

Faculty of Sciences

**B. Sc (Statistics) I-Year, CBCS –II Semester Regular Examinations-
January, 2021****PAPER: Probability Distributions**

Time: 2 Hours

Max Marks: 80

I. Answer any **FOUR** of the following questions

(4x20=80 Marks)

1. Extract mode of the Binomial distribution.
2. Derive recurrence relation for the probabilities of Poisson distribution.
3. Show that limiting case of Negative Binomial distribution convert in to Poisson distribution.
4. Explain about Binomial approximation to Hyper Geometric distribution.
5. Explain M.G.F of Normal distribution.
6. Write down the chief characteristics of Normal distribution.
7. Extract c.g.f of Exponential Distribution.
8. Explain characteristic function of Cauchy distribution.

Faculty of Science

B.Sc.(Statistics) I Year ,CBCS-II Semester Backlog Examinations –January, 2021

PAPER: PROBABILITY DISTRIBUTIONS

Time: 2 Hours.

Max Marks: 80

I. Answer any **FOUR** of the following questions. (4 X 20= 80 Marks)

1. Define Poisson distribution and Extract Mode of Poisson distribution.
2. Define Geometric distribution. Find its mean and variance.
3. Define Negative Binomial distribution and explain Poisson distribution as a limiting Case of Negative Binomial distribution.
4. Define Hyper Geometric Distribution. Show that Hyper Geometric Distribution tends to Binomial distribution under certain conditions.
5. Define Gamma distribution with parameter λ , find its mean and variance.
6. Define Standard Normal distribution. Find its mean and variance from moment.
7. State and prove Memory less property of Exponential distribution.
8. State and prove additive property of Cauchy distribution.
