

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
B.A ECONOMICS - V SEMESTER
MID SEMESTER TEST- AUGUST 2019
ECADE 5618: ADVANCED STATISTICAL METHODS FOR ECONOMISTS

Time: 1 Hour

Max Marks=30

PART -A

I. Answer any FIVE of the following questions

5X3=15

1. Distinguish between the descriptive statistics and inferential statistics.
2. Lucas Tool Rental would like to assign probabilities to the number of car polishers it rents each day. Office records show the following frequencies of daily rentals for the last 40 days. Compute the probability by relative frequency approach.

No. of Polishers rented	0	1	2	3	4
No of days	4	6	18	10	2

3. What is conditional probability?
4. What are PDF of and CDF of distribution?
5. A movie theater uses teams of three employs to work the concession stand each evening. There are seven employees available to work each evening. By applying combination formula find out how many different teams can be scheduled to staff the concession stand?
6. State the Poisson distribution with any two characteristics.

PART- B

II. Answer any ONE of the following questions

1X15=15

7. Explain the characteristics of Binomial distribution. Let us suppose that there are five flights daily from US to UK and the probability that any flights arrive late is 0.20. By using binomial distribution, compute the probability that none of the flights are late, one of the flights are late, two, three, four and all five of the flights are late. Derive the distribution and estimate mean and variances for the same.
8. What are expected value and variance of a discrete probability distribution? Find out the expected value, variance and standard deviation for the following table

x	0	1	2	3	4	5
f(x)	0.18	0.39	0.24	0.14	0.04	0.01