

Master of Rural Studies (MRS) Examination 2018
Semester-II
Rural Studies
Course : XIII (Core)
(Elementary Economics)

Time : 3 Hours

Full Marks : 40

Questions are of value as indicated in the margin

Answer **any four** questions

1. Answer **any four** questions: 2.5×4=10
 - a) Define an 'Outcome set' or 'Sample-space'.
 - b) What is an 'Statistic'?
 - c) Give the classical definition of probability.
 - d) Define an Impossible event.
 - e) Define Random variable.
 - f) State the three conditions necessary for Probability theory.
 2. Answer **any four** questions: 5×4=20
 - a) Briefly explain the 'Bayesian Inference system'.
 - b) Define a Probability Function.
 - c) Give the expression for joint probability density function for discrete and continuous random variables.
 - d) Define Mathematical Expectation of random variable.
 - e) Briefly state the "Central limit Theorem".
 - f) Briefly explain the 'classical Inference system'.
 3. Answer **any one** question : 1×10=10
 - a) How χ^2 -and F-distribution are derived. Discuss the properties of the above distributions.
 - b) Discuss the main properties of the estimator of a parameter.
 - c) State and prove Baye's Theorem for two events using the concept of conditional probability.
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