

Markanda National College
Shahabad Markanda



Learning outcomes
Based Curriculum Framework

Content

Sr.No	Programme Name	Pg.No
1.	B.A.	3-23
2.	B.Com	24-28
3.	B.Sc	29-49
4	M.A.(English)	50-65

PROGRAMME OUTCOME FOR B.A.

Po 1: Demonstrate a detailed knowledge and understanding of Selected fields of study in core disciplines in the humanities, social Sciences and languages;

Po2: Apply critical and analytical skills and methods to the Identification and resolution of problems within complex changing Social contexts.

Po 3: Demonstrate a general understanding of the concepts And principles of selected areas of study outside core discipline of The humanities, social sciences and languages;

Po 4: Apply an independent approach to knowledge that uses rigorous Methods of inquiry and appropriate theories;

Po 5: Articulate the relationship between diverse forms of knowledge and the social, historical and cultural contexts that produced them;

Po 6: Communicate effectively and speak in a chosen language/s with fluency;

Po 7: Act as informed and critically discerning participants within the Community of scholar, as citizens and in the work force;

Po 8: Work with independence, self-reflection and creativity to Meet goals and challenge in the workplace and personal life.

COURSE OUTCOME FOR B.A.

English

COs of B.A. I

Paper: Literature and Language (Part-1 and Part-2) Course Objectives:

1. To discuss the concept of essay as a genre of prose fiction and to analyze its specific features and objectives.
2. To enable individuals to understand the concept of Parts of Speech and to analyze their relative importance in investing the sentence with a legible meaning as a syntactic unit.
3. To acquaint the students with the concept of Tenses and to discuss their uses in the formation of different types of sentences.
4. To discuss the concept of Story as a genre of Prose Fiction and to describe its major components, their relevance and objectives.
5. To help students to understand the concept of Sentence and its kinds.
6. To discuss Modal Auxiliaries and their uses.
7. To acquaint the students with the concept of Subject-Verb (Concord), their grammatical rules and linguistic conventions.
8. To enable individuals to understand the concept of voice and to describe its uses, relevance and objectives in different contexts.
9. To discuss the concept of Phrasal Verbs and to describe their relevance in effective written and verbal (oral) communication.
10. To acquaint the students with the concept of Direct and Indirect Speech and describe its relevance, function and objectives.
11. To discuss the concept of Punctuation and to describe its essential role in providing language with the quality of accuracy and precision.

COs of B.A. II

**Paper: Fragrances and Centre Stage
(Text Books) Course Objectives:**

1. To discuss the Concept of Poetry as a genre of literature, its kinds, salient features and relevance.
2. To help individuals to understand the concept of Non- Finite Verbs, their kinds' uses, relevance and objectives.
3. To discuss the concept of Clauses, their kinds, relevance and objectives.
4. To acquaint the students with the concept of one Act Play and to describe its salient features, relevance and objectives.
5. To discuss the concept of translation, its prominent role in a world of diversity of languages; to describe the importance of understanding the prevalent linguistic norms and conventions of various languages and their relevance in the act of good translation.
6. To enable students to understand the concept of Dialogue writing, Resume writing' and writing E- mails; their relevance and objectives.

COs of B.A. III

Paper: Kanthapura and The Merchant of Venice

(Novel and Play) Course Objectives:

1. To discuss concept of Novel, its components, salient features and tools of analysis.
2. To be acquainted with the concept of full length play, its components' salient features and tools of analysis.
3. To familiarize students with the main events, conflicts, inventions and rich history of the play and thenovel.
4. To acquire good knowledge with regard to the analysis of critical frameworks and methodologies for better interpretation of literature.
5. To develop fundamental and in-depth knowledge about the concept of Precis writing and Letter writing; their relevance and objectives.

PHYSICAL EDUCATION

Course Outcome B.A.-I (Semester-I) Class: B.A.-I Semester Semester : Odd Subject : Health & Physical Education

- CO1 Understanding the knowledge and Relationship of Physical Education with General Education. CO2 Study the meaning and importance of Health & Hygiene
CO3 To gain the knowledge of Yoga in Healthy living
CO4 Understanding the importance of Human Anatomy and Pysiology in Physical Education.

Course Outcome B.A.-I (Semester-II) Class: B.A.-I Semester - II Semester : Even Subject : Health & Physical Education

- CO1 Knowledge of Health Education and Scope of health education in modern society.
CO2 Understanding the historical prospects of physical education.
CO3 Studying the importance of physical fitness.
CO4 To know about human anatomy and physiology.

Course Outcome B.A.-II (Semester-III) Class: B.A.-II Semester-III Semester : Odd Subject : Health & Physical Education

- CO1 Understanding the concept of safety education.
CO2 Knowledge about communicable and non-communicable disease.
CO3 Study about the concept of balanced diet.
CO4 Understanding anatomy and physiology of body system.

Course Outcome B.A.-II (Semester-IV) Class: B.A.-II Semester-IV Semester : Even Subject : Health & Physical Education

- CO1 Studying warming up and cooling down.
CO2 Understanding psychological aspects of physical education.
CO3 Knowledge of major sports events.
CO4 Studying anatomy and physiology of human body system.

Course Outcome B.A.-III (Semester-V) Class: B.A.-III Semester-V Semester : Odd

Subject : Health & Physical Education

- CO1 Gaining knowledge about growth and development
- CO2 Knowledge about sports Organization and administration
- CO3 Study about sport injuries, prevention and treatment.
- CO4 Gaining knowledge of Gross anatomy of Body Muscle.

Course Outcome B.A.-III (Semester-VI) Class: B.A.-III Semester-VI Semester : Even

Subject : Health & Physical Education

- CO1 Gaining knowledge about socialization and effects of social behaviour on performance of sports person.
- CO2 To study the concept of sports training and doping
- CO3 Knowledge of leadership and qualities and professional qualifications of physical education teachers/coaches.
- CO4 Gaining Knowledge of sports Bio-mechanics

Mathematics

Class: B.A./B.Sc. – Ist Year Semester-1 (ODD) Subject: Mathematics Paper:BM – 111 : Algebra Paper :I(UG)

1. Students will be able to understand about Symmetric, Skew symmetric, Hermitian and skew Hermitian matrices. Elementary Operations on matrices. Rank of a matrices. Inverse of a matrix. Linear dependence and independence of vectors. Row rank and column rank of a matrix. Eigenvalues, eigenvectors and the characteristic equation of a matrix. Minimal polynomial of a matrix. Cayley Hamilton theorem and its use in finding the inverse of a matrix.
2. Students will be able to understand about Applications of matrices to a system of linear (both homogeneous and non-homogeneous) equations. Theorems on consistency of a system of linear equations. Unitary and Orthogonal Matrices, Bilinear and Quadratic forms.
3. Students would have the understanding of the following topics Relations between the roots and coefficients of general polynomial equation in one variable. Solutions of polynomial equations having conditions on roots. Common roots and multiple roots. Transformation of equations.
4. Students will have the idea of the concept of Nature of the roots of an equation Descarte's rule of signs. Solutions of cubic equations (Cardon's method). Biquadratic equations and their solutions (By Descarte Method and Ferrari Methods).

Class: B.A./B.Sc. – Ist Year Semester-1 (ODD) Subject: Mathematics Paper: BM – 112 : calculus Paper :II(UG)

1. Students are made to learn about successive differentiation and its uses in Leibnitz's theorem and series expansion. They are able to understand differentiability and continuity and types of discontinuities.
2. Students are able to understand asymptotes in Cartesian and polar coordinates. Along with this they are taught about curvature and test for concavity and convexity. Multiple

points, cusps, nodes and conjugate points are also taught to help in curve tracing.

3. Students are given detailed explanations about the methods of curve tracing in cartesian and polar coordinates. It helps in finding the lengths of curves in topics of rectification. Reduction formulas are taught in order to simplify the typical integrals.
4. Students are taught about finding the areas of curves and area bounded by closed curves. Volumes and surface areas of solids of revolution are also taught.

Class: B.A./B.Sc. Ist Year Semester-1(ODD) Subject: Mathematics Paper: BM-113:Solid Geometry Paper :III(UG)

1. students learn about the general equations of second degree, tracing of ellipse, hyperbola and parabola and also get to know about the confocal conics. They get to know whether a given second degree equation is a hyperbola or ellipse or parabola.
2. students are given introduction and details about sphere, cone, cylinder their properties ,coaxal system of spheres, enveloping cones, reciprocal system of cones, enveloping cylinder so that they also get to use it in real world.
3. The topics of central conicoid, director sphere, polar plane of a point are explained to the students.
4. students learn about paraboloids, plane sections of conicoids, generating lines and reduction of second degree equations.

Class: B.A./B.Sc. Ist Year Semester-2(Even) Subject: Mathematics Paper: BM-121:Number Theory and Trigonometry Paper : I(UG) S.

1. Divisibility, G.C.D. (greatest common divisors), L.C.M. (least common multiple) Primes. Linear Congruences, Fermat's theorem. Wilson's theorem and its converse. The students will be able to know about basic knowledge of the number theory and its various elementary tools.
2. Complete residue system. Legendre symbols. Lemma of Gauss; Gauss reciprocity law. Greatest integer function $[x]$. The number of divisors and the sum of divisors of a natural number n (The functions $d(n)$ and $\sigma(n)$). The students will be able to use this method in further higher studies.
3. De Moivre's Theorem and its Applications. Direct circular and hyperbolic functions and their properties. The students will be able to get good knowledge of use of trigonometry.
4. Inverse circular and hyperbolic functions and their properties. Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series. The Students will be able to solve problems related to summation and inverse & hyperbolic functions of trigonometry.

Class - B.A./B.Sc. Ist Year Semester-2 (Even) Subject-Mathematics Paper-BM-122:Ordinary Differential Equations Paper-II(UG)

1. Explained the differential equation, exact diff.eqn, solution of exact differential equation, integrating factor, number of integrating factors, equation of first order but not of first degree. Students have learnt how to solve exact and non exact differential

equation and how to find the solution of the differential equation of first order but not of first degree.

2. Explained Orthogonal trajectories, orthogonal trajectories in cartesian coordinates, orthogonal trajectories in polar co-ordinates, linear differential equation with constant coefficient, homogenous linear equation. Students have learnt how to find orthogonal trajectories of curves, how to solve linear differential equation with constant co-efficient and how to solve homogenous equations.
3. Explained the Linear differential equation of second order:-by changing the dependent variable, by removing the first derivative and by changing the dependent variable, by changing the independent variable, by the method of variation of parameter, by method of undetermined coefficient. Students have learnt how to solve linear differential equation of second order by using different methods.
4. Explained the Ordinary simultaneous differential equation, method to solve simultaneous differential equation with constant coefficient, total differential equation, method to solve total differential equation, method to solve homogenous equation. Student have learnt how to solve simultaneous and total differential equation

Class - B.A./B.Sc. Ist Year Semester-2 (Even) Subject-Mathematics Paper-BM-123:Vector Calculus Paper- III(UG)

1. Students will be able to understand about the scalar and vector product of three vectors, Product of four vectors. Reciprocal vectors. Vector differentiation, Scalar Valued point functions, Vector valued point functions, Derivative along a curve, Directional derivatives. Also solve the problems involving above concepts. Students will be able to find Product of vectors & their Differentiation.
2. Students will be able to understand about Gradient of a scalar point function, Geometrical interpretation of gradient F , Character of gradient as a point function. Divergence and Curl of vector point function, second order differential equation and their examples.
3. Students would have the understanding of the following topics Orthogonal curvilinear coordinates, Conditions for orthogonality, Fundamental triad of mutually orthogonal unit vectors. Gradient, Divergence, Curl and Laplacian operators in terms of orthogonal curvilinear coordinates, Cylindrical co-ordinates and Spherical coordinates.
4. Students will have the idea of the concept of Vector integration; Line integral, Surface integral, Volume integral. Theorems of Gauss, Green & Stokes and problems based on these theorems.

Class: B.A./B.Sc. IInd Year Semester-III(ODD) Subject: MATHEMATICS Paper -BM-231: ADVANCED CALCULUS Paper:I(UG)

1. Students will be able to learn about continuous function, chain rule of differentiability and Mean value theorems, indeterminate forms & their applications.
2. Student come to know about the Limit & continuity of functions of two variables, partial differentiation.
Also Taylor's theorem for function for two variables are taught
3. Explanations & knowledge of differentiability of two variables and maxima & minima of two variables and their use to solve the problems are provided.

4. Students learn about the Curves in space and curvature & torsion, circle of curvature & spherical curvature, surfaces in spaces & envelopes and also they will be able to relate this knowledge in their real life experiences.

Class: B.A./B.Sc. IInd Year Semester-III (ODD) Subject: MATHEMATICS Paper: BM - 232:PARTIAL DIFFERENTIAL EQUATIONS Paper :II(UG)

1. Formation of Partial Differential Equation, linear and non linear pde's, solution of Partial Differential Equation by lagrange and charpit method Students will get to know how to solve various Partial Differential Equation by various methods
2. Complementary functions and particular integrals of Partial Differential Equation equations reducible to linear equations with constant coefficients Students will get to know to find complete solution of a Partial Differential Equation
3. Classification of linear equations, solution of linear hyperbolic equations, Monge's method for Partial Differential Equation of second order Students will get to know about various Partial Differential Equation
4. Cauchy problem for second order Partial Differential Equation, characteristic equations and characteristic curves, solution of Laplace, wave and heat equation Student gets to know to solve these equations by separation of variables

Class: B.A./B.Sc. IInd Year Semester-III(Odd) Subject: MATHEMATICS Paper:BM-233:Statics Paper : III(UG)

1. Explanation about basic definitions of forces, their composition and resolution is given. Lami's Theorem and its practical applications are also provided. Like and unlike parallel forces and Moments and couples are also taught.
2. Students are made to learn about Analytical conditions of equilibrium of forces, m-n theorems, Laws of friction, their practical uses and centre of gravity of objects.
3. Students learn about the meaning and uses of virtual work, Forces in three dimensions, and poinso't's central axis.
4. Students are taught about Wrenches, Null lines, Null planes, Stable and unstable equilibrium.

Class - B.A./B.Sc. . IInd YEAR Semester-IV (Even) Subject-Mathematics Paper-BM-241:Sequence and Series Paper-I(UG)

1. students learnt about the boundedness of set of real numbers, limit points, open set, closed set, closure of a set in real numbers and their properties. They also learnt about Bolzano-Weierstrass theorem ,open covers, Compact sets and Heine- Borel theorem. They will be able to use topology of real numbers in higher education.
2. students learnt about sequences, Bounded and Monotonic sequences, Cauchy's sequence. Students also discuss convergence and divergence of infinite series, geometric series or p-series. Students will be able to analyse the behaviour of different sequences and infinite series.
3. students discuss about some tests like D'Alembert ratio test ,Cauchy's root test, Rabbe's test, Demorgan and Bertrand test, Logarithmic test, Cauchy integral test and Cauchy condensation test. students will be able to use different test how to check the infinite series is either convergent or divergent.

4. Students discuss alternating series, Abel's test, Dirichlet's test, multiplication of series, Convergence and Absolute convergence of Infinite products. Students will be able to check and identify the behaviour of Alternating series and infinite product.

Class - B.A./B.Sc. IInd Year Semester-IV (Even) Subject-Mathematics Paper-BM-242:Special Functions and Integral Transform Paper: II(UG)

1. Explained the topics Power series method, Bessel's equation and its solutions, Bessel's functions and its properties, Convergence, Recurrence relations and Generating functions. Students learnt how to find the solution of Power series and Bessel's equations.
2. Legendre's equation and Hermite's equation and their solutions: Recurrence relations and Generating functions, Orthogonality and Rodrigue's Formula. Students are now able to solve related problems based on it.
3. Laplace Transforms (L.T.): L.T. of derivatives and integrals, differentiation and integration of L.T., Convolution theorem, Inverse Laplace Transforms (I.L.T.): Convolution theorem, I.L.T. of derivatives and integrals, solution of O.D.E using L.T. Students learnt about transformations also learnt that L.T. can be used to solve differential equations.
4. Fourier transform (F.T.): Linearity Property, Shifting, Modulation, Convolution theorem, F.T. of Derivatives, Relation b/w F.T. and L.T. and their solutions. Students learnt that wave simplifications can be done by using F.T.

Class - B.A./B.Sc. IInd Year Semester-IV (Even) Subject-Mathematics Paper-BM-243:Programming in C and Numerical Methods Paper: III(UG)

1. Introduction of Computer, Algorithm, Flowchart, Operator, Expression, Keywords, Importance of C'. Students learnt the various algorithm techniques and flowcharts in order to make programs
2. functions, Introduction to higher level languages, Loops, While loop, Do loop, For loop, Statement-If, If Else Statement, Nested If statement. students learnt define, declare and call functions and nesting of various loops.
3. Array, Structure and Unions Bisection method, Newton Raphson method, secant method students learnt about arrays and to find roots of algebraic and transcendental equations.
4. Gauss Elimination Method, Gauss Seidel Method, Triangularisation Method, Relaxation Method, LU Decomposition. Students learnt to find solution algebraic and transcendental equations.

Class: B.A./B.Sc. - IIIrd Year Semester-V (ODD) Subject: Mathematics Paper:BM -351 : Real Analysis Paper:I(UG)

1. Students will be able to understand about Riemann integral, Integrability of continuous and monotonic functions, The Fundamental theorem of integral calculus. Mean value theorems of integral calculus
2. Students will be able to understand about Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of

a parameter. Continuity, Differentiability and integrability of an integral of a function of a parameter.

3. Students would have the understanding of the following topics Definition and examples of metric spaces, neighborhoods, limit points, interior points, open and closed sets, closure and interior, boundary points, subspace of a metric space, equivalent metrics, Cauchy sequences, completeness, Cantor's intersection theorem, Baire's category theorem, contraction Principle.
4. Students will have the idea of the concept of Continuous functions, uniform continuity, compactness for metric spaces, sequential compactness, Bolzano-Weierstrass property, total boundedness, finite intersection property, continuity in relation with compactness, connectedness, components, continuity in relation with connectedness.

Class: B.A./B.Sc. - IIIrd Year Semester-V(ODD) Subject: Mathematics Paper:BM -352 : Groups and Rings Paper: II(UG)

1. Define binary operations, Groups and subgroups, Quotient groups. Students will be able to identify whether a particular set under given binary operation forms group or not.
2. Homomorphism and some theorems of homomorphism, automorphism. Students will be able to identify whether a function between two groups is a homomorphism or not.
3. Rings and subrings, ideals and quotient rings. Students will be able to generalise when a given set under two euclidean domain, Principal Ideal Domain.
4. Integral domains, unique factorization domain. student will be able to classify a given ring through which they will understand its properties.

Class: B.A./B.Sc. - IIIrd Year Semester-V(ODD) Subject: Mathematics Paper:BM -353 : Numerical Analysis Paper: III(UG)

1. Students will be able to understand about the operator, finite difference Operator, Newton Backward interpolation Formula, Newton Forward interpolation Formula, Finite Difference Formula.
2. Students will be able to understand about the Probability, Probability Distribution, Poisson Distribution, Bernoulli Distribution, Normal Distribution.
3. Students will be able to understand about the Euler's Method, Euler Modified Method, Numerical Differentiation, Numerical Integration and Numerical Differentiation.
4. Students will be able to understand about the Numerical Integration, Runge's Kutta Method, Milne Method, Simpson Method, Simpson 1/3 Rule, Simpson 3/8 Rule.

Class - B.A./B.Sc. IIIrd YEAR Semester-VI (Even) Subject-Mathematics Paper-BM-361- Real and Complex Analysis Paper: I(UG)

1. Explained the Jacobian, Beta and Gamma Function, Double and Triple Integrals. Students learnt about the Jacobian and to apply Beta and gamma function to find the value of integral.
2. Explained the Fourier's Series, Properties of Fourier Coefficients, Dirichlet's Integral. Students learnt about the fourier series and solve function.
3. Explained the stereographic projection, Analytic function, Cauchy Riemann equations, harmonic functions. students learnt about the differentiability, meaning of analytic

- functions and check if the function is analytic or not.
4. Mobius transformation, Conformal mapping. students learnt how to map a region under given transformation

Class - B.A./B.Sc. IIIrd YEAR Semester-VI(Even) Subject-Mathematics Paper-BM-362-Linear Algebra Paper: II(UG)

CO1: The students will be able to learn about spaces and subspaces.

CO2: The students will be able to use vector space in linear transformation.

CO3: The students will be able to find Eigen values and Eigen vectors of linear transformations.

CO4: The students will be able to analysis inner product space.

Class - B.A./B.Sc. IIIrd YEAR Semester -VI(Even) Subject-Mathematics Paper-BM-363:Dynamics Paper:III(UG)

CO1: The students were able to know the meaning of velocity and acceleration and solve the numerical based on velocity and simple harmonic motion

CO2: The students learnt about Newton's law of motion and were able to solve the problems related to Newton's

law of motion, work, power and energy.

CO3: The students have learnt the meaning of projectile and were able to solve the problems related to it.

CO4: The students learned about central orbit and properties related to it.

Marketing

BA 1st (1st Semester)

CO 1) Students will learn and understand the meaning, importance and function of marketing.

CO 2) Describe the concept of marketing mix and segmentation.

CO 3) Analysis of process and factors of consumer behavior.

CO 4) Classification of product, product mix, product lifecycle.

CO 5) Explaining the concept of branding and packaging.

CO 6) Conceptual knowledge of marketing research and market planning.

BA 1st (2nd semester)

CO 1) Analyzing price decision, its objectives and importance .

CO 2) Student will understand factors influencing pricing decision and different pricing policies.

CO 3) Concept of distribution, its factors and role marketing.

CO 4) Analyzing Elements of physical distribution and middle men's functions.

CO 5) Concept of promotion its objective and importance.

CO 6) Students will learn promotion mix advertising, personal selling, sales promotion.

CO 7) Concept of international marketing and service marketing.

BA II (3rd Semester)

- CO 1) Introduction of personal selling , concept of personal selling concept.
- CO 2) Students will learn qualities of salesman and their functions jobs of salesman.
- CO 3) Analyzing meaning of recruitment, selection compensation and motivation.
- CO 4) Understand the meaning of ethical issues in sales management
- CO 5) Describe the concept of planning and sales budget.
- CO 6) Students will learn the role of leadership.

BA II (4th Semester)

- CO 1) Understanding meaning of advertising its types , importance and nature.
- CO 2) students will learn objectives of advertising and advertising budget.
- CO 3) Analyzing different type of media, media planning and selection.
- CO 4) concept of relationship.
- CO 5) Analyzing ethical issue in advertising.

BA III (5th semester)

- CO 1) Students will learn the meaning of rural marketing its opportunities and challenges in India.
- CO 2) Analysis the concept of rural market research, environment and behavior.
- CO 3) Explaining medial planning in rural marketing.
- CO 4) Understand the meaning of I.T in rural markets in India.
- CO 5) Concepts of rural marketing mix and strategies.
- CO 6. Students will learn the difference between rural and urban markets.
- CO 7) Analyzing the concept of new product development in rural markets.
- CO 8) Explaining the meaning of agriculture produce in India.

BA III (6th semester)

- CO 1) Introduction of retailing , its characteristics, importance and functions.
- CO 2) Analyzing theories retailing and strategic planning in India.
- CO 3) Concept of planning location trading area analysis.
- CO 4) Analyzing of human resource management and organization patterns in retailing.
- CO 5) Concept of store operations management, store layout and designs.
- CO 6) Analysis of loss prevention and security issues.
- CO 7) Students will learn application of information technology in retailing.

HISTORY

BA -I (Semester 1 & 2)

Ancient India (earliest times to 1526 A.D) Earliest time to 800 AD :

Learn about the various stages through which human societies moved.

Learn about the nature of changes which transition from one stage to another brought to the organization of human societies.

800- 13th:

Learn about the political , economic, social and cultural changes with special focus to the characteristics of feudalism that emerges from the Gupta period.

13th to 15th century: Learn about phenomenal changes taking place in the realm of economy, polity culture and ideas culture. Understand about changing land rights and their consequent economic development. Also take a panoramic view of making of Indian cultural traditions and emergence of tendency of regionalism. Regional state emergence and establishment, Delhi sultanate; rise of Mongols and Turks, establishment of the new polity in India and traditional expansion and consolidation of the Delhi sultanate, formation of ruling class administration and the crisis and decline of new polity economy of the period , trade & commerce, craft, especially the new articles of technology that came with in Muslim /Turks.

BA -II Political history of India (1526- 1947 AD) Sem. 3rd

CO 1) To acquaint the student about the evaluation, expression and consolidation of the Mughal empire up to 1707. To learn the political ideas and institutions of Mughal state. To acquaint the student with the concept of the Mughal sovereignty; central, provincial and local administration and the nature of Mughal ruling class.

Trace the formation and growth of the regional powers/states (Bijapur Golkonda and Ahmadnagar, The Maratha and Rajput and relationship with Mughal).

CO 2) To acquaint student with the economy conditions i.e land revenue system and agrarian relation of Mughal empire.

CO 3) To learn the causes of the decline of Mughal empire, factors that contributed to the rise of the regional states.

CO 4) An overview of the problem of the potentialities of growth in terms of polity , economy and society in general.

BA -II 4th Semester

19th century witnessed opposition to the British policies there emerged a national consciousness in India:

CO1) to acquaint the student with the various factors that contributed to the growth of the national consciousness .

CO2) To acquaint the students various aspects related to the formation of the Indian national congress and various theories about the foundation of the congress and about the evolutionary process of the congress and also differences in the perceptions of the moderates and extremists

CO3) To familiarize the students about the home rule league movement and its contribution to the national movement

CO 4) To acquaint the students about the emergence of Gandhi of the Indian political scene,

his ideology and how this ideology was put in to action and row late act , non cooperation and knilafat & civil disobedience and quite India movement

CO 5) Explain the communalism various types of communalion , how it emerged.

CO 6) The nature of revolutionary terrorism which developed after 1922. Explain nature of organization and howrevolutionary organization underwent ideological transformation.

CO7) Know about constitution reform 1909, 1919 & 1935. Role of INA its formation , action Toward independence :

To familiarize students the impact of world war on the British rulers and Indian people; to be able to link up various kinds of political activates under taken during the period

To narrate the popular struggle which break out in this period and evaluate their role in the weakening andultimately throwing out raj.

BA III 5th (Rise of modern world) &6th semester(History of modern world)

CO 1) The historical tendencies of the west i.e. Renaissance, religion reform movement, merccantal revolution , scientific revolution , political revolution (Specially glorious revolution)

CO 2) Industrial revolution and agriculture revolution.

CO 3) To understand how these historical tendencies transformed European society from feudal society to amodern society with modern.

POLITICAL SCIENCE

BA -Ist Political science Indian Constitution

CO 1: To understand the main sources and meaning of constitution and its preamble.

CO 2: To understand the three forms of government - executives, Legislative and judiciary and their functions. Presidents, prime minister, governor, Chief minister , council of ministers and parliament

CO 3 : To understand the federal structure of government.

]Co 4: To become a better citizen of India , this option is excellent.

BA-II Political science Western political thinkers

CO 1: To understand the ideology western political thinkers and their philosophical foundation.

CO 2: To understand theory of justice, communism and theory of philosophical king of Plato.

CO 3 : To understand the theories of Aristotle and his readings.

CO 4: To understand social contract theories of hubs , lock and Rousseau.

CO 5: To understand utilitarianism and his political thought, will and amendments in utilitarianism.

BA-III - Political science International relations & organization

CO 1: To understand the international relations and its approaches.

CO 2: To understand the importance international relations and its scope for the students .

CO 3: To understand the concepts of collective security , national power, balance of power.

CO 4: To understand international morality environment and globalization.

CO 5: To understand the relevance of international organization UNO and comparison with league

of nation.

CO6: to understand and analyze the six organs of UNO, their working and role of UNO towards wisarmoment.

Economics

B.A.I

B.A. 1st semester Micro Economics

Department of Economics

CO 1) Understand meaning, nature and scope of micro economics.

CO 2) Represent demand in graphical form including downward slope of demand curve and what shift the demand curve.

CO 3) Make decision using marginal analysis and opportunity cost, develop cost and production function.

CO 4) Understand how (household) demand and (business) supply interact in various markets to determine price and quality of a good produced.

B.A. 2nd semester (Micro Economics)

CO 1) Conceptual knowledge of nature, scope of micro economics.

CO 2) Explain classical and Keynesian theory of income, output and employment.

CO 3) Explain inflation, types and theories.

CO 4) Explain business cycles and its various phases with the help of different theories.

B.A.II

Macro Economics-I

CO 1: To introduce the students about macroeconomics, its nature, scope, importance

CO 2: Allied objective is to introduce the working of economy under classical system and Keynesian system, how equilibrium level of income and employment is determined

CO 3: Aims at making students learn about the consumption as a macro-economic variable and as a component of Keynesian structure.

CO 4: Aim is to make the students apprised of Capital and Investment.

Macro Economics-II

CO 1: To introduce the students about Income propagation process by multiplier effect of investment, relationship with Consumption

CO 2: A general idea about the value and demand for money. How classical approach takes position on the relationship of Money supply and Price level, followed by neo-classical economists.

CO 3: Aims at making students learn about the inflation, its nature, theories related to the explanation of price rise

CO 4: Aim is to make the students apprised of fluctuations in business activity, nature, and causes and phases of business cycles

B.A.III

INDIAN ECONOMY- I

CO 1: Objective is to acquaint the students with Developing Economy under free market capitalism and socialistic set up; and distinction between a developed and a developing economy

CO 2: The students are expected to be introduced to demography, and demographic transition theory in general, and its relevance to India. A general idea about the Population of India and the trend of key demographic variables

CO 3: Aims at making students learn about poverty ,its nature, types of poverty .Students are expected to learn the implications of various methods of measurement of poverty

CO 4: To make the students apprised of the Agriculture, its role, trends of productivity in agriculture.

INDIAN ECONOMY- II

CO1: Objective is to introduce the students to the basic concepts about Economic Growth & Economic development, under-development

CO 2: The students are expected to be introduced to the concept of poverty, Aim is to make the students learn about nature and measurement of regional backwardness ,as resources, growth patterns with regard to India

CO 3: To give an understanding to the students about traditional measures of economics development, and contemporary development measures

CO 4: Aim is to make the students apprised of the nature of growth process in terms of different models

Sem 5th. ची. ए. डी. सा. सा. पंजाबी सिद्धान्त प्रयोग

1. यदि उर्ध्व प्रसृत विर गुरुणा ये धात्री विरिणाग्री र मीरु विर मीरु
चालर गुरुण रा वीर वरुमी र विरिणाग्री र गुरुणा ये मीरुगडा रा
मरिणाग्री रुरा र
2. वि मीरु गुरुणा विर मरुणडा र वरुण र ला मरुण मरुण र व विर मरुण रा ये
भ्रातृणी य मीरुण विरु र
3. वि गुरु रुरुण र मीरुणा र मीरु र मीरु र मरुणी मरुणी, मरुणमरुण मरुण वरुण
मरुणी य मीरुणा र गुरुण पण रुरा र
4. विरिणाग्री मरुणमरुण विर मीरुणा, मीरुणी मरुणा मरुणमरुण, र मरुण मरुणमरुण
रु मरुणमरुण मरुण मरुणी र, विरिणाग्री मरुण मरुण र मरुणमरुण रुरा र
5. विरिणाग्री-विरिणाग्री र मीरुणा, र विरिणाग्री रुरा र मीरुणा मरुणमरुण
मरुण मरुण र मरुण मरुण र मरुण मरुण रुरा र मीरुणा मरुणमरुण
मरुण र
6. मीरुणाग्री (Translator) विरिणाग्री मरुण मीरुणाग्री र गुरुण पण रुरा र

6th Sem. ची. ए. डी. सा. सा. पंजाबी सिद्धान्त प्रयोग

1. यदि उर्ध्व प्रसृत विर गुरुणा ये धात्री र मीरुण रुरा र मीरुणा मरुण
मरुण मरुण ये मीरुणा मरुण रुरा र
2. विर मीरुण विर गुरुणा मरुणमरुण मरुणमरुण ये मरुणमरुण मरुण रुरा र
मरुण र मरुणमरुण मरुण मरुण विरिणाग्री मरुण मरुणमरुण मरुणमरुण
3. मीरुणाग्री मरुणमरुण मरुणमरुण मरुणमरुण मरुण मरुण ये मरुणमरुण मरुण मरुण
मरुणमरुण र मीरुणा मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण
रुरा र मरुणमरुण मरुणमरुण ये मरुण मरुणमरुण र
4. मरुणमरुण ये मरुणमरुण-मरुणमरुण मरुणमरुण मरुण मरुणमरुण रुरा र मीरुणा
मरुणमरुण र मीरुणा मरुणमरुण ये मरुणमरुण विरिणाग्री र मरुणमरुण
मरुणमरुण रुरा र
5. विरिणाग्री मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण
मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण मरुणमरुण
मरुणमरुण मरुणमरुण

हिन्दी बी.ए. प्रथम वर्ष
प्रथम सत्र

1. 'मध्यकालीन काव्य-कुंज' पाठ्य पुस्तक में भक्तिकालीन और रीतिकालीन सात कवियों की कविताओं को पढ़ाया जाता है ।
2. इससे विद्यार्थियों को कबीरदास तथा उनकी सामाजिक चेतना, सूरदास तथा उनका कृष्ण सम्बन्धी वात्सल्य वर्णन, तुलसीदास का 'रामचरितमानस' मीरबाई का कृष्ण प्रेम बिहारी कवि के दोहे, घनानंद का सुजान प्रेमिका के प्रति प्रेम, रसखान की कृष्ण भक्ति की जानकारी प्राप्त होती है ।
3. 'हिन्दी साहित्य का आदिकाल' में आदिकाल के नामकरण अर्थात् 'वीरगाथाकाल' के बारे में, आदिकाल की परिस्थितियों के बारे में तथा उसकी प्रवृत्तियों के बारे में तथा रासो काव्य परंपरा के बारे में जानकारी दी जाती है ।
4. 'काव्यशास्त्र' में 'काव्य के तत्व', 'रस के भेद' अंलकार 'छन्द' 'शब्द-शक्ति' और काव्य-गुण के बारे में बताया जाता है ।

हिन्दी बी.ए. प्रथम वर्ष
द्वितीय सत्र

1. जयशंकर प्रसाद तथा लिखित नाटक 'ध्रुवस्वामिनी' जो पाठ्यक्रम में है को विद्यार्थियों को पढ़ाया जाता है ।
2. विद्यार्थियों को 'मगध' के सम्राट, समुद्रगुप्त, रामगुप्त, चन्द्रगुप्त और ध्रुवस्वामिनी शकराज और कोमा के बारे में जानकारी दी जाती है ।
3. 'हिन्दी साहित्य का भक्तिकाल' जो पाठ्यक्रम में है से भक्तिकाल की परिस्थितियों, संतकाव्य, सूफ़ीकाव्य, रामकाव्य, कृष्णकाव्य तथा भक्तिकाल को स्वर्णयुग क्यों कहा जाता है के बारे में बताया जाता है ।
4. 'व्यवहारिक हिन्दी' में भाषा की परिभाषा, राजभाषा, राष्ट्रभाषा, मातृभाषा, माध्यम भाषा, मानक-भाषा, स्वर, व्यंजन, हिन्दी वर्तनी मुहावरे तथा लोकोक्तियों के बारे में जानकारी दी जाती है ।

हिन्दी बी.ए. द्वितीय वर्ष तृतीय सत्र

1. 'आधुनिक हिन्दी कविता' पाठ्य पुस्तक से 7 आधुनिक काल के कवियों की कविताओं को विद्यार्थियों को पढ़ाया जाता है। जिसमें उन्हें आधुनिक काल के कवियों का साहित्यिक परिचय भी दिया जाता है।
2. 'हिन्दी साहित्य का रीतिकाल' में 'रीतिकाल की परिस्थितियाँ', 'रीतिकाल का नामकरण', 'रीतिबद्ध काव्य की प्रवृत्तियाँ', 'रीतिमुक्त काव्य की प्रवृत्तियाँ', 'रीतिमुक्त काव्य की प्रमुख उपलब्धियों' के बारे में जानकारी दी जाती है।
3. 'प्रयोजनमूलक हिन्दी' जिसमें हिन्दी कम्प्यूटिंग और अनुवाद की जानकारी दी जाती है।
4. विद्यार्थियों को कम्प्यूटर का परिचय, महत्व, उसकी जीवन में भूमिका, कार्यप्रणाली ई-मेल: प्रेषण-ग्रहण, इंटरनेट: स्वरूप और उपयोगिता, रोजगार से सम्बन्धित कुछ प्रमुख इंटरनेट साइट्स, मशीनी अनुवाद, परिभाषा और स्वरूप, उसके प्रकार कम्प्यूटर: स्वरूप और महत्व आदि की जानकारी दी जाती है।

हिन्दी बी.ए. द्वितीय वर्ष चतुर्थ सत्र

1. पाठ्यपुस्तक 'कथाकर्म' में सात प्रसिद्ध लेखकों की सात प्रसिद्ध कहानियाँ पढ़ायी जाती हैं। जैसे ईदगाह, पुरस्कार, गैंग्रीन, मलबे का मालिक टेस, फँसला, पच्चीस चौका डेढ़ सौ।
2. विद्यार्थियों को कहानी लेखन की जानकारी प्राप्त होती है।
3. 'हिन्दी साहित्य का आधुनिक काल- गद्य' में 'आधुनिक काल की परिस्थितियाँ', हिन्दी उपन्यास हिन्दी कहानी, हिन्दी नाटक, हिन्दी निबन्ध, आदि के बारे में जानकारी दी जाती है।
4. 'पारिभाषिक शब्दावली' से सम्बन्धित पारिभाषिक शब्दावली का अर्थ, स्वरूप, महत्व, विशेषताओं, आवश्यकता, अंग्रेजी से हिन्दी तथा वाक्यों में शब्दावली का प्रयोग आदि के बारे में जानकारी दी जाती है। जिससे विद्यार्थियों को पारिभाषिक शब्दावली का ज्ञान प्राप्त होता है।

हिन्दी बी.ए. तृतीय वर्ष पंचम सत्र

1. 'समकालीन हिन्दी कविता' पाठ्यपुस्तक में सात कवियों की कविताएं हैं।
2. इसमें 7वें दशक की कविताएं, 8वें दशक की कविताएं तथा 9वें दशक की कविताएं शामिल हैं।
3. इस पाठ्य पुस्तक से विद्यार्थियों को 60 के दशक के बाद तथा 90 के दशक अर्थात् (60 और 90) के दशक के बीच की कविताओं का ज्ञान होता है।
4. 'हिन्दी साहित्य का आधुनिक काल' में भारतेन्दु काल, द्विवेदी काल, छायावाद काल, छायावादोत्तर काल, प्रगतिवाद, प्रयोगवाद तथा आधुनिक कविता के बारे में पता चलता है।
5. 'प्रयोजन मूलक हिन्दी' से विद्यार्थियों को पत्र-लेखन, जिसमें औपचारिक और अर्ध-सरकारी पत्र की जानकारी, संक्षेपण की जानकारी, पल्लवन की जानकारी दी जाती है।

हिन्दी बी.ए. तृतीय वर्ष छठा सत्र

1. 'नव्यतर गद्य-गौरव पाठ्य पुस्तक' में सात लेखकों के सात निबन्ध दिए गए हैं।
2. इससे विद्यार्थियों को निबन्ध, मनोवैज्ञानिक निबन्ध, संस्मरण व्यंग्य रचना आदि विधाओं का ज्ञान होता है।
3. 'हरियाणवी भाषा और साहित्य का इतिहास' पुस्तक से हरियाणवी भाषा, हरियाणवी कहानी, हरियाणवी नाटक तथा हरियाणवी सांग के बारे में विद्यार्थियों को जानकारी मिलती है।
4. 'प्रयोजन मूलक हिन्दी: पत्रकारिता' पुस्तक पढ़ाई जाती है। जिससे विद्यार्थियों को पत्रकारिता को अपने रोजगार के रूप में अपनाने के लिए प्रोत्साहित किया जाता है।
5. इसमें उनको पत्रकारिता के प्रकार, महत्व, समाचार शीर्षक, संपादन और फीचर लेखन के बारे में बताया जाता है।

PROGRAMME OUTCOME FOR B.Com

P01- Enables learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management, Economics, Environments etc.

P02- Develops communication skills and builds confidence to face the challenges of the corporate world.

P03- Enhances the capability of decision making at personal and professional levels.

P04- Makes students industry ready and develop various managerial and accounting skills for better professional opportunities.

P05- Develops entrepreneurial skills amongst learners.

P06- Strengthens their capacities in varied areas of commerce and industry aiming towards holistic development of learners.

P07- Thus, after completing their graduation learners develop a thorough understanding of the fundamentals in Commerce and Finance.

COURSE OUTCOMES: B.Com

B.com Micro Economics Department of Economics

CO 1) Understand meaning, nature and scope of micro economics.

CO 2) Represent demand in graphical form including downward slope of demand curve and what shifts the demand curve.

CO 3) Make decision using marginal analysis and opportunity cost, develop cost and production function.

CO 4) Understand how (household) demand and (business) supply interact in various markets to determine price and quality of a good produced.

B.com (Micro Economics)

CO 1) Conceptual knowledge of nature, scope of micro economics.

CO 2) Explain classical and Keynesian theory of income, output and employment.

CO 3) Explain inflation, types and theories.

CO 4) Explain business cycles and its various phases with the help of different theories.

B.com (Company law)

CO 1) Introduction of company law, nature characteristics and types of company.

CO 2) Students will learn formation & incorporation of a company.

CO 3) Analyzing & memorandum and articles of association.

CO 4) Students will learn the meaning of shares, allotment of shares and debentures.

CO 5) Describing depository system and voting powers.

CO 6) Analyzing transfer and transformation of shares and debentures.

CO 7). Student will learn prospectus, share capital of company.

Business communication BC -106 Course outcome

- CO 1) concept of business communication and its process and theories.
- CO 2) corporate communication formal and informal barriers and how to overcome barriers.
- CO 3) Effective presentation skills, GD, mock interview, seminars, report writing etc.
- CO 4) Self dev. - SWOT, Kinesics.
- CO 5) Enhancement of learning skill, interviewing skills, writing skills and etiquette in communication.

Business Lab - 1 BC - 305

- CO 1) To get insight of law of contract 1872.
- CO 2) Details of negotiable instruments act, 1881.
- CO 3) Explanation of sales of goods act (provisions), 1930.
- CO 4) Overview & salient features of Consumer protection act, 1986.

Material Management BC- 505

- CO 1) Define material management, its role and system approach.
- CO 2) Concept of material planning.
- CO 3) Detail study of inventory management and control systems.
- CO 4) Financial aspects and committee reports in materials management
- CO 5) Concept of material management accounting and its various determinants.
- CO 6) Understand the disposal of obsolete and scrap items and legal and ethical aspects of buying.

Corporate Accounting BC -301

- CO 1) accounting for share capital - issue for failure and reissue of shares and issue of rights and bonus shares.
- CO 2) Accounting treatment of redemption of preference shares.
- CO 3) Concept of issue and redemption of preference shares and Debentures.
- CO 4) Recording of final accounts of companies.
- CO 5) Accounting treatment of amalgamation of companies as per AS-14.
- CO 6) Concept and accounting treatment of internet reconstruction.

Company Law - II BC - 504

- CO 1) How to manage and administer a company.
- CO 2) Director's - legal positions, powers and duties.
- CO 3) Various types of meeting to be conducted and their consequences.
- CO 4) Incompletion of reconstruction and amalgamation of company.

Service Marketing BC - 509

- CO 1) Define services and marketing of services.
- CO 2) Conceptual framework of marketing mix in services.
- CO 3) Understanding service consumer behavior - STP.
- CO 4) Explain services quality, Gap Analysis and SERVQUAH.
- CO 5) How to do pricing for services? Explain its approaches.

CO 6) Communication & distribution of services.

CO 7) How to manage service employees.

CO 8) Define role of technology in marketing of services & emerging service sector in India.

Business Statistics BC - 302

CO 1) Basic concept of statistics.

CO 2) Measure of central tendency - Arithmetic mean, Median, mode, Geometric and harmonic mean.

CO 3) Basic concept of Dispersion.

CO 4) Understanding the concept of index number, users, construction, test of adequacy, base shifting, splicing and deflating and problems in construction of index numbers.

CO 5) Time series- meaning, components, determination of trend: moving averages method and method of least squares.

Entrepreneurship Development

BC -502

CO 1) Detailed study about entrepreneur, role and functions.

CO 2) How to start one's own business including business life cycle.

CO 3) Preparation of feasibility reports, selection of factory location, demand analysis etc.

CO 4) Incentives and government support to new entrepreneur programme.

CO 5) Project costing, finance, profit and loss planning.

Rural marketing

BC- 309

CO 1) Introduction to rural marketing, opportunities and challenges in India.

CO 2) Analyze the socio cultural, demographic and environmental factors which affect rural marketing.

CO 3) Understand segmentation, strategies, problems in rural marketing.

CO 4) How to do product, pricing, promotion & distribution channels of rural areas.

CO 5) Initiatives E-Commerce, E-Chaupal in rural areas.

Financial accounting

BC -106

CO 1) Understand the meaning, scope & objectives of financial accounting.

CO 2) Various branches of accounting, concept of accounting principles and preparation of financial accounts and rectification of errors.

CO 3) Preparation of depreciation accounts and its relevance with different methods.

CO 4) Identify the procedures of final A/C with adjustments.

CO 5) How to prepare and record consignment accounts and its valuations.

B.COM Ist Sem

Computer Application in Business

Computer- Definition, Component, Characteristics
Input and Output devices
Memory- Primary and secondary memory
Hardware, Software- Types (System and application Software),
Programming Language. Operating System – types and Function
Open Source Software
Application Software – Ms- Word, Ms- Excel, Ms- Powerpoint (Practicals)

B.COM IInd sem

IT and E-Commerce

Internet- uses and application and services, effects of information Technology on Business. Types of Information system and its uses in business
E-Commerce –Application , Services , Security issues
Electronic Data Interchange uses in Business, Its implementation and component. Internet and HTML (Create Web Pages)

B.com -1st

Principles of Business Management

1. Introduction to Commerce and Management
2. Analyze the approaches to Management-classical, Neo classical and modern approaches.
3. Understand the concept, process and types of plans.
4. Concept of organizing and Organizational structure.
5. How to delegate & decentralize authority and its implication.
6. Process of staffing concepts and approaches to motivation.
7. Understanding the concepts and leadership theories styles and controlling technique to overcome the derivation.

B.Com II sem Business Environment of Haryana

1. Nature & Problem of Haryana economy.
2. Haryana economy arise its reception- Income, population, Health, Nutrition & decline gender ration.
3. Understand the nature, cropping pattern & role of Haryana agriculture.
4. Agriculture credit – types of finance, credit needs & sources.
5. Role of HSIIDC, HRC, HAFED
6. Objective & policies of Haryana budget, source & utilization of resources.

B.com iii(vi sem) Management accounting

1. Define nature, scope, rules & techniques of Management accounting.
2. Concept of Budgeting and Budgeting control.
3. Accounting procedure of Standard costing & variance Analysis.
4. Implication of CVP analysis, BEP analysis.

5. Concept of responsibility Accounting, types of responsibility centres.
6. Provision of income from other sources.
7. Computation of income from Capital Gain.
8. Aggregation & clubbing of income provision of set off & carry forward of losses.

Income Tax II

1. Detailed discussion of deduction o/s 80 c- 80 u.
2. Computation of total income & tax liability of Individual including practicals/numerical.
3. Computation of tax liabilities of HUF.
4. Computation of total income & tax liabilities of firms.
5. Computation of total income & tax liabilities of companies.
6. Detailed note on Income tax authorities.
7. Procedure of assessment.
8. Implication of TDS & payment of advance tax.
9. How to recover and refund term.
10. Provision for penalties and precaution.
11. An overview of DTC.

B.Com II (IIIrd Sem.) IFS

1. Understand the Structure & concept of IFS.
2. Understand the concept & working of Money market, Capital Market, Primary market & secondary market.
3. Role of banking system & Financial institution in IFS.
4. Overview of Regulatory framework of IFS.
5. RBI and its function.
6. SEBI and its function.
7. Various development banks – IFCI , ICICI, IDBI, SIDBI, NABARD etc.

B.Com III Cost Accounting

1. Introduction to cost accounting methods & techniques.
2. Accounting treatment for materials.
3. Accounting treatment for labour in cost.
4. Accounting procedure for overhead in cost accounting.
5. Different methods of costing- unit costing, job costing & Contract costing.

B.Com III (Income Tax I & II)

1. To get insight of basic concepts of income & income tax.
2. Determination of residential status & incidence of tax liabilities.
3. Calculation of Income from Salaries.
4. Computation of Income from HP.
5. Provision & Practical aspects of profits & gain from Business & Profession.

PROGRAMME OUTCOMES FOR B.Sc

PS01: Acquire an in- depth understanding and knowledge of the basic concepts of physics and be able to appreciate how diverse phenomena observed in nature follow from a small set of fundamental laws through logical reasoning.

PS02: Be capable of understanding the core physical laws to understand the basic concepts, latest progress and application of certain sub fields such as nuclear physics, spectroscopy of atoms and molecules, solid state physical, computational physics and electronics.

PS03: Gain hands-on skills for carrying out basic experiments.

PS04: Have a new perspective to look at everything from 'scientific' point of view that enabling them to pursue higher studies at postgraduate and research level.

PS05: Have awareness of the impact of physics in social, economical and environmental issues.

PS06: Will become familiar with the different branches of chemistry like analytical, physical, organic, inorganic and polymer.

PS07: Will develop analytical skills and problem- solving skills requiring application of chemical principles.

PS08: Have the ability to synthesize, separate and characterize compounds using Laboratory and instrumentation techniques.

COURSE OUTCOMES FOR B.Sc

PHYSICS

Paper – I: Classical Mechanics and Theory of Relativity

- CO1 Understand the classical concept of solving problems
- CO2 Use of transformation of variables in generalised coordinate
- CO3 Differentiate the phenomenon on basis of relative velocity
- CO4 Applications of theory of relativity

Paper – II: Electricity, Magnetism and Electromagnetic theory

- CO1: Understanding of basics of vector algebra
- CO2: Use of algebra in understanding the phenomena in electrostatics and Magnetostatics.
- CO3: Study the propagation and applications of electromagnetic theory
- CO4: Solving the problems containing Inductor, Capacitor and Resistor in AC Circuits.

Paper-III: Properties of Matter and Kinetic Theory of Gases

- CO:1 To understand basic properties of Solids
- CO:2 Understanding the applications of elasticity
- CO:3 To Learn the basic laws obeyed by Gas
- CO:4 To understand the transport of mass, Momentum and Energy

Paper – IV: Semiconductor Devices

- CO:1 To understand Basics about Semiconductors
- CO:2 To learn working of Transistor and Amplifier with and without feedback
- CO:3 Understanding the applications of Semiconductor devices
- CO:4 Learn the basic theory of oscillators and their uses.

Paper-V: Computer Programming and Thermodynamics

- CO:1 Understand the basics of FORTRAN Programming
- CO:2 to Learn the basics of Program writing
- CO:3 Understanding of the preliminaries of thermodynamics
- CO:4 To learn applications of Maxwell equations for solving problems

Paper VI: Wave and optics I

- CO:1 Understanding of basic Interference Theory with coherent sources.
- CO:2 To learn applications of Interference in Newtons rings and thin film etc.
- CO:3 Understanding of basic Fresnel's Diffraction Theory based on half period Zones.
- CO:4 To learn applications of Diffraction in double and N Slits.

Paper VII: Statistical Physics

- CO:1 Understanding the basics of statistical Physics.
- CO:2 To learn applications of statistical Physics for solving ideal gas problems.
- CO:3 To use statistical theory in development of quantum statistics in Bose-Einstein Condensation.
- CO:4 To use quantum theory for solution of ideal gas equation

Paper VIII: Wave and Optics II

- CO:1 To learn about the basics of Polarization
- CO:2 To Understand the preliminaries of Fourier Analysis and its applications
- CO:3 To learn about the Fourier transforms
- CO:4 To understand the geometrical optics in lens makers formula

Paper – IX : Quantum and Laser Physics

- CO:1 Student can understand the basics theory of Quantum Mechanics
- CO:2 To use Schrödinger Equation for solving Problems for a particle in one dimensional
- CO:3 To learn basics of Laser Physics
- CO:4 To learn about ruby and He-Ne laser and the application of Laser Physics.

Paper – X: Nuclear Physics

- CO:1 To learn basics of Nuclear Properties
- CO:2 To understand the interaction of radiation with matter with regards to attenuation
- CO:3 To understand the working of nuclear reactor and radiation detector
- CO:4 To learn the working of ion accelerators and nuclear reaction

Paper – XI : Solid State and Nano Physics

- CO:1 To understand basics of Crystal structure
- CO:2 To learn the various crystal determination method like Powder Method, Laue Method, Crystal Rotating Method etc.
- CO:3 To understand the basics of superconductivity and its applications
- CO:4 To learn the synthesis and applications of Nanotechnology

Paper – XII: Atomic and Molecular Spectroscopy

- CO:1 To understand the Historical background of atomic spectroscopy with regards to shape of orbit of an atom.
- Co:2 To understand Vector Model of Atom
- CO:3 To understand the Behavior of Atom in external electric and Magnetic Field
- Co:4 To understand the basics of Vibrational, Roational and electronic molecular spectra.

MATHEMATICS

Class: B.A./B.Sc. – Ist Year Semester-1 (ODD) Subject: Mathematics Paper:BM – 111 : Algebra Paper :I(UG)

1. Students will be able to understand about Symmetric, Skew symmetric, Hermitian and skew Hermitian matrices. Elementary Operations on matrices. Rank of a matrices. Inverse of a matrix. Linear dependence and independence of vectors. Row rank and column rank of a matrix. Eigenvalues, eigenvectors and the characteristic equation of a matrix. Minimal polynomial of a matrix. Cayley Hamilton theorem and its use in finding the inverse of a matrix.
2. Students will be able to understand about Applications of matrices to a system of linear (both homogeneous and non-homogeneous) equations. Theorems on consistency of a system of linear equations. Unitary and Orthogonal Matrices, Bilinear and Quadratic forms.
3. Students would have the understanding of the following topics Relations between the roots and coefficients of general polynomial equation in one variable. Solutions of polynomial equations having conditions on roots. Common roots and multiple roots. Transformation of equations.
4. Students will have the idea of the concept of Nature of the roots of an equation Descarte's rule of signs. Solutions of cubic equations (Cardon's method). Biquadratic equations and their solutions (By Descarte Method and Ferrari Methods).

Class: B.A./B.Sc. – Ist Year Semester-1 (ODD) Subject: Mathematics Paper: BM – 112 : calculus Paper :II(UG)

1. Students are made to learn about successive differentiation and its uses in Leibnitz's theorem and series expansion. They are able to understand differentiability and continuity and types of discontinuities.
2. Students are able to understand asymptotes in Cartesian and polar coordinates. Along with this they are taught about curvature and test for concavity and convexity. Multiple points, cusps, nodes and conjugate points are also taught to help in curve tracing.
3. Students are given detailed explanations about the methods of curve tracing in cartesian and polar

coordinates. It helps in finding the lengths of curves in topics of rectification. Reduction formulas are taught in order to simplify the typical integrals.

4. Students are taught about finding the areas of curves and area bounded by closed curves. Volumes and surface areas of solids of revolution are also taught.

Class: B.A./B.Sc. Ist Year Semester-1(ODD) Subject: Mathematics Paper: BM-113:Solid Geometry Paper :III(UG)

1. students learn about the general equations of second degree, tracing of ellipse, hyperbola and parabola and also get to know about the confocal conics. They get to know whether a given second degree equation is a hyperbola or ellipse or parabola.
2. students are given introduction and details about sphere, cone, cylinder their properties ,coaxial system of spheres, enveloping cones, reciprocal system of cones, enveloping cylinder so that they also get to use it in real world.
3. The topics of central conicoid, director sphere, polar plane of a point are explained to the students.
4. students learn about paraboloids, plane sections of conicoids, generating lines and reduction of second degree equations.

Class: B.A./B.Sc. Ist Year Semester-2(Even) Subject: Mathematics Paper: BM-121:Number Theory and Trigonometry Paper : I(UG) S.

1. Divisibility, G.C.D. (greatest common divisors), L.C.M. (least common multiple) Primes. Linear Congruences, Fermat's theorem. Wilson's theorem and its converse. The students will be able to know about basic knowledge of the number theory and its various elementary tools.
2. Complete residue system. Legendre symbols. Lemma of Gauss; Gauss reciprocity law. Greatest integer function $[x]$. The number of divisors and the sum of divisors of a natural number n (The functions $d(n)$ and $\sigma(n)$). The students will be able to use this method in further higher studies.
3. De Moivre's Theorem and its Applications. Direct circular and hyperbolic functions and their properties. The students will be able to get good knowledge of use of trigonometry.
4. Inverse circular and hyperbolic functions and their properties. Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series. The Students will be able to solve problems related to summation and inverse & hyperbolic functions of trigonometry.

Class - B.A./B.Sc. Ist Year Semester-2 (Even) Subject-Mathematics Paper- BM-122:Ordinary Differential Equations Paper-II(UG)

1. Explained the differential equation, exact diff.eqn,solution of exact differential equation,integrating factor,number of integrating factors,equation of first order but not of first degree. Students have learnt how to solve exact and non exact differential equation and how to find the solution of the differential equation of first order but not of first degree.
2. Explained Orthogonal trajectories, orthogonal trajectories in cartesian coordinates, orthogonal trajectories in polar co-ordinates, linear differential equation with constant coefficient ,homogenous linear equation. Students have learnt how to find orthogonal trajectories of curves, how to solve linear differential equation with constant co-efficient and how to solve homogenous equations.
3. Explained the Linear differential equation of second order:-by changing the dependent variable, by removing the first derivative and by changing the dependent variable, by changing the independent variable, by the method of variation of parameter, by method of undetermined coefficient . Students have learnt how to solve linear differential equation of second order by using different methods.
4. Explained the Ordinary simultaneous differential equation ,method to solve simultaneous differential equation with constant coefficient, total differential equation, method to solve total differential equation, method to solve homogenous equation. Student have learnt how to solve simultaneous and total differential equation

Class - B.A./B.Sc. Ist Year Semester-2 (Even) Subject-Mathematics Paper-BM-123:Vector Calculus Paper- III(UG)

1. Students will be able to understand about the scalar and vector product of three vectors, Product of four vectors. Reciprocal vectors. Vector differentiation, Scalar Valued point functions, Vector valued point functions, Derivative along a curve, Directional derivatives. Also solve the problems involving above concepts. Students will be able to find Product of vectors & their Differentiation.
2. Students will be able to understand about Gradient of a scalar point function, Geometrical interpretation of gradient F , Character of gradient as a point function. Divergence and Curl of vector point function, second order differential equation and their examples.
3. Students would have the understanding of the following topics Orthogonal curvilinear coordinates, Conditions for orthogonality, Fundamental triad of mutually orthogonal unit vectors. Gradient, Divergence, Curl and Laplacian operators in terms of orthogonal curvilinear coordinates, Cylindrical coordinates and Spherical coordinates.
4. Students will have the idea of the concept of Vector integration; Line integral, Surface integral, Volume integral. Theorems of Gauss, Green & Stokes and problems based on these theorems.

Class: B.A./B.Sc. IInd Year Semester-III(ODD) Subject: MATHEMATICS Paper –BM-231: ADVANCED CALCULUS Paper:I(UG)

1. Students will able to learn about continuous function, chain rule of differentiability and Mean value theorems, indeterminate forms & their applications.
2. Student come to know about the Limit & continuity of functions of two variables, partial differentiation. Also Taylor's theorem for function for two variables are taught
3. Explanations & knowledge of differentiability of two variables and maxima & minima of two variables and their use to solve the problems are provided.
4. Students learn about the Curves in space and curvature & torsion, circle of curvature & spherical curvature, surfaces in spaces & envelopes and also they will be able to relate this knowledge in their real life experiences.

Class: B.A./B.Sc. IInd Year Semester-III (ODD) Subject: MATHEMATICS Paper: BM -232:PARTIAL DIFFERENTIAL EQUATIONS Paper :II(UG)

1. Formation of Partial Differential Equation, linear and non linear pde's, solution of Partial Differential Equation by lagrange and charpit method Students will get to know how to solve various Partial Differential Equation by various methods
2. Complementary functions and particular integrals of Partial Differential Equation equations reducible to linear equations with constant coefficients Students will get to know to find complete solution of a Partial Differential Equation
3. Classification of linear equations, solution of linear hyperbolic equations, Monge's method for Partial Differential Equation of second order Students will get to know about various Partial Differential Equation
4. Cauchy problem for second order Partial Differential Equation, characteristic equations and characteristic curves, solution of Laplace, wave and heat equation Student gets to know to solve these equations by separation of variables

Class: B.A./B.Sc. IInd Year Semester-III(Odd) Subject: MATHEMATICS Paper:BM-233:Statics Paper : III(UG)

1. Explanation about basic definitions of forces, their composition and resolution is given. Lami's Theorem and its practical applications are also provided. Like and unlike parallel forces and Moments and couples are also taught.
2. Students are made to learn about Analytical conditions of equilibrium of forces, m-n theorems, Laws of friction, their practical uses and centre of gravity of objects.
3. Students learn about the meaning and uses of virtual work, Forces in three dimensions, and poinso't's central axis.

4. Students are taught about Wrenches, Null lines, Null planes, Stable and unstable equilibrium.

Class - B.A./B.Sc. . IInd YEAR Semester-IV (Even) Subject-Mathematics Paper-BM-241:Sequence and Series Paper-I(UG)

1. students learnt about the boundedness of set of real numbers, limit points, open set, closed set, closure of a set in real numbers and their properties. They also learnt about Bolzano-Weierstrass theorem ,open covers, Compact sets and Heine- Borel theorem. They will be able to use topology of real numbers in higher education.
2. students learnt about sequences, Bounded and Monotonic sequences, Cauchy's sequence. Students also discuss convergence and divergence of infinite series, geometric series or p-series. Students will be able to analyse the behaviour of different sequences and infinite series.
3. students discuss about some tests like D'Alembert ratio test ,Cauchy's root test, Rabbe's test, Demorgan and Bertrand test, Logarithmic test, Cauchy integral test and Cauchy condensation test. students will be able to use different test how to check the infinite series is either convergent or divergent.
4. Students discuss alternating series, Abel's test, Dirichlets test, multiplication of series, Convergence and Absolute convergence of Infinite products. Students will be able to check and identify the behaviour of Alternating series and infinite product.

Class - B.A./B.Sc. IInd Year Semester-IV (Even) Subject-Mathematics Paper-BM-242:Special Functions and Integral Transform Paper: II(UG)

1. Explained the topics Power series method, Bessel's equation and its solutions, Bessel's functions and its properties, Convergence, Recurrence relations and Generating functions. Students learnt how to find the solution of Power series and Bessel's equations.
2. Legendre's equation and Hermite's equation and their solutions: Recurrence relations and Generating functions, Orthogonality and Rodrigue's Formula. Students are now able to solve related problems based on it.
3. Laplace Transforms (L.T.): L.T. of derivatives and integrals, differentiation and integration of L.T., Convolution theorem, Inverse Laplace Transforms (I.L.T.): Convolution theorem, I.L.T. of derivatives and integrals, solution of O.D.E using L.T. Students learnt about transformations also learnt that L.T. can be used to solve differential equations.
4. Fourier transform (F.T.): Linearity Property, Shifting, Modulation, Convolution theorem, F.T. of Derivatives, Relation b/w F.T. and L.T. and their solutions. Students learnt that wave simplifications can be done by using F.T.

Class - B.A./B.Sc. IInd Year Semester-IV (Even) Subject-Mathematics Paper-BM-243:Programming in C and Numerical Methods Paper: III(UG)

1. Introduction of Computer, Algorithm , Flowchart, Operator, Expression, Keywords, Importance of C'. Students learnt the various algorithm techniques and flowcharts in order to make programs
2. functions, Introduction to higher level languages, Loops, While loop, Do loop, For loop, Statement-If, If Else Statement, Nested If statement. students learnt define ,declare and call functions and nesting of various loops.
3. Array ,Structure and Unions Bisection method, newton raphson method , secant method students learnt about arrays and to find roots of algebraic and transcendental equations.
4. Gauss Elimination Method, Gauss Seidal Method , Triangularisation Method, Relaxation Method , LU Decomposition. Students learnt to find solution algebraic and transcendental equations.

Class: B.A./B.Sc. - IIIrd Year Semester-V (ODD) Subject: Mathematics Paper:BM -351 : Real Analysis Paper:I(UG)

1. Students will be able to understand about Riemann integral, Integrability of continuous and monotonic

- functions, The Fundamental theorem of integral calculus. Mean value theorems of integral calculus
2. Students will be able to understand about Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of a parameter. Continuity, Differentiability and integrability of an integral of a function of a parameter.
 3. Students would have the understanding of the following topics Definition and examples of metric spaces, neighborhoods, limit points, interior points, open and closed sets, closure and interior, boundary points, subspace of a metric space, equivalent metrics, Cauchy sequences, completeness, Cantor's intersection theorem, Baire's category theorem, contraction Principle.
 4. Students will have the idea of the concept of Continuous functions, uniform continuity, compactness for metric spaces, sequential compactness, Bolzano-Weierstrass property, total boundedness, finite intersection property, continuity in relation with compactness, connectedness, components, continuity in relation with connectedness.

**Class: B.A./B.Sc. - IIIrd Year Semester-V(ODD) Subject: Mathematics
Paper:BM -352 : Groups and Rings Paper: II(UG)**

1. Define binary operations, Groups and subgroups, Quotient groups. Students will be able to identify whether a particular set under given binary operation forms group or not.
2. Homomorphism and some theorems of homomorphism, automorphism. Students will be able to identify whether a function between two groups is a homomorphism or not.
3. Rings and subrings, ideals and quotient rings. Students will be able to generalise when a given set under two euclidean domain, Principal Ideal Domain.
4. Integral domains, unique factorization domain. Student will be able to classify a given ring through which they will understand its properties.

**Class: B.A./B.Sc. - IIIrd Year Semester-V(ODD) Subject: Mathematics
Paper:BM -353 : Numerical Analysis Paper: III(UG)**

1. Students will be able to understand about the operator, finite difference Operator, Newton Backward interpolation Formula, Newton Forward interpolation Formula, Finite Difference Formula.
2. Students will be able to understand about the Probability, Probability Distribution, Poisson Distribution, Bernoulli Distribution, Normal Distribution.
3. Students will be able to understand about the Euler's Method, Euler Modified Method, Numerical Differentiation, Numerical Integration and Numerical Differentiation.
4. Students will be able to understand about the Numerical Integration, Runge's Kutta Method, Milne Method, Simpson Method, Simpson 1/3 Rule, Simpson 3/8 Rule.

**Class - B.A./B.Sc. IIIrd YEAR Semester-VI (Even) Subject-Mathematics
Paper-BM-361-Real and Complex Analysis Paper: I(UG)**

1. Explained the Jacobian, Beta and Gamma Function, Double and Triple Integrals. Students learnt about the Jacobian and to apply Beta and gamma function to find the value of integral.
2. Explained the Fourier's Series, Properties of Fourier Coefficients, Dirichlet's Integral. Students learnt about the fourier series and solve function.
3. Explained the stereographic projection, Analytic function, Cauchy Riemann equations, harmonic functions. Students learnt about the differentiability, meaning of analytic functions and check if the function is analytic or not.
4. Mobius transformation, Conformal mapping. Students learnt how to map a region under given transformation

Class - B.A./B.Sc. IIIrd YEAR Semester-VI(Even) Subject-Mathematics Paper-BM-362-Linear Algebra Paper: II(UG)

CO1: The students will be able to learn about spaces and subspaces.

CO2: The students will be able to use vector space in linear transformation.

CO3: The students will be able to find Eigen values and Eigen vectors of linear transformations.

CO4: The students will be able to analysis inner product space.

Class - B.A./B.Sc. IIIrd YEAR Semester -VI(Even) Subject-Mathematics Paper-BM-363:Dynamics Paper:III(UG)

CO1: The students were able to know the meaning of velocity and acceleration and solve the numerical based on velocity and simple harmonic motion

CO2: The students learnt about Newton's law of motion and were able to solve the problems related to Newton's law of motion, work, power and energy.

CO3: The students have learnt the meaning of projectile and were able to solve the problems related to it.

CO4: The students learned about central orbit and properties related to it.

CHEMISTRY

Course Content:-Inorganic chemistry:- B.Sc.1st year UNIT- 1- Atomic structure

CO1 To learn about the structure of atom, Quantum numbers

CO2 To distinguish between orbit and orbital

CO3 Study about electronic configuration of the elements

CO4 Application of electronic configuration

UNIT-II:Periodic table

CO1 Classification of elements in a Periodic table

CO2 Trends of elements according to size, ionization energy, electron gain enthalpy and electronegativity along the group and period in periodic table

CO3 Application of periodic table in studying the characteristics of an element

UNIT-III- ionic solid and covalent solid

CO1 To learn about the type of chemical bonds

CO2 To study about valence bond theory of atomic orbitals

CO3 To learn about Molecular orbital theory of homoatomic and heteroatomic diatomic molecules

CO4 Applications of molecular orbital Theory on hydrogen molecule to neon molecule and calculation of lattice energy by Born- Haber cycle.

Paper: Inorganic Chemistry (sem 2)

UNIT 1: Hydrogen Bonding and Van der Waal's forces

CO1 Introduction of Hydrogen bonding

CO2 To understand the nature and strength of hydrogen bonding

CO3 Study the types of hydrogen bonding

CO4 Van der Waal's forces

UNIT 2: Metallic bond and semiconductors

- CO1 To study the band theories of metallic bond
- CO2 Introduction ,types and applications of semiconductors

UNIT 3: S-Block elements

- CO1 Introduction to S-Block elements
- CO2 To study the anomalous behaviour of lithium and beryllium compared to other elements
- CO3 To study the behaviour of solution in liquid ammonia

UNIT 4: Chemistry of noble gases

- CO1 Introduction to noble gases
- CO2 To study the low reactivity of noble gases
- CO3 To understand the structure and bonding in fluorides ,oxides and oxyfluorides of xenon

UNIT 5: p-Block elements

- CO1 To study the electronic configuration , atomic and ionic size
- CO2 To understand the properties ionization energy ,electron affinity and electronegativity

Unit 6: Boron family

- CO1 Introduction to boron family
- CO2 To study the preparation ,properties and structure of Diborane
- CO3 To learn the chemical properties and structure of Borazine

UNIT 7: Carbon family and Nitrogen family

- CO1 To study about the catenation ,carbides and fluoro carbons
- CO2 Understand the structure of oxides of nitrogen and phosphorous

UNIT 8: Oxygen family

- CO1 To study the Oxy acids of sulphur -structure and acidic strength
- CO2 Properties and uses of hydrogen peroxide

UNIT 9: Halogen family

- CO1 To learn the properties and structures of interhalogen compounds
- CO2 Study the comparison of acid strength

Paper II :-Physical chemistry UNIT-I-Gaseous state

- CO1 To learn about the physical state of matter that is solid liquid and gas
- CO2 To learn about ideal behaviour of the gases
- CO3 Deviation from Ideal behaviour i.e. real gas
- CO4 To learn about certain physical generalizations related to gaseous state CO4 Application of some principles
Andrew experiment ,cloud process

UNIT-II -Liquid state and liquid crystal

- CO1 To learn about some physical properties like surface tension, viscosity and refractive index
- CO2 Application of surface tension and viscosity
- CO3 General characteristic properties of surface tension and viscosity
- CO4 To learn about the type of liquid crystals and their applications in industry level as well as daily life

UNIT-IV- Solid state

- CO1 To learn about the different type of crystalline solids and amorphous solids
- CO2 To learn about some experimental procedure by bragg's law and powder method for determining the structure of a crystal by x-ray crystallography
- CO3 Applications of X-Ray crystallography for structures determination of crystals and types of Crystal system

UNIT-V-Chemical kinetics

- CO1 To learn about the rate of chemical reactions
- CO2 To learn about the factor affecting the rate of chemical reactions
- CO3 Type of order of reactions and their units
- CO4 To learn about the bimolecular and Uni molecular collision theory

UNIT-VI-Electrochemistry-I

- CO1 To learn about the Arrhenius concept and theory for weak electrolytes
- CO2 To study about ostwal dilution law for weak electrolyte
- CO3 To study about onsager equation for strong electrolytes
- CO4 Applications of buffer solution ,buffer activity and pH of the solution in the daily life

Paper: Organic Chemistry (1st Sem)

UNIT 1: Structure and Bonding

- CO1 Introduction to nature of bonding and van der waals interactions
- CO2 Resonance effect and its applications
- CO3 Comparison of resonance ,hyperconjugation, inductive effect and electromeric effect

UNIT 2: Stereochemistry of Organic Compounds

- CO1 Introduction to isomerism and its types
- CO2 Study about the types of of stereochemistry in detail
- CO3 To learn the R and S , E and Z configuration of the compounds
- CO4 Conformational analysis of ethane, n-butane and cyclohexane
- CO5 Study the difference between Configuration and Conformation

UNIT 3:Mechanism of Organic Reactions

- CO1 Introduction to Bond Cleavage
- CO2 Study about the Reaction intermediates e.g.carbocations ,carbanions and free radicals
- CO3 Classification of Reagents and Organic Reactions
- CO4 To learn draw the diagram of Energy changes during reactions

UNIT 4: Alkanes and Cycloalkanes

- CO1 Introduction to Alkanes and Cycloalkanes
- CO2 Classification of alkanes and cycloalkanes
- CO3 To learn the nomenclature of alkanes and cycloalkanes
- CO4 Study the methods of preparation of alkanes and cycloalkanes
- CO5 To understand the Baeyer's strain theory and its limitation

Paper: Organic Chemistry (2nd sem) UNIT 1: Alkenes

- CO1 Introduction to Alkenes
- CO2 To learn the nomenclature of Alkenes
- CO3 Study the methods of formation of Alkenes
- CO4 Naming chemical reaction of Alkenes with mechanism

UNIT 2: Arenes and Aromaticity

- CO1 Introduction to Aromatic compounds
- CO2 To learn the nomenclature of Benzene derivatives
- CO3 To understand the structure of Benzene
- CO4 Study the Aromatic ,Antiaromatic and Non- Aromatic Compounds

UNIT 3: Dienes and Alkynes

- CO1 Introduction to Dienes and Alkynes
- CO2 To learn the nomenclature of Dienes and Alkynes
- CO3 Classification of Alkynes and Dienes
- CO4 Study the methods of formation of Alkynes
- CO5 Mechanism of electrophilic and nucleophilic addition reactions

UNIT 4: Alkyl and Aryl Halides

- CO1 Introduction to Alkyl and aryl halides
- CO2 Classification of Halogen compounds
- CO3 To learn the nomenclature of Alkyl and Aryl halides
- CO4 Study the methods of preparation of Alkyl and Aryl halides
- CO5 To understand the relative reactivities of alkyl halides ,vinyl and aryl halides

Paper: Organic Chemistry SEMESTER-2nd UNIT 1: Alkenes

- CO1 Introduction to Alkenes
- CO2 To learn the nomenclature of Alkenes
- CO3 Study the methods of formation of Alkenes
- CO4 Naming chemical reaction of Alkenes with mechanism

UNIT 2: Arenes and Aromaticity

- CO1 Introduction to Aromatic compounds
- CO2 To learn the nomenclature of Benzene derivatives
- CO3 To understand the structure of Benzene
- CO4 Study the Aromatic ,Antiaromatic and Non- Aromatic Compounds

UNIT 3: Dienes and Alkynes

- CO1 Introduction to Dienes and Alkynes
- CO2 To learn the nomenclature of Dienes and Alkynes
- CO3 Classification of Alkynes and Dienes
- CO4 Study the methods of formation of Alkynes
- CO5 Mechanism of electrophilic and nucleophilic addition reactions

UNIT 4: Alkyl and Aryl Halides

- CO1 Introduction to Alkyl and aryl halides
- CO2 Classification of Halogen compounds
- CO3 To learn the nomenclature of Alkyl and Aryl halides
- CO4 Study the methods of preparation of Alkyl and Aryl halides
- CO5 To understand the relative reactivities of alkyl halides, vinyl and aryl halide

Course content : Chemistry B.Sc.2nd year Paper: Inorganic Chemistry

UNIT-I:-d-block elements

- CO1 Chemistry of elements general characteristics and properties of d- block elements
- CO2 To learn the comparison of properties of 3d elements with 4d and 5d elements
- CO3 Discuss the structure and property of some compound of transition elements

UNIT-II -Coordination compounds

- CO1 To learn the basic of co-ordinate covalent bonds, nomenclature of coordination compounds
- CO2 Isomerism in coordination compounds
- CO3 Application of valence bond theory to metal complexes

UNIT-III :- Non- aqueous solvents

- CO1 To learn the basic physical properties of solvent
- CO2 Discuss the type of solvents and their general characteristics
- CO3 Applications of non - aqueous solvents with reference to liquid Ammonia and liquid sulphur dioxide

UNIT-IV :-Chemistry of f- block elements :-Lanthanides and Actinides

- CO1 To know about the electronic structure, Oxidation state and ionic radii of Lanthanides and Actinides
- CO2 To learn about Lanthanide contraction, their cause and consequences
- CO3 Discuss some other important properties of Lanthanide and actinide
- CO4 Occurrence, isolation of lanthanides and actinides
- CO5 To learn about heavy elements after Uranium

UNIT-V:- Theory of qualitative analysis and quantitative analysis

- CO1 To learn about the qualitative and quantitative inorganic analysis of basic or acid radical
- CO2 Test to distinguish, classification of acid and basic radicals
- CO3 To learn about the theory of precipitation, co- precipitation and post -precipitation
- CO4 Chemistry of identification of acid radical in typical combinations

Paper :- Physical chemistry

UNIT-I:-Thermodynamics-I

- CO1 To learn about the basics of thermodynamics
- CO2 Type of system, thermodynamic processes
- CO3 Application of First law and Zeroth law of thermodynamics
- CO4 Applications of Joule law and JouleThomson coefficient for ideal and real gases

UNIT-II -Chemical equilibrium

- CO1 To know about the elements: free energy, chemical potential and equilibrium constant
- CO2 To discuss about Thermal derivation of chemical equilibrium and reaction isochore, isotherm
- CO3 Applications of Clausius-clapeyron equation and Le-Chatelier principle

UNIT-III:-Distribution Law

- CO1 Nernst distribution law: modification of distribution law
- CO2 Application of distribution law in different processes

UNIT-IV-Thermodynamics-II

- CO1 Discuss second and third law of thermodynamics
- CO2 discuss the Carnot cycle and its efficiency
- CO3 Discuss the concept of Entropy and spontaneity of a process
- CO4 Entropy change in ideal gases and mixing of gases, Nernst heat theorem

UNIT-V:-Electrochemistry

- CO1 Distinguish between electrolytic and galvanic electrochemical cells
- CO2 To learn about the representation of a chemical cell and electrochemical series
- CO3 To know about the standard cell, type of reversible electrodes
- CO4 Applications of electrochemical electrode, reversible electrodes.

Paper:- Organic chemistry Alcohols,phenols and epoxides

- CO1 Learn about the nomenclature, structure, method and physical properties of Alcohols, Phenols and Epoxides
- CO2 Discuss about the chemical properties of alcohol,phenols and epoxides
- CO3 Distinguish between primary secondary tertiary alcohol by some test and phenols and alcohols

Ultraviolet spectroscopy

- CO1 To know about the electromagnetic spectrum and spectroscopic studies
- CO2 Study about the principle of Ultraviolet Spectroscopy
- CO3 To learn about the electronic excitations
- CO4 Application of UV Spectroscopy by Woodward –Fisher rules

Carboxylic acid and their derivatives

- CO1 to learn about the organic acids and their derivatives
- CO2 General method of preparation, physical and chemical properties of Carboxylic acid and their derivatives
- CO3 Effect of substituents on acidity on carboxylic acid and their derivatives
- CO4 To learn about the structure of carboxylic acid and acid derivatives

CO5 To learn about the nucleophilic substitution reactions and applications of carboxylic acid derivative in different reactions.

Amines

- CO1 To distinguish between primary, secondary and tertiary amines
- CO2 Method of preparation, chemical and physical properties and structure of amines
- IR spectroscopy
- CO1 To learn the basic principle of IR Spectroscopy
- CO2 Applications of IR Spectroscopy
- CO3 Discuss about the factor affecting the IR spectroscopy
- CO4 Problem solving related to IR spectroscopy

Aldehyde and ketones

- CO1 To know about the differences between carbonyl group containing aldehyde and Ketone
- CO2 Some important reactions
- CO3 Learn about the physical and chemical properties of aldehyde and ketones
- CO4 To distinguish between aldehyde and ketones on the basis of chemical test

Course Outcomes: Chemistry (B.Sc.3rd Year) Paper-I: Inorganic chemistry Unit:-I:- Metal Ligand bonding interaction metal complexes

- CO1 To learn the postulates of valence bond theory
- CO2 To understand the application of valence bond theory
- CO3 To study about crystal field theory of octahedral, square planer and tetrahedral complexes
- CO4 Applications of crystal field splitting energy in octahedral, square planar and tetrahedral complexes

Unit:-II:-Magnetic properties of transition metal complexes

- CO1 To learn about the experimental methods of determining the magnetic susceptibility
- CO2 Application of magnetic moment i.e. spin and orbital
- CO3 To study about the relationship between magnetic susceptibility and magnetic moment

UNIT-III:-Thermodynamics and kinetic aspects of metal complexes

- CO1 To learn the basic outline of thermodynamic stability of metal complexes
- CO2 To learn about the factor affecting the stability of complexes
- CO3 Application of thermodynamic stability in substitution reactions (in square planar complexes)

UNIT-IV:-Electronic spectra of transition metal complexes

- CO1 To learn about electronic transitions
- CO2 To study about the selection rule for d-d transition
- CO3 Use of spectroscopic ground state term symbols
- CO4 Applications of Orgel energy level diagram for D1 and d9 States

UNIT-V- Organometallic chemistry

- CO1 To learn about the classification of organometallic compounds
- CO2 Application of organometallic compounds in various fields
- CO3 To study about the bonding of lithium, aluminium, Mercury and Sn metal- ethylenic complexes
- CO4 Application of organometallic compound in mononuclear carbonyl in nature of bonding in metal carbonyls

UNIT-VI:- Acid, base and HSAB concept

- CO1 To know about the acid and base concept
- CO2 To study the acid base concept by different methods
- CO3 To discuss the relative stability or strength of acids and base
- CO4 Applications of hard acid and soft acid and base

UNIT-VII- Bioinorganic chemistry

- CO1 To learn about the essential and trace elements in biological process
- CO2 To study about the function of haemoglobin and myoglobin in biological system
- CO3 Applications of alkali or alkaline earth metal in biological processes
- CO4 To study about the nitrogen fixation and assimilation

UNIT-VIII :-Silicones and Phosphazenes

- CO1 To learn about the silicon and Phosphazenes
- CO2 To learn about the inorganic Polymers as silicones and phosphazenes
- CO3 Discuss about the nature of bonding in triphosphazenes
- CO4 Application of Phosphazenes and Silicones in polymer industry.

Paper-II :- PHYSICAL CHEMISTRY (B.Sc.3rdyear)

Unit:-I- : Quantum Mechanics

- CO1 To learn the basic laws of classical mechanics
- CO2 To understand the application of quantum mechanics
- CO3 To study about dual nature of matter and radiation
- CO4 Applications of operators in quantum chemistry

Unit:-II Physical Spectroscopy

- CO1 Understand the basic concept of spectroscopy
- CO2 Applications of Spectroscopy in structure determination
- CO3 To study about selection rules for different type of spectroscopy
- CO4 Differentiate between various types of spectroscopy

Unit:-III -Physical properties and Molecular structure

- CO1 To understand the basic properties of matter
- CO2 Understand the application of dipole moment in various field
- CO3 To learn about the magnetic behaviour of the substances
- CO4 To understand the structure determination by various methods

Unit:-IV:-Photochemistry

- CO1 To understand the basics of Photochemistry
- CO2 Understand the application of Photochemistry in various phenomenon
- CO3 To learn about the spin states and Jablonski diagram
- CO4 To study the Quantum yield of different reactions

Unit:-V:-Solutions

- CO1 To understand the types of solutions
- CO2 Application of colligative properties in various phenomenon
- CO3 To learn about the methods of expressing the concentration of solutions
- CO4 To differentiate between the Ideal and non-ideal solution

Unit:-VI:-Phase Equilibrium

- CO1 To understand the meaning of Phase, components and degree of freedom
- CO2 Application of Phase rule in various phenomenon
- CO3 To learn about the Phase diagram of different component system
- CO4 To study about the of different phase equilibria

Paper -III - Organic Chemistry UNIT -I-Spectroscopy

- CO1 To understand the basics of spectroscopy
- CO2 Learn about the working and factor affecting the chemical shift values
- CO3 To learn about the basic principle of spectroscopy
- CO4 Application of spectroscopy in various fields

UNIT -II-Carbohydrates

- CO1 Understand the basic feature of nutrient i.e. carbohydrates
- CO2 To learn the basics of carbohydrates and cyclic structures
- CO3 Differentiate between oligosaccharide and polysaccharides
- CO4 Application for reactions involving in different media with glucose and Fructose

UNIT-III:- Heterocyclic compounds

- CO1 To study about the basics of Heterocyclic compounds
- CO2 To learn about the molecular structures of Heterocyclic compounds
- CO3 Discuss about the mechanism and orientations of Heterocyclic compounds in electrophilic and nucleophilic substitution reactions
- CO4 Comparison of basicity of Heterocyclic compounds

UNIT-IV:- Amino acids peptides proteins and nucleic acid

- CO1 To learn the basics of amino acids
- CO2 To learn about the classification of amino acid on the basis of stereochemistry
- CO3 Classification and nomenclature of peptides, geometry of peptides,
- CO4 Synthesis of peptides from amino acids and discuss the structures of proteins
- CO5 Distinguish between DNA and RNA
- CO6 Applications and functions of nucleic acids

UNIT V- Synthetic polymers

CO1 To learn about the classification of polymers

CO2 To discuss and differentiate between addition and condensation Polymers with examples

CO3 Applications of addition and condensation Polymers in daily life.

COMPUTER

B.Sc I Odd Sem.PC-Software

Operating System, Windows, icons, Control Panel and its properties.

Operation of files and folders

Office automation , Types of Formatting- Character , Paragraph and page formatting.

Mail Merge , Macro, and Tables.

Ms-Excel- Creating and editing worksheet, Formula and function, Chart, Advanced features.

Ms-Powerpoint – Creating and manipulating slides , Enhancing slides, Organisation Charts and object inserting (Practicals)

Computer and programming Fundamental

Computer- Definition, Component,
Characteristics Input and Output devices

Memory- Primary and secondary memory

Hardware, Software- Types (System and application Software), Programming Language.

Student learnt about the Operating System.

Planning the computer program, problem definition, Techniques of problem solving.

Programming Methodology.

B.Sc II Odd Sem.Data Structure

Types of Data structure, Data structure operation Algorithm Complexity and time space trade off.

Representation of Linear array in memory , Multidimensional Array.

Stack , Queue, Representation of Linked list and its operation.

Tree representation using Array and linked list, Tree traversal

Application of Binary Tree and Graphs

Practicals (related to array , Stack , Queue , Sorting and searching)

Software Engineering

Programming Paradigm, Software crisis, Phases of SDLC, Models Software process.

Software requirement Specification- Characteristics , Component , problems.

Information Gathering Tools

E-R Models and Its implementation

Cost estimation Techniques of Software.

Qualities of Software techniques.

Software testing and Maintaining.

B.Sc III Odd Sem. Database Management system

Students learnt about the Basic concept of data and information.

How difference between Traditional and Computerized Data base.

Dbms – Component, Architecture, advantage and disadvantage, Role of DBA

Three level of Architecture, E- R Diagram

How to identify the keys, Relations and domains.

Stack , Queue, Representation of Linked list and its operation.

Tree representation using Array and linked list, Tree traversal

Application of Binary Tree and Graphs
Practicals (related to array , Stack , Queue , Sorting and searching)

Web Designing

Introduction of Internet and surfing the internet
Student learnt about the WWW , Internet Explorer (Web Browser)
Web server, Web casting techniques on computer.
Steps for developing the websites using the Html Tags.
Images, Tables, Order and unordered list, frames and menus.

B.Sc III Even Sem. Relational Database Management system

Students learnt about the Basic concept of data and information.
Relational oriented Operations and apply on tables.
Sql Command and apply on tables(practice on computer)
Relational Calculus and Normalization.
Pl/Sql and its advantage
And practice on computer

Networking

Osi Reference model and its layer.
Students learnt about the tcp and osi reference model difference
About the help of Data link Layer, Session Layer , Networking Layer.
Student learnt about the to make E-Mail, Video Conferencing

B.Sc I Even Sem. Logical Organisation of computer

Students learnt about the Number System.
How to convert the Decimal to Binary and Vice versa
Logic Gates – Or , and , not
Universal Gate – Nand Or Nor
How the difference between combinational and sequential circuit.
Addressing modes, Peripherals and its type.

Introduction to 'C'

Features of C, Data types, Variables and Constant, Symbolic Constant.
Operators and expressions.
Decision Control Statement- If Statement, Nested If Statement.
Loops – While , For , do while and its program.
Array , Structure and its implementation.
Practice on Computer

B.Sc II Even Sem.

Operating System

Operating System and its types

How to use the Memory management, Internal and External Fragmentation

Page replacement Policies, Disk Scheduling.

Cpu Scheduling- Pre-emptive and Non pre-emptive

Object oriented programming with C ++

Difference++ Student learnt about the OOPS and Classes and object ,
Inheritance.

Function Overloading, Operator overloading

Virtual Function

Practice on computer with help of program

ENGLISH

Sr. No.	Course Contents	Course Outcomes
1.	<p>a.) William Shakespeare: “Let Me Not to the Marriage of True Minds”</p> <p>b.) John Donne: Death be not Proud</p> <p>c.) Henry Vaughan: The Retreat</p> <p>d.) John Dryden: Shadwell</p> <p>e.) Alexander Pope: Know then Thyself</p> <p>f.) William Blake: The Little Black Boy</p> <p>g.) William Wordsworth: Three Years She Grew in Sun and Shower</p> <p>h.) P.B. Shelley: England in 1819</p> <p>i.) Alfred Tennyson: Crossing the Bar</p>	<p>Students will learn about the concept of sonnet and use of sonnet by Shakespeare. The love sonnets of Shakespeare will give students the kind of poetry Shakespeare used to write.</p> <p>Students will come to know about the concepts of wit and conceits used in the metaphysical poetry of Donne and other poets. Contemporary poetry will be discussed in this regard as well.</p> <p>Students will be ideas about the times of Henry Vaughan and the kind of poetry he used to write. The poem itself speaks a lot about the ideology of Vaughan.</p> <p>This is one of the political attacks of the contemporary times in the garb of a literary piece. Dryden’s writing style is also discussed with the students.</p> <p>Pope is discussed as a city poet but this poem is one of his early poems throwing the reality in the face of man in true colours. Students get to know about the writing style of Pope and his personality.</p> <p>Students learn about the post-neoclassical poetry by studying this poet. This poet is a kind of pre-Romantic and students find it easy to relate him with other Romantic poets as well. The poet reflects the purity of thoughts and passions associated with the life of village life as well as childhood.</p> <p>Students learn about the concept of Romantic poetry and the poets writing in those times. Wordsworth reflects on the innocence of childhood and the purity of Nature. He is discussed as a poet of Nature and it is very much reflected here.</p> <p>Shelley has also been labeled as a Romantic poet along with Wordsworth and Coleridge. The free spirit of Romanticism is witnessed here in full swing. Revolt against all kinds of bondages is also a dominant idea of the poem.</p> <p>Students learn about the change from Romantic age to Victorian age. The writing style also changes here and students witness it. Tennyson belongs to the era of industrial revolution in England and the poem reflects the ideas related to materialism and the idea of death.</p>
2.	Translation from Hindi to English	Students learn about the basic rules of translation as well as tenses around which all the translation work revolves. A lot of practical work is involved here and students are made to translate many passages so that they might perform it.
3.	Paragraph Writing	Students learn about the art of writing paragraphs. They are given topics from all areas so that they find a lot of practice in this regard. Extempore writing test are conducted to get the writing skill of students improve.
5.	Grammar	Students learn the rules regarding the topics prescribed in the syllabus for grammar. Phrasal verbs, prepositions and common errors are discussed in detail with all the exercises given in the text book solved. Students learn about the errors that they commonly commit in using English language. It helps students in improving the areas where they tend to go wrong in language skills.

**हिन्दी बी.एस.सी द्वितीय वर्ष
तृतीय सत्र**

1. 'अभिनव काव्य गरिमा' नामक पाठ्य पुस्तक से पांच कवियों की कविताओं को छात्रों को पढ़ाया जाता है। विद्यार्थियों को कविता लेखन के लिए प्रेरित किया जाता है।
2. (i) मानवाधिकार (ii) नैतिक शिक्षा (iii) मद्यनिषेध (iv) विज्ञान और औद्योगिकरण (v) वैज्ञानिक प्रगति में भारत का योगदान (vi) वैश्वीकरण और विज्ञान (vii) दूरदर्शन आदि विषयों पर विद्यार्थियों को निबन्ध लिखवाया जाता है।
3. विद्यार्थियों को 'पत्र-लेखन' जिसमें सरकारी व अर्ध सरकारी पत्र लेखन के बारे में बताया जाता है।
4. 'वैज्ञानिक शब्दावली' जिसमें अंग्रेजी से हिन्दी-तकनीकी-अर्थ लिखने की जानकारी दी जाती है।

**हिन्दी बी.एस.सी द्वितीय वर्ष
चतुर्थ सत्र**

1. 'आठ एकांकी' पाठ्य पुस्तक से आठ एकांकी पढ़ाये जाते हैं। जिसमें एकांकी किसे कहते हैं तथा 'एकांकी साहित्य' तथा आठ एकांकी लेखकों का साहित्यिक परिचय दिया जाता है तथा आठ एकांकी पढ़ाये जाते हैं।
2. (i) महिलाधिकार (ii) गांधी दर्शन (iii) शिक्षा और राजनीति (iv) विज्ञान और पर्यावरण प्रदूषण (v) विश्व-विख्यात वैज्ञानिक और उनके आविष्कार (vi) आकाशवाणी (vii) कम्प्यूटर तथा इंटरनेट (viii) जनसंख्या विस्फोट आदि विषयों पर विद्यार्थियों को निबन्ध लिखवाया जाता है।
3. विद्यार्थियों को 'पत्र-लेखन' के बारे में जिसमें 'सरकारी' व 'अर्धसरकारी' पत्र होते हैं लिखने की जानकारी दी जाती है तथा तार-लेखन की जानकारी दी जाती है।
4. 'वैज्ञानिक शब्दावली' जिसमें अंग्रेजी-तकनीकी-अर्थ लिखने की जानकारी दी जाती है।

Course Outcome For M.A.English

Class-M.A-II st semesterSubject–English Paper-1EnglishLiterature(1550-1660)	
SrNo	COURSEOUTCOMES
CO1	Shakespeare’s <i>TwelfthNight</i> : <ul style="list-style-type: none"> • Students learnthebackgroundandtimesofShakespeare. • ThefeaturesofRomanticcomedyremaininfocus. • Shakespeareasawriterof RomanticComedyisexplainedindetail. • Shakespeare’spresentationoffemalecharactersgivesstudents ideaofShakespeareanideaoflove.
CO2	JohnMilton’s <i>Paradise Lost</i> : The features of an Epic are explained to the students. The Puritan age towhich Milton belongs is discussed with the students. Grand style of <i>ParadiseLost</i> isamajorpointofdiscussion.Thecharacterizationof Satanishighlighted.
CO4	PoetryofSidney: StudentsstudyindetailthepoemsofSidney.Moreover,different aspectsofSideny’spoetry arealsodiscussed.Sidney’sideaofloveand autographicalelementsaretaughttothestudents.

Class:M.A– IIstSemesterSubject:Englis h Paper-II EnglishLiterature(1660-1798)	
Sr. No.	CourseOutcome
CO1	Dryden’s <i>AbsolamandAhitophel</i> :StudentsgetknowabouttheAgeofDryden . This poemis discussedas aPoliticalsatire.Studentsareabletoenjoy awiderangeofcharactersinthispoem.Biblicalallusionsarepresentinplentyinthispoemand students learnabout themforthefirsttime.
CO2	Pope’s <i>The Rape of the Lock</i> : Pope’s Age was the age of satire. This poem istaught in this light and students come to know about different kinds of satires.Thispoemisdiscussedasamockepic.Studentslearndifferentfeaturesof mock-epic.
CO3	Congreve’s <i>TheWayoftheWorld</i> :RestorationComedyof Mannersistaught tothestudents.TheRestorationAgeanditsfeaturesarediscussed.The

	comedy and is a mirror of the contemporary society. Students learn how wit and humour was at the heart of this comedy.
CO4	Sheridan's <i>The School for Scandal</i> : Students are familiarized about Comedy of Manners. Anti-sentimental elements are highlighted. Wit elements in the play <i>The School for Scandal</i> are discussed.

Class M.A – II nd Semester Subject: English Paper-III Literature in English: (1798-1914)	
S.NO	Course Outcome
CO1	Poetry of <i>William Wordsworth</i> : All poems prescribed in syllabus are taught to the students. Students learn about the trends in Romantic Age and features of poetry of Wordsworth. The chief feature of Wordsworth's poetry as a Nature poet is discussed. Mystic qualities of his poetry are discussed.
CO2	Poetry of <i>John Keats</i> : All the poems prescribed in syllabus are taught to the students. Students learn the features of poetry of Keats. The Age in which Keats delved is explained to the students. The idea of sensuality in the poetry of Keats.
CO3	<i>Oliver Twist</i> : The features of novel are explained to the students. Social satire is used in the novel to highlight the condition of contemporary society. Students get a first hand information of social set up. Students also learn about the use of pathos and humour in the novel.
CO4	<i>The Mill on the Floss</i> : Students are introduced with George Eliot and her times. Child psychology highlighted in the novel is explained to the students. Students get to know about the autobiographical elements present in the novel.

Class M.A – II nd Semester Subject: English Paper-IV Literature in English: (1914-2000)	
S.NO	Course Outcome
CO1	<i>The Wasteland</i> : Students get the information about modern Age poetry. They are familiarised with the features of poetry of Eliot. Themes and structure of the poem are a matter of discussion. Students are taught the ideology of post-war society and its connection with this poem.
CO2	<i>A Passage to India</i> : Forster's idea of social balance is explained to the students. The relationship of the colonized and master is discussed with the

	students. The kind of conflict that students come to know is part of all postcolonial societies.
CO3	Philip Larkin: All poems prescribed in syllabus are explained to the students. Philip Larkin as a movement poet is explained to the students. Poetry of pessimism and death is explained to the students.
CO4	<i>Lucky Jim</i> : The colonial Age is explained to the students. There is an element of satire in the novel. The growth of the protagonist is a journey of colonial era. Students learn the colonial ideology and compare the postcolonial features with it.

Class-M. A I semester- 1 Subject-English Paper-V Genre of Fiction-Option I	
SrNo	COURSE OUTCOMES
CO1	E M Forster's <i>Aspects of Novel</i> : Students learn about the concept of story and plot. Different types of characters projected by Forster are also discussed. Students learn the technical aspects of a text which will be relevant while assessing the topics of criticism.
CO2	Jane Austen's <i>Pride and Prejudice</i> : Students come to know about the contemporary society of England. All the social threads are discussed with the students. The theme of marriage and match making as highlighted by Jane Austen is discussed here. The concept of irony is also discussed with the focus on the novel. Journey of heroine from ignorance to knowledge is an enlightening experience for the students as well.
CO3	Nathaniel Hawthorne's <i>The Scarlet Letter</i> : The students come to know about the theme of sin and regeneration through this novel. There is great use of symbols in the novel and students find it the best example of symbolic expression. Psychological analysis is at work throughout the novel and this novel develops the outlook of the students for psychoanalytical criticism.
CO4	James Joyce <i>Portrait of Artist as a Youngman</i> : students learn about the stream of consciousness and its beautiful manifestation in this novel. Autobiographical elements are also studied in this novel. Usage of epiphanies and myths is also highlighted. Students learn about these terms for the first time.

Class-M.AI semester- II Subject-English Paper-VI Literature in English (1550-1660)	
SrNo	COURSE OUTCOMES
CO1	William Shakespeare: <i>Hamlet</i> : Students learn about the features of Tragedy and especially the features of Shakespearean tragedy are discussed. The concept of revenge as employed by Shakespeare is highlighted. Soliloquies form an important part of this play. Students learn about it and other psychoanalytical techniques in detail.
CO2	John Donne: All the prescribed poems are taught to the students. The concept of Metaphysical poetry is discussed and students learn about the ideas of contemporary poetry and the reasons of its flourishing. Students learn the marvelous use of imagery and conceits by Donne.
CO3	John Webster's <i>The Duchess Of Malfi</i> : Students learn about Revenge Tragedy. The origin of revenge tragedy and the contrast between earlier tragedies and this one is highlighted. The treatment of supernatural is discussed. There are a few master character sketches in this play.
CO4	Francis Bacon's Essays: All the prescribed essays are taught to the students. Essays of Bacon have a lot of practical wisdom of life. Students get to know the depth and freshness embedded in the essays. The prose style of BACON IS ALWAYS A SOURCE OF INSPIRATION FOR ALL PROSE WRITERS. Students can learn a lot from the prose style as well.

Class-M.AI semester- II Subject-English Paper-VII Literature in English 1660-1798 (part II)	
SrNo	COURSE OUTCOMES
CO1	Defoe's <i>Robinson Crusoe</i> : Students will learn about the allegorical significance of the novel. There is a kind of spiritual development in this novel of the protagonist. Being one of the first novels, students get a taste of early prose as well.
CO2	Essays of Addison and Steele: There has been a proper rise of English prose works in the contemporary Age and the genre of Periodical Essays presents the taste of that era in front of the students. Students learn about the use of

	humour and irony in the essays of Addison and Steele. Addison as a moralist is a matter of study for the students.
CO3	<i>London</i> and <i>Vanity of Human Wishes</i> by Johnson: These two poems talk about the era of Classicism in English literature. Students get to learn about the major features of Classicism. Johnson's poem reflects aspects of Juvenal's satire and students learn the similarities in the two poems. Themes of the two poems present an interesting ideology in front of the students.

Class-M.A I semester- II Subject-English Paper-VIII Literature In English: (1798-1914) (part II)	
SrNo	COURSE OUTCOMES
CO1	<i>Tess of D' Urbervilles</i> by Thomas Hardy: The students learn about the contemporary society and outlook of society towards women. The role of fate and chance is a matter of discussion. Students also learn about the pessimism of Hardy. The novelist presents a whole bonding with the Nature and the connection attracts the attention of the students.
CO2	<i>Madame Bovary</i> : Students learn about Gustav Flaubert as a father of the modern novel and the elements in his novels which stand him apart. Flaubert's indictment of Bourgeois values in <i>Madame Bovary</i> is point of discussion. The art of characterization is unique in this novel which attracts the attention of the students.
CO3	<i>Arms and the Man</i> : Students learn about the concept of anti-romantic comedy. The idea of anti-hero is discussed here. The wit and humour in this play is a matter of great enjoyment. Shaw's idea of war or no-war comes into play in this play and students learn what is important in this regard.
CO4	Poetry of Robert Browning: All the prescribed poems of Browning are taught to the students. Students learn the concept of Dramatic Monologue as a new form of poetry. Other than this, students also come to know about the optimism of Browning.

Class-M.AI semester- II Subject-English Paper-IX Literature In English:(1914-2000)	
SrNo	COURSE OUTCOMES
CO1	Poetry of Nissim Ezekiel : All the prescribed poems are taught to the students. Nissim Ezekiel as a poet of Indian writing in English is discussed with the students, highlighting all the features of his poetry. Students learn about the theme of alienation in the poetry of Ezekiel. Students are able to locate countless Indian symbols and ways in his poetry.
CO2	<i>The GUIDE</i> : Students learn about the Indian novel in the times of R.K.Narayan, the trends and challenges for novel writing. Theme of the novel is explained to the students. Title is an important allusion in this novel and students learn about the technique used here. The concept of picaresque is also discussed with the students.
CO3	Death of a Salesman: Students learn about the trends of drama writing after the WWII era. The concept of anti-heroism is discussed with the students. The problem of Existentialism in the play is also explained to the students. This play as a blend of Realism and Expressionism is highlighted.

Class-M.AI semester- II Subject-English Paper-X Study of Genre Fiction Option I	
SrNo	COURSE OUTCOMES
CO1	D H Lawrence <i>Sons and Lovers</i> : Students learn about the Oedipus's complex of Freud employed in this novel. There are a lot of autobiographical elements in the novel and students are able to trace the similarities in the life of the novelist as well as the protagonist. Relationship of Paul, Miriam and Clara is discussed with the students.
CO2	Raja Rao's <i>Kanthapura</i> : This is a novel of Indian freedom struggle. Students learn about the ideology of Gandhi and its impact over the mentality of common man of India at that time. Narrative Technique is an important aspect of the novel and students get to know about it in detail. There is a master usage of myths in the novel. Students also learn about

	the idea of regional novel in Indian context.
CO3	V S Naipaul's <i>A House for Mr. Biswas</i> : Students learn about the concept of diaspora and identity. Naipaul as a diasporic writer is discussed. There is a great deal of similarity between the characters of Naipaul's father and Mr. Biswas and students are able to learn that there are a lot in common here. Theme of rebellion and independence is discussed with the students. The clash of culture is also a point of discussion here.
CO4	Joseph Conrad's <i>Heart of Darkness</i> : Students learn about the colonial ideology and its aftermaths. Title of the novel is very symbolic and students are able to relate it with the events in the novel once it is explained to them. Economic exploitation of the native population in Congo is discussed in detail, though it was the story of all colonized countries.

Class:M.AIISem-

IIIrdSubject:English

Paper-XI

S.No.	CourseOutcomes (tomakefamiliarizethestudentswiththefollowingconcepts)
CO 1	Aristotle's "Poetics" as earliest treatise on dramatic theory
CO 2	Constituent elements of a Tragedy
CO 3	Aristotle's ideal Tragic hero (Hamartia)
CO 4	Concept of Imitation (Plato and Aristotle)
CO 5	Importance of Plot over characters
CO 6	Concept of Catharsis
CO 7	Aristotle's views on three unities
CO 8	Perceptions on drama and poetry (poesies)
CO 9	Bharatmuni's Natyashastra
CO 10	Bharatmuni's views on plot
CO 11	Origin of drama
CO 12	Rasa theory
CO 13	Dr. Johnson's Preface to Shakespeare
CO 14	Merits and demerits of Shakespeare
CO 15	Preference for comedies over tragedies.
CO 16	Horace's "Art of Poetry" (his concept about poem and poet)

Class:M.AIISem-

IIIrdSubject:English

Paper-XIIAmericanLiterature

S.No.	CourseOutcomes
CO 1	<u>WaltWitman</u> asaPoetofDemocracy
CO 2	AmericanSpiritinWaltWhitmanpoetry
CO 3	Elegiacnoteinthepoem”WhenLilacsLastintheDooryardBloom’d”
CO 4	<u>EmilyDickinson</u> asaMetaphysicalpoet
CO 5	PortrayalofDeathinDickinson’spoetry
CO 6	RepresentationofPoetryasatensionbetweenideas andNature
CO 7	Conflict betweencivilizationandNaturallifeMarkTwain’sTheAdventuresofHuckleberryFinn
CO 8	BuildingsromaninTheAdventuresofHuckleberryfinn
CO 9	Ideasof RacismandSlaveryinthe novel
CO 10	Feministaspectsin <u>ThePortraitofaLady</u>
CO 11	Internationalthemein “ThePortraitOFaLady“
CO 12	Roleof MarriageandDeathinthenovels

Class:M.AIISem-

IIIrdSubject:English

Paper-XIII- IndianWritinginEnglish

S.No.	CourseOutcomes
CO 1	“Savitri“

	asanepic
CO 2	
CO 3	Themeofclasstruggleandclassexploitationin <i>Coolie</i>
CO 4	Industrializationandits impactonsociety.
CO 5	JayantMahapatra'scontributiontoIndo-Anglianpoetry.
CO 6	Humanrelationshipinthe poetryofJayantMahapatra
CO 7	KamalaDasasaconfessionalpoet
CO 8	KamalaDasasa poetof Love&sex.

Class:M.AIISem-	
IIIrdSubject:English	
Paper-XIV:(option2)Englishlanguage	
S.No.	CourseOutcomes
CO 1	<u>Phonetics:</u> <ul style="list-style-type: none"> • Speechmechanism • Roleofdifferentorgansofspeech. • SoundsofEnglish. • Descriptionofsounds. • Syllableandstress • Intonationanditsfunctions
CO 2	(A)Transcribingwordssonicallywithprimarystress. UsingthesymbolsofOxfordAdvancedLearnersDictionary,7 th edition
CO 3	(B)Markingstressandtones

	<ul style="list-style-type: none"> • Falling/rising/falling-rising insentences.
CO 4	<p>HistoryofEnglishlanguage:</p> <ul style="list-style-type: none"> • OldEnglish • MiddleEnglish:Latin,CelticandScandinavian. • InfluenceonoldEnglish • RenaissanceandEnglishlanguage. • ChangefromoldtomodernEnglish.
CO 5	<p>(A) Wordformationprocess:</p> <ul style="list-style-type: none"> • Coinage • Borrowing • Compounding • Blendingclipping • Backformation • Conversion • Acronyms • Derivation,prefixes,suffixes,affixes.
CO 6	<p>Translation:</p> <ul style="list-style-type: none"> • HinditoEnglish

Class:M.AIISem-	
IIIrdSubject:English	
Paper-XVLiteratureandGender	
S.No.	CourseOutcomes
CO 1	<u>ARoomofOne'sOwn</u> asafeministdiscourse.
CO 2	RiseofsecondwavefeminismintheWest

CO 3	Arguments in favor of economic autonomy of women in <u>A Room of One's Own</u> .
CO 4	<u>Jane Eyre</u> as a feminist text
CO 5	<u>Melodramatic elements and autobiographical elements in Jane Eyre</u>
CO 6	Feminist concerns and gender bias in Doris Lessing's <u>The Golden Notebook</u> .
CO 7	Man-Woman relationship in <u>The Golden Notebook</u> .
CO 8	Stream of consciousness in Virginia Woolf's <u>To The Light House</u> .
CO 9	Symbolism and light imagery in Virginia Woolf's <u>To The Light House</u> .

Class: M.A II Sem-	
IV Subject: English	
Paper- Paper XVI	Critical Theory
S.No.	Course Outcomes
CO 1	William Wordsworth's Preface to Lyrical Ballads
CO 2	views on metre in poetry
CO 3	Theory of poetic diction
CO 4	views about poets and poetry
CO 5	Matthew Arnold's Essays in Criticism
CO 6	The Function of Criticism at the Present Time
CO 7	The Study of Poetry
CO 8	John Keats

CO9	Virginia Woolf's Modern Fiction
CO10	TSEliot's Tradition and Individual Talent
CO11	IARichards Principles of Literary Criticism
CO12	Level of Response and the Width of Appeal
CO13	The Allusiveness of Modern Poetry
CO14	Saussure's The object of study
CO15	Elaine Showalter's Feminist Criticism in Wilderness
CO16	MH Abrams The Deconstructive Angel

Class: M.A II Sem-	
IV Subject: English	
Paper- XVII American Literature	
S.No.	Course Outcomes
CO 1	Eugene O'Neill's <u>The Hairy Ape</u> as a modern Tragedy
CO 2	Yank as a Thinker
CO 3	As an Expressionistic play
CO 4	Conflict between the world of reality and the world of illusion in <u>Tennessee Williams</u> <u>'s Streetcar Named Desire</u>
CO 5	"Social recession by industrialization" as the theme of play
CO 6	The Play as a Representation of Modern Society
CO 7	Hemingway Hero in Earnest Hemingway's <u>The Sun Also Rises</u>
CO 8	Death of Love in the play

CO9	The significance of Code Hero in the play
CO10	Robert Frost as a Nature poet
CO11	Frost as a regional Poet
CO12	Allegorical Element in the poetry of Frost

Class: M.A II Sem-	
IV Subject: English	
Course XVIII- Indian Writing in English (Part-II)	
S.No.	Course Outcomes
CO 1	“Train To Pakistan” as a partition novel
CO 2	Discuss Radhakrishnan as a prose writer
CO 3	Use of Hinduism both in its static and dynamic terms
CO 4	Images and symbolism in <i>Voices in the City</i> by Anita Desai..
CO 5	Anita Desai as a writer of psychological insight
CO 6	Social concerns in Tendulkar’s novel <i>Silence! The Courtis in Session.</i>
CO 7	Dramatic technique in <i>Silence! The Courtis in Session.</i>

Class:M.AIISem-

IVSubject:English

Paper- XIX:Option(2)Englishlanguage

S.No.	CourseOutcomes
CO 1	<p>Studyofclauses:</p> <ul style="list-style-type: none">• Natureandcompositionof clauses,phrasesandcompoundsentences.• Subordinateandcoordinateclausesandtheirformationbysubordinateandcoordinatingconjunctions.• Usesandfunctionsofrelativeclauses.No unclauses andadverbialclauses
CO 2	<p>Figuresofspeech:simile,metaphor</p> <p>(A) Symbolismforegrounding:</p> <ul style="list-style-type: none">• Personification,alliteration,imagery,parallelism,metre. <p>(B) Criticalappreciation:</p> <ul style="list-style-type: none">• Criticalanalysisofashortpoem.• Criticalanalysisofa prosetext.
CO 3	<p>ELTinIndia:</p> <ul style="list-style-type: none">• Abriefhistory.• RoleofEnglish.• Natureandapproachesofmethod.• Problemsandperspectives.
CO 4	<p>Methodsandmaterials:</p> <ul style="list-style-type: none">• Grammar-translationmethod.• Directmethod.• Audio-lingualmethod.

	<ul style="list-style-type: none"> • Communicativelanguageteaching. • Devisingpedagogicexercises.
--	---

Class:M.AIISem-	
IVSubject:English	
Paper-XXLiteratureandGender-PartII	
S.No.	CourseOutcomes
CO 1	SimondeBeauvoir’sanalysisofmythofwomanin <u>The SecondSex.</u>
CO 2	The mainargumentsinBeauvoir’s <u>TheSecondSex.</u>
CO 3	Predicamentofwomanin <u>TheSecondSex.</u>
CO 4	Blackwomanismin <u>The ColorPurple.</u>
CO 5	Plightofwomanin <u>TheColorPurple.</u>
CO 6	Techniqueinthenovel <u>TheColorPurple.</u>
CO 7	Treatmentofslavesin <u>Beloved</u>
CO 8	Plightofwomanin <u>Beloved.</u>
CO9	Themeofthe novel <u>ThatLongSilence.</u>
CO10	Predicamentofwomanin <u>ThatLongSilence.</u>