PART – C
NUMERICAL APTITUDE

101. $(1^2 + 2^2 + 3^2 + \ldots. + 10^2)$ is equal to
(A) 380 (B) 385
(C) 390 (D) 392

102. The sixth term of the sequence
2, 6, 11, 17, ……. is
(A) 24 (B) 30
(C) 32 (D) 36

103. Two numbers are in the ratio 7 : 11. If 7 is added to each of the numbers, the ratio becomes 2 : 3. The smaller number is
(A) 39 (B) 49
(C) 66 (D) 77

104. $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right).....\left(1 - \frac{1}{25}\right)$ is equal to
(A) $\frac{2}{25}$ (B) $\frac{1}{25}$
(C) $1\frac{19}{25}$ (D) $\frac{1}{325}$

105. A number, when divided by 136, leaves remainder 36. If the same number is divided by 17, the remainder will be
(A) 9 (B) 7
(C) 3 (D) 2

106. Simplified from of $\left[\left(\sqrt[5]{x^{-3/5}}\right)^{-5/3}\right]^5$ is
(A) x^5 (B) x^{-5}
(C) x (D) $\frac{1}{x}$

107. A 4-digit number is formed by repeating a 2-digit number such as 1515, 3737, etc. Any number of this form is exactly divisible by
(A) 7 (B) 11
(C) 13 (D) 101

108. $(0.1 \times 0.01 \times 0.001 \times 10^7)$ is equal to
(A) 100 (B) $\frac{1}{10}$
(C) $\frac{1}{100}$ (D) 10

109. If $2p + \frac{1}{4} = 4$, the value of $p^3 + \frac{1}{8p^3}$ is
(A) 4 (B) 5
(C) 8 (D) 15

110. If p and q represent digits, what is the possible maximum value of q in the statement 5p9 + 327 + 2q8 + 1114?
(A) 9 (B) 8
(C) 7 (D) 6

111. The least among the fractions $\frac{15}{16}, \frac{19}{20}, \frac{24}{25}, \frac{34}{35}$ is
(A) $\frac{34}{35}$
(B) $\frac{15}{16}$
(C) $\frac{19}{20}$
(D) $\frac{24}{25}$

112. $1.\overline{27}$ in the form $\frac{p}{q}$ is equal to

(A) $\frac{127}{100}$ (B) $\frac{73}{100}$

(C) $\frac{14}{11}$ (D) $\frac{11}{14}$

113. $\frac{3.25 \times 3.20 - 3.20 \times 3.05}{0.064}$ is equal to

(A) 1 (B) $\frac{1}{2}$

(C) $\frac{1}{10}$ (D) 10

114. Out of six consecutive natural numbers, if the sum of three is 27, what is the sum of the other three?

(A) 36 (B) 35
(C) 25 (D) 24

115. The H.C.F. & L.C.M. of two numbers are 12 and 336 respectively. If one of the numbers is 84, the other is

(A) 36 (B) 48
(C) 72 (D) 96

116. 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 two numbers is

(A) $\frac{2}{35}$ (B) $\frac{3}{25}$

(C) $\frac{4}{35}$ (D) $\frac{2}{25}$

117. If 'n' by any natural number, then by which largest number $(n^3 - n)$ is always divisible?

(A) 3 (B) 6
(C) 12 (D) 18

118. If 1.5 a = 0.04b, then $\frac{b - a}{b + a}$ is equal to

(A) $\frac{73}{77}$ (B) $\frac{77}{33}$

(C) $\frac{2}{75}$ (D) $\frac{75}{2}$

119. How many perfect squares lie between 120 and 300?

(A) 5 (B) 6
(C) 7 (D) 8

120. $\left\{\frac{(0.1)^2 - (0.01)^2}{0.0001} + 1\right\}$ is equal to

(A) 1010 (B) 110
(C) 101 (D) 100

121. If there is a profit of 20% on the cost price of an article, the percentage of profit calculated on its selling price will be

(A) 24 (B) $16\frac{2}{3}$

(C) $8\frac{1}{3}$ (D) 20

122. If the cost price 15 books is equal to the selling price of 20 books, the loss present is

(A) 16 (B) 20
(C) 24 (D) 25

123. If an article is sold at 200% profit, then the ratio of its cost price to its selling price will be

(A) 1 : 2 (B) 2 : 1
(C) 1 : 3 (D) 3 : 1

124. If on a marked price, the difference of selling prices with a discount of 30% and two successive discount of 20% and 10% is Rs. 72, then the marked price (in rupees) is

(A) 3,600 (B) 3,000
(C) 2,500 (D) 2,400

125. If an electricity bill paid before due date, one gets a reduction of 4% on the amount of the bill. By paying the bill before due date a person got a reduction of Rs. 13. The amount of his electricity bill was
(A) Rs. 125 (B) Rs. 225
(C) Rs. 325 (D) Rs. 425

126. Successive discounts of 10%, 20% and 30% is equivalent to a single discount of
(A) 60% (B) 49.6%
(C) 40.5% (D) 36%

127. The price of an article was first increased by 10% and then again by 20%. If the last increased price be Rs. 33, the original price was
(A) Rs. 30 (B) Rs. 27.50
(C) Rs. 26.50 (D) Rs. 25

128. If each side of a square is increased by 10% its area will be increased by
(A) 10% (B) 21%
(C) 44% (D) 100%

129. The ratio of milk and water in mixtures of four containers are 5 : 3, 2 : 1, 3 : 2 and 7 : 4 respectively. In which container is the quantity of milk, relative to water, minimum?
(A) First (B) Second
(C) Third (D) Fourth

130. The numbers are in the ratio 1 : 3. If their sum is 240, then their difference is
(A) 120 (B) 108
(C) 100 (D) 96

131. The ratio of income and expenditure of a person is 11 : 10. If he saves Rs. 9,000 per annum, his monthly income is
(A) Rs. 8,000 (B) Rs. 8,800
(C) Rs. 8,500 (D) Rs. 8,250

132. If $W_1 : W_2 + 2 : 3$, and $W_1 : W_3 = 1 : 2$, then $W_2 : W_3$ is
(A) 3 : 4 (B) 4 : 3
(C) 2 : 3 (D) 4 : 5

133. A copper wire of length 36 m and diameter 2 mm is melted to form a sphere. The radius of the sphere (in cm) is
(A) 2.5 (B) 3
(C) 3.5 (D) 4

134. The ratio of the ratio of two wheels is 3:4. The ratio of their circumferences is
(A) 4 : 3 (B) 3 : 4
(C) 2 : 3 (D) 3 : 2

135. If the length of a rectangle is increased by 10% and its breadth is decreased by 10%, the change in its area will be
(A) 1% increase (B) 1% decrease
(C) 10% increase (D) No change

136. In how many years will a sum of money double itself at $6\frac{1}{4}\%$ simple interest per annum?
(A) 24 (B) 20
(C) 16 (D) 12

137. A sum of Rs. 12,000, deposited at compound interest becomes double after 5 years. How much will it be after 20 years?
(A) Rs, 1,44,000 (B) Rs. 1,20,000
(C) Rs. 1,50,000 (D) Rs. 1,92,000

138. In how many years will a sum of Rs. 800 at 10% per annum compound interest, compounded semi-annually becomes Rs. 926.10?
(A) $1\frac{1}{2}$ (B) $1\frac{2}{3}$
(C) $2\frac{1}{3}$ (D) $2\frac{1}{2}$

139. In a 100 m race, Kamal defeats Bimal by 5 seconds. If the speed of Kamal is 18 k.m./hr., then the speed of Bimal is
(A) 15.4 k.m./hr. (B) 14.5 k.m./hr.
(C) 14.4 k.m./hr. (D) 14 k.m./hr.

140. A train, 240 m long, crosses a man walking along the line in opposite direction at the

rate of 3 km/h in 10 second. The speed of the train is

(A) 63 km/h (B) 75 km/h
(C) 83.4 km/h (D) 86.4 km/h

141. A boatman rows 1 km. in 5 minutes along the stream and 6 km. in 1 hour against the stream. The speed of the stream is

(A) 3 km/hr. (B) 6 km/hr.
(C) 10 km/hr. (D) 12 km/hr.

142. A can complete $\frac{1}{3}$ of a work in 5 days and $B\frac{2}{5}$ of the work in 10 days. In how many days both A and B together can complete the work?

(A) 10 (B) $9\frac{3}{8}$
(C) $8\frac{4}{5}$ (D) $7\frac{1}{2}$

143. 7 men can complete a piece of work in 12 days. How many additional men will be required to complete double the work in 8 days?

(A) 28 (B) 21
(C) 14 (D) 7

144. One pipe fills a water tank three times faster than another pipe. If the two pipes together can fill the empty tank in 36 minutes, then how much time will the slower pipe alone take to fill the tank?

(A) 1 hour 21 minutes
(B) 1 hour 48 minutes
(C) 2 hours
(D) 2 hours 24 minutes

145. In an examination, a student scores 4 marks for every correct answer and losses 1 mark for every wrong answer. A student attempted all the 200 questions and scored, in all 200 marks. The number of questions, he answered correctly was.

(A) 82 (B) 80
(C) 68 (D) 60

146. The average of odd number upto 100 is

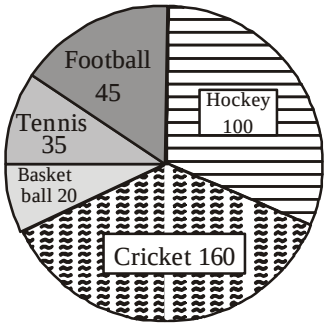
(A) 50.5 (B) 50
(C) 49.5 (D) 49

147. If A's income is 25% less than B's income, by how much percent is B's income more than that of A?

(A) 25 (B) 30
(C) $33\frac{1}{3}$ (D) $66\frac{2}{3}$

Directions: The pie chart, given here, shows the amount of money spent on various by a school administration in a particular year.

Observe the pie chart and answer Question Nos. 148 to 150 based on this graph.



148. If the money spent on football was Rs. 9,000, how much more money was spent on hockey than on football?

(A) Rs. 11,000 (B) Rs. 11,500
(C) Rs. 12,000 (D) Rs. 12,500

149. If the money spent on football was Rs. 9,000, what amount was spent on Cricket?

(A) Rs. 31,000 (B) Rs. 31,500
(C) Rs. 32,000 (D) Rs. 32,500

150. If the money spent of football is Rs. 9,000, then what was the total amount spent of all sports?

(A) Rs. 73,000 (B) Rs. 72,800
(C) Rs, 72,500 (D) Rs. 72,000

ANSWERS

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