

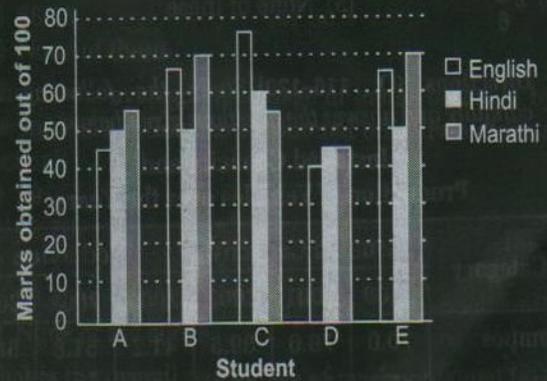
Quantitative Aptitude

Directions (Q. 101-105) In each of the following questions a number series is given which has only one wrong number. You have to find out the wrong number.

- 101.** 7.5 47.5 87.5 157.5 247.5 357.5 487.5
 (1) 357.5 (2) 87.5
 (3) 157.5 (4) 7.5
 (5) 47.5
- 102.** 1500 1581 1664 1749 1833 1925 2016
 (1) 1581 (2) 1664
 (3) 1833 (4) 1925
 (5) 1749
- 103.** 1331 2197 3375 4914 6859 9261 12167
 (1) 4914 (2) 6859
 (3) 9261 (4) 2197
 (5) 12167
- 104.** 13 16 21 27 39 52 69
 (1) 21 (2) 39
 (3) 27 (4) 52
 (5) 16
- 105.** 66 91 120 153 190 233 276
 (1) 120 (2) 233
 (3) 153 (4) 276
 (5) 190

Directions (Q. 106-110) Study the following graph carefully and answer the questions given below.

Marks Scored by Five Students in Languages (English, Hindi & Marathi)



- 106.** What is the respective ratio of D's marks in English to B's marks in English ?
 (1) 8 : 13
 (2) 5 : 14
 (3) 7 : 12
 (4) 6 : 13
 (5) None of the above

107. Which of the following statements is true ?
 (1) 'E' scored the highest total marks
 (2) 'B' and 'D' had the same score in Hindi
 (3) A's overall percentage is 50
 (4) All the students scored maximum marks in Hindi
 (5) None of the above

108. What is the difference between the total marks obtained by B and the total marks obtained by C ?
 (1) 5 marks (2) 2 marks
 (3) 18 marks (4) No Difference
 (5) None of these

109. What are the approximate average marks obtained by D ?
 (1) 38 (2) 43 (3) 50
 (4) 54 (5) 47

110. What is C's overall approximate percentage ?
 (1) 56 (2) 63 (3) 70
 (4) 75 (5) 51

Directions (Q. 111–115) What will come in place of the question mark (?) in the following questions ?

111. $22.5 \times 0.05 = ?$
 (1) 11.25 (2) 1.125 (3) 22.55
 (4) 112.5 (5) None of these

112. $999 + 111 \times 0.5 = ?$
 (1) 555 (2) 500 (3) 1054.5
 (4) 1110.5 (5) None of these

113. 40% of 250 = 50% of ?
 (1) 200 (2) 100
 (3) 150 (4) 400
 (5) None of these

114. $(4)^? = 1024$
 (1) 1 (2) 2 (3) 3
 (4) 4 (5) None of these

115. $\frac{1}{2} + \frac{1}{4} + \frac{3}{4} + \frac{2}{3} = ?$
 (1) $2\frac{1}{5}$ (2) $\frac{1}{16}$ (3) $2\frac{1}{16}$
 (4) $2\frac{1}{6}$ (5) None of these

Directions (Q. 116–120) Study the following table carefully and answer the questions given below.

Installed Capacity and Production of Vehicles over the Years

Category	Installed Capacity			Production		
	2000	2001	2002	2000	2001	2002
Tempos	70.0	79.0	89.5	41.2	51.8	58.6
Cars	47.5	54.4	53.0	36.6	33.6	30.3
Jeeps	14.0	14.0	14.0	10.5	12.0	13.3
Motor bikes	77.5	77.5	80.0	68.0	96.9	98.0
Scooters	150.0	150.0	200.0	100.4	150.0	120.5
Autos	29.0	30.0	32.0	18.4	19.4	15.1

$$\text{Capacity utilization} = \frac{\text{Production}}{\text{Installed capacity}}$$

116. The only category of automobiles, which experienced a steady decline in production was ?
 (1) Motor bikes (2) Jeeps
 (3) Autos (4) Tempos
 (5) None of these

117. Which of the following statements are true ?
 I. All categories of automobiles experienced a growth in production between 2001 and 2002.
 II. In 2002 the capacity utilization of jeeps was higher than that of motor bikes.

III. Cars, scooters and autos experienced a decline in production from 2001 to 2002.

- (1) I only (2) II only
 (3) III only (4) II and III only
 (5) I and III only

118. Capacity utilization was the highest for which category of automobiles in the year 2002 ?
 (1) Jeeps (2) Tempos
 (3) Scooters (4) Motor bikes
 (5) None of these

119. Which of the following experienced no growth in installed capacity over the period of 2000 to 2002 ?
 (1) Cars (2) Motor bikes
 (3) Jeeps (4) Autos
 (5) None of these

120. Capacity utilization was the lowest for which category of automobiles in the year 2000 ?
 (1) Scooters (2) Tempos
 (3) Cars (4) Autos
 (5) None of these

Directions (Q. 121–125) What approximate value should come in place of the question mark (?) in the following questions ? (You are not expected to calculate the exact value.)

121. $(98 \times 198) \div (48 \times 148) = ?$
 (1) 3.13 (2) 2.43
 (3) 2.73 (4) 3.53
 (5) 2.41

122. $(2.0001)^3 = ?$
 (1) 6 (2) 6.75
 (3) 5 (4) 4
 (5) 8

123. $5.6\% \text{ of } 240 \div 0.3\% \text{ of } 480 = ?$
 (1) 8.43 (2) 9.33
 (3) 7.53 (4) 8.33
 (5) 13.44

124. $\sqrt{4556} + \sqrt{7943} - 56 = ?$
 (1) 100 (2) 150
 (3) 200 (4) 250
 (5) 125

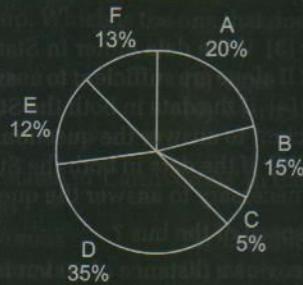
125. $(1786 + 23.894 + 3251) \div 50 = ?$
 (1) 81 (2) 121
 (3) 131 (4) 101
 (5) 91

Directions (Q. 126–130) Study the following information to answer the given questions.

Percentage of students in various courses (A, B, C, D, E, F) and Percentage of the girls out of these.

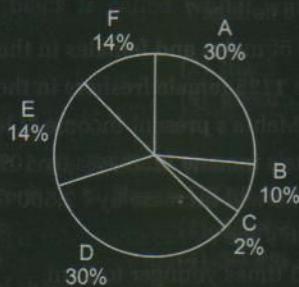
Total Students : 1200 (800 girls + 400 boys)

Percentage in Various Courses



Total Girls : 800

Percentage of Girls in Courses



126. For which pair of courses is the number of boys the same?
 (1) E & F (2) A & D
 (3) C & F (4) B & D
 (5) None of these
127. For course D what is the respective ratio of boys and girls?
 (1) 3 : 4 (2) 4 : 5
 (3) 3 : 5 (4) 5 : 6
 (5) None of these
128. How many girls are in course C?
 (1) 44 (2) 16
 (3) 40 (4) 160
 (5) None of these
129. For course E, the number of girls is how much per cent more than the boys for course E?
 (1) 250 (2) 350 (3) 150
 (4) 80 (5) None of these
130. For which course is the number of boys the minimum?
 (1) E (2) F (3) C
 (4) A (5) None of these
131. The perimeter of a square is 164 metres. What is the area of the square?
 (1) 1089 sq. metres (2) 1764 sq. metres
 (3) 1661 sq. metres (4) 1681 sq. metres
 (5) None of these
132. The product of two successive numbers is 1980. Which is the smaller number?
 (1) 34 (2) 44
 (3) 35 (4) 45
 (5) None of these

133. The difference between 55% of a number and 25% of the same number is 11.10. What is 75% of that number?
 (1) 27.75 (2) 37
 (3) 21.25 (4) 45
 (5) None of these
134. The average of the ages of 3 friends is 23. Even if the age of the 4th friend is added the average remains 23. What is the age of the 4th friend?
 (1) 32 (2) 21
 (3) 23 (4) Cannot be determined
 (5) None of these
135. 8 men working for 9 hours a day complete a piece of work in 20 days. In how many days can 7 men working for 10 hours a day complete the same piece of work?
 (1) 21 days (2) $20\frac{3}{5}$ days
 (3) $20\frac{1}{2}$ days (4) $21\frac{3}{7}$ days
 (5) None of these

Directions (Q. 136–140) Study the following table carefully to answer these questions.

Marks Obtained by Six Students in Different Subjects at School Examination

Subject Student	Marks obtained out of					
	History (75)	Geography (75)	Science (120)	Maths (150)	English (80)	Hindi (60)
P	45	53	100	117	50	45
Q	56	58	96	132	46	50
T	48	60	112	120	52	42
D	62	67	88	108	48	34
G	66	55	92	140	60	32
F	54	64	108	116	53	40

136. What are the average marks obtained by all students in English?
 (1) 52.5 (2) 64.38
 (3) 56.38 (4) 60.5
 (5) None of these
137. What is the average percentage of marks obtained by all the students in Science? (rounded off to two digits after decimal)
 (1) 99 (2) 82.78
 (3) 88.72 (4) 78.88
 (5) None of the above
138. What is the overall percentage of marks obtained by D in all subjects? (rounded off to two digits after decimal)
 (1) 72.88 (2) 76.28
 (3) 73.17 (4) 72.68
 (5) None of these
139. Which student has scored in Maths closest to the average marks in Maths?
 (1) P (2) Q
 (3) T (4) F
 (5) None of these

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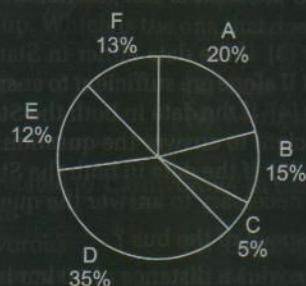
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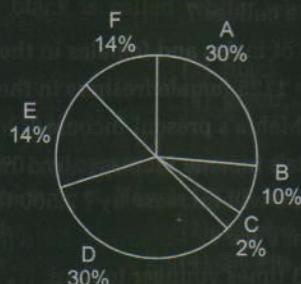
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(5) None of these

139. Which student has scored in Maths closest to the average marks in Maths?

- (1) P (2) Q
(3) T (4) F
(5) None of these

140. What is the ratio between total marks obtained in all subjects by F and G respectively ?
 (1) 87 : 89 (2) 89 : 87
 (3) 67 : 69 (4) 69 : 67
 (5) None of these
141. If $12a + 12b = 45$, what is the average of a and b ?
 (1) 3.75 (2) 1.875 (3) 3.875
 (4) 1.75 (5) None of these
142. How much part of a day is 45 minutes ?
 (1) $\frac{1}{42}$ (2) $\frac{1}{24}$ (3) $\frac{1}{32}$
 (4) $\frac{1}{48}$ (5) None of these
143. Samir drove at the speed of 45 km from home to a resort. Returning over the same route, he got stuck in traffic and took an hour longer, also he could drive only at the speed of 40 km. How many kilometres did he drive each way ?
 (1) 250 km (2) 300 km
 (3) 310 km (4) 275 km
 (5) None of these
144. What is the greater of two numbers whose product is 640, if the sum of the two numbers, exceeds their difference by 32 ?
 (1) 45 (2) 50 (3) 55
 (4) 40 (5) None of these
145. On a test consisting of 150 questions, Rita answered 40% of the first 75 questions correctly. What per cent of the other 75 questions does she need to answer correctly for her grade on the entire exam to be 60% ?
 (1) 80 (2) 70
 (3) 40 (4) 50
 (5) None of these

Directions (Q. 146–150) Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

Give answer (1) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

Give answer (2) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

Give answer (3) if the data either in Statement I alone or in Statement II alone are sufficient to answer the question.

Give answer (4) if the data in both the Statements I and II are not sufficient to answer the question.

Give answer (5) if the data in both the Statements I and II together are necessary to answer the question.

146. What is the speed of the bus ?
 I. The bus covers a distance of 80 km in 5 h.
 II. The bus covers a distance of 160 km in 10 h.
147. What is the ratio of the number of freshers to the number of seniors in a college ?
 I. The ratio of males and females in the college is 2 : 3.
 II. There are 1125 female freshers in the college.
148. What is Mr. Mehta's present income ?
 I. Mr. Mehta's income increases by 10% every year.
 II. His income will increase by ₹ 2,500 this year.
149. What is Nidhi's age ?
 I. Nidhi is 3 times younger to Rani.
 II. Surekha is twice the age of Rani and the sum of their ages is 72.
150. What is the ratio of the total number of girls to the total number of boys in the school ?
 I. The ratio of the total number of boys to the total number of girls, last year was 4 : 5.
 II. There are 3500 students in the school out of which 60% are boys.