Code : 302304

BBA 3rd Semester Theory Examination, 2017

Business Mathematics and Statistics-2

Time : 3 Hrs *Full Marks : 60*

Instructions :

(i) The questions are of equal value.

*(ii) There are **Seven** questions in this Paper.*

*(iii) Attempt **Five** questions in all.*

*(iii) **Question Nos. 1 & 2** are compulsory.*

1. Choose correct answers (any six of the following):

(a) The mean of a distribution is 14 and the standard deviation is 5. What is the value of the coefficient of variation?

(i) 60.4% (ii) 48.3%

(iii) 35.7% (iv) 27.8%

(b) The mean of a distribution is 23, the median is 24, and the mode is 25.5. It is most likely that this distribution is:

(i) Positively Skewed (ii) Symmetrical

(iii) Asymptotic (iv) Negatively Skewed

(c) Which of the following describe the middle part of a group of numbers?

(i) Measure of Variability

(ii) Measure of Central Tendency

(iii) Measure of Association

(iv) Measure of Shape

(d) According to the empirical rule, approximately what percent of the data should lie within $\mu \pm 2\sigma$?

(i) 75%

(ii) 68%

(iii) 99.7%

(iv) 90%

(v) 95%

(e) The sum of the deviations about the mean is always:

(i) Range

(ii) Zero

(iii) Total Standard Deviation

(iv) Positive

(v) Negative

(f) The middle value of an ordered array of numbers is the

(i) Mode (ii) Mean

(iii) Median (iv) Midpoint

(g) Which of the following is not a measure of central tendency?

(i) Percentile (ii) Quartile

(iii) Standard deviation (iv) Mode

(h) Which of the following divides a group of data into four subgroups?

(i) Percentiles

(ii) Deciles

(iii) Median

(iv) Quartiles

(v) Standard Deviation

(i) If the standard deviation of a population is 9, the population variance is:

(i) 9

(ii) 3

(iii) 21

(iv) 81

(j) If a distribution is abnormally tall and peaked, then it can be said that the distribution is:

(i) leptokurtic (ii) pyrokurtic

(iii) platykurtic (iv) mesokurtic

2 **Answer briefly any three.**

(a) Define normal probability distribution.

(b) Define Mutually Exclusive events.

(c) State the three axioms of probability?

(d) Define the relation between regression and correlation.

(e) Define Baye's Theorem.

Answer any three of the following:

3. Define Poisson distribution.

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4. Define regression analysis. How does it differ from correlation analysis.

5. Draw Ogive curves for the following data and find out median

Class	Frequency
0 – 5	6
5-10	10
10-15	4
15-20	12
20-25	8
25-30	2

6. Discuss the quantitative classification of data.

7. (a) Define different method of measuring co-efficient of skewness.

(b) Compute Karl Pearson's co-efficient of skewness for the following distribution

Class	f
5-15	10
15-25	20
25-35	30
35-45	40
45-55	50
55-65	60
65-75	70
75-85	80

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