

BCA 4th Semester Exam., 2018

INTRODUCTION TO BUSINESS STATISTICS

Time : 3 hours

Full Marks : 60

Instructions :

- (i) All questions carry equal marks.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. 1 and 2 are compulsory.

1. Choose the correct option (any six) :

- (a) If most repeated observations recorded are outliers of data, then mode is considered as
 - (i) intended measure
 - (ii) percentage measure
 - (iii) best measure
 - (iv) poor measure
- (b) If beta one is 9 and beta two is 11, then coefficient of skewness is
 - (i) 0.589
 - (ii) 0.689
 - (iii) 0.489
 - (iv) 0.889

(Turn Over)

- (c) In systematic sampling value of k is classified as
 - (i) sampling interval
 - (ii) substage interval
 - (iii) secondary stage interval
 - (iv) multistage interval
- (d) In normal distribution, z-score and z-statistics are classified as names of
 - (i) standardized normal random variable
 - (ii) Poisson random variable
 - (iii) normal geometric variable
 - (iv) weighted average variable
- (e) Sum of the values of data is divided by total number of values is used to calculate
 - (i) arithmetic mean
 - (ii) weighted average mean
 - (iii) geometric mean
 - (iv) harmonic mean
- (f) The types of descriptive measures include
 - (i) measures of skewness
 - (ii) measures of dispersion
 - (iii) measures of central tendency
 - (iv) All of the above

- (g) If quartile range is 24, then quadratic deviation is
- 48
 - 12
 - 24
 - 72
- (h) Kurtosis defines peakness of curve in region which is
- around mode
 - around mean
 - around median
 - around variance
- (i) In measure of skewness, absolute skewness is equal to
- mean + mode
 - mean - mode
 - mean + median
 - mean - median
- (j) Cluster sampling, stratified sampling and systematic sampling are types of
- direct sampling
 - indirect sampling
 - random sampling
 - Non-random sampling

(Turn Over)

2. Answer in brief any *three* questions of the following :
- Define the difference between descriptive versus inferential statistics.
 - Describe the difference between frequency distribution and histogram.
 - Explain multiplication rules for probability
 - Explain the Poisson distribution.
 - Explain the sampling distribution of the mean.
3. What do you mean by sampling? Discuss the sampling distribution when the population is finite.
4. Discuss the Z-test for comparing the means of two independent samples.
5. What do you mean by variance? Discuss the two-way analysis of variance.
6. What do you mean by regression and correlation? Discuss the estimation and tests regarding the sample regression line.
7. What do you mean by chi-square test? Discuss the tests for goodness of fit and normality.
