e) 25
69.  $(4444 \div 40) + (645 \div 25) + (3991 \div 26) = ?$   
 (a) 280.4 (b) 290.4 (c) 295.4  
 (d) 285.4 (e) None of these
70.  $\sqrt{33124} \times \sqrt{2601} - (83)^2 = (?)^2 + (37)^2$   
 (a) 37 (b) 33 (c) 34  
 (d) 28 (e) None of these

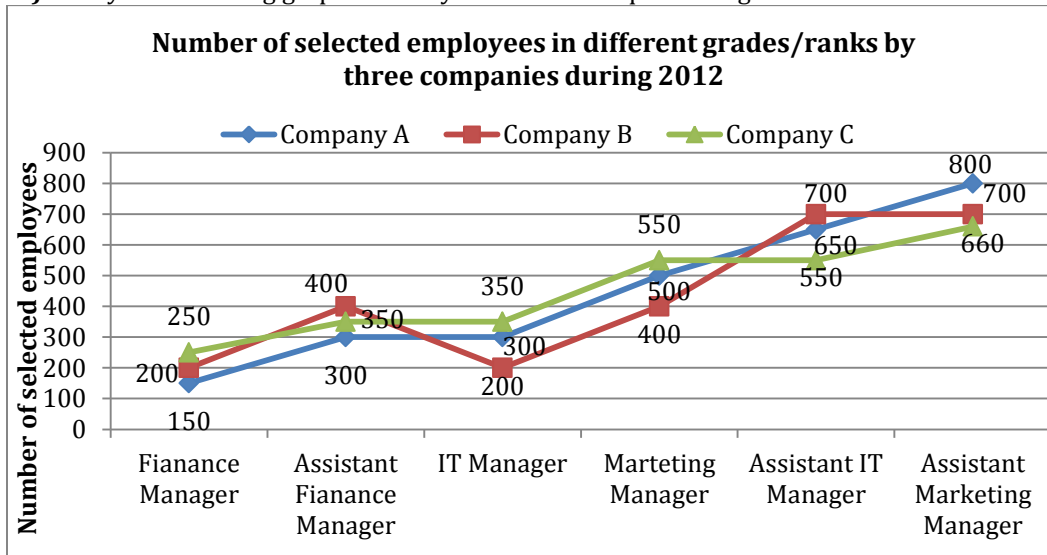
**Directions (71-75):** Study the following table carefully to answer the questions that follow:

**Number of Students studying in Six Different Colleges over the years**

College \ Year	P	Q	R	S	T	U
2004	2500	2250	2450	2150	2020	2300
2005	2040	2300	2400	2200	2090	2120
2006	2100	2150	2330	2250	2180	2260
2007	2280	2600	2260	2340	2250	2490
2008	2540	2540	2120	2380	2310	2520
2009	2320	240	2500	2480	2400	2440

71. What is the total number of students from all the colleges together in the year 2005?  
 (a) 10350 (b) 13150 (c) 15310  
 (d) 11350 (e) None of these
72. What is the per cent increase in the number of students in College T in the year 2007 from the previous year? (rounded off to two digits after decimal)  
 (a) 8.33 (b) 5.18 (c) 6.63  
 (d) 3.21 (e) None of these
73. The number of students in college P in the year 2008 forms approximately what per cent of the total number of students in that college in the years together?  
 (a) 11 (b) 31 (c) 18  
 (d) 26 (e) 23
74. What is the ratio of the total number of students in College S in the year 2006 and 2009 together to the total number of students in college U in the same years?  
 (a) 473 : 470 (b) 470 : 473 (c) 371 : 390  
 (d) 390 : 371 (e) None of these
75. What is the average number of students in all the colleges together in the year 2004? (rounded off to the nearest integer)  
 (a) 2208 (b) 2196 (c) 2144  
 (d) 2324 (e) 2278

**Directions (77-80):** Study the following graph carefully to answer the questions given below:



76. What is the average number of selected employees by Company A in all grades taken together?  
 (a) 450 (b) 460 (c) 475  
 (d) 375 (e) None of these
77. What is the ratio of selected employees for the post of Assistant IT Managers by Companies A, B and C respectively?  
 (a) 8 : 10 : 11 (b) 10 : 8 : 11 (c) 11 : 10 : 8

- (d) 10 : 11 : 8                      (e) None of these
78. By what per cent is the number of selected employees for Finance Managers by Company C more than that of the selected employees by Company B for the same post?  
 (a) 35%                      (b) 30%                      (c) 25%  
 (d) 40%                      (e) None of these
79. What is the average number of selected employees for the post of Assistant Marketing Managers by all companies taken together?  
 (a) 570                      (b) 520                      (c) 620  
 (d) 720                      (e) None of these
80. What is the ratio of selected employees for IT Managers by all Companies A, B and C?  
 (a) 6 : 4 : 7                      (b) 5 : 3 : 7                      (c) 4 : 7 : 9  
 (d) 8 : 7 : 6                      (e) None of these
81. A contractor undertook to complete a project in 90 days and employed 60 men on it. After 60 days, he found that  $\frac{3}{4}$  of the work has already been completed. How many men can he discharge so that the project may be completed exactly on time?  
 (a) 40                      (b) 20  
 (c) 30                      (d) 15                      (e) None of these
82. A student finds the average of ten 2-digit numbers. While copying numbers, by mistake, he writes one number with its digits interchanged. As a result his answer is 1.8 less than the correct answer. The difference of the digits of the number, in which he made mistake, is  
 (a) 2                      (b) 3                      (c) 4  
 (d) 6                      (e) None of these
83. A and B entered into partnership with Rs 700 and Rs 600 respectively. After 3 months A withdrew  $\frac{2}{7}$  of his stock but after 3 months more he put back  $\frac{3}{5}$  of what he had withdrawn. The profits at the end of the year are Rs 726, how much of this should A receive?  
 (a) Rs 633                      (b) Rs 336                      (c) Rs 663  
 (d) Rs 366                      (e) None of these
84. A man deposited 14% of the initial amount to his locker. And again after some time he deposited 45% of the increased amount. Now the amount becomes Rs 16530. How much was the initial amount?  
 (a) Rs 10500                      (b) Rs 10000  
 (c) Rs 9500                      (d) Rs 9000                      (e) None of these
85. An article is sold at  $12\frac{1}{2}\%$  profit. If its CP and SP are increased by Rs. 10 and Rs. 2 respectively, the percentage of profit decreases by  $7\frac{1}{2}\%$ . Find the cost price.  
 (a) Rs.  $116\frac{2}{3}$                       (b) Rs.  $114\frac{1}{3}$   
 (c) Rs.  $113\frac{1}{3}$                       (d) Rs.  $113\frac{2}{3}$                       (e) none of these
86. Krishna and Nandan started a joint firm. Kishan's investment was thrice the investment of Nandan and the period of his investment was two times the period of investment of Nandan. Nandan got Rs 4000 as profit for his investment. Their total profit if the distribution of profit is directly proportional to the period and amount, is -  
 (a) Rs 24000                      (b) Rs 16000  
 (c) Rs 28000                      (d) Rs 20000                      (e) None of these
87. The population of a town is 32000. It increase by 15% during the first year. During the second year, it decrease by 20% and increased by 5% during the third year. What is the population after 3 years?  
 (a) 38600                      (b) 39800  
 (c) 36800                      (d) 38900                      (e) None of these
88. In an examination the percentage of students qualified to the number of students appeared from school 'A' is 60%. In school 'B' the number of students appeared is 30% more than the students appeared from school 'A' and the number of students qualified from school 'B' is 60% more than the students qualified from school 'A'. What is the percentage of students qualified to the number of students appeared from school 'B'?  
 (a) 70%                      (b) 75%  
 (c)  $73\frac{11}{13}$                       (d)  $71\frac{11}{13}\%$                       (e) None of these
89. There were 36 students in a hostel. If the number of students increases by 4, the expenses of the mess increase by Rs 32 per day while the average expenditure per head diminishes by Re 1. Find the original expenditure of the mess.  
 (a) Rs 640                      (b) Rs 648  
 (c) Rs 650                      (d) Rs 658                      (e) None of these
90. Parameshwaran invested an amount of Rs 12000 at the simple interest rate of 10 per cent annum and another amount at the simple interest rate of 20 per cent per annum. The total interest earned at the end of one year on the total amount invested became 14 per cent per annum. Find the total amount invested.

- (a) Rs 22000 (b) Rs 25000  
 (c) Rs 20000 (d) Rs 24000 (e) None of these

91. A, B and C can complete a piece of work in 10, 12 and 15 days respectively. A left the work 5 days before the work was completed and B left 2 days after A had left. Number of days required to complete the whole work was:

- (a)  $8\frac{2}{3}$  days (b) 6 days  
 (c)  $6\frac{2}{3}$  days (d) 7 days (e) None of these

**Directions (92-94):** Study the following information carefully to answer the questions that follow :

A box contains 2 blue caps, 4 red caps, 5 green caps and 1 yellow cap.

92. If one cap is picked at random, what is the probability that it is either blue or yellow ?

- (a)  $\frac{2}{9}$  (b)  $\frac{1}{4}$   
 (c)  $\frac{3}{8}$  (d)  $\frac{6}{11}$  (e) None of these

93. If two caps are picked at random, what is the probability that at least one is red ?

- (a)  $\frac{1}{3}$  (b)  $\frac{16}{21}$   
 (c)  $\frac{19}{33}$  (d)  $\frac{7}{19}$  (e) None of these

94. If three caps are picked at random, what is the probability that two are red and one is green ?

- (a)  $\frac{9}{22}$  (b)  $\frac{6}{19}$   
 (c)  $\frac{1}{6}$  (d)  $\frac{3}{22}$  (e) None of these

95. Pankaj calculates his profit percentage on the selling price whereas Chandan calculates his profit on the cost price. They find that the difference of their profit is Rs. 135. If the selling price of both of them are the same, and Pankaj gets 30% profit and Chandan gets 25% profit, then find their selling price.

- (a) Rs. 1250 (b) Rs. 1150  
 (c) Rs. 1450 (d) Rs. 1350 (e) none of these

**Directions (96-100):** Solve the 2 equations given below and compare them and give answer

- (a) if  $x > y$  (b) if  $x < y$  (c) if  $x \geq y$  (d) if  $x \leq y$   
 (e) if  $x = y$  or no relation can be established

96. I.  $\frac{x^3-13x+12}{(x-1)} = 0$  II.  $\frac{y^3+5y^2-2y-24}{(y-2)} = 0$

97. I.  $3(2x^2 - 5x + 4) - 2(2x^2 + 13x - 4) = 0$  II.  $y\left(2y - 7 - \frac{3}{y}\right) - 4(y^2 + 3y + 8) = 0$

98. I.  $x = 3y + 24$  II.  $y = 2x + 11$

99. I.  $6x^2 + 31x + 35 = 0$  II.  $2y^2 + 3y + 1 = 0$

100. I.  $2x^2 - (4 + \sqrt{13})x + 2\sqrt{13} = 0$  II.  $10y^2 - (18 + 5\sqrt{13})y + 9\sqrt{13} = 0$