

**GOVT SHIVALIK COLLEGE NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT-MATHEMATICS

PAPER -ABSTRACT ALGEBRA/DISCRETE MATHEMATICS

TEACHER NAME-PRIYA WADHWA

CLASS BSC III

SEM 5

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	01/08/2024- 06/08/2024	ALGEBRA: Group: definition, examples, subgroups, counting Principle, Langrange's theorem
2	07/08/2024 12/08/2024	Langrange's theorem, Normal subgroups, Quotient groups, Homomorphisms. ASSINGMENT ON THE TOPIC OF SUBGROUP & NORMAL SUBGROUP
3	14/08/2024- 23/08/2024	Quotient groups, Homomorphisms. DISCUSSION ON HOMOMORPHISM
4	24/08/2024- 05/09/2024	Fundamental theorem of homomorphism and related theorems. Cyclic Groups.
4	06/09/2024- 14/09/2024	Rings: Definition and examples of Rings, Elementary properties of Rings.
5	15/09/2024- 22/09/2024	Sub-rings, Homomorphism, ideals and Quotient Ring
6	15/09/2024- 22/09/2024	Field of Quotient of Integral domain, division rings
7	23/09/2024- 30/09/2024	Euclidean Rings, Principal ideals, examples.

8	01/10/2024- 12/10/2024	<b>Discrete Mathematics:</b> Principle of inclusion and exclusion. Computability and Formal languages- ordered Sets. Types of grammars.
9	13/10/2024- 30/10/2024	Permutation. Combinations and discrete probability. Relation and function-binary relation, equivalence relation. Partial order relation and Lattices. Chain Antichains. Pigeon Hole Principle.
10	01/10/2024- 12/11/2024	MST EXAMS WILL BE HELD

**GOVT SHIVALIK COLLEGE NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT-MATHEMATICS

PAPER-OPTAMISATIONTECHNIQUES/DISCREATEMATHEMATICS -II

TEACHER NAME PRIYA WADHWA

CLASS B.Sc III

Sem-06

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	22/1/2025-26/01/2025	Inventory, Costs involved in Inventory
2	27/01/2025-09/02/2025	Variables in Inventory Models, Characteristics of Inventory Systems and Classifications
3	10/02/2025-23/02/2025	Concept of Economic Ordering (EQQ). EQQ models with no shortage: Economic Lot Size system with uniform demand. DISCUSSION
4	24/02/2025-5/03/2025	Economic Lot Size with different rates of demand in different cycles, Economic Lot Size with finite rate of replenishment.
5	6/03/2025-20/03/2025	EOQ models with shortages: EOQ with constant rate of demand, Scheduling time constant and scheduling time variable, Production Lot size demand with shortages. CLASS TEST
6	21/03/2025-31/03/2025	Introduction to Job Sequencing: n jobs on two machines. m jobs on three machines, two jobs on m machines, n jobs on m machines.
7	01/04/2025-07/04/2025	Project Networks: Critical Path Methods, Project Evaluation and Review Techniques (PERT) POWER POINT PRESENTATION BY STUDENTS
8	08/04/2025-15/04/2025	Discrete Mathematics : Brief review of Groups and Rings. Boolean Algebra -Lattices and Algebraic Structures. Duality. Distributive and Complemented Lattices.
9	16/04/2025-21/04/2025	Boolean Lattices and Boolean Algebras. Boolean Functions and Expressions. Propositional Calculus. Design and Implementation of Digital Networks. Switching circuit.
10	22/04/2025-29/04/2025	MST EXAM & REVISION

**GOVT SHIVALIK COLLEGE NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT-MATHEMATICS

PAPER -STATICS

TEACHER NAME-PRIYA WADHWA

CLASS BSC II

SEM III

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	01/08/2024- 10/08/2024	Statics: Basic notation, Newton Laws of motion, system of two forces. Parallelogram law of forces.
2	11/8/2024 22/08/2024	Resultant of two collinear forces. Resolution of forces moment of a force, couple
3	23/08/2024- 30/08/2024	Theorems on moments of couple, coplanar forces. resultant of three coplanar concurrent forces.
4	01/09/2024- 10/09/2024	Theorem of resolved parts, resultant of two forces acting on a body, Varignon's theorem, generalized theorem of moments.
5	11/09/2024- 18/09/2024	Equilibrium of two concurrent forces, equilibrium condition for any number of coplanar concurrent forces. ASSIGNMENT ON THE TOPIC OF MOMENT OF A FORCE AND COUPLE
6	19/09/2024- 28/09/2024	Lami's theorem. $\lambda$ - $\mu$ theorem, theorem of moments. Resultant of a force and a couple. Equilibrium conditions for coplanar non-concurrent forces.
7	29/09/2024- 7/10/2024	Definition and nature of friction, Centre of gravity
8	01/11/2024- 12/11/2024	MST EXAMS WILL BE HELD

**GOVT SHIVALIK COLLEGE NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT-MATHEMATICS

PAPER -MECHANICS

TEACHER NAME-PRIYA WADHWA

CLASS BSC II

SEM IV

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	15/01/2025- 23/01/2025	Motion of a particle with constant acceleration, acceleration of falling bodies, motion under gravity.
2	24/01/2025 31/01/2025	Motion of a body projected vertically upward, motion of two particles connected by a string, motion along a smooth inclined plane.
3	01/02/2025- 10/02/2025	Constrained motion along a smooth inclined plane. Variable acceleration, Simple harmonic motion, elastic string, simple pendulum.
4	11/02/2025- 21/02/2025	Projectile, work, power. Conservative fields and potential energy.
5	22/02/2025- 4/03/2025	work done against gravity, potential energy of a gravitational field
6	5/03/2025- 15/03/2025	Relative motion, relative displacement, velocity and acceleration. <b>ASSIGNMENT ON THE TOPIC OF PROJECTILE, WORK, POWER.</b>
7	16/03/2025- 31/03/2025	Motion relative to rotating frame of reference. Linear momentum. <b>DISCUSSION</b>
8	01/04/2025- 12/04/2025	Angular momentum, conservation of angular momentum.
9	13/04/2025- 20/04/2025	Impulsive forces, principle of impulse and momentum.
10	21/04/2025- 30/04/2025	<b>MST EXAMS WILL BE HELD</b>

**GOVT SHIVALIK COLLEGE NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT -MATHEMATICS

PAPER-BUSINESS STATISTICS

TEACHER NAME -PRIYA WADHWA

Class- B.COM-II

Sem-III

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	01/08/2024- 06/08/2024	Introduction to Statistics-Definition, Importance and Limitations, Functions and scope. Measures of Central Tendency: Mean.
2	07/08/2024 12/08/2024	Median, Mode Measures of dispersion: Range.
3	14/082024- 23/08/2024	Quartile deviation Mean deviation and Standard deviation CLASS TEST on mean, median, mode
4	24/08/2024- 05/09/2024	Analysis of Time Series: Causes of variations in time series multiplicative models.
5	06/09/2024- 14/09/2024	Determination of trends, moving averages method and method of least squares (including linear, second degree, parabolic and exponential trends)
6	15/09/2024- 22/09/2024	Computation of seasonal-indices by simple averages, ratio-trend, ratio-to-moving average, and link relative methods
7	23/09/2024- 30/09/2024	Correlation: Meaning, types and measurement of correlation (Karl Pearson's methods and Spearman's rank correlation). Regression: Meaning, Regression Equation of X on Y and Y on X

8	01/10/2024- 12/10/2024	Index numbers: Need, definition and limitations of index numbers- simple and weighted index numbers- Laspyer's, Paasche's and Fisher Index numbers.
9	13/10/2024- 27/10/2024	Criterion of ideal index numbers, problems involved in the construction of index numbers.
10	28/10/2024- 10/11/2024	MST WILL BE HELD
11	11/10/2024- 30/11/2024	Forecasting Methods: Forecasting Concept, types and importance; General approach to forecasting; Methods of forecasting; Forecasting demand; Industry Vs. Company sales forecasts; Factors affecting company sales.

**GOVT SHIVALIK, COLLEGE, NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT -MATHEMATICS

PAPER-QUANTITATIVE ABILITY

TEACHER NAME-PRIYA WADHWA

Class- B.Sc. I

Sem-I

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	01/09/2024- 10/09/2024	Types of real numbers, how to find a given number is prime number or not.
2	11/09/2024 20/09/2024	Divisibility rules, Cyclicity (Finding last two digit of a number), factors, multiples.
3	21/09/2024- 30/09/2024	Application of HCF & LCM. Highest power dividing factorial, remainders. TEST OF TYPES OF REAL NUMBERS.
4	01/10/2024- 10/10/2024	Euler totient function, Wilson's theorem.
5	11/10/2024- 20/10/2024	Relation between fraction and percentage, change of base, successive percentage changes. DISCUSSION
6	21/10/2024- 30/10/2024	Profit loss and discount, Average, mixture and allegations.
7	01/11/2024- 10/11/2024	Word problems of average, ratio and proportion.
8	11/11/2024- 20/11/2024	Simple interest and compound interest.
9	21/11/2024- 30/11/2024	MST WILL BE HELD

**GOVT SHIVALIK, COLLEGE, NAYA NANGAL**

TEACHING PLAN (SESSION 24-25)

SUBJECT -MATHEMATICS

PAPER-QUANTITATIVE ABILITYII

TEACHER NAME-PRIYA WADHWA

Class- B.Sc. I

Sem-II

<b>Sr.no</b>	<b>Date</b>	<b>Subject Matter</b>
1	15/01/2025-23/01/2025	Time and work, Time speed distance relation, average speed, Problem of trains, Boats and stream, Circular motion.
2	24/01/2025-31/01/2025	Boats and stream, Circular motion. Area of two-dimensional figure: triangles, quadrilaterals, circle.
3	01/02/2025-10/02/2025	Volume and surface area: cuboid, cylinder, cone, sphere.
4	11/02/2025-21/02/2025	Height and Distance.
5	22/02/2025-4/03/2025	Algebra-Polynomials, Elementary curve, Remainder theorem. DISCUSSION
6	5/03/2025-15/03/2025	Quadratic equations.
7	16/03/2025-31/03/2025	Graphical interpretation of discriminant, Vieta's formula.
8	01/04/2025-12/04/2025	Finding roots by intersection of graphs, Permutation and combination.
9	13/04/2025-20/04/2025	MST WILL BE HELD
10	21/04/2025-30/04/2025	REVISION