

BCA SEMESTER 1

12th JULY- 31ST AUGUST-

- Matrices
- Determinant
- Eigen values and eigen vector
- Cayley Hamilton theorem
- Sets
- Relations

1ST SEPTEMBER-16TH SEPTEMBER-

- Differentiation

17th SEPTEMBER-30th SEPTEMBER
College house exam

9TH OCTOBER-5TH NOVEMBER-

- Integration

6TH NOVEMBER-15TH NOVEMBER-
Revision and class test

B.Sc. (semester - 1)

Paper-1

ALGEBRA

12th July – 31st August –

- Rank Of Matrix
- Vector Space
- Linear Equations
- Eigen Value And Eigen Vector, Cayley Hamilton Theorem
- Relation Between Roots And Coefficient
- Transformation Of Equation (Cont.)

1st September – 15th September -

- Transformation Of Equation (Complete)
- Symmetric Functions And Sum Of Integral Powers Of Roots
- Solution Of Cubic And Biquadratic Equations
- Quadratic Forms

16th September – 30th September -

College House Exams

10th October – 5th November -

- Descarte's Rule Of Sign Change
- De Moivre's Theorem & Its Applications
- Function Of Complex Variable
- Summation Of Trigonometric Series

5th November -20th November -

Revision + Class Tests

Paper-2

CALCULUS

12th July - 31st August-

- Real Number
- Limit And Continuity
- Differentiation of Hyperbolic Functions
- Successive Differentiation

1st September – 15th September-

- Taylor's And Maclaurin's Theorem
- Indeterminent Forms
- Concavity And Convexity

16th September – 30th September-

College House Exams

10th October – 5th November-

- Multiple Points
- Asymptotes
- Curve Tracing
- Curvature

5th November – 20th November-

Revision + class tests

B.Sc. (Semester - 2)

Paper-1

INTEGRAL CALCULUS AND DIFFERENTIAL EQUATION

6th January – 5th March-

- Integration Of Hyperbolic Functions
- Reduction formulae
- Definite Integrals
- Inequalities Involving Integrals
- Rectification
- Quadrature
- Volume And Surfaces Of Solids Of Revolution

6th March – 14th March:-

College House Exams

15th March – 5th April :-

- Exact Differential Equations
- Singular Solution
- Orthogonal trajectories
- linear Equation with constant Coefficient And Variable Coefficient
- Solution Of Differential Equations In Series

6th April – 20th April:-

Revision + Class Tests

Paper -2

CALCULUS-2

6th January – 5th March-

- Limit And Continuity
- Partial Derivatives
- Double And Triple Integration

6th March - 14th March-

College House Exams

15th March – 5th April -

- Jacobians
- Maxima and Minima
- Envelopes And Evolutes

6th April -20th April-

Revision + Class Tests

B.Sc. (Semester-3)

Paper-1

CALCULUS-2

12th July – 31st August-

- Sequences
- Series

1st September – 15th September-

- Improper Integrals (cont.)

16th September – 30th September-

College House Exams

10th October - 5th November-

- Improper Integrals (Complete)
- Riemann Integration

5th November – 20th November-

Revision + Class Tests

Paper-2

CO-ORDINATE AND SOLID GEOMETRY

12th July – 31st August-

- Intersection of Three Planes
- Change Of Axis
- Sphere
- Change Of Origin

1st September – 15th September-

- Pair Of Straight Lines
- General Equation Of Second Degree

16th September – 30th September-

College house exam

10th October- 5th November-

- Parabola
- Ellipse
- Hyperbola

5th November – 20th November-

Revision + Class Tests

Bsc(Semester-4)

Paper-1

STATICS AND SOLID GEOMETRY

6th January - 5th March-

- Forces Acting At A Point
- Any Number Of Forces Acting At A Point
- Parallel Forces
- Moment
- Couples
- Cone
- Cylinder

6th March – 14th March -

College House Exams

15th March – 5th April -

- Equilibrium Of Three Coplanar Forces Acting On Rigid Body
- Equilibrium Of Rigid Body Under Action Of Coplanar Forces
- Friction
- Centre Of Gravity

6th April – 20th April -

Revision + Class tests

Paper-2

NUMBER THEORY

6th January – 5th March-

- Divisibility And Division Algorithm
- Greatest Common Divisor And Euclidean Algorithm
- The Diophantine Equations
- Prime Numbers And Their Distribution, Fundamental Theorem of Arithmetic
- Congruences & Linear Congruences
- Chinese Remainder Theorem And Its Applications

6th March – 14th March -

College House Exams

15th March - 5th April -

- Fermat Theorem
- Wilson's Theorem
- Euler's Phi Function And Euler's Theorem
- Arithmetic Functions

6th April – 20th April -

Revision + Class tests

B.Sc (SEMESTER -2) BIO INFORMATICS

6TH January – 5TH March-

- Matrices And Determinants
- Vectors
- Functions
- Coordinate Geometry
- Differentiation
- Integration
- Differential Equations
- Elementary Statistics

6TH March- 14TH March-

College House Exams.

15TH March -5TH April-

- Probability
- Introduction To Correlation And Regression
- Probability Distributions

6TH April- 20TH April-

Revision And Class Tests

B.Sc (SEMESTER 1) Quantitative Techniques

12th July - 31st August –

- Solution Of Linear Equations
- Quadratic Equations
- Arithmetic Progression
- Geometric Progression
- Analytic Geometry

1st September -15th September-

- Permutations And Combinations
- Sets
- Functions (cont.)

16th September - 30th September-

College House Exams

10th October - 5th November-

- Functions (Complete)
- Limit And Continuity
- Derivatives
- Economic Applications Of Derivatives

5th November – 20th November-

Revision + Class Tests

B.Sc (SEMESTER -2) QUANTITATIVE TECHNIQUES

6TH January – 5TH March-

- Measures Of Central Tendency
- Measures Of Dispersion
- Skewness And Kurtosis
- Correlation Analysis
- Regression Analysis
- Index Numbers
- Time Series Analysis

6TH March- 14TH March-

College House Exams.

15TH March -5TH April-

- Definition And Scope Of Statistics
- Classification And Tabulation Of Data
- Diagrammatic And Graphic Presentation Of Data

6TH April- 20TH April-

Revision And Class Tests

B.Sc.(SEMESTER-1) Information Technology

12th July – 31st August –

- Matrices And Determinant
- Eigen Values And Cayley Hamilton Theorem
- Set Theory
- Relations

1st September – 15th September-

- Functions
- Differentiation
- Integration (cont.)

16th September – 30th September-

College House Exams

10th October – 5th November-

- Integration (complete)
- Probability

5th November – 20th November-

Revision + Class Tests

BCA (Semester-1)

12th July – 31st August –

- Matrices And Determinant
- Eigen Values And Cayley Hamilton Theorem
- Set Theory
- Relations

1st September – 15th September-

- Functions
- Differentiation
- Integration (cont.)

16th September – 30th September-

College House Exams

10th October – 5th November-

- Integration (complete)
- Probability

5th November – 20th November-

Revision + Class Tests

B.Sc (SEMESTER 5)

PAPER-1

VECTOR CALCULUS AND SOLID GEOMETRY

12th JULY- 31ST AUGUST-

- Vector differentiation, Gradient, Divergence And Curl Operators, Line Integrals, Vector Identity, Vector Integration, Theorems Of Gauss, Green, Stokes And Problems Based On These. Equation Of Surface Of Revolution Obtained By Rotating The Curve About The Z-Axis In The Form of $F(x^2+y^2, z)$.

1ST SEPTEMBER-16TH SEPTEMBER –

- Equation of Ellipsoid, Hyperboloid And Paraboloid In Standard Forms.

17th SEPTEMBER-30th SEPTEMBER –

College House Exams

9TH OCTOBER-5TH NOVEMBER-

- Surfaces represented by general equation of 2nd degree $S=0$, Tangent lines, tangent planes and Normal plane

6TH NOVEMBER-15TH NOVEMBER-

Revision And Class Tests

B.Sc (SEMESTER 6)

PAPER-1

DYNAMICS

6TH JANUARY – 5TH MARCH

- Basic concepts, rectilinear motion in a straight line with uniform acceleration, Newton's laws of motion, Motion of two particles connected by a string, Motion along a smooth inclined plane, Variable acceleration, Simple Harmonic Motion.
- Curvilinear motion of particle in a plane, Definition of velocity and acceleration, Projectiles.

6TH MARCH – 15TH MARCH-

Revision and Class Tests

15th MARCH- 5TH APRIL-

- Oscillations: Free Vibrations, Simple Pendulum, Conical Pendulum, Work, Power and Energy: Kinetic and Potential energy, Conservative forces, Theorem of conservation of energy, Work done against gravity.

6TH APRIL -20TH APRIL-

Revision And Class Tests

PAPER-2

LINEAR ALGEBRA

12th JULY- 31ST AUGUST-

- Definition of groups, rings and fields with illustrations. Definition of a vector space, subspaces with examples. Direct sum of subspaces. Linear span, Linear dependence, Linear independence of vectors. Linear combination of vectors, Basis of a vector space, Finitely generated vector spaces. Existence theorem for basis, Dimension of sum of two subspaces.

1ST SEPTEMBER-16TH SEPTEMBER-

- Quotient space and its dimension, Linear transformation, Algebra of linear Transformations

17th SEPTEMBER-30th SEPTEMBER –

College House Exams

9TH OCTOBER-5TH NOVEMBER-

- Rank- Nullity theorem, Isomorphism and Isomorphic spaces, Matrix of a linear transformation. Changes of basis, Linear operator.

6TH NOVEMBER-15TH NOVEMBER-

Revision And Class Test

PAPER-2

NUMERICAL ANALYSIS

6TH JANUARY – 5TH MARCH

- Error , Solution of non-linear equations, Bisection method, Iteration method, Newton's Method, Generalized Newton's Method, Method of false position, Muller's method, Rate of convergence of these methods. Solution of linear system of equation
- Interpolation with divided difference, Finite difference interpolation, Error Estimation Extrapolation.

6TH MARCH – 15TH MARCH-

Revision And Class Tests

15th MARCH- 5TH APRIL-

- Numerical differentiation, Method based on interpolation. Numerical Integration, Double numerical integration. Numerical solution of ordinary differential equations, Equations of first and second order, System of simultaneous equations.

6TH APRIL -20TH APRIL-

Revision And Class Test

B.Sc (SEMESTER 5)

PAPER-2

LINEAR ALGEBRA

12th JULY- 31ST AUGUST-

- Definition of groups, rings and fields with illustrations. Definition of a vector space, subspaces with examples. Direct sum of subspaces. Linear span, Linear dependence, Linear independence of vectors. Linear combination of vectors, Basis of a vector space, Finitely generated vector spaces. Existence theorem for basis, Dimension of sum of two subspaces.

1ST SEPTEMBER-16TH SEPTEMBER-

- Quotient space and its dimension, Linear transformation, Algebra of linear Transformations

17th SEPTEMBER-30th SEPTEMBER –

College House Exams

9TH OCTOBER-5TH NOVEMBER-

- Rank- Nullity theorem, Isomorphism and Isomorphic spaces, Matrix of a linear transformation. Changes of basis, Linear operator.

6TH NOVEMBER-15TH NOVEMBER-

Revision And Class Test