

Course Outcomes

F.Y.B.Sc.(Statistics)

Paper - I : Descriptive Statistics

Students are expected to be able,

1. to tabulate statistical information given in descriptive form.
2. to use graphical techniques and interpret.
3. to compute various measures of central tendency, dispersion, skewness and kurtosis.
4. to compute the correlation coefficient for bivariate data and interpret it.
5. to analyze data pertaining to attributes and to interpret the results.
6. Calculate and interpret the correlation between two variables.
7. Calculate the simple linear regression equation for a set of data.
8. Employ the principles of linear regression and correlation, including least square method, predicting a particular value of Y for a given value of X and significance of the correlation coefficient.
9. Know the association between the attributes.

Paper - II : Discrete Probability and Probability Distributions

students are expected to be able :

1. to distinguish between random and non-random experiments.
2. to find the probabilities of events.
3. to obtain a probability distribution of random variable (one or two dimensional) in the given situation, and
4. to apply standard discrete probability distribution to different situations
- 5 Use Poisson, exponential distributions to solve statistical problems.

Paper III – Practical

students are expected to be able

1. to summarize and analyze the data using Calculator and computer.
2. to compute various measures of central tendency, dispersion, skewness and kurtosis
3. to compute correlation coefficient, regression coefficients,
4. to fit binomial distribution,
5. to analyse data pertaining to discrete and continuous variables and to interpret the results,
6. to compute probabilities of bivariate distributions,

7. to interpret summary statistics of computer output.

S.Y.B.Sc. (Statistics)

SEMESTER – I

PAPER – I : DISCRETE PROBABILITY DISTRIBUTIONS , TIME SERIES AND R SOFTWARE

Students are expected to be able,

1. to fit various discrete and continuous probability distributions and to study various real life situations.
2. to use forecasting and data analysis techniques in case of univariate and multivariate data sets.
3. to use statistical software packages.
4. to test the hypotheses particularly about mean, variance, correlation, proportions and goodness of fit.
5. to study applications of statistics in the field of demography etc.
6. Demonstrate understanding of the concepts of time series and its applications in different areas.

Paper II : CONTINUOUS PROBABILITY DISTRIBUTIONS

Students are expected to be able

1. to compute multiple, partial and correlation coefficients,
2. to fit probability distributions such as Negative binomial, Normal, to carry out large sample and small sample tests of significance
3. Use the normal probability distribution including standard normal curve calculations of appropriate areas.

SEMESTER – II

PAPER – I : STATISTICAL METHODS AND USE OF R-SOFTWARE

Students are able ,

1. To identify the appropriate probability model that can be used.
2. To fit various discrete and continuous probability distributions and to study various real life situations.
3. Identify the characteristics of different discrete and continuous distributions.
4. Identify the type of statistical situation to which different distributions can be applied.

PAPER - II : SAMPLING DISTRIBUTIONS AND INFERENCE

Students are able ,

1. to carry out large sample and small sample tests of significance,
2. to compute inference based on given data
3. Read and interpret given data using statistical tools and R software confidence
4. to apply statistics in the various fields.
5. to compute confidence intervals
6. to test hypothesis to make decisions

Paper III – Practical

Students are able ,

1. to analyze Statistical data using MS-Excel and R Software
2. to compute multiple and partial correlation coefficients, to fit trivariate multiple regression plane, to find residual s. s. and adjusted residual s. s. (using calculators, MSEXCEL and R Software).
3. To fit various discrete and continuous distributions, to test the goodness of fit, to draw model samples (using calculators , MSEXCEL and R software).
4. To test various hypotheses included in theory. (using MSEXCEL and R Software)
5. To analyze time series data.
(using MSEXCEL and R Software)