

Model Question Paper

Statistics - Part I

10th Standard

Maths

Reg.No. :

--	--	--	--	--	--

I. Answer all the questions.

II. Use blue pen only.

III. Question number 15 is compulsory.

Time : 01:00:00 Hrs

Total Marks : 40

5 x 1 = 5

Part-A

- 1) The range of the first 10 prime numbers 2, 3, 5, 7, 11, 13, 17, 19, 23, 29 is
(a) 28 (b) 26 (c) 29 (d) 27
- 2) The least value in a collection of data is 14.1. If the range of the collection is 28.4, then the greatest value of the collection is
(a) 42.5 (b) 43.5 (c) 42.4 (d) 42.1
- 3) The greatest value of a collection of data is 72 and the least value is 28. Then the coefficient of range is
(a) 44 (b) 0.72 (c) 0.44 (d) 0.28
- 4) For a collection of 11 items, $\sum x = 132$. then the arithmetic mean is
(a) 11 (b) 12 (c) 14 (d) 13
- 5) For any collection of n items, $\sum (x - \bar{x}) =$
(a) $\sum x$ (b) $\bar{x}$ (c) $n\bar{x}$ (d) 0

Part-B

5 x 2 = 10

- 6) Find the range and the coefficient of range of 43, 24, 38, 56, 22, 39, 45.
- 7) The weight (in kg) of 13 students in a class are 42.5, 47.5, 48.6, 50.5, 49, 46.2, 49.8, 45.8, 43.2, 48, 44.7, 46.9, 42.4. Find the range and coefficient of range.
- 8) The largest value in a collection of data is 7.44. If the range is 2.26, then find the smallest value in the collection.
- 9) Find the standard deviation of the first 10 natural numbers.
- 10) The mean of 30 items is 18 and their standard deviation is 3. Find the sum of all the items and also the sum of the squares of all the items.

Part-C

5 x 5 = 25

- 11) The number of books read by 8 students during a month are 2, 5, 8, 11, 14, 6, 12, 10. Calculate the standard deviation of the data.
- 12) A test in General Knowledge was conducted for a class. The marks out of 40, obtained by 6 students were 20, 14, 16, 30, 21 and 25. Find the standard deviation of the data.
- 13) Find the standard deviation of the numbers 62, 58, 53, 50, 63, 52, 55.
- 14) The marks obtained by 10 students in a test in Mathematics are : 80, 70, 40, 50, 90, 60, 100, 60, 30, 80. Find the standard deviation.
- 15) a) Find the standard deviation of the data 3, 5, 6, 7. Then add 4 to each item and find the standard deviation of the new data.

(OR)

- b) Find the standard deviation of 40, 42 and 48. If each value is multiplied by 3, find the standard deviation of the new data.
