

**PART-IV****ARITHMETIC**

151.  $(256)^{0.16} \times (d)^{0.36}$  is equal to  
 (a) 64 (b) 16  
 (c) 256.25 (d) 4
152.  $[1^3 + 2^3 + 3^3 + \dots + 9^3]$  is equal to  
 (a) 3575 (b) 2525  
 (c) 5075 (d) 3025
153. Two number are in the ratio 3 : 4. The product of their H.C.F. and L.C.M. is 2028. The sum of the number is  
 (a) 68 (b) 72  
 (c) 86 (d) 91
154. In the solution of the multiplication question given below, 'a' is s digit.
- $$\begin{array}{r} a \quad 2 \\ \times 7 \quad a \\ \hline 63 \quad 96 \end{array}$$
- The value of 'a' is  
 (a) 3 (b) 8  
 (c) 6 (d) 4
155. If  $3^{x+y} = 81$  and  $81^{x-y} = 3$ , then the value of x is  
 (a) 42 (b)  $\frac{15}{8}$   
 (c)  $\frac{17}{8}$  (d) 39
156. The smallest number that must be subtracted from 1000 to make the resulting number a perfect square is  
 (a) 37 (b) 38  
 (c) 39 (d) 40
157. The sum and product of two numbers are 11 and 18 respectively. The sum of their reciprocals is  
 (a)  $\frac{2}{11}$  (b)  $\frac{11}{2}$   
 (c)  $\frac{18}{11}$  (d)  $\frac{11}{18}$
158. A man ate 100 grapes in 5 days. Each day, he ate 6 more grapes than those he ate on the earlier day. How many grapes did he eat on the first day?  
 (a) 8 (b) 12  
 (c) 54 (d) 76
159. The missing number in the sequence 5, 6, 15, ?, 89, 170, 291, is  
 (a) 50 (b) 40  
 (c) 42 (d) 32
160. Instead of multiplying a number by 0.72, a student multiplied it by 7.2. If his answer was 2592 more than the correct answer, then the original number was  
 (a) 400 (b) 420  
 (c) 500 (d) 560
161.  $7, 77, 777 \div 77$  equals  
 (a) 1111  
 (b) 101001  
 (c) 10101  
 (d) 1010101
162. Two pipes can fill a cistern separately in 10 hours and 15 hours. They can together fill the cistern in  
 (a) 6 hours (b) 7 hours  
 (c) 8 hours (d) 9 hours

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163. Number 1, 2, 3, 4, ....., 98, 99, 100 are multiplied together. The number of zeroes at the end of the product on the right will be equal to  
 (a) 24 (b) 22  
 (c) 21 (d) 11
164. A and B can do a piece of work in 12 days and 15 days respectively. They began to work together but A left after 4 days. In how many more days would B alone complete the remaining work?  
 (a)  $\frac{20}{3}$  (b)  $\frac{25}{3}$   
 (c) 6 (d) 5
165. Lengths of the perpendiculars from a point in the interior of an equilateral triangle on its sides are 3 cm, 4 cm and 5 cm. Area of the triangle is  
 (a)  $48\sqrt{3}$  cm<sup>2</sup>  
 (b)  $54\sqrt{3}$  cm<sup>2</sup>  
 (c)  $72\sqrt{3}$  cm<sup>2</sup> (d)  $80\sqrt{3}$  cm<sup>2</sup>
166. If a triangle with base 8 cm has the same area as a circle with radius 8 cm, then the corresponding altitude (in cm) of the triangle is  
 (a)  $12\pi$  (b)  $20\pi$   
 (c)  $16\pi$  (d)  $32\pi$
167. The radius of the base and height of a right circular cone are in the ratio 5 : 12. If the volume of the cone is  $314\frac{2}{7}$  cm<sup>3</sup>, the slant height (in cm) of the cone will be  
 (a) 12 (b) 13  
 (c) 15 (d) 17
168. A solid metallic cone is melted and recast into a solid cylinder of the same base as that of the cone. If the height of the cylinder is 7 cm, the height of the cone was  
 (a) 20 cm (b) 21 cm  
 (c) 28 cm (d) 24 cm
169. A single discount equivalent to three successive discounts of 20%, 25% and 10% is  
 (a) 55% (b) 50%  
 (c) 48% (d) 46%
170. The marked price of an article is 20% more than its cost price. A discount of 20% is given on the marked price. In this kind of sale, the seller bears  
 (a) no gain, no loss  
 (b) a loss of 4%  
 (c) a gain of 4%  
 (d) a gain of 8%
171. A man, a woman and a boy can complete a work in 20 days. 30 days and 60 days respectively. How many boys must assist 2 men and 8 women so as to complete the work in 3 days?  
 (a) 8 (b) 12  
 (c) 4 (d) 6
172. The measures (in cm) of sides of a right angled triangle are given by consecutive integers. Its area (in cm<sup>2</sup>) is  
 (a) 9 (b) 8  
 (c) 5 (d) 6
173. Which number when added to each of the number 6, 7, 15, 17 will make the resulting numbers proportional?  
 (a) 6 (b) 5  
 (c) 4 (d) 3
174. The ratio of the first and second class fares between two railway stations is 4 : 1 and that of the number of passengers travelling by first and second classes is 1 : 40. If on a day

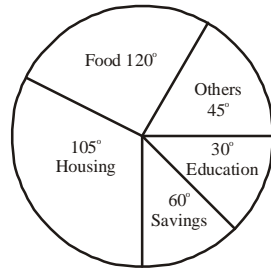
- Rs. 1,100 are collected as total fare, the amount collected from the first class passengers is  
 (a) Rs. 315 (b) Rs. 275  
 (c) Rs. 137.50 (d) Rs. 100
175. The marked price of a radio is Rs. 4,800. The shopkeeper allows a discount of 10% and gains 8%. If no discount is allow, his gain per cent will be  
 (a) 18 (b) 20  
 (c) 22 (d) 25
176. If  $A = \frac{4}{5}$  of B and  $B = \frac{5}{2}$  of C, then the ratio of A : C is  
 (a) 1 : 2 (b) 2 : 1  
 (c) 2 : 3 (d) 1 : 3
177. The average of all odd numbers less than 100 is  
 (a) 49.5 (b) 50  
 (c) 50.5 (d) 51
178. Amount incomes of A and B are in the ratio 4 : 3 and their annual expenses in the ratio 3 : 2. If each saves Rs. 60,000 at the end of the year, the annual income of A is  
 (a) Rs. 1,20,000  
 (b) Rs. 1,50,000  
 (c) Rs. 2,40,000  
 (d) Rs. 3,60,000
179. In one glass, mil and water are mixed in the ratio 3:5 and in another glass they are mixed in the ratio 6:1. In what ratio should the contents of the two glasses be mixed together so that the new mixture contains milk and water in the ratio 1:1?  
 (a) 20 : 7 (b) 8 : 3  
 (c) 27 : 4 (d) 25 : 9
180. The average age of eleven cricket players is 20 years. If the age of the coach is also include, the average age increases by 10%. The age of the coach is  
 (a) 48 years (b) 44 years  
 (c) 40 years (d) 36 years
181. The average marks of 32 boys of section A of class X is 60 whereas the average marks of 40 boys of section B of class X is 33. The average marks of both the sections combined together is  
 (a) 44 (b) 45  
 (c)  $46\frac{1}{2}$  (d)  $45\frac{1}{2}$
182. The average age of a husband and wife was 27 years when the married 4 years ago. The average age of the husband, the wife a new-born child is 21 years now. The present age of the child is  
 (a) 4 years (b) 3 years  
 (c) 2 years (d) 1 years
183. A reduction of 25% in the price of sugar enables a man to buy  $7\frac{1}{2}$  kg more sugar for Rs. 360. The original price per kg of sugar was  
 (a) Rs. 16 (b) Rs. 18  
 (c) Rs. 20 (d) Rs. 25
184. A man buys some articles at Rs. P per dozen and sells then at Rs.  $\frac{P}{8}$  per piece. His profit per cent is  
 (a) 30 (b) 40  
 (c) 50 (d) 60
185. When an article is sold at a gain of 20%, it yields Rs. 60 more than when it is sold at a loss of 20%. The cost price of the article is  
 (a) Rs. 200 (b) Rs. 150  
 (c) Rs. 140 (d) Rs. 120

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186. By selling 1 dozen ball pens, a shopkeeper earned the profit equal to the selling price of 4 ball pens. His profit per cent is  
 (a) 50 (b) 40  
 (c)  $33\frac{1}{3}$  (d)  $31\frac{1}{4}$
187. Two numbers x and y are respectively 20% and 50% more than a third number. x is how much per cent of y?  
 (a) 30 (b) 45  
 (c) 60 (d) 80
188. A man received Rs. 8,80,000 as his annual salary of the year 2007 which was 10% more than his annual salary in 2006. His annual salary in the year 2006 was  
 (a) Rs. 4,80,000  
 (b) Rs. 8,00,000  
 (c) Rs. 4,00,000  
 (d) Rs. 8,40,000
189. A reduction of 10% in the price of a T.V. set brought down its price by Rs. 1,650. The original price of the set (in rupees) was  
 (a) 16,500 (b) 16,000  
 (c) 15,000 (d) 16,550
190. The salary of a person is decreased by 25% and then the decreased salary is increased by 25%. His new salary in comparison with his original salary is,  
 (a) the same (b) 6.25% more  
 (c) 6.25% less (d) 0.625% less
191. A train, with a uniform speed, crosses a platform, 162 meters long, in 18 seconds and another platform, 120 meters long, in 15 seconds. The speed of the train is  
 (a) 14 km/hr (b) 42 km/hr  
 (c) 50 km/hr (d) 67.2 km/hr
192. In how many years will a sum of Rs. 3,000 yield a simple interest of Rs. 1,080 at 12% per annum?  
 (a) 3 (b)  $2\frac{1}{2}$   
 (c) 2 (d)  $3\frac{1}{2}$
193. The number of boys and girls in a college are in the ratio of 3 : 2. If 20% of the boys and 25% of the girls are adults, the percentage of students, who are *not* adults, is  
 (a) 58 (b)  $66\frac{2}{3}$   
 (c) 78 (d)  $88\frac{1}{3}$
194. A jeep is chasing a car which is 5km ahead. Their respective speeds are 90km/hr. After how many minutes will the jeep catch the car?  
 (a) 18 (b) 20  
 (c) 24 (d) 25
195. The difference between the compound and simple interest on Rs. 1,000 for 2 years at the rate of 5% per annum is  
 (a) Rs. 2 (b) Rs. 2.50  
 (c) Rs. 3 (d) Rs. 3.50
196. What sum of money at compound interest will amount to Rs. 650 at the end of one year and Rs. 676 at the end of 2 years?  
 (a) Rs. 520 (b) Rs. 572  
 (c) Rs. 600 (d) Rs. 625

**Directions (197-200):** The pie-chart given here shows expenditures incurred by a family on various items and their saving, which amount to Rs. 8,000 in a month.

Study the chart and answer the questions based on the pie-chart



197. How much expenditure is incurred on education?
- (a) Rs. 3,000      (b) Rs. 5,000  
(c) Rs. 4,000      (d) Rs. 7,000
198. The ratio of the expenditure on food to the saving is
- (a) 3 : 2              (b) 2 : 1  
(c) 4 : 3              (d) 3 : 4
199. What is the total expenditure of the family for the month?
- (a) Rs. 40,000      (b) Rs. 48,000  
(c) Rs. 45,000      (d) Rs. 50,000
200. How much more amount is spent on food than on housing?
- (a) Rs. 1,000      (b) Rs. 3,000  
(c) Rs. 2,000      (d) Rs. 2,500

## ANSWER SHEET

- 151 (d)   152 (d)   153 (d)   154 (b)   155 (c)   156 (c)   157 (d)   158 (a)   159 (b)   160 (a)  
 161 (d)   162 (a)   163 (a)   164 (c)   165 (a)   166 (c)   167 (b)   168 (b)   169 (d)   170 (b)  
 171 (c)   172 (d)   173 (d)   174 (d)   175 (b)   176 (d)   177 (b)   178 (c)   179 (a)   180 (b)  
 181 (b)   182 (d)   183 (a)   184 (c)   185 (b)   186 (a)   187 (d)   188 (b)   189 (a)   190 (c)  
 191 (c)   192 (a)   193 (c)   194 (b)   195 (b)   196 (d)   197 (c)   198 (b)   199 (a)   200 (c)



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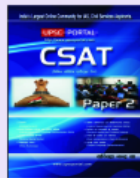
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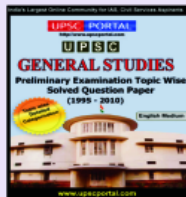
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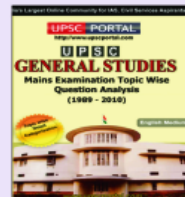


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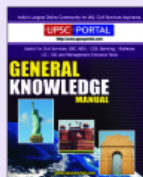


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