ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-22

SUBJECT – STATISTICS

Term : 1st

Topic – Dispersion **Class: XI**

Full Marks: 15 **Date:08 .08. 2020**

Q1. Select the correct alternative of the following questions.

(i) The marks of 5 students in a class test are 1, 2, 3, 4, 5, 6, 7. The standard deviation is

(a) 2 **(b)4** (c)8 (d) none of these

(ii) The standard deviation of 3, 3, 3,..... ,3 is

(a) 0 (b) 3 (c) 6 (d) none of these

(iii) The marks of 5 students in a class test are 2, 4, 4, 7, 7, 8, 23. The mean deviation about mode is

(a) 2 (b)4 (c)11 **(d) none of these**

(iv) If all the Observation is equal to $\frac{1}{9}$, then the standard deviation is equal to

(a) 0 (b) $\frac{1}{5}$ (c)-5 **(d) none of these**

(v) Range of -(2n+3), ..., -1, 0, 1, ... , (2n-1) is

(a) -1 (b) 0 (c) $\frac{n-1}{2}$ **(d) none of these**

(vi) Mean deviation about mode of mother tangue of several people

(a)n-1 (b) 0 (c) $\frac{n-1}{2}$ **(d) none of these**

(vii) Standard deviation can always be greater than or equal to the difference of

(a) mean and median (b) mean and mode

(c) median and mode (d) none of these

(viii) If 5x= 3+8y and variance of x is 7, then mean deviation about median of y is

(a) 0 (b)1 (c)0. 5 **(d) none of these**

(ix) The combined standard deviation with 2nd set having all the observations equal to a constant depends upon the

(a) 1st set (b) 2nd set **(c) both** (d)none of these

(x) The combined standard deviation is less than the mean of the given sets which is

(a) maximum (b) minimum (c) both **(d) none of these**

(xi) The standard deviation is greater than the mean deviation about

(a) mean (b) median (c) mode **(d) none of these**

(xii) The range of first 7 narural numbers is

(a) -1 (b) 4 (c) 0 **(d) none of these**

(xiii) There are 10 observations with standard deviation 3. If 0.3 is subtracted to all the observations then the standard deviation of the new set is

(a) 3 (b) 3.3 (c) 30 (d) none of these

(xiv) There are 10 observations with standard deviation 4. If all the observations be divided by 4 then the standard deviation of the new set is

(a)4 (b) 8 (c) 16 **(d) none of these**

(xv) The observations are 1, 3, 4, 5, 6 then mean deviation about mode is

(a) 0 (b) 7 (c) 8 **(d) none of these**

Prepared by
Sanjay Bhattacharya