

B.Com.-9
DECEMBER 2019
2nd Year
Business Statistics

Time : 3 Hours]

[Max. Marks : 100

Note. Attempt any Five questions. All questions carry equal marks.

- Q.1 Find the mean and variance of Poisson distribution.
- Q.2 If the tangent of the angle between the lines of regression of Y on X and X on Y is 0.6, and the S.D. of Y is twice that of X, find the correlation coefficient between X and Y.
- Q.3 Consider the following probability distribution:
 $f(x) = kx$ $0 < x < 1$
 (A) Find the value of k.
 (B) Find the mean and variance
 (C) Find the median, First quartile and third quartile.
- Q.4 What is time series? What are the components of time series.
- Q.5 Define skewness and kurtosis in detail.
- Q.6 Define conditional probability. State and prove Baye's theorem.
- Q.7 Test whether the following Markov chain is ergodic and regular:
 From E1 To E3.
 E1 1/4 1/4 1/2
 E2 1/4 3/4 0
 E3 1/2 0 1/2
- Q.8

Find the M.D. & variance of the following distribution.

x	2	3	4	5	6	7	8	9	10
f	1	1	2	4	4	3	7	5	3