

PART-III

NUMERICAL APTITUDE

101. Three taps A, B and C together can fill an empty cistern in 10 minutes. The tap A alone can fill it in 30 minutes and the tap B alone in 40 minutes. How long will the tap C alone take to fill it?
- (a) 16 minutes
(b) 24 minutes
(c) 32 minutes
(d) 40 minutes
102. If 1 man or 2 women or 3 boys can complete a piece of work in 88 days, the 1 man, 1 woman and 1 boy together will complete it in
- (a) 36 days (b) 42 days
(c) 48 days (d) 54 days
103. If the measures of one side and one diagonal of a rhombus are 10 cm and 16 cm respectively, then its area in cm^2 is:
- (a) 60 (b) 64
(c) 96 (d) 100
104. A cow is tied on the corner of a rectangular field of size $30\text{ m} \times 20\text{ m}$ by a 14 m long rope. The area of the region, which she can graze is
- (use $\pi = \frac{22}{7}$)
- (a) 350 cm^2
(b) 196 cm^2
(c) 154 cm^2
(d) 22 cm^2
105. If each of the length and breadth of a rectangle is increased by 50%, by what percent does its area increase?
- (a) 125 (b) 100
(c) $55\frac{5}{9}$ (d) 50

106. A cube and a sphere have equal surface areas. The ratio of their volumes is
- (a) $\pi : 6$
 (b) $\sqrt{\pi} : \sqrt{6}$
 (c) $\sqrt{6} : \sqrt{\pi}$
 (d) $6 : \pi$
107. The diameters of two cylinders, whose volumes are equal, are in the ratio 3 : 2. Their height will be in the ratio
- (a) 4 : 9 (b) 5 : 6
 (c) 5 : 8 (d) 8 : 9
108. The single discount, which is equivalent to successive discounts of 25% and 10%, is:
- (a) 35% (b) 34.5%
 (c) 33% (d) 32.5%
109. A trader marks his goods 40% above cost price and allows a discount of 25%. The profit he makes, is:
- (a) 15% (b) 10%
 (c) 5% (d) 2%
110. With a 5% discount on the cost of sugar, a buyer could purchase 2 kg more sugar for Rs. 608. Selling price of sugar is:
- (a) Rs. 15.50 (b) Rs. 15
 (c) Rs. 16.50 (d) Rs. 2
111. The ratio of two numbers is 3 : 4 and their LCM is 48. The sum of the two numbers is:
- (a) 32 (b) 28
 (c) 26 (d) 24
112. If $2A = 3B = 4C$, then A : B : C is:
- (a) 2 : 3 : 4 (b) 4 : 3 : 2
 (c) 6 : 4 : 3 (d) 3 : 4 : 6
113. The ratio $4^{3.5} : 2^5$ is the same as
- (a) 4 : 1 (b) 2 : 1
 (c) 1 : 2 (d) 1 : 4
114. 12 kg of rice costing Rs. 30 per kg mixed with 8 kg of rice costing Rs. 40 per kg. The average per kg price of mixed rice is
- (a) Rs. 38
 (b) Rs. 37
 (c) Rs. 35
 (d) Rs. 34
115. The ratio of the age of a father to that of his son is 5 : 2. If the product of their ages in years is 1000, then the father's age (in years) after 10 years will be:
- (a) 50 (b) 60
 (c) 80 (d) 100
116. The average of 10 numbers is calculated as 15. It is discovered later on that while calculating the average on number, namely 36, was wrongly read as 26. The correct average is
- (a) 20 (b) 18
 (c) 16 (d) 14
117. The average of eight successive numbers is 6.5. The average of the smallest and the greatest numbers among them will be:
- (a) 4 (b) 6.5
 (c) 7.5 (d) 9
118. A man covers the journey from a station A to station B at a uniform speed of 36 km/hr and returns to A with a uniform speed of 45 km/hr. his average speed for the whole journey is:
- (a) 40 km/h (b) 40.5 km/h
 (c) 41 km/h (d) 42 km/h
119. A cricket batsman had a certain average of runs for his 11 innings. In the 12th innings, he made a score of 90 runs and thereby his average of runs was decreased by 5. His average of runs after 12th innings is:
- (a) 155 (b) 150
 (c) 145 (d) 140

120. If the cost price of an article is 80% of its selling price, the profit per cent is:
- (a) 20% (b) $22\frac{1}{2}\%$
(c) 24% (d) 25%
121. Due to an increase of 20% in the price of eggs, 2 eggs less are available for Rs. 24. The present rate of egg per dozen is:
- (a) Rs. 25.00 (b) Rs. 26.20
(c) Rs. 27.80 (d) Rs. 28.80
122. Mahesh purchased a ratio at $\frac{9}{10}$ of its selling price and sold it at 8% more than its original selling price. His gain per cent is:
- (a) 20% (b) 18%
(c) 10% (d) 8%
123. The percent of profit, when an articles is sold for Rs. 78, is twice than when it is sold for Rs. 69. The cost price of the article is:
- (a) Rs. 49 (b) Rs. 51
(c) Rs. 57 (d) Rs. 60
124. A vendor sells lemons at the rate of 5 for Rs. 14, gaining thereby 40%. For how much did he buy a dozen lemons?
- (a) Rs. 20 (b) Rs. 21
(c) Rs. 24 (d) Rs. 28
125. Ram saves 14% of his salary while Shyam saves 22%. If both get the same salary and Shyam saves Rs. 1540, what is the saving of Ram?
- (a) Rs. 990 (b) Rs. 980
(c) Rs. 890 (d) Rs. 880
126. A's salary is 25% more than B's salary. B's salary is how much less than A's salary?
- (a) 20% (b) 24%
(c) 25% (d) 27.5%
127. The radius of a circle is increased by 1%. How much does the area of the circle increase?
- (a) 1% (b) 1.1%
(c) 2% (d) 2.01%
128. For an examination it is required to get 36% of maximum marks to pass. A student got 113 marks and failed by 85 marks. The maximum marks for the examination are:
- (a) 500 (b) 550
(c) 565 (d) 620
129. The sum of two numbers is 36 and their H.C.F. and L.C.M are 3 and 105 respectively. The sum of the reciprocals of the two numbers will be:
- (a) 13 (b) $\frac{9}{11}$
(c) $\frac{7}{35}$ (d) $\frac{4}{35}$
130. When a number is divided by 387, the remainder obtained is 48. If the same number is divided by 43, then the remainder obtained will be:
- (a) 0 (b) 3
(c) 5 (d) 35
131. $999\frac{98}{99} \times 99$ is equal to:
- (a) 98999 (b) 99899
(c) 99989 (d) 99998
132. $\frac{1}{2}^{-\frac{1}{2}}$ is equal to
- (a) $\frac{1}{\sqrt{2}}$ (b) $2\sqrt{2}$
(c) $-\sqrt{2}$ (d) $\sqrt{2}$

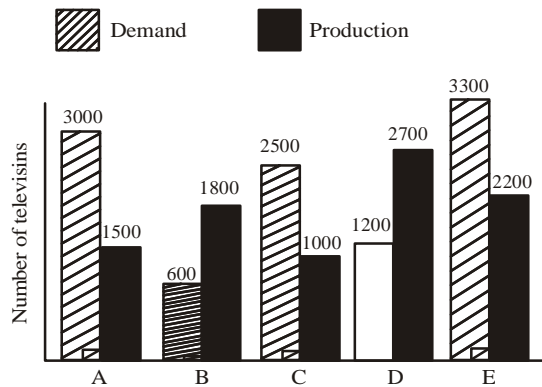
133. How many $\frac{1}{6}$'s together make $41\frac{2}{3}$?
- (a) 125 (b) 150
(c) 250 (d) 350
134. Which of the following numbers is the greatest of all?
0.9, $0.\overline{9}$, $0.0\overline{9}$, $0.\overline{09}$
- (a) 0.9 (b) $0.\overline{9}$
(c) $0.0\overline{9}$ (d) $0.\overline{09}$
135. A fraction having denominator 30 and lying between $\frac{5}{8}$ and $\frac{7}{11}$ is:
- (a) $\frac{18}{30}$ (b) $\frac{19}{30}$
(c) $\frac{20}{30}$ (d) $\frac{21}{30}$
136. $\frac{\sqrt{7}-\sqrt{5}}{\sqrt{7}+\sqrt{5}} + \frac{\sqrt{7}+\sqrt{5}}{\sqrt{7}-\sqrt{5}}$ is equal to:
- (a) 12 (b) $6\sqrt{35}$
(c) 6 (d) $2\sqrt{35}$
137. The least perfect square number, which is divisible by each of the number 16, 20 and 24 is:
- (a) 1600 (b) 3600
(c) 6400 (d) 14400
138. If $x + \frac{9}{x} = 6$, then the value of $(x^2 + \frac{9}{x^2})$ is
- (a) 8 (b) 9
(c) 10 (d) 12
139. The next number of the sequence 51, 52, 56, 65, _____ is:
- (a) 75 (b) 78
(c) 79 (d) 81
140. The wrong number of the sequence 4, 9, 19, 39, 79, 169, 319 is
- (a) 169 (b) 79
(c) 39 (d) 9
141. 2 men and 3 women together of 4 men together can complete a piece of work in 20 days. 3 men and 3 women will complete the same work in:
- (a) 12 days (b) 16 days
(c) 18 days (d) 19 days
142. A train, 110m long, is running at a speed of 60 km/hr. How many seconds does it take to cross another train, 170 m long, standing on parallel track?
- (a) 15.6 (b) 16.8
(c) 17.2 (d) 18
143. The persons walk from place A to place B. Their speeds are in the ratio 4 : 3 : 5. The ratio of the times taken by them to reach B will be:
- (a) 10 : 15 : 13 (b) 2 : 3 : 4
(c) 15 : 20 : 12 (d) 16 : 18 : 15
144. At some rate per annum, the compound interest on Rs. 1500 for 2 years is Rs. 449.40. The rate of interest per annum is:
- (a) 10% (b) 12%
(c) 14% (d) 15%
145. The difference between the compound interest and simple interest of some amount of money for 2 years at 9% per annum is Rs. 129.60. The sum of money is:
- (a) Rs. 12000 (b) Rs. 12500
(c) Rs. 13500 (d) Rs. 16000

146. A sum of money was invested at a certain rate of simple interest for 2 years. Had it been invested at 1% higher rate, it would have fetched Rs. 24 more interest. The sum of money is:
- (a) Rs. 1200
 (b) Rs. 1050
 (c) Rs. 1000
 (d) Rs. 9600

149. The production of colour television of company D is how many times that of company A?
- (a) 1.9 (b) 1.8
 (c) 1.5 (d) 2.3
150. The ratio of companies having more demand than production of colour televisions to those having more production than demand is:
- (a) 2 : 3 (b) 4 : 1
 (c) 1 : 4 (d) 3 : 2

Directions (147-150): The bar graph, given here, shows the demand and production of colour televisions of five companies of Diwali season in the year 2009. Study the graph carefully and answer the question based on the graph.

Demand and Production of Colour Television of Five Companies.



147. The ratio of the demand and production colour televisions of company E is:
- (a) 3 : 2 (b) 2 : 3
 (c) 2 : 1 (d) 1 : 2
148. The demand of colour televisions of company B is approximately what per cent of that of company C?
- (a) 60 (b) 25
 (c) 24 (d) 6

ANSWER SHEET

101. (b) 102. (c) 103. (c) 104. (c) 105. (a) 106. (b) 107. (a) 108. (d) 109. (c) 110. (d)
111. (b) 112. (c) 113. (a) 114. (d) 115. (b) 116. (c) 117. (b) 118. (a) 119. (c) 120. (d)
121. (d) 122. (a) 123. (d) 124. (c) 125. (b) 126. (a) 127. (d) 128. (b) 129. (d) 130. (c)
131. (a) 132. (d) 133. (c) 134. (b) 135. (b) 136. (a) 137. (b) 138. (c) 139. (d) 140. (a)
141. (b) 142. (b) 143. (c) 144. (c) 145. (d) 146. (a) 147. (a) 148. (c) 149. (b) 150. (d)

