



**CLASS: IX**

**SUBJECT - MATHS**

**TOPIC : STATISTICS**

**Dated : 11.06.2020**

**WORKSHEET # 17**

This worksheet is based on the topic mentioned above and has a set of 16 questions which you are to solve in 60 min. after going through the worksheets on Statistics.

Choose the correct answer from the given four options (1 to 16):

- 1 The marks obtained by 17 students in a mathematics test (out of 100) are given below:  
91, 82, 100, 100, 96, 65, 82, 76, 79, 90, 46, 64, 72, 66, 68, 48, 49  
The range of the data is  
(a) 46                      (b) 54                      (c) 90                      (d) 100
- 2 The class mark of the class 90–120 is  
(a) 90                      (b) 105                      (c) 115                      (d) 120
- 3 In a frequency distribution, the mid-value of a class is 10 and the width of the class is 6. The lower limit of the class is  
(a) 6                      (b) 7                      (c) 8                      (d) 12
- 4 The width of each of 5 continuous classes in a frequency distribution is 5 and the lower limit of the lowest class is 10. The upper limit of the highest class is  
(a) 15                      (b) 25                      (c) 35                      (d) 40
- 5 The class marks of a frequency distribution are given as follows:  
15, 20, 25, .....  
The class corresponding to the class mark 20 is  
(a) 12.5 – 17.5                      (b) 17.5 – 22.5                      (c) 18.5 – 21.5                      (d) 19.5 – 20.5

- 6 In the class intervals  $10 - 20$ ,  $20 - 30$ , the number 20 is included in  
 (a)  $10 - 20$  (b)  $20 - 30$   
 (c) both the intervals (d) none of these intervals
- 7 A grouped frequency distribution table with class intervals of equal size using  $250 - 270$  ( $270$  not included in this interval) as one of the class intervals is constructed for the following data:  
 $268, 220, 368, 258, 242, 310, 272, 342, 310, 290, 300, 320, 319, 304, 402, 318, 406, 292, 354, 278, 210, 240, 330, 316, 406, 215, 258, 236.$   
 The frequency of the class  $310 - 330$  is  
 (a) 4 (b) 5 (c) 6 (d) 7
- 8 The mean of  $x - 1$ ,  $x + 1$ ,  $x + 3$  and  $x + 5$  is  
 (a)  $x + 1$  (b)  $x + 2$  (c)  $x + 3$  (d)  $x + 4$
- 9 The mean of five numbers is 30. If one number is excluded, their mean becomes 28. The excluded number is  
 (a) 28 (b) 30 (c) 35 (d) 38
- 10 If the mean of  $x_1, x_2$  is 7.5, and the mean of  $x_1, x_2, x_3$  is 8, then the value of  $x_3$  is  
 (a) 9 (b) 8 (c) 7.5 (d) 6
- 11 If each observation of the data is increased by 5, then their mean  
 (a) remains the same (b) becomes 5 times the original mean  
 (c) is decreased by 5 (d) is increased by 5
- 12 The mean of 100 observations is 50. If one of the observation which was 50 is replaced by 150, the resulting mean will be  
 (a) 50.5 (b) 51 (c) 51.5 (d) 52
- 13 For drawing a frequency polygon of a continuous frequency distribution, we plot the points whose ordinates are the frequencies of the respective classes and abscissae are respectively:  
 (a) upper limits of the classes (b) lower limits of the classes  
 (c) class marks of the classes (d) upper limits of preceding classes
- 14 Median of the numbers 4, 4, 5, 7, 6, 7, 7, 3, 12 is  
 (a) 4 (b) 5 (c) 6 (d) 7
- 15 The median of the data  
 $78, 56, 22, 34, 45, 54, 39, 68, 54, 84$  is  
 (a) 45 (b) 49.5 (c) 54 (d) 56
- 16 In a data, 10 numbers are arranged in ascending order. If the 8th entry is increased by 6, then the median increases by  
 (a) 0 (b) 2 (c) 3 (d) 6