

## Statistics - ICS Part 1 Statistics Chapter 4 Short Questions Preparation

Q1. Differentiate between symmetry and skewness.

**Ans 1:** Symmetry: A frequency distribution is said to be symmetrical if the values equidistant from the central maximum are the same. This is called symmetry.

**Ans 2:** Skewness: Skewness is the lack of symmetry in a distribution around some central value

Q2. What would be the shape and name of the frequency distribution if (a) Mean = Median = Mode (b) Mean > Median > Mode

**Ans 1:** If mean = median = mode then distribution is symmetrical. If mean > median > mode then the distribution is positively skewed.

Q3. Give names of any four methods for calculating dispersion.

**Ans 1:** 1- The range

**Ans 2:** 2- The semi interquartile range or the quartile deviation

**Ans 3:** 3- The mean deviation or the average deviation

**Ans 4:** 4- The standard deviation

Q4. Define Kurtosis.

**Ans 1:** Kurtosis is the degree of peakedness of a distribution usually taken relative to a normal distribution.

Q5. Write the name of method used for measure of dispersion.

**Ans 1:** The most common measures of dispersion are Range, Quartile Deviation, Mean Deviation, Variance, Standard Deviation

Q6. Define the term range with formula.

**Ans 1:** Range of  $n$  values is defined as the difference between the largest and smallest observation.  $\text{Range} = X_m - X_o$

Q7. Define the term kurtosis.

**Ans 1:** The word kurtosis is used to indicate the length of the tails and peacchiness of symmetrical distributions.

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Q8. Define the term Dispersion.

**Ans 1:** By dispersion,we mean the extent to which the value are spread out from the average.

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Q9. What is standard deviation.

**Ans 1:** The sdtandard deviation is defined as the positive squaree root of the mean of the squared deviation of the values from their mean.

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Q10. Discuss demerits of A.M.

**Ans 1:** It is greatly affected by extreme values.It can not be calculated for open end classes without assuming open ends.

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