ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-21

SUBJECT – STATISTICS

Term : 1st

Topic – Dispersion **Class: XI**
Full Marks: 15 **Date:03 .08. 2020**

Q1. Select the correct alternative of the following questions.

(i) The marks of 5 students in a class test are 1, 2, 4, 7, 8, 11. The standard deviation is
(a) 2 (b)4 (c)8 **(d) none of these**

(ii) The standard deviation is used to calculate the average of
(a) all values (b) observation in GP (c)observation in AP **(d) none of these**

(iii) The marks of 5 students in a class test are 2, 4, 4, 7, 7, 8, 23. The standard deviation is
(a) 2 (b)4 (c)11 **(d) none of these**

(iv) If all the Observation is equal to - $\frac{1}{7}$, then the standard deviation is equal to
(a) 0 (b) $\frac{1}{5}$ (c)-5 (d) none of these

(v) Standard deviation of -(2n+3), ..., -1, 0, 1, ... , (2n-1) is
(a) -1 (b) 0 (c) $\frac{n-1}{2}$ **(d) none of these**

(vi) standard deviation of cast of several people
(a)n-1 (b) 0 (c) $\frac{n-1}{2}$ **(d) none of these**

(vii) Standard deviation can always be calculated of a set having observation

(a) countably infinite **(b) uncountably infinite**

(c) uncountably finite (d) none of these

(viii) If 5x= 9y and standard deviation of x is 7, then mean deviation about mean of y is

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

(ix) The combined standard deviation depends upon the

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

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

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

(xi) The standard deviation is greater than the geometric mean of the given sets which is

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

(xii) The variance 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 added 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 multiplied 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 variance is

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

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