# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

## SOLUTION OF WORKSHEET-37

## SUBJECT – STATISTICS

Term : Final

**Topic – Moment & Skewness & Kurtosis** **Class: XI**
**Full Marks: 15** **Date:15 .02. 2021**

Q1. Select the correct alternative of the following questions.

(i) If in a distribution the difference of 1st quartile and median is greater than difference of median and 3rd quartile then the distribution is classified as
(a)Absolute open ended **(b) positively skewed**
(c) negatively skewed (d) none of these

(ii) If 1st quartile and 3rd quartile are as 32 and 35 respectively with median of 20 then distribution is skewed to

**(a) lower tail** (b) Upper tail (c) close end tail (d) none of these

(iii) If the beta one is 9, beta two is 11 then coefficient of skewness
(a) 0.589 **(b) 0.689** (c) 0.489 (d) none of these

(iv) The measurement techniques used to measure the extent of skewness in data set of values are called
(a) measure of distribution width (b) measure of median tail
(c) measure of tail distribution **(d) none of these**

(v) The statistical measure such as average deviation , standard deviation, mean deviation about mean are classified as part of
(a) decile system (b) percentile system **(c) moment system** (d) none of these

(vi) The method of calculating skewness which is based on the positions of quartiles and median in a distribution is called
**(a)** Gary's coefficient of skewness (b) Sharma's coefficient of skewness
**(c) Bowley's coefficient of skewness** (d) none of these

(vii) symmetrical or asymmetrical is considered as
(a) first moment **(b)third moment** (c) second moment (d) none of these

(viii) The kurtosis defines the peakness of the curve in the region which is
**(a) around mode** (b) around median (c) around mean (d) none of these

(ix) The frequency distribution is considered as negatively skewed if all the values of distribution moves to
(a) median tail **(b) lower tail** (c) variance tail (d) none of these

(x) In kurtosis the beta is greater than 3 and quartile range preferred for
(a) mesokurtic distribution (b) mega curve distribution
(c) leptokurtic distribution **(d) none of these**

(xi) For the karlpearson's skewness coefficient the value of skewness must be in limits of
(a) -2 & +2 **(b) -3 & +3** (c) -4 & +4 (d) none of these

(xii) The distribution is considered as leptokurtic if
(a) beta three is less than 3 (b) beta two is greater than 2
(c) beta three is greater than 3 **(d) beta two is greater than 3**

(xiii) For the ungrouped data in calculation of moments about mean the formula to calculate this measure is
(a) $\boldsymbol{1/n\sum(x-mean)^r}$ (b) $2/\mathrm{n}\sum(x-mean)^r$
(c) $2/\mathrm{n}\sum(x+mean)^r$ (d) none of these

(xiv) For the grouped data in calculation of moments about mean the formula to calculate this measure is
**(a)** $\boldsymbol{1/\mathrm{n}\sum f(x-mean)^r}$ (b) $2/\mathrm{n}\sum n(x-mean)^r$
(c) $2/\mathrm{n}\sum(x-mean)^r$ (d) none of these

(xv) In a symmetrical distribution the 3rd quartile , 1st quartile of data in distribution must
**(a) be at equal distance** (b) not be at equal distance
(c) positive value concentration (d) none of these

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