

Quantitative Aptitude

Directions (Q. 101–110) What should come in place of question mark (?) in the following questions ?

101. $(94)^2 + (?)^2 = (145)^2 - (56)^2 - 3869$
 (1) 5184 (2) 72 (3) 84
 (4) 7056 (5) None of these
102. $2115 \div ? = 94 \times 15$
 (1) 1.25 (2) 2.75 (3) 1.5
 (4) 3 (5) None of these
103. $[(35)^3 + 70 \times 12] \div 25 = 58.8 \times ?$
 (1) 6 (2) 8 (3) 14
 (4) 22 (5) None of these
104. $518 \times ? \times 9 = 303030$
 (1) 75 (2) 65 (3) 85
 (4) 55 (5) None of these
105. $15.593 - 9.214 - 3.452 - 2.191 = ?$
 (1) 1.874 (2) 0.686 (3) 2.342
 (4) 0.736 (5) None of these
106. $56 + 12 \times 0.45 - 3 = ?$
 (1) 28.5 (2) 47.6 (3) 86.6
 (4) 58.4 (5) None of these
107. $5982 + 1345 + 736 - ? = 4588 + 992$
 (1) 2485 (2) 2480 (3) 2473
 (4) 2467 (5) None of these
108. $(31)^{31} \times (31)^{-27} = ?$
 (1) $(961)^2$ (2) 4 (3) $(31)^2$
 (4) 29791 (5) None of these
109. $666.66 + 66.66 + 6.66 + 6 + 0.66 = ?$
 (1) 746.64 (2) 764.64
 (3) 766.64 (4) 744.64
 (5) None of these
110. $(9.11\% \text{ of } 936) - (12.5\% \text{ of } 498) = ?$
 (1) 22.0176 (2) 21.0186
 (3) 23.0196 (4) 19.0206
 (5) None of these

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

Number of Students Studying in Different Standards of Six Different Schools

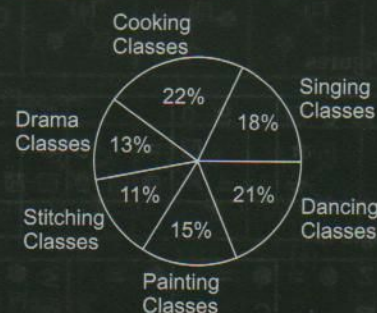
Standard \ School	I	II	III	IV	V	VI
A	42	54	48	58	50	38
B	50	60	58	45	45	46
C	40	48	58	46	42	54
D	45	55	46	40	52	50
E	48	55	44	55	52	48
F	52	52	54	42	60	54

111. What is the approximate average number of students studying in Standard I from all schools together ?
 (1) 38 (2) 50
 (3) 40 (4) 43
 (5) 46
112. Number of students studying in Standard IV from School E is what per cent of those studying in Standard IV from School D ?
 (1) 128 (2) 132.5
 (3) 124 (4) 137.5
 (5) None of these
113. Which standard has the lowest total number of students from all the given schools together ?
 (1) V (2) VI
 (3) I (4) IV
 (5) None of these
114. Which school has the highest total number of students from all the given standards together ?
 (1) E (2) F (3) B
 (4) A (5) None of these
115. What is the respective ratio of students studying in Standard III of schools A and B together to those studying in Standard VI of schools C and D together ?
 (1) 53 : 52 (2) 43 : 47
 (3) 25 : 27 (4) 39 : 38
 (5) None of these

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

Percentage of Students Enrolled in Different Hobby Classes in a School

Total number of students = 3600



116. The number of students enrolled in Cooking classes is what per cent of those enrolled in Dancing classes ? (rounded off to two digits after decimal)
 (1) 101.45 (2) 104.76
 (3) 113.84 (4) 110.28
 (5) None of these
117. How many students are enrolled in Painting classes ?
 (1) 550 (2) 480
 (3) 450 (4) 520
 (5) None of these

118. Number of students enrolled in Painting classes are **approximately** what per cent of those enrolled in Singing classes ?

- (1) 78 (2) 92
(3) 83 (4) 66
(5) 72

119. What is the ratio of number of students enrolled in Singing and Dancing classes together to those enrolled in Drama classes respectively ?

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

120. What is the total number of students enrolled in Stitching and Drama classes together ?

- (1) 684 (2) 846
(3) 648 (4) 864
(5) None of these

Directions (Q. 121–125) What will come in place of the question mark (?) in the following number series ?

121. 30 35 65 100 165 265 ?

- (1) 270 (2) 520
(3) 430 (4) 395
(5) None of these

122. 3 5 7 ? 13 17

- (1) 9 (2) 10
(3) 11 (4) 8
(5) None of these

123. 16 17 15 18 14 ?

- (1) 10 (2) 17
(3) 18 (4) 20
(5) None of these

124. 3125 256 ? 4 1

- (1) 27 (2) 128
(3) 64 (4) 32
(5) None of these

125. 2 3 6 18 108 ?

- (1) 126 (2) 1944
(3) 648 (4) 756
(5) 1188

126. Kruti took a loan at simple interest rate of 6% in the first year with an increase of 0.5% in each subsequent year. She paid interest of ₹ 3375 after four years. How much loan did she take ?

- (1) ₹ 12500 (2) ₹ 33250
(3) ₹ 15800 (4) Cannot be determined
(5) None of the above

127. A 240 m long train takes 40 s longer to cross a platform twice its length than the time it takes to cross a pole at the same speed. What is the speed of the train ?

- (1) 6 m/s
(2) 24 m/s
(3) 48 m/s
(4) 12 m/s
(5) None of the above

128. In how many different ways can the letters of the word 'RIDDLED' be arranged ?

- (1) 1680 (2) 840
(3) 2520 (4) 5040
(5) None of these

129. What would be the cost of building a fence around a circular plot of area 98.56 sq feet, if the cost of fencing per foot is ₹ 614 ?

- (1) ₹ 60515.84 (2) ₹ 30257.92
(3) ₹ 21612.80 (4) ₹ 43324.60
(5) None of these

130. Michelle got married 9 years ago. Today her age is $1\frac{1}{3}$

times her age at the time of marriage. At present her daughter's age is one-sixth of her age. What was her daughter's age two years ago ?

- (1) 6 yr
(2) 7 yr
(3) 3 yr
(4) Cannot be determined
(5) None of the above

Directions (Q. 131–135) Study the graph carefully to answer the questions that follow.

Profit (in lakhs) Made by Three Companies over the Years

Profit = Income – Expenditure



131. If the Income of Company A in the year 2005 was ₹ 1354300, what was its expenditure in that year ?

- (1) ₹ 921600 (2) ₹ 833500
(3) ₹ 648200 (4) ₹ 754300
(5) None of these

132. If the expenditure of Company B in the year 2006 was ₹ 2211430, what was its income in that year ?

- (1) ₹ 2912260 (2) ₹ 2814680
(3) ₹ 3209670 (4) ₹ 2711430
(5) None of these

133. What is the **approximate** average profit made by Company A in all the years together ?

- (1) ₹ 398000 (2) ₹ 382000
(3) ₹ 483000 (4) ₹ 512000
(5) ₹ 405000

134. Profit made by Company A in the year 2002 was what per cent of the total profit made by all the three companies in that year ?

- (1) 31.25 (2) 28.24
(3) 21.43 (4) 36.25
(5) None of these

135. What is the per cent increase in profit of Company C in the year 2002 from the previous year ? (rounded off to the nearest integer)

- (1) 7 (2) 14
(3) 21 (4) 28
(5) None of these

Directions (Q. 136–140) 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.

136. What is the two digit number ?

- I. Difference between the two digits of the number is 9.
II. The sum of the two digits of the number is 9.

137. What is the area of the square ?

- I. The measure of the side of the square is 21 cm.
II. The perimeter of the square is 84 cm.

138. What is Seema's age ?

- I. Seema is half Reema's age.
II. Reema is 5 years younger than her sister.

139. In how many days can 10 Men complete the piece of work ?

- I. 12 Women alone can complete the work in 16 days.
II. 4 Men and 6 Women together can complete the work in 16 days.

140. What is the speed of the boat ?

- I. The boat takes 4 hours to travel a distance of 12 km. down streams.
II. The boat takes 6 hours to travel a distance of 12 km. in still water.

Directions (Q. 141–145) Study the table carefully to answer the questions that follow.

Number of Students Appeared (App) and Qualified (Quld), for an Examination in Six States Over the Years

YEARS	www.educationobserver.com/forum											
	A		B		C		D		E		F	
	App	Quld	App	Quld	App	Quld	App	Quld	App	Quld	App	Quld
2001	1567	124	1745	156	1684	150	1440	165	1564	162	1886	142
2002	1678	110	1897	178	1550	178	1390	172	1575	188	1764	186
2003	1785	156	1674	162	1754	210	1364	114	1510	214	1738	194
2004	1630	234	1986	154	1806	186	1478	138	1654	196	1644	182
2005	1805	256	2107	193	1666	198	1560	189	1690	180	1680	176
2006	1922	234	2080	245	1884	254	1672	193	1432	206	1572	222
2007	1790	198	2095	220	1728	202	1778	195	1864	216	1444	218

141. Percentage of candidates qualified over appeared from State B is the lowest during which of the following years ?

- (1) 2007 (2) 2004
(3) 2001 (4) 2002
(5) None of these

142. Approximately, what is the percentage of candidates qualified over appeared from all the six states together in 2006 ?

- (1) 13 (2) 21
(3) 27 (4) 32
(5) 39

143. Approximately, what is the average number of candidates qualified from State D over the given years ?

- (1) 132 (2) 116
(3) 84 (4) 141
(5) 167

144. The number of candidates qualified from State C in 2002 and 2005 together is what per cent of the number of candidates appeared from state F in 2003 and 2004 together ? (rounded off to two digits after decimal)

- (1) 10.65
(2) 12.44
(3) 14.86
(4) 11.12
(5) None of the above

145. Percentage of candidates qualified over appeared in 2004 is the highest for which of the following states ?

- (1) B
(2) D
(3) A
(4) F
(5) None of the above

Directions (Q. 146–150) What **approximate** value should come in place of the question mark (?) in the following questions ? (You are not expected to calculate the exact value).

146. $8^{0.601} \times 64^{1.7} = ?$

- | | |
|----------|----------|
| (1) 512 | (2) 64 |
| (3) 8 | (4) 2884 |
| (5) 4096 | |

147. $125\% \text{ of } 605 + \frac{4}{5} \text{ of } 218 = ?$

- | | |
|---------|----------|
| (1) 840 | (2) 931 |
| (3) 618 | (4) 1024 |
| (5) 726 | |

148. $2418.065 + 88 + 14.2 \times 6 = ?$

- | | |
|----------|----------|
| (1) 1059 | (2) 2419 |
| (3) 2496 | (4) 2455 |
| (5) 1985 | |

149. $84.6624 \times 18.9865 \div 11.0124 = ?$

- | | |
|---------|---------|
| (1) 146 | (2) 132 |
| (3) 189 | (4) 206 |
| (5) 225 | |

150. $\sqrt[3]{598746} = ?$

- | | |
|---------|--------|
| (1) 72 | (2) 66 |
| (3) 84 | (4) 98 |
| (5) 112 | |