**Self-Assignment -1**

**Topic: Statistics**

**Class: 9th Max. Marks: 25**

**Answer all questions. Each question carries 1/2 marks. 10 × 1/2 = 5M**

1. What is the mean of x + 3, x – 2, x + 5, x + 7 and x + 2?
2. Find the value of ‘x’ if the median of the data is 8?
3. If the class mark and class size of a class is 6 and 2 respectively, then find the upper limit of the class?
4. Find the mean of the perimeters of two squares of sides x and y?
5. What is the lower limit of the class 11 – 20 if the classes are given as 1 – 10, 11 – 20, 21 – 30, 31 – 40?
6. Write a merit point of mean than median and mode?
7. Find the median of the data 1, 1.01, 1.0001. 1.2, 0.8?
8. Statement A: Some data may have equal mean and median.

Statement B: Mode of the data 1, 1, 2, 2, 3, 3 is 1, 2, 3.

Which statement(s) is/are true?

1. Find the mean of the factors of 24?
2. Raju stated that the average of first 10 odd numbers is also 10. Do you agree with him? Justify your answer?

**Answer all questions. Each question carries 1 mark. 4 × 1 = 4M**

1. If the mean of first n natural numbers is 3n/5, then find the value of n?
2. The mean of 12 observations is 10. And the mean of another 18 observations is 8. Then find the mean of all observations?
3. If 35 is removed from the data, 30, 34, 35, 36, 37, 38, 39, 40 then find how much the median increased?
4. The average of 19, 5, 13, 7, x, 21 is x. Find ‘x’?

**Answer all questions. Each question carries 2 marks. 4 × 2 = 8M**

1. The mean of 5 numbers is 30. If one umber is excluded, their mean becomes 28. What is the excluded number?
2. Median of data, arranged in ascending order 7, 10, 15, x, y, 27, 30 is 17 and when one more observation 50 is added to the data, the median has become 18. Find x and y?
3. The average of 13 scores is 8. If one score 20 is deleted from them, find the average of the remaining scores?
4. Represent the following data as ungrouped frequency distribution table.

A D E D C B A C D B E

C B D E A B C E C A D

E B E A B C A D E B C

**Answer all questions. Each question carries 4 marks. 2 × 4 = 8M**

1. Find the mean of the following data in deviation method?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Observation | 10 | 12 | 14 | 16 | 18 | 20 | 22 |
| Frequency | 3 | 7 | 10 | 8 | 6 | 4 | 2 |

Or

Find the value of ‘k’ if the mean of the following data is 62?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Observation | 17.5 | 32.5 | 47.5 | 62.5 | 77.5 | 92.5 |
| Frequency | 2 | 3 | 7 | 6 | 6 | 6 |

1. The mean weight of three students is 40kg. One of the students Sathish weighs 46kg. The other two students Santhosh and Shekhar have same weight. Find the weight of Shekhar?

Or

How many distinct sets of three positive integers have a mean of 6, a median of 7 and no mode?