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SSC HIGHER SECONDARY DATA ENTRY OPERATOR & LDC EXAM NUMERICAL APTITUDE SOLVED QUESTION PAPER- 2010

PART-III
NUMERICAL APTITUDE

101. A sailor goes 12 km downstream in 48 minutes and returns in 1 hour 20 minutes. The speed of the sailor in still water is :
(1) 12 km/hr (2) 12.5 km/ hr
(3) 13 km/hr (4) 15 km/hr

102. If 24-carat gold is considered to be hundred per cent pure gold, then the percentage of pure gold in 22-carat gold is :
(1) $91\frac{3}{4}$ (2) $91\frac{2}{3}$
(3) $91\frac{1}{3}$ (4) $90\frac{2}{3}$

103. If $x+\frac{1}{x}=3$, then the value of $\frac{x^3+\frac{1}{x}}{x^2-x+1}$ is:
(1) $\frac{3}{2}$ (2) $\frac{5}{2}$
(3) $\frac{7}{2}$ (4) $\frac{11}{2}$

104. $\left[\left\{\left(-\frac{1}{2}\right)^2\right\}^{-2}\right]^{-1}$ is equal to :
(1) $\frac{1}{16}$ (2) 16
(3) $-\frac{1}{16}$ (4) -16

105. The price of sugar is increased by 25%. If a family wants to keep its expenses on sugar unaltered, then the family will have to reduce the consumption of sugar by :
(1) 20% (2) 21%
(3) 22% (4) 25%

06. A sum of money amounts to ₹ 850 in 3 years and to ₹ 925 in 4 years at some rate of simple interest. The sum is :
(1) ₹ 550 (2) ₹ 600
(3) ₹ 625 (4) ₹ 700

107. Pipe A can fill a cistern in 6 hours and pipe B can fill it in 8 hours. Both the pipes are opened simultaneously, but after two hours, pipe A is closed. How many hours will B take to fill the remaining part of the cistern ?
(1) 2 (2) $2\frac{1}{3}$
(3) $2\frac{2}{3}$ (4) 4

108. The sides of a triangle are in the ratio $\frac{1}{3}:\frac{1}{4}:\frac{1}{5}$ and its perimeter is 94cm. The length of the smallest side of the triangle is:
(1) 18 cm (2) 22.5 cm
(3) 24 cm (4) 27 cm

109. The average of seven consecutive positive integers is 26. The smallest of these integers is :
(1) 21 (2) 23
(3) 25 (4) 26

110. Due to an increase of 50% in the price of eggs, 4 eggs less are available for ₹ 24. The present rate of eggs per dozen is :
(1) ₹ 24 (2) ₹ 27
(3) ₹ 36 (4) ₹ 42

111. Next number of the sequence 2, 9, 28, 65, 126, ____ is :
(1) 195 (2) 199
(3) 208 (4) 217

112. If A's income is 20% more than that of B, by how much percent is B's income less than that of A ?
(1) $16\frac{4}{5}$ (2) $16\frac{1}{3}$
(3) $16\frac{2}{3}$ (4) $16\frac{2}{7}$

113. X alone can complete a piece of work in 40 days. He worked for 8 days and left. Y alone completed the remaining work in 16 days. How long would X and Y together take to complete the work ?
(1) $13\frac{1}{3}$ days (2) 14 days
(3) 15 days (4) $16\frac{2}{3}$ days

114. Which of the following successive discount series is the best of all for a customer ?
(1) 30%, 20%, 10%
(2) 25%, 20%, 15%
(3) 30%, 10%, 15%
(4) 25%, 15%, 10%

115. What price should a shopkeeper mark on an article costing him ₹ 200 to gain 35% after allowing a discount of 25% ?
(1) ₹ 270 (2) ₹ 300
(3) ₹ 330 (4) ₹ 360

116. Total weekly emoluments of the workers of a factory is ₹ 1534. Average weekly emolument of a worker is ₹ 118. The number of workers in the factory is :
(1) 16 (2) 14
(3) 13 (4) 12

117. The length and breadth of a rectangle are increased by 20% and 25% respectively. The increase in the area of the resulting rectangle will be :
(1) 60% (2) 50%
(3) 40% (4) 30%

118. A train travelling with uniform speed crosses two bridges of lengths 300 m and 240 m in 21 seconds and 18 seconds respectively. The speed of the train is :
(1) 72 km/hr (2) 68 km/hr
(3) km/hr (4) 60 km/hr

119. The wrong (misfit) number of the sequence 5, 15, 45, 135, 395, 1215, 3645 is :
(1) 395 (2) 135
(3) 45 (4) 5

120. If $A = \frac{1}{4}B$ and $B = \frac{1}{2}C$, then A : B : C is :
(1) 8 : 4 : 1 (2) 4 : 2 : 1
(3) 1 : 4 : 8 (4) 1 : 2 : 4

121. A 7 m wide road runs outside around a circular park, whose circumference is 176 m. The area of the road is :
[use $\pi = \frac{22}{7}$]
(1) 1386 m^2 (2) 1472 m^2
(3) 1512 m^2 (4) 1760 m^2

122. If the cost price and selling price of an article are in the ratio 10 : 11, then the percentage of profit is :
(1) 10 (2) 9
(3) 3 (4) 1

123. A shopkeeper sells his goods at 15% discount. The marked price of an article whose selling price is ₹ 629 is :
(1) ₹ 740 (2) ₹ 704
(3) ₹ 700 (4) ₹ 614

124. Present population of a village is 67600. It has been increasing annually at the rate fo 4%. What was the population of the village two years ago ?
(1) 62500 (2) 63000
(3) 64756 (4) 65200

125. The average age of A and B is 30 years and that of B and C is 26 years. The difference of the age of A and B is :
(1) 2 years (2) 4 years
(3) 6 years (4) 8 years

126. Twenty women tohether can complete a work in 16 days. 16 men together can complete the same work in 15 days. The ratio of the working capacity of a man to that of a woman is :
(1) 3 : 4 (2) 4 : 3
(3) 5 : 3 (4) 4 : 5

127. If $a + \frac{1}{a} + 1 = 0 \ (a \neq 0)$ then the value of $(a^4 - a)$ is :
(1) 0 (2) 1
(3) 2 (4) – 1

128. If the height of a cone is increased by 100% then its volume is increased by :
(1) 100% (2) 200%
(3) 300% (4) 400%

129. If x is a perfect square integer such that $7 < (2x - 3) < 17$, then the value of x is :
(1) 25 (2) 16
(3) 9 (4) 4

130. The difference between the simple interests received from two different banks on ₹ 500 for 2 years is ₹ 2.50. The difference between their per annum rates of interest is :
(1) 0.10% (2) 0.25%
(3) 0.50% (4) 1.00%

131. $999\frac{998}{999} \times 999$ is equal to :
(1) 998999 (2) 999899
(3) 989999 (4) 999989

132. The cost price of 24 apples is the same as the selling price of 18 apples. The percentage of gain is :
(1) $12\frac{1}{2}$ (2) $14\frac{2}{3}$
(3) $16\frac{2}{3}$ (4) $33\frac{1}{3}$

133. A merchant sold an article for ₹ 75 at a profit percent equal to his cost price. The cost price of the article was :
(1) ₹ 45 (2) ₹ 50
(3) ₹ 54 (4) ₹ 60

134. The largest among the numbers 0.9, $(0.9)^2$, $\sqrt{0.9}$, $0.\bar{9}$ is :
(1) 0.9 (2) $(0.9)^2$
(3) $\sqrt{0.9}$ (4) $0.\bar{9}$

135. The rain water from a roof 22 m × 20 m drains into a cylindrical vessel having a diameter of 2 m and height 3.5 m. If the vessel is just full. then the rainfall in cm is :
(1) 2 (2) 2.5
(3) 3 (4) 4.5

136. If the difference between the selling prices of an article at profit of 6% and 4% is ₹ 3, then the cost price of the article should be :
(1) ₹100 (2) ₹150
(3) ₹175 (4) ₹200

137. If n is an integer, then $(n^3 - n)$ is always divisible by :
(1) 4 (2) 5
(3) 6 (4) 7

138. A sum of money was lent at simple interest at a certain rate for 3 years. Had it been lent at 2.5% per annum higher rate, it would have fetched ₹ 540 more. The money lent was :
(1) ₹ 6400 (2) ₹ 6472
(3) ₹ 6840 (4) ₹ 7200

139. What number should be added to each of 6, 14, 18 and 38 so that the resulting numbers make a proportion ?
(1) 1 (2) 2
(3) 3 (4) 4

140. $\frac{0.08 \times 0.08 \times 0.08 + 0.02 \times 0.02 \times 0.02}{0.08 \times 0.08 - 0.0016 + 0.02 \times 0.02}$ is simplified to :
(1) 0.001 (2) 0.1
(3) 0.0016 (4) 0.016

141. If $x = \sqrt{3} + \sqrt{2}$, then the value of $\left(x^2 + \frac{1}{x^2}\right)$ is :
(1) 4 (2) 6
(3) 9 (4) 10

142. The ratio of the number of boys and girls in a school is 3 : 2. If 20% of the boys and 25% of the girls are scholarship holders, then the percentage of the students, who do not get the scholarship, is :
(1) 78 (2) 75
(3) 60 (4) 55

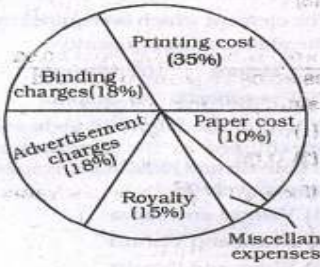
143. The HCF of two numbers is 15 and their LCM is 225. If one of the numbers is 75, then the other is :
(1) 105 (2) 90
(3) 60 (4) 45

144. While finding the average of 10 given numbers, a student, by mistake, wrote 64 in place of a number 46 and got his correct average 50. The correct average of the given numbers is :
(1) 48.2 (2) 48.3
(3) 49.1 (4) 49.3

145. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. How much more water must be added to make its ratio 1 : 2 ?
(1) 40 litres (2) 52 litres
(3) 54 litres (4) 60 litres

146. The area of an equilateral triangle is $4\sqrt{3}$ cm^2. The length of each side of the triangle is :
(1) 3 cm (2) $2\sqrt{2}$ cm
(3) $2\sqrt{3}$ cm (4) 4 cm

Directions (147 – 150) : The pie-chart, given here, shows various expenses of a publisher in the production and sale of a book. Study the chart and answer questions based on it.



147. If the printing cost is ₹ 17,500, the 'Royalty' paid is :
(1) ₹8,750 (2) ₹7,500
(3) ₹6,300 (4) ₹3,130

148. The measure of central angle for the section 'printing cost' is :
(1) 126° (2) 70°
(3) 63° (4) 35°

149. Miscellaneous expenses are what percent of paper cost ?
(1) 4 (2) 10
(3) 40 (4) 44

150. The difference between the measures of central angles of sectors for binding charges and advertisement charges is :
(1) 180° (2) 90°
(3) 18° (4) 0°

Answer: Numerical Aptitude

101	1
102	2
103	3
104	1
105	1
106	3
107	
108	3
109	2
110	3
111	4
112	3
113	1
114	1
115	4
116	3
117	2
118	1
119	1
120	3
121	1
122	1
123	1
124	1
125	4

126	2
127	1
128	1
129	3
130	2
131	1
132	4
133	2
134	4
135	2
136	4
137	3
138	4
139	2
140	2
141	4
142	1
143	4
144	1
145	4
146	4
147	2
148	1
149	3
150	4