

Quantitative Aptitude

Directions (Q. 76–80) What should come in place of question mark (?) in the following questions?

Directions (Q. 81–85) In the following number series only one number is wrong. Find out the **wrong** number.

76. $188.21 - 27.54 - 11.93 = ?$

- (1) 139.74
- (2) 126.64
- (3) 148.54
- (4) 184.64
- (5) None of the above

77. $8^{1.1} \times 4^{2.7} \times 2^{3.3} = 2^?$

- (1) 7.1
- (2) 14
- (3) 0.5
- (4) 9
- (5) None of these

78. $\sqrt[3]{1331} = ?$

- (1) 27
- (2) 21
- (3) 17
- (4) 9
- (5) None of these

79. $18.5\% \text{ of } 220 + 12.4\% \text{ of } 680 = ?$

- (1) 132.05
- (2) 125.02
- (3) 142.07
- (4) 118.07
- (5) None of these

80. $1268 \div 8 + 2 = ?$

- (1) 71.75
- (2) 317
- (3) 268
- (4) 79.25
- (5) None of these

81. 4 5 12 38 160 805 4836

- (1) 12
- (2) 160
- (3) 38
- (4) 805
- (5) None of these

82. 3 7 16 32 56 93 142

- (1) 56
- (2) 16
- (3) 32
- (4) 7
- (5) None of these

83. 11 18 29 42 59 80 101

- (1) 42
- (2) 18
- (3) 29
- (4) 59
- (5) None of these

84. 2 9 32 105 436 2159 13182

- (1) 436
- (2) 2195
- (3) 9
- (4) 32
- (5) None of the above

85. 5 55 495 3465 17325 34650 51975

- (1) 495
- (2) 34650
- (3) 55
- (4) 17325
- (5) None of these

Directions (Q. 86–90) 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.

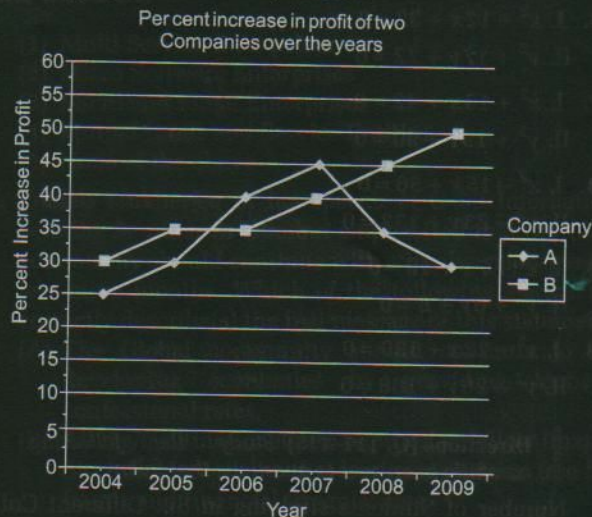
86. If two caps are picked at random, what is the probability that both are blue ?
 (1) $\frac{1}{6}$ (2) $\frac{1}{10}$
 (3) $\frac{1}{12}$ (4) $\frac{1}{45}$
 (5) None of these
87. If four caps are picked at random, what is the probability that none is green ?
 (1) $\frac{7}{99}$ (2) $\frac{5}{99}$
 (3) $\frac{7}{12}$ (4) $\frac{5}{12}$
 (5) None of these
88. If three caps are picked at random, what is the probability that two are red and one is green ?
 (1) $\frac{9}{22}$ (2) $\frac{6}{19}$ (3) $\frac{1}{6}$
 (4) $\frac{3}{22}$ (5) None of these
89. If one cap is picked at random, what is the probability that it is either blue or yellow ?
 (1) $\frac{2}{9}$ (2) $\frac{1}{4}$
 (3) $\frac{3}{8}$ (4) $\frac{6}{11}$
 (5) None of these
90. If two caps are picked at random, what is the probability that at least one is red ?
 (1) $\frac{1}{3}$ (2) $\frac{16}{21}$
 (3) $\frac{19}{33}$ (4) $\frac{7}{19}$
 (5) None of these
91. What would be the compound interest accrued on a amount of ₹ 8000 at the rate of 15% per annum in three years ?
 (1) ₹ 4283 (2) ₹ 4051
 (3) ₹ 4167 (4) ₹ 4325
 (5) None of these
92. What would be the cost of building a fence around a square plot with area equal to 361 sq. ft. If the price per foot of building the fence is ₹ 62 ?
 (1) ₹ 4056 (2) ₹ 4712
 (3) ₹ 3948 (4) Cannot be determined
 (5) None of these
93. The difference between a two digit number and the number obtained by interchanging the two digits of the number is 9. If the sum of the two digits of the number is 15, then what is the original number ?
 (1) 89 (2) 67
 (3) 87 (4) Cannot be determined
 (5) None of these

94. In how many different ways can the letters of the word 'TRUST' be arranged ?
 (1) 240 (2) 120
 (3) 80 (4) 25
 (5) None of these
95. The ages of Shirish and Kunder are in the ratio of 5 : 6 respectively. After 8 yr the ratio of their ages will be 7 : 8. What is the difference in their ages ?
 (1) 4 yr (2) 8 yr
 (3) 10 yr (4) 12 yr
 (5) None of these

Directions (Q. 96–100) What approximate value should come in place of the question mark (?) in the following questions ? (Note : You are not expected to calculate the exact value.)

96. $5554.999 + 50.0\overline{0}07 = ?$
 (1) 110 (2) 150
 (3) 200 (4) 50
 (5) 125
97. $(18.001)^3 = ?$
 (1) 5830 (2) 5500
 (3) 6000 (4) 6480
 (5) 5240
98. $23.001 \times 18.999 \times 7.998 = ?$
 (1) 4200 (2) 3000
 (3) 3500 (4) 4000
 (5) 2500
99. $9999 \div 99 = ?$
 (1) 18 (2) 15
 (3) 6 (4) 11
 (5) 20
100. 22.005% of 449.999 = ?
 (1) 85 (2) 100
 (3) 125 (4) 75
 (5) 150

Directions (Q. 101–105) Study the following graph carefully to answer the questions.



101. In which year did Company A earn the maximum amount of profit ?

- (1) 2009 (2) 2006
 (3) 2007 (4) Cannot be determined
 (5) None of these

102. If the amount of profit earned by Company B in the year 2007 was ₹ 7.56 lakh, what was the profit earned by it in the year 2005 ?

- (1) ₹ 5 lakh
 (2) ₹ 3.5 lakh
 (3) ₹ 4 lakh
 (4) Cannot be determined
 (5) None of the above

103. What is the approximate average percent increase in profit of Company A over all the years together ?

- (1) 31 (2) 27
 (3) 40 (4) 39
 (5) 34

104. What is the average percent increase in profit of Company B in the year 2007 and 2009 together ?

- (1) 40 (2) 45
 (3) 38 (4) 42
 (5) None of these

105. What is the respective ratio of percent increase in profit of Company A in the year 2008 to the percent increase in profit of Company B in the same year ?

- (1) 9 : 7 (2) 6 : 11
 (3) 11 : 6 (4) 7 : 9
 (5) None of these

Directions (Q. 106–110) In each of the following questions two equations numbered I and II are given. You have to solve both the equations and

- Give answer (1) if $x < y$
 Give answer (2) if $x \leq y$
 Give answer (3) if $x > y$
 Give answer (4) if $x \geq y$
 Give answer (5) if $x = y$ or the relationship cannot be established

106. I. $x^2 + 12x + 32 = 0$

II. $y^2 + 17y + 72 = 0$

107. I. $x^2 + 13x + 42 = 0$

II. $y^2 + 19y + 90 = 0$

108. I. $x^2 - 15x + 56 = 0$

II. $y^2 - 23y + 132 = 0$

109. I. $x^2 + 7x + 12 = 0$

II. $y^2 + 6y + 8 = 0$

110. I. $x^2 - 22x + 120 = 0$

II. $y^2 - 26y + 168 = 0$

Directions (Q. 111–115) Study the following table carefully to answer to questions that follow.

Number of Students studying in Six Different Colleges over the years

| College | P | Q | R | S | T | U |
|---------|------|------|------|------|------|------|
| Year | | | | | | |
| 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 |
| 2008 | 2320 | 2440 | 2500 | 2480 | 2400 | 2440 |

111. What is the total number of students from all the Colleges together in the year 2005 ?

- (1) 10350 (2) 13150 (3) 15310
 (4) 11350 (5) None of these

112. What is the percent increase in the number of students in College T in the year 2007 from the previous year ? (rounded off to two digits after decimal)

- (1) 8.33 (2) 5.18 (3) 6.63
 (4) 3.21 (5) None of these

113. Number of students in College P in the year 2008 forms approximately what percent of the total number of students in that College from all the years together ?

- (1) 11 (2) 31 (3) 18
 (4) 26 (5) 23

114. What is the respective ratio of total number of students in College S in the years 2006 and 2009 together to the total number of students in College U from the same years ?

- (1) 473 : 470 (2) 470 : 473
 (3) 371 : 390 (4) 390 : 371

115. What is the average number of students in all the Colleges together in the year 2004 ? (rounded off to the nearest integer)

- (1) 2208 (2) 2196 (3) 2144
 (4) 2324 (5) 2278

Directions (Q. 116–120) Study the table carefully to answer to answer the questions that follow.

Total Number of Employees in Different Departments of An Organization And (Of These) Percentage of Females and Males.

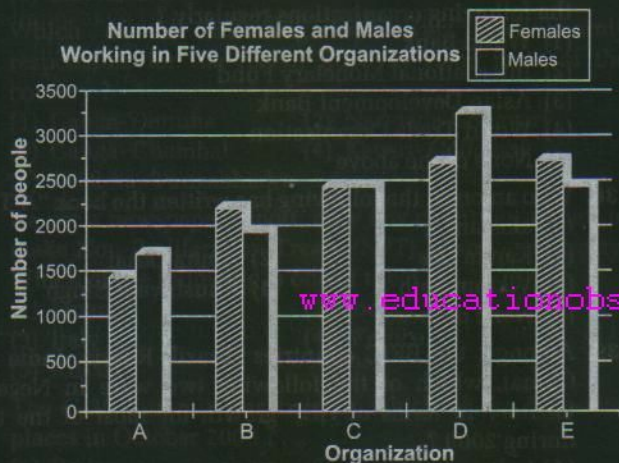
| Department | Total Number of Employees | Percentage of Females | Percentage of Males |
|------------------|---------------------------|-----------------------|---------------------|
| IT | 840 | 45 | 55 |
| Accounts | 220 | 35 | 65 |
| Production | 900 | 23 | 77 |
| HR | 360 | 65 | 35 |
| Marketing | 450 | 44 | 56 |
| Customer Service | 540 | 40 | 60 |

116. What is the respective ratio of the number of females in Production department to the number of females in the Marketing department ?

- (1) 22 : 23 (2) 35 : 33
 (3) 23 : 22 (4) 33 : 35
 (5) None of these

117. What is the total number of males in the IT and Customer Service departments together ?
 (1) 687 (2) 178 (3) 768
 (4) 876 (5) None of these
118. The total number of employees in the HR department forms approximately what percent of the total number of employees in the Accounts department ?
 (1) 149 (2) 178 (3) 157
 (4) 164 (5) 137
119. What is the respective ratio of the number of females in the HR and Accounts departments together to the number of males in the same departments together ?
 (1) 311 : 269 (2) 268 : 319 (3) 269 : 311
 (4) 319 : 268 (5) None of these
120. What is the total number of employees in all the departments together ?
 (1) 3260 (2) 3310 (3) 3140
 (4) 3020 (5) None of these

Directions (Q. 121–125) Study the following graph carefully to answer the questions that follow.



121. The number of Males in the Organization D forms what percent of the total number of Employees from that Organization ? (rounded off to two digits after decimal)
 (1) 54.17
 (2) 62.64
 (3) 52.25
 (4) 61.47
 (5) None of the above
122. What is the respective ratio of the number of Females to the number of Males from Organization A ?
 (1) 11 : 8
 (2) 7 : 6
 (3) 8 : 11
 (4) 6 : 7
 (5) None of the above
123. Number of Females from Organization E forms approximately what percent of the total number of Employees from that Organization ?
 (1) 58 (2) 60
 (3) 52 (4) 62
 (5) 55
124. What is the total number of Females from all the Organizations together ?
 (1) 11540
 (2) 11750
 (3) 12440
 (4) 10250
 (5) None of the above
125. What is the total number of employees working in Organization C and B together ?
 (1) 8950 (2) 9520
 (3) 8250 (4) 9500
 (5) None of these