LESSON PLAN OF MATHEMATICS DEPT.
Name Of College: Govt College for Girls Sector- 52, Gurugram,
Academic Session :2024-25
Semester: Odd, (August 2024 to November 2024)
Name of Teacher: Dr. Yogesh Kumari/ Dr. Kusum Saharan
Subject: CALCULUS
Class: B.A/B.Sc. 1ST SEMESTER

August 2024

Definition of the limit of a function. Basic properties of limits, Continuous functions and Types of discontinuities. Differentiability of functions. Indeterminate forms. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions with different forms of remainder.

September 2024

Asymptotes: Horizontal, vertical and Oblique asymptotes for algebraic curves in Cartesian coordinates, intersection of curve and its asymptotes, asymptotes in polar coordinates. Curvature, radius of curvature for Cartesian curves, parametric curves, polar curves and Intrinsic forms. Assignment and Test

October 2024

Multiple Points, Node, Cusp, Conjugate point, Test of concavity and convexity, Points of inflexion, Tracing of curves in Cartesian, parametric and polar co-ordinates. Reduction formulae. Assignment and Test

November

Rectification, intrinsic equations of curve. Quadrature (area)Sectorial area. Area bounded by closed curves. Volumes and surfaces of solids of revolution. Revision

Course Learning Outcomes (CLOs):

After completing this course, the learner will be able to:

1. Understand and apply concepts of limit, continuity, and differentiability.

 2. Understand asymptotes and curvature, their geometrical meanings, and solve related problems. 3. Identify and classify singular points of curves, understand curve rectification, and derive reduction formulae.

4. Evaluate areas bounded by curves, and determine the volume and surface area of solids formed by the revolution of curves.

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Name Of College: Govt College for Girls Sector- 52, Gurugram,
Academic Session :2024-25
Semester: Odd, (August 2024 to November 2024)
Name of Teacher: Dr. Kusum Saharan
Subject: Introductory Mathematics
Class: B.Com/ B.CA , Ist SEMESTER

Course Learning Outcomes (CLOs):

After completing this course, the learner will be able to:

1. Understand various concepts of matrices.

2. Have the knowledge of the basic concepts of complex numbers.

3. Gain the knowledge of the concepts of Arithmetic progression, Geometric progression and Harmonic progression.

4. Have the conceptual knowledge of straight lines, slope of a line and angle between two lines.

August 2024

An introduction to matrices and their types, Operations on matrices.

September 2024

Complex numbers, Operations on complex numbers, polar form of the complex numbers, Modulus and argument of a complex number.

OCTOBER 2024

 Arithmetic progression, Geometric progression, Harmonic progression, Arithmetic mean (A.M.), Geometric mean (G.M.), Relation between A.M. and G.M.

NOVEMBER 2024

Straight lines: Slope of a line and angle between two lines, Different forms of equation of a line: parallel to co-ordinate axes, point-slope form, slope-intercept form, two-point form, general form; distance of a point from a straight line.

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Semester: Odd, (August 2024 to November 2024)
Name of Teacher: Dr. Kusum Saharan/Dr.Yogesh Kumari
Subject: Business Statistics
Class: B.Com.3rd SEMESTER

Course Learning Outcomes (CLOs):

After completing this course, the learner will be able to:

1. Understand the role of statistics in business decision making.

2. Present data effectively using tables and graphs.

3.Calculate and interpret various measures of central tendency.

4.Analyze data variability using measures of dispersion.

5.Understand and apply simple linear regression to predict outcomes.

August 2024

Introduction of Statistics: Origin, Development, Definition, Scope, Uses and Limitations Statistical Data: Types of Measurement scales- Normal, Ordinal, Interval and Ratio level measurement; Collection, Classification and Tabulation of Primary and Secondary data Presentation of data: Diagrammatic and Graphical presentation of Data- Bar, Squares, Rectangular and Circular diagrams; Histogram, Freqency Polygon,Ogives,Stem and leaf displays box plots.

September 2024

Central Tendency and partition Values; Concept and Measures of Central tendency, Quartiles, Deciles,Percintiles
Dispersion: Concept and its absolute as well as relative measures. Assignment and Test

OCTOBER 2024

 Moments,Skewness and Kurtosis: Moments about any Point and about Mean and the relationship between them. Sheppard's Corrections for Moments . Concept of Kurtosis and its measures. Assignment and Test

NOVEMBER 2024

Correlation: Concept, Scatter diagram, Karl Pearson's co-efficient of Correlation and its properties, Spearman's Rank Correlation, Concurrent deviation method.

Regression : Meaning and Definition , Difference between Correlation and Regrassion, Principle of Least Squares and Fitting of a line of Best Fit to given Data,Regression Lines,Properties of Regression Co-efficient and Regression Lines, Standard Error of Estimate, Co-efficient of Determination. Revision