

[LP 1019]

OCTOBER 2019

Sub. Code: 2861

M.Sc. BIOSTATISTICS EXAMS
FIRST YEAR
(New Regulation)
PAPER I – PROBABILITY AND DISTRIBUTION THEORY

Q.P. Code: 282861

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) State and prove any three important properties of moment generating function.
b) Jeinson's and Minkowski inequalities.
2. a) Logistic and normal distribution.
b) Addition properties of Bivariate and Multivariate normal distribution.

II. Write notes on:

(10 x 6 = 60)

1. Define Probability density function. Give examples.
2. Central limit theorem.
3. Holder's Inequality.
4. General probability space.
5. Properties of Chi-square distribution.
6. Define Quadratic forms.
7. Prove that Geometric distribution has memory less property.
8. Conditional and marginal distribution.
9. Partial correlation.
10. Multiplication properties of random variables.
