



TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN DEVARAKONDA	
Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Descriptive Statistics
Learning objectives:	Student able to understand the data and acquire complete knowledge in measures of Central tendency and measures of dispersion using these they can get an idea about the data
Previous knowledge required:	Basic information about mean median mode and calculator knowledge
Synopsis:	<ul style="list-style-type: none">• Collection of data and methods of collection• Primary data and secondary data• Designing questionnaire and a schedule• Measures of Central tendency (Mean, median mode, Geometric mean, Harmonic Mean)• Measures of dispersion(Range, quartile deviation, mean deviation, and standard deviation)
Illustrations/ Demonstration shown:	PPT presentation of data collection methods
Teaching aids used:	Black board, chalk piece, scientific calculator and Text book
References:	1. Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Collection of data, Find Measures of Central tendency and measures of dispersion of obtained data

Sign of the faculty

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Moments and measures of skewness and Kurtosis
Learning objectives:	Student will be able to Understand the concept the of raw moments like central and non central moments Student will be able to know the peakedness of the curve
Previous knowledge required:	To know about the measures of Central tendency and measures of dispersion definitions properly
Synopsis:	<ul style="list-style-type: none"> • Central and Non central moments • Sheppard 's correction for moments • Measures of skewness • Kurtosis
Illustrations/ Demonstration shown:	PPT is used to show the different types of skewness and Kurtosis measures
Teaching aids used:	Black board, scientific calculator, chalk piece and Text book
References:	1.Fundamentals of mathematical statistics
Student activity planned/ homework given:	To find out the moments using grouped and ungrouped data and skewness and Kurtosis values

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DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs and MSDs	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Probability
Learning objectives:	Student will be able to understand probability and get a complete knowledge of properties of probability
Previous knowledge required:	Basic knowledge in probability
Synopsis:	<ul style="list-style-type: none"> • Basic concepts in probability • Mutually exclusive events and exhaustive events • Addition and multiplication theorems • Conditional probability and independent events • Boole's and Bayes theorem
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece, scientific calculator and Text book
References:	<ol style="list-style-type: none"> 1. Fundamentals of Mathematical Statistics 2. Probability and statistical inference
Student activity planned/ homework given:	Find the probability of different types of events in independent events , find conditional probability and Find probability values using Baye's theorem

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Concept of Random Variables
Learning objectives:	Student will be able to understand about random variables and probability mass function, probability density function and one dimensional random variables and bi variate random variables
Previous knowledge required:	Basic knowledge in integration
Synopsis:	<ul style="list-style-type: none"> • Definition of Random Variables • Discrete and Continuous Random Variables • Probability mass function • Probability density function • Distribution function and properties • Transformation of Random Variables • Concept of Bi-variate random variables • Joint, marginal and conditional distributions • Independence of Random Variables
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	1. Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	To find probability mass function and probability density function to the given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDS	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Mathematical Expectation
Learning objectives:	Student will be able to understand the concept of Expectation.
Previous knowledge required:	Concept of Random Variables and definition of a function
Synopsis:	<ul style="list-style-type: none"> • Mathematical Expectation of a function • Raw moments using expectation • Central moments using expectation • Addition and multiplication theorems of Expectation
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	1. Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	- Finding expected values of moments

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs & MSDs	Semester: I (Descriptive Statistics and Probability)
Subject: Statistics	Topic: Generating functions and Probability Inequalities
Learning objectives:	Student will be able to find the moment generating function and cumulative-generating function and characteristic function..etc
Previous knowledge required:	Basic integration formulas and Concept of Random Variables
Synopsis:	<ul style="list-style-type: none"> • Definition of Moment Generating function • Cumulative Generating function • Probability Generating function • Characteristic function • Chebyshev's inequality • Cauchy- Schwartz's inequality
Illustrations/ Demonstration shown:	PPT presentation of generating function
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Determine the generating function of given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: II (Probability Distributions)
Subject: Statistics	Topic: Descrete Distributions
Learning objectives:	Student will be able to understand, analyze and identify the Descrete Distributions and application of discrete distributions
Previous knowledge required:	Concept of Probability and random variables
Synopsis:	<ul style="list-style-type: none"> • Uniform distribution • Bernoulli distribution and application • Binomial distribution and application • Poisson distribution • Negative binomial distribution • Geometric Distribution • Hyper -Geometric distribution
Illustrations/ Demonstration shown:	PPT presentation of discrete distributions
Teaching aids used:	Black board, chalk piece, scientific calculator and Text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Draw the different distribution curves and calculate probabilies of events using discrete distributions

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDs	Semester: II (Probability Distributions)
Subject: Statistics	Topic: Properties of Discrete distributions
Learning objectives:	Student will learn properties of discrete distributions
Previous knowledge required:	Probability Mass function of all discrete distributions
Synopsis:	<ul style="list-style-type: none"> • Properties of discrete distributions • Reproductive property of discrete distributions • Binomial approximation to Hyper-Geometric Distribution • Poisson approximation to Binomial distribution • Poisson approximation to negative binomial distribution
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Find mgf and cgf,pgf and characteristic function to the given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDs	Semester: II (Probability Distributions)
Subject: Statistics	Topic: : Continuous Distributions
Learning objectives:	Student will be able to understand the different types of continuous distributions
Previous knowledge required:	Basic knowledge in Random Variables
Synopsis:	<ul style="list-style-type: none"> • Rectangular distributions • Normal distributions • Normal distribution as a limiting case of binomial and Poisson distributions • Exponential distribution • Gamma distribution • Beta of I and II kind distribution • Cauchy- distribution
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Construction of continuous distributions using given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs & MSDS	Semester: II (Probability Distributions)
Subject: Statistics	Topic: Properties of continuous distributions
Learning objectives:	Student will be able to understand all the properties of continuous distributions
Previous knowledge required:	Probability density function of continuous distributions
Synopsis:	<ul style="list-style-type: none"> • Moment generating function • Cumulative Generating function • Characteristic function • Moments • Reproductive properties
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece,PPT,Textbook
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	To find the moment generating function and characteristic function of continuous distributions

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: II (Probability Distributions)
Subject: Statistics	Topic: Laws of numbers and identically independent random variables
Learning objectives:	Students will be able to understand laws in large numbers
Previous knowledge required:	Basic knowledge of limit theorem
Synopsis:	<ul style="list-style-type: none"> • Statement of weak law of large numbers • Statement of strong law of large numbers • Central limit theorem • Identically independently distributed random variables
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece, Text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	- Seminar on weak law of large numbers and strong law of large numbers

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: III (Statistical methods)
Subject: Statistics	Topic: Concept of correlation and Regression
Learning objectives:	Student will be able to find relationship between the variables
Previous knowledge required:	Univariate data and Scattered diagrams
Synopsis:	<ul style="list-style-type: none">• Population correlation coefficient and properties• Bi-variate data and Scattered diagrams• Spearman 's Rank correlation coefficient and properties• Types of correlation coefficients(3 variables)• Concept of Regression
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Computation of correlation coefficients and regression coefficients

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DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: III (Statistical Methods))
Subject: Statistics	Topic: Analysis of categorical data and fitting of quadratic and power curves
Learning objectives:	Student will be able to understand categorical data and association between Variables
Previous knowledge required:	Concept of Quadratic equations and power curves
Synopsis:	<ul style="list-style-type: none"> • Fitting of quadratic and power curves • Analysis of categorical data • Independence and association of attributes • Various measures of association • Coefficient of contingency • Coefficient of colligation
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece,PPT
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	To find association of attributes and coefficient of contingency

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Name of the Faculty:SK Ayesha	Department:Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: III (Statistical Methods)
Subject:Statistics	Topic: Concept of population and Exact sampling distribution
Learning objectives:	Student will be able to understand Population studies and able to understand sampling techniques and sampling distribution
Previous knowledge required:	Descriptive statistics and Random Variables concept
Synopsis:	<ul style="list-style-type: none"> • Concept of Population • Sampling distribution • Exact sampling distributions • Independence of sample mean • Random sampling from normal distributions
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	To find the values of exact sampling distributions

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: III (Statistical methods)
Subject: Statistics	Topic: Theory of Estimation
Learning objectives:	Student will be able to find expected values of statistics and learn the criteria of good estimator
Previous knowledge required:	Concept of Random Variables and Basic knowledge in expectation
Synopsis:	<ul style="list-style-type: none"> • Criteria of good estimator • Neyman's factorization theorem • Estimation by method of moments • Maximum likelihood Estimation • Concept of interval estimation
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	Find different types of distribution sufficient statistics using MLE method

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: IV (Statistical Inference)
Subject: Statistics	Topic: Hypothesis Testing
Learning objectives:	Students will be able to understand the concept of Hypothesis
Previous knowledge required:	Concept of Descrete distributions
Synopsis:	<ul style="list-style-type: none">• Concepts of statistical hypothesis• Critical Region• One and two tailed tests• Neyman-Pearson's lemma for randomised tests
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	Construction of alternative and null Hypothesis

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDS	Semester: IV (Statistical Inference)
Subject: Statistics	Topic: Large sample tests
Learning objectives:	Student will be able study large sample tests and able to find Standard error values
Previous knowledge required:	Basic concepts of descriptive statistics and errors
Synopsis:	<ul style="list-style-type: none"> • Large sample tests • Confidence intervals Mean Proportion Standard deviation Correlation coefficient
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board and chalk piece
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	-

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDS	Semester: IV(Statistical Inference)
Subject: Statistics	Topic: Chi-square distribution
Learning objectives:	Student able to learn tests of significance based on Chi-square,t and F.test
Previous knowledge required:	Basic concepts of Hypothesis testing
Synopsis:	<ul style="list-style-type: none">• Test for significance• Chi- square test for goodness of fit• Test for independence of attributes• Definition of order statistics
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	Test for significance of difference of means

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs&MSDs	Semester: IV(Statistical Inference)
Subject: Statistics	Topic: Non- parametric tests
Learning objectives:	Student will develop an understanding of non parametric tests
Previous knowledge required:	Basic concepts of Sampling techniques
Synopsis:	<ul style="list-style-type: none"> • Non- parametric tests • Advantages and disadvantages • One sample run test • Sign test • Wilcoxon -signed rank tests • Man whitney U- Test • Wald wolfowitz's runs test
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	Problems based on all non parametric tests

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs	Semester: V (APPLIED STATISTICS -I)
Subject: Statistics	Topic: Sample Surveys & Sampling Methods
Learning objectives:	Student able to understand Concepts of population, sample surveys, need for sampling and advantages and limitations of sampling, Methods of drawing random samples.
Previous knowledge required:	Basic information about descriptive data population, sample, sampling unit and standard error
Synopsis:	<ul style="list-style-type: none"> • Principal steps in sample survey • sampling and non- sampling errors • Types of sampling • Methods of drawing random samples with and without replacement. • Simple Random Sampling With and Without Replacement
Illustrations/ Demonstration shown:	PPT presentation of sampling methods
Teaching aids used:	Black board, chalk piece and Text book
References:	2. Fundamentals of Mathematical Statistics
Student activity planned/ homework given:	Prepare a chart about methods of drawing samples

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs	Semester: V (APPLIED STATISTICS -I)
Subject: Statistics	Topic: SRS, Stratified and Systematic sampling methods.
Learning objectives:	Student will be able to Understand the concept the of Comparison of relative efficiencies. Advantages and disadvantages of SRS, Stratified and Systematic sampling methods.
Previous knowledge required:	To know about the Methods of drawing random samples and parameters
Synopsis:	<ul style="list-style-type: none"> • Estimates of population mean Stratified Random Sampling • Systematic Sampling when $N = nk$. • Comparison of relative efficiencies • Advantages and disadvantages of SRS, Stratified and Systematic sampling methods.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of mathematical statistics
Student activity planned/ homework given:	Prepare a table regarding SRS, Stratified and Systematic sampling methods

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs	Semester: V (APPLIED STATISTICS -I)
Subject: Statistics	Topic: Time series
Learning objectives:	Student will learn Time series and its components, models, Determination of trend, Growth curves ,Determination of seasonal indices
Previous knowledge required:	<ul style="list-style-type: none"> • Basic knowledge in mean and variences
Synopsis:	<ul style="list-style-type: none"> • Time series and its components with illustrations • Additive, multiplicative and mixed models. • Growth curves and their fitting with reference to Modified exponential, Gompertz and Logistic curves • Determination of seasonal indices by Ratio to moving average • Ratio to trend and link relative methods.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece, scientific calculator and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find variations by using Ratio to trend and link relative methods

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs	Semester: : V (APPLIED STATISTICS -I)
Subject: Statistics	Topic: Statistical Quality Control
Learning objectives:	Student will be able to understand about Importance of SQC in industry. Dimensions of quality, Statistical basis of Shewart control charts.
Previous knowledge required:	Basic knowledge non parametric tests
Synopsis:	<ul style="list-style-type: none"> • Importance of SQC in industry. • Dimensions of quality, Statistical basis of Shewart control charts. • Construction of control charts for variables (mean, range and standard deviation) and attributes (p , np, c and u- charts with fixed and varying sample sizes) • Interpretation of control charts.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find p , np, c and u- charts with fixed and varying sample sizes to the given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc- MSDS	Semester: V (ANALYTICAL STATISTICS -I)
Subject: Statistics	Topic: Sample Surveys & Sampling Methods
Learning objectives:	Student able to understand Concepts of population, sample surveys, need for sampling and advantages and limitations of sampling, Methods of drawing random samples.
Previous knowledge required:	Basic information about descriptive data population, sample, sampling unit and standard error
Synopsis:	<ul style="list-style-type: none"> • Principal steps in sample survey • sampling and non- sampling errors • Types of sampling • Methods of drawing random samples with and without replacement. • Simple Random Sampling With and Without Replacement
Illustrations/ Demonstration shown:	PPT presentation of sampling methods
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Mathematical Statistics Statistical Methods. Sultan Chand and Sons
Student activity planned/ homework given:	Prepare a chart about methods of drawing samples

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc- MSDS	Semester: V (ANALYTICAL STATISTICS -I)
Subject: Statistics	Topic: Time series
Learning objectives:	Student will learn Time series and its components, models, Determination of trend, Growth curves ,Determination of seasonal indices
Previous knowledge required:	<ul style="list-style-type: none"> • Basic knowledge in mean and variances
Synopsis:	<ul style="list-style-type: none"> • Time series and its components with illustrations • Additive, multiplicative and mixed models. • Growth curves and their fitting with reference to Modified exponential, Gompertz and Logistic curves • Determination of seasonal indices by Ratio to moving average • Ratio to trend and link relative methods.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece, scientific calculator and Text book
References:	Fundamentals of Applied Statistics Statistical Methods. Sultan Chand and Sons
Student activity planned/ homework given:	To find variations by using Ratio to trend and link relative methods

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc- MSDS	Semester: V (ANALYTICAL STATISTICS -I)
Subject: Statistics	Topic: Statistical Quality Control
Learning objectives:	Student will be able to understand about Importance of SQC in industry. Dimensions of quality, Statistical basis of Shewart control charts.
Previous knowledge required:	Basic knowledge in non parametric tests
Synopsis:	<ul style="list-style-type: none"> • Importance of SQC in industry. • Dimensions of quality, Statistical basis of Shewart control charts. • Construction of control charts for variables (mean, range and standard deviation) and attributes (p , np, c and u- charts with fixed and varying sample sizes) • Interpretation of control charts.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find p , np, c and u- charts with fixed and varying sample sizes to the given data

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSCs& MSDS	Semester: V (ANALYTICAL STATISTICS -I)
Subject: Statistics	Topic: Analysis of Variance and Design of Experiments
Learning objectives:	Student will be able to understand the concept of Gauss-Markov linear model with examples, statement of Cochran's theorem, ANOVA
Previous knowledge required:	Concept of Random Variables and definition of a function
Synopsis:	<ul style="list-style-type: none"> • one-way, two-way classifications with one observation per cell, • Statistical analysis, Importance and applications of design of experiments. • Principles of experimentation, Analysis of Completely randomized Design (C.R.D), • Randomized Block Design (R.B.D) and Latin Square design (LSD) including one missing observation.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find Analysis of Completely randomized Design (C.R.D), Randomized Block Design (R.B.D) and Latin Square design (LSD) problems

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSC	Semester: VI (APPLIED STATISTICS -II)
Subject: Statistics	Topic: Analysis of Variance and Design of Experiments
Learning objectives:	Student will be able to understand the concept of Gauss-Markov linear model with examples, statement of Cochran's theorem, ANOVA
Previous knowledge required:	Concept of Random Variables and definition of a function
Synopsis:	<ul style="list-style-type: none"> • one-way, two-way classifications with one observation per cell • Expectation of various sums of squares • Statistical I analysis • Importance and applications of design of experiments.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find Analysis of Completely randomized Design (C.R.D), Randomized Block Design (R.B.D) and Latin Square design (LSD) problems

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSC	Semester: VI (APPLIED STATISTICS -II)
Subject: Statistics	Topic: Principles of experimentation
Learning objectives:	Student will be able to understand the concept of Principles of experimentation
Previous knowledge required:	Concept of Random Variables and definition of a function
Synopsis:	<ul style="list-style-type: none"> • Analysis of Completely randomized Design (C.R.D), Randomized Block Design (R.B.D) and Latin Square Design (L.S.D) including one missing observation • expectation of various sum of squares. • Comparison of the efficiencies of above designs.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find Analysis of Completely randomized Design (C.R.D), Randomized Block Design (R.B.D) and Latin Square design (LSD) problems

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**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSC	Semester: VI (APPLIED STATISTICS -II)
Subject: Statistics	Topic: Vital statistics
Learning objectives:	Student will be able to understand the concept of Sources of vital statistics, registration method and census method.
Previous knowledge required:	Concept of birth rates and death rates, population growth
Synopsis:	<ul style="list-style-type: none"> • Introduction, • Definition and uses of vital statistics. • Rates and ratios, Crude death rates, age specific death rate, standardized death rates, crude birth rate, age specific fertility rate, general fertility rate, total fertility rate. • Measurement of population growth • Crude rate of natural increase- Pearl's vital index.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find Rates and ratios, Crude death rates, age specific death rate, standardized death rates, crude birth rate, age specific fertility rate, general fertility rate, total fertility rates by using given data

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Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSC	Semester: VI (APPLIED STATISTICS -II)
Subject: Statistics	Topic: Indian Official Statistics & Index numbers
Learning objectives:	Student will be able to understand the concept of Index Numbers.
Previous knowledge required:	Concept of CENTRAL STATISTICAL ORGANIZATION
Synopsis:	<ul style="list-style-type: none"> • Functions and organization of CSO and NSSO. • Agricultural Statistics, area and yield statistics. • National Income and its computation • : Concept, construction, uses and limitations of simple and weighted index numbers. • Laspeyer's, Paasche's and Fisher's index numbers, criterion of a good index numbers, problems involved in the construction of index numbers. • Fisher's index as an ideal index number.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	criterion of a good index numbers properties chart preparation

Sign of the faculty

Principal's sign

**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSDs	Semester: VI (ANALYTICAL STATISTICS -II)
Subject: Statistics	Topic: Multivariate distributions
Learning objectives:	Student will be able to understand the concept of multivariate Regression Analysis.
Previous knowledge required:	Concept of Regression
Synopsis:	<ul style="list-style-type: none"> • Introduction • concept of Multivariate • Definitions and Statements of properties of Multinomial • procedure of Least square estimation • Simple Linear Regression and Multiple Linear Regression for 'n' variables • estimation of parameters • statements of properties for simple and Multiple Logistic regression. • Interpretation of the same.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Multivariate Analysis by Johnson and Wrichon
Student activity planned/ homework given:	To prepare presentation based on graphs of different types of Regressions

Sign of the faculty

Principal's sign

**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSDs	Semester: VI (ANALYTICAL STATISTICS -II)
Subject: Statistics	Topic: Multivariate Data Analysis Techniques
Learning objectives:	Student will be able to understand the concept of Statements of properties of Principal Component Analysis
Previous knowledge required:	Concept of Probability distributions (Binomial , Poisson distributions)
Synopsis:	<ul style="list-style-type: none"> • Definitions • Factor Analysis • Cluster analysis and Linear Discriminant Analysis • Multidimensional Scaling • Applications and interpretation of above techniques to Image processing / pattern recognition.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Multivariate Analysis by Johnson and Wrichon
Student activity planned/ homework given:	A brief note on Image processing / pattern recognition in real life applications

Sign of the faculty

Principal's sign

**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSDs	Semester: VI (ANALYTICAL STATISTICS -II)
Subject: Statistics	Topic: Vital statistics
Learning objectives:	Student will be able to understand the concept of Vital statistics
Previous knowledge required:	Concept of birth rates and death rates, population growth
Synopsis:	<ul style="list-style-type: none"> • Rates and ratios • Crude death rates, age specific death rate, standardized death rates, crude birth rate, age specific fertility rate, general fertility rate, total fertility rate. • Measurement of population growth • Crude rate of natural increase- Pearl's vital index. • Gross reproductive rates and Net reproductive rate, Life tables • construction and uses of life tables and Abridged life tables.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	To find Rates and ratios, Crude death rates, age specific death rate, standardized death rates, crude birth rate, age specific fertility rate, general fertility rate, total fertility rates by using given data

Sign of the faculty

Principal's sign

**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN
DEVARAKONDA**

Name of the Faculty: SK Ayesha	Department: Statistics
Course/Group: B.Sc-MSDs	Semester: VI (ANALYTICAL STATISTICS -II)
Subject: Statistics	Topic: Indian Official Statistics & Index numbers
Learning objectives:	Student will be able to understand the concept of Index Numbers.
Previous knowledge required:	Concept of CENTRAL STATISTICAL ORGANIZATION
Synopsis:	<ul style="list-style-type: none"> • Functions and organization of CSO and NSSO. • Agricultural Statistics, area and yield statistics. • National Income and its computation • : Concept, construction, uses and limitations of simple and weighted index numbers. • Laspeyer's, Paasche's and Fisher's index numbers, criterion of a good index numbers, problems involved in the construction of index numbers. • Fisher's index as an ideal index number.
Illustrations/ Demonstration shown:	
Teaching aids used:	Black board, chalk piece and Text book
References:	Fundamentals of Applied Statistics
Student activity planned/ homework given:	Criterion of a good index numbers properties chart preparation

Sign of the faculty

Principal