

## **Course Outcomes:**

### **B.A. - I**

#### **Subject: English Literature**

##### **Paper - I**

On studying this paper, the student will be able to:

1. Develop an interest in literature.
2. Acquire knowledge about history of English literature.
3. Understand the different genre of literature.
4. Develop linguistic competence and analytical skills.

##### **Paper – II**

On studying this paper, the student will be able to:

1. Acquire Knowledge of the different historical literary periods and their characteristics.
2. Develop a sustained interest in language and literature.
3. Interpret the literary work prescribed.
4. Development of writing and analytical skills.

### **B.A. -II**

#### **Subject: English Literature**

##### **Paper - I: Modern English Literature**

On studying this paper, the student will be able to:

1. Acquire familiarity with a wide range of literary terms and categories relating to literary history, theory and criticism, including figurative language and prosody.
2. Develop proficiency in oral communication and writing.
3. Identify analyze, interpret and describe the critical ideas, values and themes that appear in literary and cultural texts and understand the way these ideas, values and themes inform and impact culture and society.
4. Apply theoretical approaches to critical reading of literary texts.

## **Paper- II Modern English Literature**

On studying this paper, the student will be able to:

1. Acquire knowledge of the literary works of eighteenth century.
2. Interpret and analyze the literary texts prescribed.
3. Recognize the connection between the literary periods and the texts.
4. Improve the writing skills and oral communication skills.

## **B.A. Part: III**

### **Subject: - English Literature**

## **Paper - I Indian Writing in English**

On studying this paper, the student will be able to:

1. Develop the critical understanding of literature.
2. Acquire knowledge and acquaintance to Indian Writing in English.
3. Learn to use literature to develop their moral and social sense.
4. Develop of writing, analytical and expressive skills.
5. Interest in the different genres of Indian writing in English.

## **Paper- II American Literature**

On studying this paper, the student will be able to:

1. Develop passion for literature.
2. Gain knowledge of the major traditions of American literature.
3. Become accomplished and active readers.
4. Develop writing and oral communication skills and may develop an appreciation for different genres.

## **Course Outcomes:**

### **M.A. - Ist & IInd Sem.**

#### **Subject: English**

#### **Paper-I: Poetry I /II**

On studying this paper, the student will be able to:

1. To analyze various elements of poetry such as diction, tone, form, genre, imagery, figures of speech, symbolism themes etc.
2. Recognize the rhythms, metrics and other aspects of poetry.
3. Develop an appreciation of language and style.
4. Understand the thought and imagination contained in the poem correlating it with contemporary scenario.
5. Understand the development of poetry from the beginning to the modern age.
6. Inculcate their aesthetic sense and love for English poetry.

#### **Paper-II: Drama**

On studying this paper, the student will be able to:

1. Have firsthand knowledge of major dramatists and their work from Elizabethan to the Modern age.
2. Be acquainted with the literary movements, development of English drama and variety of experiments made like revenge tragedy, romantic comedy, satirical comedy, historical play, poetic drama, tragicomedy etc.
3. Familiar with dramatic art and techniques and later may adopt their performing art as his/her vocation.
4. Demonstrate understanding of social and artistic movements that have shaped English theatre.
5. Analyze and interpret texts and performances both in writing and orally.
6. Demonstrate knowledge of theatre history and literature and draw connections between theatrical practices and social contexts in different periods.

### **Paper-III Prose**

On studying this paper, the student will be able to:

1. To develop the language ability of the students.
2. To enable the students to comprehend the idea contained in the prose.
3. To develop an appreciation for the literary content.
4. To enhance creative and critical thinking.
5. To familiarize with eminent prose writers and their works.

### **Paper-IV: Fiction**

On studying this paper, the student will be able to:

1. Acquainted with the development of various genres i.e. poetry, prose fiction and criticism correlating it with contemporary socio-economic, religions and political scenario.
2. Develop and integrate language skills.
3. Develop an interest in the appreciation of fiction.
4. Be acquainted with eminent writers and their fictional works.
5. Develop empathy with the fictional characters.
6. Recognize various narrative techniques, styles and forms.
7. Foster critical in sight and develop critical imagination.
8. Understand the complex dynamics of human relationship.

**M.A. - IIIrd & IVth Sem.**

**Subject: English**

**Paper-I: Literary Criticism**

On studying this paper, the student will be able to:

1. To span the history of western literary criticism and introduce students to vital moments in its history.
2. Training students in the art of interpretation of literary texts.
3. Equip students with terms and concepts towards critical reading of textual material.
4. Update with the major theoretical movement in 20th cent.
5. Identify and use key concepts and theories to interpret literary texts.

**Paper-II: Indian Writing in English I & II:**

On studying this paper, the student will be able to:

1. Make the students familiar with representative writers and their work in genres like poetry, drama, prose and fiction
2. Introduce pioneers of Indian writing in English as well as some of the contemporary writers and works of English in translation.
3. Develop the ability to handle a range of analytical and research methodologies in critical studies.
4. Buildup & project honest and true image of India.
5. Acquaint with the problems faced by Indian Writers in English.

**Paper-III: American literature**

On studying this paper, the student will be able to:

1. Familiarize with the history of America along with major literary movements of American literature.

2. Development of analytical skill for critical engagement with the text and skills for argumentative writing.
3. Familiarize with the philosophy of America & showing its relation with oriented and German philosophy.
4. Exploring America literary tradition from American thought and political writing to American literary expression.

#### **Paper-IV: Linguistics**

On studying this paper, the student will be able to:

1. Create an enquiry into the function of language and lay ground work for systematic study of the science of language.
2. Provide a better understanding of human speech sounds. The knowledge of IPA would improve pronunciation and help in transcription.
3. Use the knowledge of linguistics in the area of language teaching.
4. Acquainted with a variety of teaching aids so that it can gainfully be used in classroom teaching.
5. Identify different kinds of relationships that are possible in a phrase structure tree.
6. Provide a conceptual framework and to draw conclusions and apply language learning techniques in the classroom. This will also carve them to be a good teacher in future.

#### **Paper-V: Modernist Literature I & II**

On studying this paper, the student will be able to:

1. Know in detail the factors underlying the definition of the 20th century as a specific aesthetic period.
2. Define and comment on those factors and contrast them with those corresponding to the previous historical periods.
3. Know in detail the literary trends appearing in the period of modernism and define and critically analyse them in English
4. Understand a no. of literary devices employed by modernist writers.

## **Course Outcomes:**

### **BA. / B.Sc. /B.Com. - Part-I**

#### **Subject: English Language:**

On studying this paper, the student will be able to:

1. Development of comprehensive ability.
2. Improvement of vocabulary.
3. Effective communication skills.
4. Inculcation of moral and human values.
5. Acquire knowledge of Indian culture and tradition.
6. Write effectively and coherently.

### **BA. / B.Sc. /B.Com. - Part-II**

#### **Subject: English Language:**

On studying this paper, the student will be able to:

1. Ability to discuss and respond to the content of the passage.
2. Knowledge of development of science and information technology.
3. Develop the writing skills through exercises in grammar and composition.

### **BA. / B.Sc. /B.Com. - Part III**

#### **Subject: English Language:**

On studying this paper, the student will be able to:

1. Familiarity with values of Indian life and social system.
2. Development of India in the Modern context.
3. Development of linguistic competence and communication skills.
4. Writing skills through essay writing and comprehension.

## **Course Outcomes:**

### **B.A. -I**

#### **Subject: Psychology**

#### **Paper- I Basic Psychology Processes:**

On studying this paper, the student will be able to:

1. Learn the biology behind knowledge of psychological processes.
2. The structure of brain, nervous system, hormones, emotion, memory and many more.
3. Knowledge about Intelligence and personality.

#### **Paper-II Psychopathology**

On studying this paper, the student will be able to:

1. In this learn the concept of abnormality the various types of mental disorder and their management.
2. Various theories that can explain the causes of mental illness and the way to treat them.
3. Psychopathology also provides various techniques of assessment of mental illness.

### **B.A.-II**

#### **Paper- I Social Psychology**

On studying this paper, the student will be able to:

1. Study human behavior in social setting.
2. Learn methods to study social behavior, social issues, social perception, and leadership.
3. Learn about ourselves and how we see ourselves through others point of view (impression formation).



## **Paper - II Psychological assessment**

On studying this paper, the student will be able to:

1. Learn about the type of tests their construction process, and their standardization.
2. Explains the use of these tests in life.
3. Learn the difference between Psychological and Physiological assessment.

## **B.A. -III**

### **Paper -I Psychological Statistics**

On studying this paper, the student will be able to:

1. Knowledge about various steps of research.
2. To learn the statistical tool for the analysis of their data.

### **Paper -II Human Development**

On studying this paper, the student will be able to:

1. Know about various stage of life of human development.
2. Learn both physical and mental processes and psychological aspects of these processes.
3. Learn about the development of their self identity crisis, ageing, gender discrimination and many more areas of human.

## **Course Outcomes:**

### **B.A.-I**

#### **Subject: Political Science**

##### **Paper-I: Political Theories**

On studying this paper, the student will be able to:

1. Know about state, its essential elements and different theories of the origin of state and basic knowledge about political science.
2. Know about citizenship equality liberty and many other important things.

##### **Paper-II: State Government and Politics**

On studying this paper, the student will be able to:

1. Know about constitution its main characteristics and fundamental rights and duties.
2. Know about state government, Election Commission and electoral reform.

### **B.A.-II**

#### **Subject: Political Science**

##### **Paper-I: Western Political Thought**

On studying this paper, the student will be able to:

1. Know about main western political thinker just like Plato, Aristotle, Hobbes, Locke, Rousseau and their thoughts about political institutions.
2. Know the different principles given by various thinkers.

## **Paper-II: Comparative Government and Politics**

On studying this paper, the student will be able to:

1. Know the main political system which is adopted by different countries.
2. Know about the main characteristics of political system of different countries like Britain, China, America and Switzerland.

## **B.A.-III**

### **Subject: Political Science**

#### **Paper-I: International Politics**

On studying this paper, the student will be able to:

1. Know about the significance of international politics and its impact on different countries.
2. Know about the Disarmament, Globalization and Diplomacy etc.

#### **Paper-II: Public Administration**

On studying this paper, the student will be able to get:

1. Knowledge of Public Administration its importance and scope.
2. Knowledge about government's part like legislature, executive and judiciary and its control on administration.

## **Course Outcomes:**

### **M.A.-Ist Sem.**

#### **Subject: Political Science**

##### **Paper-I: Political Thought**

On studying this paper, the student will be able to:

1. Understand different political ideologies of different thinkers.
2. Know students the importance of different political thought and theories.

##### **Paper-II: Comparative Politics**

On studying this paper, the student will be able to:

1. Know the characteristics and main features of politics of different countries.
2. Know the differences in main political system of different countries.

##### **Paper-III: Public Administration I**

On studying this paper, the student will be able to:

1. Know the meaning and importance of Public Administration.
2. Know about private and public administration.

##### **Paper-IV: Foreign Policies of Major Countries**

On studying this paper, the student will be able to:

1. Knowledge of foreign policies of different countries like America, Japan, and China etc.
2. Get knowledge regarding the importance of relations among various countries.

**M.A.-IIInd Sem.**

**Subject: Political Science**

**Paper -I: Western Political Thought**

On studying this paper, the student will be able to:

1. Know various political thoughts and their importance in today's political systems.
2. Know various theories given by political thinkers about politics.

**Paper-II: Politics of Developing Countries**

On studying this paper, the student will be able to:

1. Know the working and importance of political parties and pressure groups of different countries.
2. Know the functions and organization of legislature, Executive and Judiciary.

**Paper-III Public Administration II**

On studying this paper, the student will be able to:

1. Know the working of personnel administration, Bureaucracy, Union Public Service Commission and about recruitment.
2. Know about financial administration and formation of budget and its importance in Administration.

**Paper-IV: Foreign Policy of India**

On studying this paper, the student will be able to:

1. Know about foreign policy of India with various countries such as Bangladesh, China Nepal and Cyclone.
2. Know about the basic and main features of Indian foreign policy.

**M.A.-IIIrd Sem.**

**Subject: Political Science**

**Paper-I: Indian Govt. and Politics**

On studying this paper, the student will be able to:

- 1 Get knowledge about constitution, its characteristics and fundamental rights.
2. Get knowledge about Parliament, Supreme Court, judicial review and judicial activism.

**Paper-II: International Politics**

On studying this paper, the student will be able to:

1. Know about international politics and its importance.
2. Know the concept of world state and different principles of international policies.

**Paper-III: Research Methodology**

On studying this paper, the student will be able to:

1. Knowledge of research methodology to students.
2. Develop research skills as research is necessary for the academic development of the subject.

**Paper-IV: International Organizations**

On studying this paper, the student will be able to:

1. Get knowledge about the role and importance of international organization like League of Nation, U.N.O.
2. Get knowledge about the structure and functions of these organizations and its agencies.

**M.A.-IVth Sem.**

**Subject: Political Science**

**Paper-I: Politics of State**

On studying this paper, the student will be able to:

1. Get knowledge about the center and state relations and their importance.
2. Get knowledge of influence of caste, religion, region and language in Indian politics.

**Paper-II: International Politics and Contemporary Issues**

On studying this paper, the student will be able to get:

1. Knowledge of Non alignment, cold war, Globalization, Human Rights, Environment etc.
2. Knowledge about New World Order and Terrorism.

**Paper-III: Research Methodology and Field Work**

On studying this paper, the student will be able to:

1. Learn the use of tools and techniques in data collection.
2. Learn the use of statistics and use and significance of computer in research.

**Paper-IV: International law**

On studying this paper, the student will be able to:

1. Know what are international law and its importance.
2. Get knowledge about the rights and duties of state.
3. Know about the limitations and possibilities of international law.

## **Course Outcomes:**

### **B.A.-I**

#### **Subject: Ancient Indian History**

#### **Paper-I: Political History of India**

On studying this paper, the student will be able to know:

1. Political History of ancient India. The life-Story of the Indian people in their formative stage, struggling to find happiness both here & hereafter.
2. Reconstruction of that past history through a selection of significant facts.

### **B.A.-II**

#### **Subject: Ancient Indian History**

#### **Ancient Indian Social & Economic Instruction**

On studying this paper, the student will be able to:

1. Study Indian society that subjected to a variety of impacts under which the Indian people had to learn to adopt themselves to an ever changing environment.
2. Study of Social organization in India which is often remarked as the caste system.

#### **Ancient Indian Polity: -**

1. All forms of Human organization that of the state.

### **B.A.-III**

#### **Subject: Ancient Indian History**

#### **Art & Architecture**

On studying this paper, the student will be able to:

1. Study the Indian art tradition which one of the oldest living art traditions in the world.
2. The art of country with its history social & economical perspective.
3. Excavation of the sites of the old towns like Harappa Mohenjo-Daro & Taxila information of the other ancient monuments.



## **Course Outcomes:**

### **M.A. - Ist & IInd Sem.**

#### **Subject: Ancient Indian History**

#### **Paper-I: Political History of India**

On studying this paper, the student will be able to:

**"Historiography in India was never more than a branch of epic poetry."**

1. Get the glimpse of the glorious past which is aptly called our 'cultural heritage "in right perspective & without a tinge of bias & an iota of exaggeration.

#### **Paper-II:**

On studying this paper, the student will be able to:

**Unity in diversity is the basic theme of our culture & continuity & change are its main currents.**

Our culture abhors pollution & assimilates the essentials. The Greeks, the Scythians, the hernias & many other came, saw & conquered India but now they have lost their distant ethnic identities & are known today as "Indians" Bharat their motherland. Let us preserve this cultural unity & scorn communalism separatism & terrorism.

#### **Paper-III: Social & Economic Institutions in Ancient India**

On studying this paper, the student will be able to:

1. Indian society information about subjected to a variety of impacts under which the Indian people had to learn to adopt themselves to an ever changing environment.

2. Knowledge about the caste & the guild two dominant forms of social & economic organization in ancient India.

#### **Paper-IV: Polity (Ancient Indian Polity)**

On studying this paper, the student will be able to:

1. About the Arthashastra or science of polity of Kautilya that the cumulative expression of a long tradition of political speculation & theorizing.

2. Studies on state formation & state structures have often stressed the importance of the ideology, despite the inherent analytical & conceptual difficulties that the nations of ideology possess.

**M.A.-IIIrd & IVth Sem.**

**Subject: Ancient Indian History**

**Paper-I: Numismatics**

On studying this paper, the student will be able to:

1. A study of the Indian coins enlightens us a great deal regarding the history of ancient India.
2. Coins help us to build up the history of the country in many ways.
3. Information about the kings who ruled at various times in different parts of the country.
4. Fix up the chronology. The location of coins helps us to determine the extent of the territory of a king.
5. Coins are discovered from time to time either in the archeological excavations purposely or accidentally.

**Paper-II: Epigraphy & Paleography**

On studying this paper, the student will be able to:

1. Epigraphy is the study of inscriptions & inscriptions literally means any writings engraved on some objects.
2. Inscriptions are of great value as they are engraved on stones & metals. They cannot be tampered with without detection. 3. The knowledge of epigraphy & paleography has to be acquired by an intensive study of numerous published inscriptions.
3. Inscription can be grouped under the following heads: commercial, magical, religious, administrative, eulogistic, dedicative, commemorative & literary.

### **Paper-III: Art & Iconography**

On studying this paper, the student will be able to:

1. Indian art is not only one of the oldest & profusely productive but it also shows a remarkable diversity of forms of expression.
2. Information about the art of every country which has deep roots in its history, social & economic. The art of ancient India has grown in & developed out of a specific milieu. The conditions of which have determined the forms of its expression & controlled the pace of its growth.
3. The history of the art of ancient India is to be very significant. The Indian art tradition is one of the oldest living art traditions in the world.

### **Paper-IV: Architecture**

On studying this paper, the student will be able to:

1. About architecture in India that is represented by many different types of buildings. which however maybe referred to two conventional divisions of (a) religious & (b) secular.
2. About the ancient monuments like buildings, statues of stone or metals, terra-cotta ornamental & decorative fragments, pottery etc. give us a lot of useful & reliable information.

## **Course Outcomes:**

### **B.A. - I**

#### **Subject: Economics**

##### **Paper-I: Micro Economics**

Upon successful completion of this Paper the student will be able to:

1. Factors affecting consumer demand.
2. Production and cost matrix in output determination.
3. Various market forms and determination of prices in these markets.
4. How factor prices are determined
5. Factors of welfare as conceptualized by economist.

##### **Paper-II: Indian Economy**

Upon successful completion of this Paper the student will be able to:

1. How Indian economy is changing toward a market based economy.
2. What are basic features of Indian Economy?
3. Planning in India and economic reform introduced and rationale behind reform.
4. Role of Industry and various policy decisions to induce industrial revolution in India.
5. Importance of foreign sector and rationale behind export promotion schemes.

### **B.A. - II**

#### **Subject: Economics**

##### **Paper-I: Micro Economics**

Upon successful completion of this Paper the student will be able to:

1. National income and understand how it is calculated.
2. Factors responsible for employment determination.
3. Consumption and investment and their importance in N.I. determination.
4. Trade cycles and various factors responsible for trade cycle.
5. Export- Import and its related concepts
6. International institutions for trade and Economics.

## **Paper-II: Money Banking and Public Finance**

Upon successful completion of this Paper the student will be able to:

1. How value of money changes.
2. Inflation and measures to control inflation.
3. Banks, their role in economy and Central Banking System.
4. State and effect of its intervention in the economy.
5. Sources of various revenues to state.
6. Public debt and economics effects.

## **B.A. - III**

### **Subject: Economics**

#### **Paper-I: Development and Environmental Economics**

Upon successful completion of this Paper the student will be able to understand:

1. Economic well being of various nations; Poverty and emerging trends to measure poverty and deprivation.
2. Population and Economy linkage, various perspective developments.
3. Environment, Growing importance of study of Environment Economy inter play.
4. Various socio- economic issues affecting mankind.

#### **Paper-II: Statistical Methods**

Upon successful completion of this Paper the student will be able to:

1. Statistics, data collection
2. Measurement of representative values.
3. Easement of various representative values.
4. Inter-relationship between social and economic variables.
5. Construction of Index numbers and Measurement of trend.

## **Course Outcomes:**

### **M.A. - Ist Sem**

#### **Subject: Economics**

##### **Paper-I: Micro Economics**

Upon successful completion of this Paper the student will be able to:

1. Define Demand Theories Apply elasticity on price demand measurement.
2. Uses of various methods to implore consumer behaviors.
3. Impact of Time pattern on production process.
4. Cost & Revenue analysis in various market forms.

##### **Paper-II: Macro Economics**

Upon successful completion of this Paper the student will be able to:

1. Understand the Flow of National Income.
2. Various assessment of national income.
3. factors affecting employment and income.
4. Consumption & Investment.
5. Money and its supply and demand.

##### **Paper-III:**

Upon successful completion of this Paper the student will be able to:

1. To measure Skewers in data.
2. Measure relationship between economic variables.
3. Interdependence and permutation between various factors.
4. How to fine values through Extrapolation and Interpolation.
5. Time based variables and importance and construction of Index Number.

### **Paper-IV: Indian Economy**

Upon successful completion of this Paper the student will be able to:

1. Component and structure of National Income.
2. Demographic features of India.
3. Agriculture and its importance in Indian economy.
4. Industrialization and initiative taken for industrialization of India.
5. Regional imbalance.

### **Paper-V: Industrial Economics**

Upon successful completion of this Paper the student will be able to:

1. Firm Industry and factors affecting their location.
2. Factors affecting productivity & capacity utilization and profitability of a firm.
3. Funding of Industry and firm.
4. Labor related issues.
5. Some big industries.

### **M.A. - IIInd Sem.**

#### **Subject: Economics**

#### **Paper-I: Micro Economics Analysis**

Upon successful completion of this Paper the student will be able to:

1. How a firm takes decisions to maximize its objective.
2. Determination of returns to various factors of production.
3. Welfare economics imply value judgment and assess principles of welfare.
4. Analyze economy as a whole.
5. Operational problem solution.

### **Paper-II: Macro Economics Analysis**

Upon successful completion of this Paper the student will be able to:

1. Understand price rise and employment inflation trade off.
2. Growth dilemmas unstable & unsteady growth.
3. Monetary policy for stability and growth.
4. Govt.'s policy and its economic implications.
5. Complexities of various monetary and fiscal measures.

### **Paper-III: Research Methodology and Computer Application**

Upon successful completion of this Paper the student will be able to:

1. Research designs Methods to carry out researches.
2. Sampling Data collection to study and understand a problem.
3. Presentation of data.
4. Formulation of hypothesis and testing of hypothesis.
5. Uses of computer for Statistical Analysis.

### **Paper-IV: Indian Economy Policy**

Upon successful completion of this Paper the student will be able to:

1. Uses of planning process for growth and desired changes in Indian Economy.
2. Problem of poverty and measures taken to remove poverty and employment generation policies.
3. Working Finance Commissions to foster centre state relation.
4. Trade Reforms and contribution of export - import in Indian economy.
5. Budget and its importance international economic associations and their importance for India.



### **Paper-V: Labour Economics**

Upon successful completion of this Paper the student will be able to:

1. Labour Market Interplay of forces of Labour market.
2. Employment, wage and wage determinations, role of bargaining power.
3. Formation of trade union, utility and functioning of trade union.
4. Govt. intervention in labour market.

### **M.A. - IIIrd Sem**

#### **Subject: Economics**

#### **Paper-I: Economics of Growth**

Upon successful completion of this Paper the student will be able to:

1. Essence of economic growth, impediments to growth.
2. Measurements of Growth, Alternative discourse on Growth.
3. Perspectives of various economists on development and their formulation for speedy development.
4. Contraction in strategies of development.

#### **Paper-II: International Trade**

Upon successful completion of this Paper the student will be able to:

1. Importance of trade in economy of a nation.
2. Why does different nation trade.
3. What are conditions of trade and how these terms for trading determined.
4. Affects of trade on various macro parameters of Economy.
5. Balance of payment and measure to bring about desirable changes in international payment position of a country.
6. Determination of external value of domestic currency.

### **Paper-III: Public Finance**

Upon successful completion of this Paper the student will be able to:

1. Taxation importance of taxation for Government.
2. Impact of taxes on production, consumption and distribution.
3. Changing pattern of taxation in India.
4. Different forms of taxation
5. Public expenditure and Public debt and its impact on economy.
6. Process of budget making.

### **Paper-IV: Environment Economics**

Upon successful completion of this Paper the student will be able to:

1. Need to study Environment as part of Grand Economics Theory.
2. Environment as a factor in general welfare.
3. Economic welfare and its measurements.
4. Impact of Environment influencing activities on market forces of demand and supply.
5. Price calculation when Environmental influence affects market forces.

### **Paper-V: Demography**

Upon successful completion of this Paper the student will be able to:

1. Factors governing population changes in population.
2. Role of Economic forces in shaping population trend of a nation.
3. Role of population in Economic parameters of a nation.
4. Factor responsible for birth rate, death rate, infant mortality rate.
5. Economic and demographic inter linkages.

**M.A. - IVth Sem.**

**Subject: Economics**

**Paper-I: Economics of Development and Planning**

Upon successful completion of this Paper the student will be able to:

1. Process of Planning, Planning in India and achievements of Indian Five Year Plan.
2. Various theoretical perspectives on strategies to remove back wardness.
3. Role of Govt. and Banking System in development of a Nation.
4. International comparison on two bases of poverty, prosperity and happiness.
5. Some important macro issues and their solution.

**Paper-II: International Economics**

Upon successful completion of this Paper the student will be able to:

1. Role of bilateral and multilateral integration.
2. Various international cooperative formations and their compact on different economies.
3. International capital movement, its advantages and disadvantages.
4. Various international Institutions for general economic improvement of participating nations.
5. Impact analysis of structural reforms of 1991 on the foreign trade of India.

**Paper-III: Public Economics**

Upon successful completion of this Paper the student will be able to:

1. Federal system of India.
2. Finances of States and Centre.
3. Constitutional provision to distribute resources between center and states and among states.
4. Idea of fiscal federalism.
5. Analysis of budgets of center and Chhattisgarh.
6. Fiscal analysis of Chhattisgarh.

#### **Paper-IV: Economics of Social Sector**

Upon successful completion of this Paper the student will be able to:

1. Pollution, impact analysis of Pollution and causes of Pollution.
2. Various laws to protect environment.
3. Uses of various natural resources and their implications and consequences.
4. Education as an important economic variable and outcome.
5. Health as an important economic variable and outcome.

#### **Paper-V: VIVA-VOCE**

Upon successful completion of this Paper the student will be able to:

Students are evaluated for their comprehensive ability to understand and explain two various economic facts of life through personal interface.

## **Course Outcomes:**

### **B.A. - I**

#### **Subject: Geography**

##### **Paper - I: Elements of Geomorphology**

Understand the structure of different part of earth and applied Geomorphology.

##### **Paper -II: Introduction to Geography and Human Geography**

Understand different part of geographical knowledge and evolution of Geographical thoughts.

##### **Paper -III: Practical Geography**

Map making and scale of the maps and diagrams.

### **B.A. - II**

#### **Subject: Geography**

##### **Paper -I: Physical Geography -II (Climatology and Oceanography)**

Demonstrate knowledge of physical condition of atmosphere and oceans and general problems of climatic conditions.

##### **Paper -II: Regional Geography with Special Reference to North America**

Understand regional Geography of North America their physical and culture condition.

##### **Paper -III: Practical Geography**

Making projections and statistical methods.

### **B.A. - III**

#### **Subject: Geography**

##### **Paper -I: Resources and Environment**

Understand importance of resources and environment and related problems.

##### **Paper -II: Geography of India (with Special Reference to Chhattisgarh)**

Knowledge of physical and cultural characteristics of India and Chhattisgarh state.

##### **Paper -III: Practical Geography**

Understand Topographical Sheets and socio-economic survey of village.

## **Course Outcomes:**

### **M.A.- Ist Sem**

#### **Subject: Geography**

##### **Paper-I: Geomorphology**

Understand the structure of different part of earth and applied geomorphology.

##### **Paper-II: Climatology**

Understand the structure of atmosphere and different type of climate and its characteristics.

##### **Paper-III: Geographical Thought**

Brief knowledge of history & development of Geographical Thoughts.

##### **Paper-IV: Geography of India**

Knowledge of physical and socio economical characteristics of India.

##### **Paper-V: Practical Geography Cartography**

Acquire knowledge in the field of Map Making and Cartographic techniques.

### **M.A.-II nd Sem.**

#### **Subject: Geography**

##### **Paper-I: Economic and Natural Resource Management**

Study of natural resource management and optimum uses of resources.

##### **Paper-II: Oceanography**

Understand characteristics of oceanic water and their movement.

##### **Paper-III: Regional Development and Planning**

Understand specific regions and their development.

##### **Paper-IV: Social Geography**

To know how to grow a society and their geographical aspect.

##### **Paper-V: Practical -II Map Projections, Map Interpretation and Surveying**

Understand map projection and digital surveying by advanced equipments.

**M.A. - IIIrd Sem.**

**Subject: Geography**

**Paper-I: Population Geography**

Knowledge of population condition of the world and related problems.

**Paper-II: Settlement Geography**

Understand rural and urban development of settlement and there problems.

**Paper-III: Geography Of Chhattisgarh**

Acquire knowledge of Chhattisgarh.

**Paper-IV: Research Methodology**

Understand research techniques and their uses.

**Paper-V: Practical -III : Remote Sensing and Quantitative Technique**

Knowledge of remote sensing, Geographic Information System.

**M.A.-IVth Sem.**

**Subject: Geography**

**Paper-I: Urban Geography**

Knowledge of urban structure and their problems.

**Paper-II: Environmental Geography**

Understand elements of environment and its problems and management.

**Paper-III: Agriculture Geography**

Knowledge of Agriculture Regions and their theories.

**Paper-IV: Social Economic Survey**

Understand Survey Technique and Village Survey Field Work experience Tabulation and data processing.

**Paper-V: Practical Geography**

Statistical methods and new techniques.

## **Course Outcomes:**

### **Name of Program: B.A. in Philosophy**

1. Studying philosophy will help a student to analyze and construct sound arguments, distinguish fine differences between views and find common ground, present ideas convincingly through well-constructed, systematic arguments, generate ideas and come up with solutions to problems, be open to new ideas and ways of thinking and also understand related disciplines.
2. The course comprises of three years, the respective partition of which is dealt below.

### **B.A.Part I**

#### **Paper-I Outline of Indian Philosophy -**

1. Makes a student understand and comprehend Indian culture and civilization.

#### **History of Western Philosophy (Second paper) -**

1. Creates an understanding about Western ethos and Society.

### **B.A.Part II**

#### **Paper- I Ethics: Indian and Western -**

1. It involves systematizing, defending, and recommending concepts of right and wrong conduct.

#### **Paper-II Philosophy of Religion**

1. It is the philosophical study of the meaning and nature of religion. It includes the analyses of religious concepts, beliefs, terms, arguments, and practices of religious adherents.



### **B.A.Part III**

#### **Paper-I Logic**

1. Understand the nature of reasoning; articulate his/her thoughts in a logical and clear fashion; recognize fallacies; construct good arguments; evaluate deductive arguments; evaluate inductive arguments.

#### **Paper-II Greek Philosophy**

1. From Thales, who is often considered the first Western philosopher, to the Stoics and Skeptics, ancient Greek philosophy opened the doors to a particular way of thinking that provided the roots for the Western intellectual tradition.

## **Course Outcomes:**

### **Name of Program: M.A. in Philosophy**

Upon completion of this course the student will be able to explore such concepts as the nature of the world and how we have access to knowledge of the world; the relationship between our thoughts and the external world.

1. The student can get himself into several avenues including joining a University/College as Professor, can help him clear UPSC and State PSC Examinations, get appointed as a Philosophical Councilor and further one can find job opportunities in the following sectors such as student affairs, journalism, creative writing, research, etc. A student can also work as advisors, lobbyist, and specialist in HR etc.
2. The course consists of two years divided into four semesters, the contents of each of which include:

### **M.A. Ist Sem**

#### **Paper-I Indian Ethics**

1. Express reasons in support of a moral claim.
2. Understand that there are better and worse reasons for making a moral decision.
3. Explain the difference between an act being morally permissible and being morally necessary.

#### **Paper- II Indian Logic**

1. To gain an understanding about the rich tradition and heritage about logic as it existed in the Nyaya, Jain and Buddhist culture.

#### **Paper - III Indian Epistemology**

1. It is one of the much debated fields of study in Hinduism, Buddhism and Jainism, since ancient times.
2. It is a theory of knowledge, and encompasses one or more reliable and valid means by which human beings gain accurate, true knowledge.
3. Its focus is how correct knowledge can be acquired, how one knows, how one doesn't, and to what extent knowledge pertinent about someone or something can be acquired.

### **Paper - IV Indian Metaphysics**

1. Look upon it a means that helps man transcend his finitude and permanently cross over the ocean of samaras into a state of everlasting freedom.

### **M.A. IInd Sem**

#### **Paper- I Western Ethics**

1. It emphasizes on self and what is rationally or logically true.
2. It places importance on law and justice.

#### **Paper- II Western Logic**

1. It relies upon Symbolic logic, which is a way to represent logical expressions by using symbols and variables in place of natural language, such as English, in order to remove vagueness.

#### **Paper - III Western Epistemology**

1. Branch of philosophy is concerned with the theory of knowledge.
2. Epistemology studies the nature of knowledge, justification, and the rationality of belief.

#### **Paper - IV Western Metaphysics**

1. A distinctive feature of *Western metaphysics* is the attempt to understand the universe by means of a logical investigation of concepts rather than an empirical inquiry based on sensory evidence.

## **Course Outcomes:**

### **Name of Programme: M.A. in Public Administration**

#### **M.A. –Ist Sem**

##### **Paper I: Principles of Public Administration**

**Code-P Ad -101**

The student will acquire knowledge about:

1. The concept of public administration private administration & management.
2. Approaches to the study of public administration & development of the discipline.
3. Concept of organization; line & staff departments, public corporation & independent regulatory commission.
4. Concept of centralization, decentralization & delegation.
5. Administrative process like - policy formulation, decision making communication, leadership & motivation.

##### **Paper II: Theories of Public Administration**

**Code- P Ad 102**

The student will acquire knowledge about:

1. Administrative theories.
2. Management aids.
3. Concept of E-governance, Good-Governance, RTI, Ethics in public administration.
4. Some issues- crisis, stress, Time management, office and file management.
5. Accountability of public administration.

##### **Paper III: Indian Administration**

**Code- P Ad 103**

The student will acquire knowledge about:

1. Evolution & present scenario of Indian Administration.
2. Parliamentary democracy & political executive.
3. Departments & board & commission.
4. Union-state relations, administrative reforms.

##### **Paper IV: Development Administration**

**Code- P Ad 104**

The student will acquire knowledge about:

1. Concept & theory of development administration.
2. Features of developed & developing countries.
3. Concept of modernization, economic development & development programs.
4. Political development, social change and planning machinery in India.
5. Development and bureaucracy, public participation & environment development.

## **M.A. –IIInd Sem**

### **Paper I: State Administration**

**Code- P Ad 201**

1. State government & administration.
2. Organization & working of state finance commission 7 state election commission 7 state planning commission.
3. Administration at the districts level.
4. Analyze some administrative issues like minister secretary relationship, ARC-I & II, administrative corruption.

### **Paper II: Municipal Govt. of India**

**Code- P Ad 202**

1. Concept of local self Govt. & 74th constitutional amendment.
2. Organization & functions of municipal corporations.
3. Personnel administration of municipal employees & state control and municipal administration & deliberative- executive relationship.
4. Committee system & problems & reforms in local self govt. Smart City Project, Swarna Jayanti Sahri Rojgar Yojna.

### **Paper III: Rural Development & Tribal Welfare**

**Code- P Ad 203**

1. Concept of rural development dimensions of rural poverty & role of NGOs in rural development.
2. Rural development policy & strategy approaches to rural development machinery for rural development in India.
3. Various rural development schemes like MNREGA, Swachha Bharat Mission, social audit & Digital India.
4. Tribal welfare at district, block & village level in Chhattisgarh, legislation, problems & schemes tribal welfare.

### **Paper IV: Panchayati Raj**

**Code- P Ad 204**

1. Concept & evolution of Panchayati Raj 73rd constitutional amendment.
2. Structure, Power & functions of three tier Panchayati Raj in Chhattisgarh.
3. Source of revenue of PRIs, state control over PRIs & rate of PRIs for weakens sections & women.
4. Deliberative - executive relationship in PRIs, political parties & pressure group in PRIs, problems of PRIs.
5. E- Panchayats self-help groups & public distribution system in Chhattisgarh.

## **M.A. –IIIrd Sem**

### **Paper I: Comparative Public Administration**

**Code- P. Ad. 301**

1. Concept & evolution of comparative public administration.
2. Approaches to study of comparative public administration.
3. Analyze Weber's typology of authority & ideal type of bureaucracy, Rigg's typology of societies & prismatic-sala model.
4. Administrative system of U.K., China, U.S.A. & France.
5. Analyze whitleyism in Britain IRC in U.S.A. prefect in France, ombudsman in Sweden & role communist party in China.

### **Paper II: Human resource development & personnel Administration**

**Code- P. Ad. 302**

1. Concept of personnel administration & human resource management.
2. Concept & theories of Max Weber & Karl Marx About bureaucracy.
3. Recruitment, position classification & training of personnel in U.K, U.S.A. & France.
4. Concept of promotion, discipline morale & motivation.
5. Employer & employee relationship.

### **Paper III: Research Methodology in Public Administration**

**Code- P. Ad. 303**

1. Concept of research design, hypothesis and sampling.
2. Construction of questionnaires and schedules role of interviewer.
3. Other methods of data collection.
4. Processing of data classification, tabulation and analysis of data.
5. Measurement of central tendency.

### **Paper IV: Administrative Law**

**Code- P. Ad. 304**

1. Concept of administrative law & rule of law.
2. Concept of delegated legislation legislative & judicial control over delegated legislation.
3. Concept & Functions of administrative tribunals.
4. Concept of natural justice legal remedies & liabilities of state.
5. Lokpal & Lokayukta, central vigilance commission & public interest litigation (PTI).

**M.A. –IVth Sem**

**Paper I: Civil Service in India**

**Code- P. Ad. 401**

1. Concept and structure of civil service, recruitment, training & promotion.
2. Salary administration.
3. Structure and function of UPSC, PSC & SSC.
4. Political right and right to strike & condition of service, conduct rules disciplinary action and machinery for redress of civil service grievances.

**Paper II: Administrative Thinkers**

**Code- P. Ad. 402**

1. Theories of kautilya.
2. Theories of Woodro Wilson , F.W.Taylor , henri Fayol , Mary Parker Follet , Herbert Simon ,Max Weber , f.W. riggs , Luther Gullick , Lyndall Urwick ,George Elton Mayo & Abroham Maslow.

**Paper III: Management of Public Enterprises and Industrial Relations**

**Code- P. Ad. 403**

1. The role of public enterprises in national economy & problems of nationalization.
2. Forms of organization, government control & parliamentary accountability.
3. Concept of managerial personnel & problems of industrialization.
4. Labour welfare and its influence social security in India, U.K. and USA.

**Paper IV: Financial Administration**

**Code- P. Ad. 404**

1. Ministry of finance and financial administration.
2. Budget types & techniques.
3. Control over public expenditure.
4. Finance commission, 14th finance commission, fiscal management policy and monetary policy.

## **Course Outcomes:**

### **इतिहास**

#### **बी.ए.: इतिहास प्रथम वर्ष**

##### **Paper - I**

##### **History of India from the Beginning**

1. इस पाठ्यक्रम उद्देश्य विद्यार्थियों को प्राचीन भारत के इतिहास के प्रमुख राजनितिक सामाजिक आर्थिक एवं सांस्कृतिक पक्षों से परिचित कराना है

##### **Paper - II**

##### **विश्व का इतिहास 1453 से 1789**

1. इस पाठ्यक्रम के अध्ययन से विद्यार्थियों तत्कालीन विश्व इतिहास की प्रमुख घटनाओ एवं स्थितियों की जानकारी प्राप्त होती है

#### **बी.ए. इतिहास द्वितीय वर्ष**

##### **Paper :- I**

##### **भारत का इतिहास 1206 से 1761**

1. इस पाठ्यक्रम के अध्ययन से विद्यार्थियों को मध्यकालीन भारतीय इतिहास के राजनितिक सामाजिक आर्थिक एवं सांस्कृतिक पक्षों का ज्ञान प्राप्त होता है

2. यह पाठ्यक्रम विभिन्न प्रतियोगी परीक्षाओ के लिए इतिहास विषय एवं सामान्य ज्ञान के लिए पठन सामग्री उपलब्ध कराता है

##### **Paper :- II**

##### **विश्व का इतिहास 1789 से 1871**

1. यह पाठ्यक्रम विद्यार्थियों को तत्कालीन विश्व के इतिहास की प्रमुख घटनाओ से अवगत कराते हुए अंतर्राष्ट्रीय विषयक समझ उत्पन्न करने में सहायक है



## **बी.ए. इतिहास तृतीय वर्ष**

### **Paper: - I**

#### **भारत का इतिहास 1761 से 1950**

1. इस पाठ्यक्रम के अध्ययन से विद्यार्थियों को आधुनिक काल के राजनितिक आर्थिक सामाजिक इतिहास का ज्ञान मिलता है
2. इसके अध्ययन से छात्र ब्रिटिश काल में भारतीयों पर हुए दमन शोषण से परिचित होते हैं

### **Paper: - II**

#### **विश्व का इतिहास 1871 से 1945**

1. इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को विश्व इतिहास की प्रमुख घटनाओं से अवगत कराना है
2. साथ ही अंतर्राष्ट्रीय परिदृश्य का ज्ञान देकर उनमें वैश्विक स्तर की समझ विकसित करना है

## **Course Outcomes:**

### **एम.ए. इतिहास प्रथम एवं द्वितीय सेमेस्टर**

#### **Paper: - I/V**

#### **इतिहास पद्यति एवं इतिहास लेखन**

1. इस पाठ्यक्रम के अध्ययन के माध्यम से विद्यार्थियों को इतिहास के स्वरूप एवं उसके विभिन्न सिद्धान्तों से परिचित कराते हुए भारतीय एवं अंतराष्ट्रीय इतिहास लेखन की विधा से परिचित कराना भारतीय इतिहास की व्याख्या के उपागमों का बोध कराया जाता है
2. इतिहास के अध्ययन से बुद्धि का विकास चिंतन सामर्थ्य तथा तर्क शक्ति का विकास होता है जिसमें सत्यान्वेषण व अतीत के पुर्ननिर्माण में सहायता मिलती है

#### **Paper: - II/VI**

#### **आधुनिक विश्व/1871-1990/ समकालीन विश्व /1919-1990**

1. इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को आधुनिक एवं समकालीन विश्व में घटित घटनाओं जिन्होंने समूचे विश्व को प्रभावित किया से अवगत कराना है
2. साथ ही विभिन्न प्रतियोगी परीक्षाओं हेतु विद्यार्थियों को पठन सामग्री उपलब्ध कराते हुए अंतराष्ट्रीय घटनाओं के प्रति समझ विकसित करना है

#### **Paper: - III/VII**

#### **प्राचीन एवं समकालीन छत्तीसगढ़/आधुनिक छत्तीसगढ़**

1. इस प्रश्नपत्र को विद्यार्थियों में सूक्ष्म एवं क्षेत्रीय इतिहास के अंतर्गत छत्तीसगढ़ राज्य के समूह इतिहास से अवगत कराने के दृष्टिकोण से चयनित किया गया है
2. विद्यार्थियों को राज्य स्तरीय समस्त परीक्षाओं (प्रतियोगी) हेतु स्वयं को तैयार कर सकने एवं इतिहास की राष्ट्रीय धारा के प्रवाह में छत्तीसगढ़ की भूमिका का आकलन भी इस पाठ्यक्रम का मुख्य उद्देश्य है

**Paper: - IV/VIII**

**भारतीय राष्ट्रीय आंदोलन का इतिहास (1885-1919/1920-1947)**

1. इस पाठ्यक्रम में समाहित विभिन्न अध्यायों के माध्यम से विद्यार्थियों को स्वतंत्रता आंदोलन के विभिन्न चरणबद्ध घटनाक्रमों से अवगत कराया जाता है
2. इसके अलावा इस अध्ययन से विद्यार्थी आजादी की कीमत आंक सके व अनुभव कर सके की उनके देश को आजादी कितनी कुर्बानियों के पश्चात् सतत संघर्ष करते हुए प्राप्त हुई है जिससे उनमें राष्ट्र प्रेम की भावना पुष्पित एवं पल्लवित हो सके और राष्ट्र का समुचित विकास संभव हो सके

**एम.ए. इतिहास तृतीय एवं चतुर्थ सेमेस्टर**

**Paper: - I/II**

**आधुनिक भारत राजनितिक प्रशासनिक (1757 से 1857 / 1858 से 1919):**

1. इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को भारत में यूरोपियनो के आगमन के कारणों ब्रिटिश साम्राज्य की स्थापना एवं राजनितिक क्षेत्र में उसके दुष्परिणाम भारतीयों की प्रतिक्रिया एवं भारत के संवैधानिक विकास की प्रक्रिया से अवगत कराना है

**Paper: - III/VII**

**पर्यटन सिद्धांत एवं व्यवहार इतिहास के सन्दर्भ में:**

1. पर्यटन के वैश्विक महत्त्व एवं विभिन्न क्षेत्रों में रोजगार की सम्भावनाये होने तथा छत्तीसगढ़ राज्य में पर्यटन की संभावना को ध्यान में रखते हुए पर्यटन को स्नातकोत्तर में एक प्रश्न पत्र के रूप में सम्मिलित किया गया है

**Paper: - IV/VIII**

**इंग्लैंड का इतिहास (1815 To 1885) / आधुनिक इंग्लैंड (1885 To 1965)**

1. इस पाठ्यक्रम के माध्यम से विद्यार्थियों को इंग्लैंड में सम्पन्न संसदीय सुधारों के क्रमबद्ध विकास एवं ब्रिटिश साम्राज्यवाद के विकास तथा विश्व युद्धों में इंग्लैंड की भूमिका एवं उसके परिणामों से अवगत कराना है
2. इस पाठ्यक्रम के अध्ययन से विद्यार्थियों को लोकतान्त्रिक आंदोलनों एवं वैश्विक प्रभावों का ज्ञान भी प्राप्त होता है

**Paper: - V/VI**

**आधुनिक भारत (1757 TO 1857) / आधुनिक भारत (1858 TO 1964) आर्थिक, सामाजिक व सांस्कृतिक**

1. पूर्व औपनिवेशिक भारत की आर्थिक सामाजिक सांस्कृतिक दशा से विद्यार्थियों को परिचित प्राण इस पाठ्यक्रम का उद्देश्य है
2. ब्रिटिश शासन की नीतियों के परिणामों स्वरूप भारतीय अर्थव्यवस्था में आये परिवर्तनों एवं भारत के आधुनिकीकरण के विभिन्न आयामों से परिचित कराने तथा स्वतंत्र भारत में शिक्षा स्वास्थ्य विज्ञान एवं तकनीकी विकास की जानकारी भी इस पाठ्यक्रम के अध्ययन से प्राप्त होती है

## Course Outcomes:

बी.ए./ बी. एससी. /बी .कॉम.- प्रथम

आधार पाठयक्रम

प्रश्नपत्र - प्रथम हिंदी भाषा

उद्देश्य:-

1. भाषा - ज्ञान का विकास
2. भाषा का शुद्ध प्रयोग करना
3. संप्रेषण कौशल बढ़ाना

बी.ए./ बी. एससी. /बी .कॉम. - द्वितीय

प्रश्नपत्र – प्रथम हिंदी भाषा

उद्देश्य:-

1. हिंदी भाषा के विविध रूपों का ज्ञान
2. साहित्य - संस्कृति से जोड़ना
3. व्याकरणिक ज्ञान का विकास

बी.ए./बी. एससी./बी .कॉम. - तृतीय

प्रश्नपत्र – प्रथम हिंदी भाषा

उद्देश्य:-

1. संप्रेषण कौशल की वृद्धि
2. साहित्य संस्कृति एवं सामान्य ज्ञान प्रदान करना

## Course Outcomes:

बी.ए.:- प्रथम वर्ष (हिंदी साहित्य )

प्रश्नपत्र - प्रथम (प्राचीन हिंदी काव्य)

उद्देश्य:-

1. हिंदी साहित्य के भक्तिकाल एवं रीतिकाल का ज्ञान
2. भाषा, संस्कृति, विचार, मानवता, काव्य-वैशिष्ट्य का परिचय

प्रश्न पत्र- द्वितीय (हिंदी कथा साहित्य)

उद्देश्य:-

1. हिंदी के कथा - जगत का परिचय
2. कहानी एवं उपन्यास विधा के माध्यम से अनुभूतियों, संवेदनाओं का साक्षात्कार

बी.ए. :- द्वितीय वर्ष (हिंदी साहित्य)

प्रश्नपत्र - प्रथम: अवार्चीन हिंदी काव्य

उद्देश्य:-

1. आधुनिक हिंदी कविता का परिचय
2. द्विवेदी युगीन, छाया वादी, राष्ट्रवादी एवं प्रयोगवादी काव्य - प्रवृत्तियों का ज्ञान

प्रश्न पत्र-द्वितीय हिंदी निबंध तथा अन्य गद्य विधाएँ

उद्देश्य:-

1. मानव मन की अभिव्यक्ति के सशक्त माध्यम गद्य का परिचय
2. मानव चिंतन की विकास प्रक्रिया को समझना

**बी.ए.:- तृतीय वर्ष(हिंदी साहित्य )**

**प्रश्नपत्र - प्रथम जनपदीय भाषा साहित्य (छत्तीसगढ़ी )**

**उद्देश्य :-**

1. छत्तीसगढ़ी साहित्य का परिचय
2. क्षेत्रीय भाषा को प्रोत्साहन

**प्रश्नपत्र - द्वितीय हिंदी भाषा साहित्य का इतिहास तथा काव्यांग विवेचन**

**उद्देश्य :-**

1. हिंदी भाषा के विविध रूपों एवं हिंदी साहित्य के इतिहास का सम्यक ज्ञान कराना
2. काव्यांग विवेचन

## Course Outcomes:

### एम.ए. (हिंदी साहित्य) प्रथम सेमेस्टर

#### प्रश्न पत्र - प्रथम (हिंदी साहित्य का इतिहास)

#### उद्देश्य:-

1. हिंदी साहित्य के आदिकाल एवं भक्तिकाल की प्रवृत्तियों व रचनाकारों का अध्ययन
2. उक्त कालों की समस्त पृष्ठभूमियों का अध्ययन

#### प्रश्नपत्र - द्वितीय (प्राचीन एवं मध्यकालीन काव्य)

#### उद्देश्य:-

1. आदिकाल एवं भक्तिकाल (निर्गुण भक्ति काव्य) की रचनाओं का अध्ययन
2. लोक जागरण का भाव विकसित करना

#### प्रश्नपत्र तृतीय (आधुनिक हिंदी काव्य)

#### उद्देश्य:-

1. नवीन भावभूमि एवं वैचारिक गतिशीलता का प्रसार
2. आधुनिकता, इहलौकिकता विश्वजनीनता एवं वैज्ञानिक दृष्टिकोण का विकास

#### प्रश्नपत्र चतुर्थ (आधुनिक गद्य साहित्य)

#### उद्देश्य:-

1. गद्य की विविध विधाओं के माध्यम से मानव-जीवन के विविध पक्षों का उद्घाटन
2. ऐतिहासिक, सामाजिक, सांस्कृतिक मूल्यों का विकास

### एम.ए. (हिंदी साहित्य) द्वितीय सेमेस्टर

#### प्रश्नपत्र:- प्रथम (हिंदी साहित्य का इतिहास)

#### उद्देश्य:-

1. हिंदी साहित्येतिहास के रीतिकाल, आधुनिक काल एवं छायावादोत्तर काल का व्यापक अध्ययन
2. समस्त पृष्ठभूमियों प्रवृत्तियों एवं प्रतिनिधि रचनाकारों का परिचय



### **प्रश्नपत्र: द्वितीय ( प्राचीन एवं मध्यकालीन काव्य)**

#### **उद्देश्य:-**

1. मध्यकालीन (सगुठा भक्तिधारा / रीतिकाल) काव्य का अध्ययन
2. लोक मंगल भावनात्मक एकता एवं सांस्कृतिक परम्परा से जोड़ना

### **प्रश्नपत्र: तृतीय (आधुनिक हिंदी काव्य)**

#### **उद्देश्य:-**

1. प्रगतिवाद एवं प्रयोगवाद के प्रमुख हस्ताक्षरों का अध्ययन
2. समकालीन भावभित्यंजना एवं शिल्पगत नवीनता से परिचय

### **प्रश्नपत्र: चतुर्थ (आधुनिक गद्य साहित्य)**

#### **उद्देश्य:-**

1. साहित्य समाज-संस्कृति का दर्शन
2. आंचलिकता से रुबरु करना

### **एम.ए. (हिंदी साहित्य) तृतीय सेमेस्टर**

### **प्रश्नपत्र: प्रथम (काव्यशास्त्र एवं साहित्यलोचन)**

#### **उद्देश्य:-**

1. रचना में मर्यादा का पालन करना
2. रचना को उसकी समग्रता में जांचना परखना
3. साहित्यिक समझ विकसित करना

### **प्रश्नपत्र: द्वितीय (भाषा विज्ञान एवं हिंदी भाषा)**

#### **उद्देश्य:-**

1. साहित्य के गंभीर अध्ययन हेतु भाषिक व्यवस्था का ज्ञान
2. हिंदी भाषा के ऐतिहासिक विकासक्रम को समझना
3. देवनागरी लिपि और मानकीकरण की प्रक्रिया को समझना

### प्रश्नपत्र: तृतीय (प्रयोजनमूलक -हिंदी)

#### उद्देश्य:-

1. रोजगार एवं जीविका के क्षेत्र में भाषा कौशल विकसित करना
2. जीवन और समाज की विभिन्न आवश्यकताओं के अनुरूप भाषा की दक्षता उत्पन्न करना

### प्रश्नपत्र: चतुर्थ (भारतीय साहित्य)

#### उद्देश्य:-

1. भारतीय साहित्य की रूप-रचना जानना
2. प्रांतीय भाषाओं के साहित्य में एकरूपता खोजना
3. परस्पर तुलनात्मक अध्ययन करना

### एम.ए. (हिंदी साहित्य) चतुर्थ सेमेस्टर

#### प्रश्नपत्र: प्रथम (काव्यशास्त्र एवं साहित्यालोचन)

#### उद्देश्य:-

1. हिंदी लक्षण परम्परा को जानना
2. हिंदी आलोचना की प्रमुख प्रवृत्तियों को समझना
3. व्यवहारिक समीक्षा का ज्ञान

#### प्रश्नपत्र: द्वितीय (भाषा विज्ञान एवं हिंदी भाषा)

#### उद्देश्य:-

1. हिंदी की उप भाषाओं का ज्ञान
2. हिंदी के विविध रूप का ज्ञान

**प्रश्नपत्र: तृतीय (प्रयोजन मूलक हिंदी (पत्रकारिता))**

**उद्देश्य:-**

1. पत्रकारिता के स्वरूप और इतिहास को जानना
2. विभिन्न जनसंचार माध्यमों के महत्त्व को समझना
3. प्रमुख प्रेस कानून एवं आचार संहिता की जानकारी

**प्रश्नपत्र: चतुर्थ (जनपदीय भाषा एवं साहित्य (छत्तीसगढ़ी))**

**उद्देश्य:-**

1. छत्तीसगढ़ी भाषा के नामकरण बोलिया और व्याकरण का ज्ञान
2. छत्तीसगढ़ी साहित्य के इतिहास का परिचय

## **Course Outcomes:**

### **एम.ए . समाजशास्त्र प्रथम सेमस्टर**

#### **प्रश्नपत्र प्रथम उत्कृष्ट समाजशास्त्रीय अध्ययन**

विभिन्न विद्वानों के विचार और उनका समाजशास्त्र में योगदान देशकाल व परिस्थिति के कारन 17वीं शदी में औद्योगिक क्रांति व फ्रांस की क्रांति हुई इसके पश्चात् विषय की पूर्णता समाजशास्त्र के रूप में आया प्रथम प्रत्यक्षवादी विचारक अगस्ट कॉम्ट, विचारक मैक्स वेब्लर, स्पैजेट, पैरेटो समकालिक समाजशास्त्री मार्टिन पर्सेस, सोरोकिक आदि विचारको ने समाज विज्ञान में क्या योगदान दिया इस सम्बन्ध इस प्रश्नपत्र से विद्यार्थियों को जानकारी दी जाती है पी.एस.सी. व यु.पी.एस.सी. व सहायक प्राध्यापक बनने के लिए इस विषय की उपयोगिता हो

#### **प्रश्नपत्र द्वितीय (औद्योगिक समाजशास्त्र)**

यह प्रश्नपत्र एम.ए. प्रीवियस और फाइनल के विद्यार्थियों हेतु ऐच्छिक है जिसमे उन्हें उद्योग व समाज के बारे में बताया गया उन्हें औद्योगिक विकास, औद्योगिकरण व औद्योगिक क्रांति के बारे में जानकारी दी गई औपचारिक व अनौपचारिक संगठन के बारे में जानकारी दी गई छात्रों को औद्योगिक समाज एवं उत्तर समाज के बारे में बताया गया जिससे उन्हें उद्योग आधारित समाज पर महत्वपूर्ण जानकारी प्राप्त हुई

#### **प्रश्नपत्र तृतीय (सामाजिक विज्ञानो का पद्यति शास्त्र )**

इसमें विद्यार्थियों का सामाजिक विज्ञानो का पद्यतिशास्त्र पढ़ाया गया जिसमे उन्हें किसी भी सामाजिक घटना या समस्या का अध्ययन करने हेतु वैज्ञानिक पद्यति का प्रयोग करने हेतु जानकारी दी गयी जिससे विद्यार्थियों को समां- शोध या अनुसन्धान सर्वेक्षण करने हेतु वैज्ञानिक दृष्टि प्राप्त हुए और वे फील्ड वर्क को अच्छी तरह से कर पाए फर्स्ट और सेकंड मे यह प्रश्नपत्र अनिवार्य है जिसमे साक्षात्कार लेना प्रश्नावली व अनुसूची बनाना सीखे

#### **प्रश्नपत्र चतुर्थ (अपराधशास्त्र व दण्डशास्त्र)**

अपराध व समाज का सम्बन्ध युगो युगीन रहा है जहा समज है वह अपराध होगा ही अतः अपराध बाल अपराध महिला अपराध संगठित अपराध इनकी जानकारी दी जाती है अपराध के रोक थाम के कानून दंडपूलिस न्यायलय आदि की जानकारी के साथ ही प्रायोगिक तौर पर इन्हे उच्चन्यायलय व रायपुर के केंद्रीय जेल भ्रमण कराया जाता है इस विषय को नैक स्टेट पी-एस.सी. व यु.पी.एस.सी. में परीक्षा के दौरान जानकारी अति आवश्यक है

## **एम. ए. समाजशास्त्र द्वितीय सेमस्टर**

### **प्रश्नपत्र प्रथम: परिवर्तन और विकास का समाजशास्त्र**

परिवर्तन और विकास का समाजशास्त्र -प्रश्नपत्र में उन्हें परिवर्तन की अवधारणा बताई गई है की उद्विकास प्रगति एवं रूपांतरण क्या होता है परिवर्तन क्यों और कैसे होता है इस हेतु उन्हें सिद्धांत व परिवर्तन के कारक बताये गए उन्हें परिवर्तन की प्रक्रियाएं यथा संस्कृतिकरण पश्चिमीकरण आधुनिकीकरण व धर्म निर्पेक्षिकरण की जानकारी दी गई समा- व आर्थिक विकास के साथ वैश्वीकरण के बारे में बताया गया किस प्रकार आर्थिक सुधारो के समा परिणाम हुए सुचना प्रौद्योगिक क्रांति से हमारा भारतिय समाज कैसे प्रभावित हुआ

### **प्रश्नपत्र द्वितीय : सामाजिक विज्ञानो का पद्यति शास्त्र**

इसमें विद्यार्थियों का सामाजिक विज्ञानो का पद्यतिशास्त्र पढ़ाया गया जिसमे उन्हें किसी भी सामाजिक घटना या समस्या का अध्यन करने हेतु वैज्ञानिक पद्यति का प्रयोग करने हेतु जानकारी दी गयी जिससे विद्यार्थियों को समां. शोध या अनुसन्धान सर्वेक्षण करने हेतु वैज्ञानिक दृष्टि प्राप्त हुए और वे फील्ड वर्क को अच्छी तरह से कर पाए फर्स्ट और सेकंड मेम यह प्रश्नपत्र अनिवार्य है जिसमे साक्षात्कार लेना प्रश्नावली व अनुसूची बनाना सीखे

### **प्रश्नपत्र तृतीय : औद्योगिक समाजशास्त्र**

यह प्रश्नपत्र एम ए प्रीवियस और फाइनल के विद्यार्थियों हेतु ऐच्छिक है जिसमे उन्हें उद्योग व समाज के बारे में बताया गया उन्हें औद्योगिक विकास, औद्योगिकरण व औद्योगिक क्रांति के बारे में जानकारी दी गई औपचारिक व अनौपचारिक संगठन के बारे में जानकारी दी गई छात्रों को औद्योगिक समाज एवं उत्तर समाज के बारे में बताया गया जिससे उन्हें उद्योग आधारित समाज पर महत्वपूर्ण जानकारी प्राप्त हुई

## **एम. ए. - समाजशास्त्र तृतीय सेमस्टर**

### **प्रश्नपत्र प्रथम: परिपेक्षीय सिहौत व रिसेंट सामाजिक सिहौत**

तृतीय सेमेस्टर के प्रथम प्रश्नपत्र में परिपेक्षीय सिहौत व रिसेंट सामाजिक सिहौत पर पूर्ण जानकारी उपलब्ध कराया जाता है इस विषय के संरचनात्मक उत्तर संरचनात्मक आधुनिकतावाद उत्तर आधुनिकतावाद व सामाजिक सिहौत उत्तर आधुनिकतावाद पर विचारो की विद्यार्थियों शिक्षा दी जाती है इसका व्यवहारिक पहलु यह है की १९वीं- शदी के विचारक यदि मार्क्स के विचार है वो वर्तमान विचारक डहरन या मर्टन के विचारो पर अलेक्जेंडर के विचार का क्या जमिनात्मक मूल्यांकन रहा है विनिमय का सिहौत प्रतीकात्मक अनुक्रियावाद व लोकविधि आदि विचारको की जानकारी वर्तमान नैक++ स्लेट पी.एस.सी. सहा-प्राध्यापक बनाने में जानकारी आवश्यक हो

### **प्रश्नपत्र द्वितीय : औद्योगिक समाजशास्त्र**

यह प्रश्नपत्र एम ए प्रीवियस और फाइनल के विद्यार्थियों हेतु ऐच्छिक है जिसमें उन्हें उद्योग व समाज के बारे में बताया गया उन्हें औद्योगिक विकास, औद्योगिकरण व औद्योगिक क्रांति के बारे में जानकारी दी गई औपचारिक व अनौपचारिक संगठन के बारे में जानकारी दी गई छात्रों को औद्योगिक समाज एवं उत्तर समाज के बारे में बताया गया जिससे उन्हें उद्योग आधारित समाज पर महत्वपूर्ण जानकारी प्राप्त हुई

### **प्रश्नपत्र तृतीय : अपराधशास्त्र व दण्डशास्त्र**

अपराध व समाज का सम्बन्ध युगो युगीन रहा है जहा समज है वह अपराध होगा ही अतः अपराध बाल अपराध महिला अपराध संगठित अपराध इनकी जानकारी दी जाती है अपराध के रोक थाम के कानून दंडपुलिस न्यायलय आदि की जानकारी के साथ ही प्रायोगिक तौर पर इन्हे उच्चन्यायलय व रायपुर के केंद्रीय जेल भ्रमण कराया जाता है इस विषय को नैक स्टेट पी एस सी व यु पी एस सी में परीक्षा के दौरान जानकारी अति आवश्यक है

### **प्रश्नपत्र चतुर्थ : भारत में सामाजिक आंदोलन**

यह प्रश्नपत्र तृतीय व चतुर्थ सेमेस्टर में अनिवार्य है जिसमें छात्रों को आंदोलन के बारे में बताया गया भारत में हुए विभिन्न आंदोलनों का इतिहास और उनके प्रकार बताये गए उन्हें आंदोलनों के कारणों और परिणामों की जानकारी दी गई जिससे विद्यार्थियों को भारत में अब तक हुए आंदोलनों के बारे में ज्ञान प्राप्त हुआ और उनकी सफलता या असफलता के बारे में जानकारी हुई और भारतीय समाज के प्रति जागरूक हुए विद्यार्थियों को इतिहास का ज्ञान हुआ

### **एम. ए. - समाजशास्त्र चतुर्थ सेमेस्टर**

#### **प्रश्नपत्र प्रथम : तुलनात्मक समाजशास्त्र**

तुलनात्मक समाजशास्त्र में भारतीय एवं पश्चिमी समाज की तुलना की गई है जिसमें एम.ए. चतुर्थ सेमेस्टर के विद्यार्थियों को पश्चिम में समाज का उद्भव व विकास कैसे हुआ और फिर समाजशास्त्र का अमेरिकीकरण किस प्रकार हुआ वैश्वीकरण का भारत पर क्या प्रभाव पड़ा आधुनिकता से भारतीय समाज कैसे प्रभावित हुआ भारतीय समाज पूर्व में कैसा था और वर्तमान में भारतीय समाज कैसा है तथा भविष्य में कैसा होगा इस विषय में महत्वपूर्ण जानकारी दी गई है

### **प्रश्नपत्र द्वितीय : भारत में सामाजिक आंदोलन**

यह प्रश्नपत्र तृतीय व चतुर्थ सेमेस्टर में अनिवार्य है जिसमें छात्रों को आंदोलन के बारे में बताया गया भारत में हुए विभिन्न आंदोलनों का इतिहास और उनके प्रकार बताये गए उन्हें आंदोलनों के कारणों और परिणामों की जानकारी दी गई जिससे विद्यार्थियों को भारत में अब तक हुए आंदोलनों के बारे में ज्ञान प्राप्त हुआ और उनकी सफलता या असफलता के बारे में जानकारी हुई और भारतीय समाज के प्रति जागरूक हुए विद्यार्थियों को इतिहास का ज्ञान हुआ

### **प्रश्नपत्र तृतीय : परिवर्तन और विकास का समाजशास्त्र**

प्रश्नपत्र में उन्हें परिवर्तन की अवधारणा बताई गई है की उद्विकास प्रगति एवं रूपांतरण क्या होता है परिवर्तन क्यों और कैसे होता है इस हेतु उन्हें सिद्धांत व परिवर्तन के कारक बताये गए उन्हें परिवर्तन की प्रक्रियाएं यथा संस्कृतिकरण पश्चिमीकरण आधुनिकीकरण व धर्म निर्पेक्षिकरण की जानकारी दी गई समा- व आर्थिक विकास के साथ वैश्वीकरण के बारे में बताया गया किस प्रकार आर्थिक सुधारों के समा- परिणाम हुए सुचना प्रौद्योगिक क्रांति से हमारा भारतीय समाज कैसे प्रभावित हुआ

## **Course Outcomes:**

### **Name of the Program:- B.Sc. in Mathematics**

#### **B.Sc. 1<sup>st</sup> Year**

#### **Paper: I:- Algebra and Trigonometry**

Upon successful completion of this subject the student will be able to:

##### **1. Matrices :**

1. Matrices are used in solving linear equations.
2. Many area of Numerical Analysis depend upon linear equations.
3. Specific field of applications are computer graphics, Cryptography etc.

##### **2. Theory of Equations**

1. Know about number system.
2. Understand the famous Fermat's theorem.
3. Use in cryptography, Computer Science etc.

##### **3. Algebra**

1. Algebra is a science of operations.
2. Use in Computer Science and Information Technology.
3. Used for logic & fuzzy set theory.

#### **Paper: II:- Elements of Calculus**

Upon successful completion of this subject the student will be able to:

1. Importance of its use in almost all branches of engineering.
2. It is a science that deals with rate of change.
3. Applications of differentiation include measuring velocity, acceleration, etc.
4. Applications of Integration include estimating areas, volumes, etc.

#### **Paper: III:- Vector Analysis and Geometry**

Upon successful completion of this subject the student will be able to:

1. Understanding the change of origin and change of scale.
2. Study of rate of change of vectors is vector calculus.
3. Use in Physics and Mechanics.
4. Understand the concepts of gradient, divergence, curl and their applications.
5. Know the importance of Stoke's theorem and Gauss divergence theorem.



## **B.Sc. 2<sup>nd</sup> Year**

### **Paper: I. Advanced Calculus**

Upon successful completion of this subject the student will be able to:

1. Use in almost all branches of Engineering.
2. Mainly deals with differentiation & integration
3. To learn measurable sets.
4. Understand nature of function, like cert. conv. & monotone.
5. Find area of double & volume of trip integral.

### **Paper: II. Differential Equation**

1. Differential equations are used in Mathematical Modeling.
2. Useful for solving many engineering problems.
3. It is used to solve both ordinary and partial differential equations.
4. Applications are in all branches of engineering.
5. Learn properties of Laplace transforms and inverse Laplace transforms.

### **Paper: III. Mechanics**

Upon successful completion of this subject the student will be able to:

1. To study about 2-dimensional motion.
2. To study about Simple Harmonic motion, Projectile.
3. To learn about Kepler's laws of motion.
4. Use in many fields of Engineering, especially Civil and Mechanical Engineering
5. Classical Mechanics finds a large number of interesting applications in daily life situations.

## **B.Sc. 3<sup>rd</sup> Year**

### **Paper I. Analysis**

Upon successful completion of this subject the student will be able to:

1. To learn properties of complex numbers.
2. To understand the use of complex numbers in the field of Calculus.
3. It is used in fixed point theorem and mapping principles.
4. To study continuous functions and convergence of sequences on metric spaces.
5. To learn connected complete and compact metric spaces.

### **Paper II. Abstract Algebra**

Upon successful completion of this subject the student will be able to:

1. It is branch of algebra.
2. Used in Discrete Mathematics, Computer Science, Information Technology etc.
3. To learn about modules.
4. To learn about canonical forms.
5. To learn about Vector Space and Inner product.

### **Paper III. Discrete Mathematics**

Upon successful completion of this subject the student will be able to:

1. Understand the basics of graph theory.
2. To understand trees and spanning trees.
3. Used in Genomics, networks, etc.
4. Useful for understanding sets, logic and probability theory.
5. Used in Discrete Mathematics, Computer Science and I.T.

## **Course Outcomes:**

### **Name of the Program:- M.Sc. in Mathematics**

### **M.Sc. I<sup>st</sup> and II<sup>nd</sup> Sem**

#### **Paper: I: Advanced Abstract Algebra**

Upon successful completion of this subject the student will be able to:

1. Have knowledge of some fundamental results and techniques from the theory of finite fields and their applications.
2. Explain the fundamental concepts of advanced algebra such as groups and fields and their role in modern mathematics and applied contexts.
3. Demonstrate capacity for mathematical reasoning through analyzing, proving and explaining concepts from advanced algebra.
4. Apply problem-solving using advanced algebraic techniques applied to diverse situations in physics, engineering and other mathematical contexts
5. Demonstrate knowledge and understanding of fundamental theorem of Galois Theory and its application in solving polynomials by radicals.

#### **Paper: II. Advanced Real Analysis**

It is a branch of pure Mathematics.

1. It is useful in Statistics, Probability, OR, etc.
2. Students learn about sequences, series of real function.
3. Learn measure & differentiation.

#### **Paper: III. Topology**

1. The properties of space that are preserved under continuous deformation, such as stretching, crumpling & bending, but not learning or gluing.
  2. It has great application in various fields of Biology, Computer Science, Physics, Robotics, Games & Puzzles etc.
  3. One popular application of Topology
- **In Biology:** A branch of Topology known as ‘Knot Theory’ is used to study the effects of certain enzymes on DNA.

- **In Comp. Sc.:** Topological data analysis uses techniques from algebraic topology to determine the large scale structure of a set.
- **In Robotics:** The various possible positions of a robot can be described by a manifold called configuration space.

#### **Paper: IV Advanced Complex Analysis**

1. It is widely used in Fluid Mechanics and Electrical Engineering.
2. To learn properties of complex number, the importance of R-S integration.
3. To learn about power series.
4. To gain knowledge of singularities and residues.
5. To apply the knowledge of residues in complex integration.

#### **Paper: V Advanced Discrete Mathematics**

1. Useful in studying and describing objects and problems in branches of Computer Science, such as computer algorithm, programming language, cryptography, automated theorem proving and software development conversely.
2. Computer implementations are significant in applying ideas from discrete Mathematics to real world problems, such as in “Operation Research”.

#### **M.Sc. III<sup>rd</sup> and IV<sup>th</sup> Sem**

##### **Paper: I. Functional Analysis and Integration Theory**

1. It is a branch of pure Mathematics.
2. It is useful in Harmonic analysis, Students learn about normed linear space, inner product space, Banach space & Hilbert space.

##### **Paper: II. Partial Differential Equation and Mechanics**

1. Interpret the resultant data.
2. The ability to approach problems in an analytical & rigorous way.
3. To formulate & apply them to solve problems.

### **Paper: III. Programming in C**

1. Demonstrate how to use specific features of the C programming language to write object-oriented programs and handle run-time errors.
2. Explain in a public presentation how user interfaces should be designed to accommodate human physiology and limitations.
3. Explain the processes by which a C programme is compiled.
4. Use appropriate C programming statements to control flow of execution in a C programme.
5. Exercise good programming practices in the design of Programmes.

### **Paper: IV. Operation Research**

1. Understand used in Industrial Engineering, Network Transportation Problems and Game Theory etc.
2. Learn about PERT and CPM, Decision Theory, Queuing Theory, Optimization techniques
3. It deals with minimization of cost and maximization of profit.
4. Use in Production Engineering, Mathematics of finance, Networking etc.
5. Study Linear Programming Problems.

### **Paper: V. Fuzzy sets and Fuzzy logic**

1. Use of fuzzy sets theory in the statistical methods.
2. Analyze statistical data by using fuzzy logic methods.
3. Compare statistical method against fuzzy logic method.
4. Get theory of the statistic fuzzy logic theory together.
5. Evaluate fuzzy statistics applications.
6. After the completion of this course the student will be able
7. To construct the appropriate fuzzy numbers corresponding to uncertain and imprecise collected data.
8. To handle the real world problem in engineering having uncertain and imprecise data. To find the optimal solution of Mathematical programming problems having uncertain and imprecise data.

## **Course Outcomes:**

### **B.Sc.-Part- I**

#### **Subject: Chemistry**

##### **Paper-I: Inorganic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe atomic structure on the basis idea of de-Broglie matter-waves, Heisenberg uncertainty principle Schrodinger wave equation and atomic orbital.
2. Describe the shapes of S, p, d orbital's auf-bare and Pauli excessive principle hunt's rule
3. Write down the electronic configuration of elements and calculate EAN.
4. Describe the periodic (IE, EA, EN) trends in periodic table and their application.
5. Describe covalent bond on the basis of valence bond theory, directional characteristics of covalent bond hybridization with example of simple inorganic molecule.
6. Define bond parameters such as bond strength and bond energy and explain percentage ionic character. Ionic solids with reference to ionic structure, radius ratio, lattice defect, and semiconductor.
7. Describe lattice energy, salvation energy, polar sing power, Fagan's rule and metallic bonds.
8. Comparative study of s-block elements and salient feature of hydrides, salvation & compellation tendencies, function in bio systems and alkyl & aryls, chemistry of noble gases.
9. Comparative study of p-block elements, halides, hydrides, oxides and oxy acids of B, Al, N & P and their compounds.
10. Describe the principle involved in the detection of acids and basic radicals including interfering radicals.

##### **Paper-II: Organic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe resonance, hyper conjugation, inductive effects, and H- bonding.
2. Describe mechanism of organic reaction including clearage of bond types of reagent and reaction intermediates.
3. Describe optical and geometrical isomerism including resolution, inversion, retention, recriminations, relative & absolute configuration and nomenclature.

4. Describe the cycloalkanes, Bayer's strain theory, and theory of strain in ring and banana bonds and reaction mechanism benzene & naphthalene their structure.
5. Study of chemical reactions of Alcohols, Alkanes, dienes and alkynes including elucidation, Diels-alder reaction.
6. Study of alkyl halides and aryl halides, mechanism and stereochemistry of nucleophilic substitution and elimination reaction.

### **Paper-III: Physical Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe the mathematical concepts including logarithmic relation, curve sketching, linear graph, straight line with slope and intercept.
2. Determine and work out integration and differentiation, permutation combination and probability.
3. Know about the computers, hardware and software computer language, programming and operation systems.
4. Describe molecular velocities - RMS, average and most probable velocities, Maxwell's law and other relevant details including J-T effect and liquefactions of gases.
5. Describe ideal, real gases and derivation including Vander - Waal's equation.
6. Describe the liquid state, viscosity and surface tension, ideal and non ideal solutions.
7. Describe the colloid properties relate to vapor pressure osmosis, boiling and freezing points, molar masses and van Hoff factor, Liquid crystals, emulsion, micelle, gel.
8. Describe the solid state - classification, symmetry, X-ray diffraction, miller indices and identification of unit cell.
9. Describe the chemical kinetics- rate of reaction, order of reaction and their determination.
10. Describe the catalysis - homogeneous and heterogeneous, industrial applications of catalysis.

### **Lab Course:**

At the end of laboratory course the student will be able to:

1. Analyse inorganic mixture containing four radicals (two acid and two basic) including interfering and combination of acid radicals.
2. Detect the functional group in the given organic compound and determine its melting & boiling prints.
3. Crystallize the given organic compound and determine its melting print.
4. Decolorise the given brown colored sugar.
5. Determine the percentage composition of binary mixture of liquids by viscometer and stalagmometer.

### **B.Sc.-Part- II**

#### **Subject: Chemistry**

#### **Paper-I: Inorganic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe the characteristic properties of d-block elements and elements of first transition series, their binary compounds and complexes.
2. Describe the chemistry of elements of second and third transition series.
3. Describe oxidation and reduction, use of red-ox potential data and red-ox diagrams.
4. Describe coordination chemistry, Werner theory, EAN, chalets, nomenclature, isomerism, VBT.
5. Describe the chemistry of lanthanides and actinides.
6. Describe acids and bases by Arrhenius, bronzed- lowery, Lax-flood, solvent system and Lewis concepts.
7. Describe the properties and reactions of non- aqueous solvents w.r.t liquid ammonia and liquid Sulphur dioxide.



## **Paper-II: Organic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe the nomenclature, formation & chemical reactions of dihydric and trihydric alcohols and phenols.
2. Describe mechanism of rearrangements reactions, nucleophilic additions to carbonyl group.
3. Describe oxidation and reduction of aldehydes and ketoses.
4. Describe methods of formation & chemical reactions of carboxylic acid and substituted carboxylic acids.
5. Describe reactivity, structure and nomenclature, basicity, structure of amines.
6. Describe Gabriel phthalamide, Hofmann bromamide azo coupling reactions.
7. Describe orbital picture and aromatic character of pyrrole, furan, thiophene and pyridine.
8. Describe preparation and reaction of indole, quinoline and iso quinoline and reaction of indole, quinoline and iso quinoline and electrophilic substitution reactions.

## **Paper-III: Physical Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe fundamentals of thermodynamics system, internal energy, enthalpy, heat capacity of gases at constant volume and constant pressure.
2. Calculate  $w$ ,  $q$ ,  $du$  &  $dh$  for the liquefaction of expansion of ideal gases under isothermal and adiabatic conditions, entropy and entropy change.
3. Apply phase rule to one, two and three component systems.
4. Describe Nerst distribution law, Henry's law and their application.
5. Describe specific and equivalent conductance & effect of dilution on conductance.
6. Describe applications of Kohlrausch's law and theories of strong electrolytes, transport no. and its determination by different methods.
7. Describe electrochemical cell and its conventional representation pH and pKa.
8. Describe corrosion, types, theories and its prevention.

### **Paper: Lab Course**

Upon successful completion of this subject the student will be able to:

1. Prepare standard solutions of oxalic acid.
2. Determine % of acetic acid in commercial vinegar using NaOH solutions.
3. Sprats different pigments of spinach using paper chromatography.
4. Determine RF value of organic compound using paper chromatography.
5. Understand effect of temperature on solubility of benzoic acids.
6. Calculate AH of salvation of benzoic acid in water.
7. Perform a laboratory experiment using conventional equipment, instrumentation and techniques and understand the principle well enough to interpret the data collected.

### **B.Sc.-Part- III**

#### **Subject: Chemistry**

#### **Paper-I: Inorganic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe metal- ligands bonding in transition metal complexes crystal field theory.
2. Describe the thermodynamics and kinetic aspect of metal complexes, factor affecting the stability of complexes, substitution reaction in square planer complexes.
3. Describe the magnetic properties of the complexes, determination of magnetic susceptibility, L-S coupling, magnetic moments and application of magnetic moment data.
4. Describe the electronic spectra of transitional metal complexes including types of electronic transition, spectroscopic ground state, Orgel diagrams, spectra of hexa aqua titanium complex.
5. Describe organo metallic chemistry including definition, nomenclature and classification. Alkyls and aryls of Li, Al, Hg, Sn and Ti.
6. A brief account of metal- ethylene complexes, homogenous hydrogenation and mononuclear carbonyl and their nature of bonding.

7. Describe the bio-inorganic chemistry including essential and trace elements in biological system, the hemoglobin and myoglobin, biological role of alkali and alkaline earth metals with special reference to  $\text{Ca}^{2+}$  and the nitrogen fixation.
8. Classification of acids and bases as hard and soft.
9. Describe HSAB concept, symbiosis and theoretical basis.
10. Describe inorganic polymers - silicon phosphorus.

### **Paper-II: Organic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe the formation, structure and chemical reactions of Grignard reagent, organ zinc and organ lithium.
2. Describe the nomenclature, structure formation and reactions of trios, trio ether, euphonic acids, sylph on amides and sylph on guanidine.
3. Describe the organic synthesis via insolates including acidity of alpha hydrogen's, diethyl Malone's and ethyl ace to ace tale and their synthesis.
4. Describe the chaise condensation, Kato - Enola, taut amorism, alkylation of 1, 3-dithianes and a Kyla ion - acryl ion of enemies.
5. Classification, nomenclature of carbohydrates, mechanism of ova zone formation.
6. Describe the inter conversion of glucose & fracture, glucose to mannose, formation of gluers ides.
7. Describe mechanism of mote rotation, structure of ribose & doxy RI base disaccharides and poly saccharine.
8. Describe the chemistry of fats, oils and detergents including sanctification value, iodine value, acid value, soap and detergents.
9. Describe synthetic polymers polymerization such as free radical vinyl, ionic vinyl, Z-N, vinyl polymerization condensation or step polymerization.
10. Describe the polyester, polyamides, phenol formaldehyde resin urea formaldehyde resin, epoxy resin and rubbers.
11. Describe synthetic dyes, their classification and chemistry.
12. chemistry and synthesis of methyl orange , Congo red, malachite green , crystal violet , phenolphthalein , fluoresce in, alizarins and indigo.
13. Describe the absorption spectra including UV absorption spectroscopy, beer's lamberts law and type of electronic transition, concept of chromospheres and Auto chrome, different shift.

14. Describe infra-red spectroscopy including type of vibration, hook's law, selection rule, intensity of IR bands, finger print region and characteristic absorption of functional gap.
15. Describe the NMR spectroscopy including all parameters such as nuclear shielding, de-shielding, chemical shift, spin-spin splitting coupling.
16. Interpret the PMR spectra of simple organic molecule.

### **Paper-III: Physical Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe elementary quantum mechanism through black-body radiation, plank's law, photoelectric effect and heat capacity and Bohr model of H-Atom.
2. Describe de-Broglie, hypothesis, uncertainty principle, wave function, Schrodinger wave equation complete.
3. Describe elementary quantum mechanism with reference to molecular orbital theory.
4. Describe the spectroscopy and define its basic and spectrophotometer.
5. Describe the rotational spectrum and Vibration spectrum.
6. Describe the electronic spectrum along with concept of PE curves, frank-Condon principle.
7. Describe the photochemistry, law of photochemistry, Je Bloke diagram.
8. Describe the fluorescence, phosphorescence and quantum yield.
9. Describe the physical properties and molecular structure including optical activity, polarization, dipole moment and magnetic properties.
10. Describe the solutions; dilute solution and Collegative properties in details.

### **Paper- Lab Course**

Upon successful completion of this subject the student will be able to:

1. Separate components of binary mixture of organic compounds.
2. Synthesize aspirin and sod. Trioxalato ferrate.
3. Estimate Ba as BaSO<sub>4</sub> gravimetrically.
4. To verify Beer's law and determine the conc. of unknown solution of K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> by using digital photo electric colorimeter.
5. Students will be able to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.
6. Follow safety procedures and demonstrate proper use of personal protective equipment.

## **Course Outcomes:**

### **M.Sc. - I st Sem**

#### **Subject: Chemistry**

##### **Paper-I: Inorganic Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe VSEPR theory, Walsh diagram, dx-px bonds. Bent's rule and energetic of hybridization, CFT, MOT for octahedral, tetrahedral and square planar complexes.
2. Describe formation constants by spectra photometric and potentiometric methods, factors affecting stability of metal complexes with reference to the nature of metal ion & ligand.
3. Describe preparation, properties and structure of isopoly and heteropoly acid and salts of Mo & W.
4. Draw energy profile of a reaction.
5. Explain kinetics of octahedral substitution and acid and base hydrolysis reactions.
6. Describe inert and labile complexes.
7. Describe higher borages, Wade's rules, carbonates metalloboranes, metal carbonyl and halide cluster.
8. Draw the structures of borazon & phosphazenes.

##### **Paper-II: Chemistry Paper II (Organic Chemistry)**

Upon successful completion of this subject the student will be able to:

1. Describe nature of bonding in organic molecules.
2. Explain delocalization, Conjugation, cross conjugation, resonance, hyper conjugation and tautomerism.
3. Describe molecular rearrangements e.g. Favorskii, Baeyer - Villiger oxidation, Hofmann elimination, Shapiro reaction etc.
4. Describe thermodynamic and kinetic requirements of reaction.
5. Describe stability & reactivity of reaction intermediates carbonations, free radicals carbenes, nitrenes and benzenes.
6. Describe anti and syn additions.
7. Describe sigma tropic rearrangements
8. Describe elements of symmetry, chirality and methods of resolution. Describe conformational analysis of cycloalkanes and decalins.
9. Describe stereochemistry of the compounds containing N, S and P.

### **Paper-III: Physical Chemistry**

Upon successful completion of this subject the student will be able to:

1. Describe the postulates of quantum mechanics.
2. Derive the schro dinger equation and apply it to particle in 1-dimensional, 3-diminsinal box, harmonic ascillator and hydrogen atom.
3. Describe the variation and perturbation theory.
4. Describe the concept of laws of thermodynamics, free energy, chemical potential and entropies.
5. Describe non-ideal systems.
6. Describe methods of determining order of reaction, collision theory and activated complex theory.
7. Describe photo chemical chain reaction.
8. Describe surface tension, capillary action.
9. Explain catalytic activity of surfaces and BET equation.
10. Describe theory of strong electrolyte- Debye - huckle theory.
11. Derive Onsager equation and prove its validity.

### **Paper-IV: Spectroscopy & Group Theory**

Upon successful completion of this subject the student will be able to:

1. Describe phenomenon like absorption, emission, transmission, reflection, dispersion, polarization and scattering.
2. Describe selection rules for rotational, vibrational and Raman-Rotational and Raman-vibrational spectra.
3. Describe effect of isotopic substitution on diatomic & polyatomic molecules' rotational spectra.
4. Describe transition probability and intensity of spectral lines.
5. Describe linear harmonic oscillator, zero point energy, force constant and bond strengths.
6. Explain anharmonicity Morse potential energy diagram.
7. Describe overtones, hot bands and fundamental and combination bands.
8. Describe applications of microwave, IR and Raman spectroscopy.
9. Explain symmetry elements and operations, group, sub groups, contumacy relation classes etc.
10. Depict matrix representation of groups.

## **Lab Course -1**

### **Paper-I (Inorganic)**

Upon successful completion of this subject the student will be able to:

1. Perform quantitative analysis (separation & determination of two metal ions from solution mixtures) by volumetric and gravimetric methods.
2. Prepare selected inorganic compounds.
3. Identify 8 radicals in a mixture including two less common metal ions by semi micro method.
4. Estimate phosphoric acid in commercial Ortho - phosphoric acid.
5. Estimate boric acid in borax and similar other exercises.

## **Lab Course -2**

### **Paper-II (Physical)**

Upon successful completion of this subject the student will be able to:

1. Verify the freundlich and Langmuir isotherms for adsorption of acetic acid or activated charcoal.
2. Study adsorption of oxalic acid on charcoal using  $\text{KMnO}_4$ .
3. Study the kinetics of hydrolysis of cane sugar.
4. Determine velocity constant of the hydrolysis of an ester in micelles media.
5. Compare cleaning powers of two samples of detergent.
6. Perform acid base titration in aqueous media using a pH meter.

## **Lab Course -3**

### **Paper-III (Organic)**

Upon successful completion of this subject the student will be able to:

1. Describe general methods for separation and purification of organic compounds with special reference to:
  - a) Solvent extraction
  - b) Fractional crystallizations
2. Separate and identify components of given organic binary mixtures.

3. Prepare different organic compounds using specific reactions in single step e.g. cinnamic and from benzaldehyde using Perkin's reaction.

4. Demonstrate different distillation techniques.

#### **Lab Course -04**

#### **Paper-IV (Analytical Chemistry)**

Upon successful completion of this subject the student will be able to:

1. Perform error analysis and statistical data analysis.
2. Determine iodine value and specification value of oil samples.
3. Determine hardness of water sample.
4. Determine solubility of an inorganic salt in water at different temperature and hence plot the solubility curve.
5. Perform separation and identification of the sugars present in given mixture of glucose, fructose and sucrose by paper chromatography and determination of RF values.
6. Verify Beer's law by colorimetry.
7. Determine metal ions in various environmental samples.

#### **Paper-I: Cell Biology and Invertebrates**

Upon successful completion of this subject the student will be able to:

1. Acquire knowledge about basic structure, components and functions of animal cell and their specifications.
2. Functions and components of immune system Characters, Classification and life cycle of invertebrate animals.

#### **Paper-II: Vertebrate and Embryology**

1. Origin and Classification of Chordates.
2. Specific feature, special adaptations and peculiarities of Vertebrates.
3. Embryonic developmental stage of vertebrate animals.

#### **Practical Work:**

1. Anatomical study of different invertebrates and vertebrates animal by Museum Specimens and Slides.
2. Know about the Cell Division Stages by Squash Preparation of Onion Root Tip.
3. Experience the skeletal system by viewing the bones frog and rabbit.



## M.Sc. – 2<sup>nd</sup> Sem

### Subject: Chemistry

#### Paper-I: Coordinate Chemistry

After the completion of the course, the student will be able to-

1. Explain kinetics and mechanisms of ligand substitution reaction in square planar complexes.
2. Explain the Trans effect, electron transfer reaction in inner and outer sphere reaction.
3. Explain electroic spectra of transition metal complexes.
4. Explain term symbols for excited states, microstates.
5. Explain Orgel and Tanabe-Sugano diagrams for transition metal complexes.
6. Explain magnetic properties of transition metal complexes.
7. Explain structure and bonding in metal carbonyls.
8. Explain vibrational spectra, important reaction, preparation metal carbonyls, metal nitrosyl, dinitrogen and dioxygen complexes.
9. Explain anomalous magnetic moments, magnetic exchange coupling and spin crossover.

#### Paper-II: Organic Chemistry

After the completion of the course, the student will be able to-

1. Explain electrophilic substitution reactions.
2. Explain SE<sup>2</sup>, SE<sup>1</sup> and SE<sup>1</sup> mechanism for aliphatic electrophilic substitution reactions.
3. Explain the ortho/para ratio, ipso attack and orientation in other ring system.
4. Explain nucleophilic substitution reactions.
5. Explain SN<sup>2</sup>, SN<sup>1</sup>, mixed SN<sup>1</sup> and SN<sup>2</sup> and SET mechanism.
6. Explain neighbouring group mechanism and participation by  $\pi$  and  $\sigma$  bonds.
7. Explain SNAr, SN<sup>1</sup>, benzyne and SRN<sup>1</sup> mechanism.
8. Explain mechanism and stereo chemical aspects of addition reactions involving electrophiles, nucleophiles and free radicals.
9. Explain type of free radical reactions, free radical substitution mechanism and neighbouring group assistance.
10. Explain the mechanism of addition to Carbon-Hetero multiple bonds such as Aldol, Knoevenagel, Claisen, Mannich, Benzoin, Perking and stobbe reactions.
11. Explain E<sub>2</sub>, E<sub>1</sub> and E<sub>1</sub>CB mechanism and their spectrum.

### **Paper-III: Physical Chemistry**

After the completion of the course, the student will be able to-

1. Explain angular momentum, Eigen functions for angular momentum and eigen values of angular momentum.
2. Explain electronic structure of atoms.
3. Explain Russell Saunders term and coupling schemes.
4. Explain magnetic effects-spin-orbit coupling and Zeeman splitting.
5. Explain probability theorem in statistical thermodynamics.
6. Explain Translational, rotational, vibrational and electronic partition function.
7. Explain entropy production and entropy flow.
8. Explain microscopic reversibility and Onsager's reciprocity relations.
9. Explain Kinetics of enzyme reaction.
10. Explain critical micellar concentration and factors affecting the CMC of surfactants.
11. Describe definition and types of polymer.
12. Describe Kinetics of polymerization.
13. Describe molecular mass determination by different methods.
14. Describe polarization and decomposition potential.

### **Paper-IV: Theory & Application of Spectroscopy-II**

After the completion of the course, the student will be able to-

1. Describe chemical shift and its measurements.
2. Describe factors influencing chemical shift, deshielding, spin-spin interactions and coupling constant 'J'.
3. Describe NMR spectra of nuclei other than proton  $^{13}\text{C}$ ,  $^{19}\text{F}$  and  $^{31}\text{P}$ .
4. Explain Miller indices, Laue Method, Bragg Method and Debye-Scherrer method of X-ray structure analysis of crystals.
5. Describe electron and neutron diffraction.
6. Describe basic principles involved in electron spin Resonance spectroscopy.
7. Explain factors affecting fragmentation and basic principles involved in Mass spectrometry.
8. Describe mass spectra of alkenes, alkenes, aromatic hydrocarbons, alcohols and amines.
9. Explain nitrogen rule, ring rule, molecular weight and formula determination.

### **Lab Course -03 (Organic Chemistry)**

After the completion of the course, the student will be able to-

1. Explain general methods for separation and purification of organic compounds.
2. Explain simple distillation, steam distillation, fractional distillation and distillation under reduced pressure.
3. Separate and identify organic binary mixtures containing two components.
4. Prepare different organic compounds in single step preparation using acetylation, aldol condensation, Bromination, Cannizzaro reaction, Friedel crafts reaction oxidation, Perkin's reaction etc.
5. Students will be skilled in problem solving, critical thinking and analytical reasoning as applied to scientific problem.
6. Design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.

### **Lab Course -04 (Analytical Chemistry)**

After the completion of the course, the student will be able to-

1. Perform error analysis and statistical data analysis.
2. Explain standard deviation and method of least squares.
3. Perform calibration of volumetric apparatus, burettes, pipettes, weight box etc.
4. Determine iodine and saponification value of oil samples.
5. Determine DO, BOD, COD and hardness of water sample.
6. Determine solubility of inorganic salt in water at different temperature and to plot the solubility method.
7. Determine transition temperature by solubility method.
8. Separate inorganic ions, amino acids, sugars etc. by paper chromatography.
9. Determine basicity of organic acids.
10. Determine degree of hydrolysis and hydrolysis constant of  $\text{CH}_3\text{COONa}$  and  $\text{NH}_4\text{U}$ .
11. Determine cations, anions and metal ions by flame photometry.
12. Verify Beer's law spectrophotometrically.
13. Design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.
14. Skill in problem solving, critical thinking and analytical reasoning as applied to scientific problems.

## **Course Outcomes:**

### **Name of Program: B.Sc. in Zoology**

#### **B.Sc. – II**

##### **Paper-I: Anatomy and Physiology**

1. Knowledge of the anatomical and physiological similarities and dissimilarities of vertebrate's animals by comparative study.

##### **Paper-II Vertebrate Endocrinology, Reproductive Biology, Behavior, Evolution and Applied Zoology**

1. Know about the endocrine glands, hormones and mechanism of their action.
2. Different evidences and theories of organic evolution.
3. The behavioral patterns in animals.
4. Economically important animal culture practices.

##### **Practical Work:**

1. Anatomical study of different Invertebrates and Vertebrates animals by Museum Specimens and Slides.
2. Experience the Skeletal system by viewing the bones of vertebrates.
3. Life Cycle of Honey Bee and Silkworm.

#### **B.Sc. – III**

##### **Paper -I: Ecology, Environmental Biology, Toxicology, Microbiology and Medical Zoology**

1. Know about the major ecosystems of world, characteristics of population, type of pollution and their regulation, conservation of natural resources.
2. Different type of chemical and biological toxicants, their effects and prevention.
3. Importance of Microorganism.
4. Study of Pathogenic animals, diseases and their symptoms and preventions.

## **Paper-II: Genetics, Cell Physiology, Biochemistry, Biotechnology and Bio-techniques**

1. Know about the Human Genetics
2. Physiological functions of cells.
3. Different Bio-molecules and their metabolism.
4. Different Genetical Engineering Techniques.
5. Different Bio-Instrumental techniques.

### **Practical Work:**

1. Blood group detection and RBC counting methods.
2. Estimation of Population Density.
3. Identification of bacteria.

## **Course Outcomes:**

### **Name of Programme: M.Sc. in Zoology**

#### **M.Sc. Ist Sem**

##### **Paper-I: Biosystemic and taxonomy**

1. Gain the knowledge about concept and theory of classification.
2. Types of taxonomy.

##### **Paper-II: Structure and Function of Invertebrates**

1. Classification characters, different Invertebrate phylum Invertebrate animals.
2. Life Cycle of different Invertebrate animals.

##### **Paper-III: Population Genetics and Evolution**

1. Life origin.
2. Study of Animal Evolution due to destabilizing forces.
3. Speciation.
4. Study of Fossils.

##### **Paper IV: Techniques of Biology**

- Different Instruments Principle and Separation Techniques.

##### **Lab Course –I**

- Practicals based on Paper I and II

##### **Lab Course –II**

- Practicals based on Paper III and VI

#### **M.Sc. IInd Sem**

##### **Paper-I: Comparative Anatomy of Vertebrates**

- Study of different Systems Fish, Amphibian, Reptilian, avis and Mammals.

##### **Paper-II: Physiology of Vertebrates**

- Study of Physiology of Vertebrates.

**Paper-III: Molecular Cell Biology**

- Cell structures and Biotechnology

**Paper IV: Quantitative Biology**

- Theory and practical knowledge of Computer and Biostatistics

**Lab Course –I**

- Practicals based on Paper I and II

**Lab Course –II**

- Practicals based on Paper III and VI

## **Course Outcomes:**

### **B.Sc.-I**

#### **Subject: Botany**

##### **Paper-I General Diversity of Microbes and Cryptogames**

1. The student will acquire the knowledge of general diversity of microbes, algae, fungi, Bryophyte and Pteridophyta.

##### **Paper-II Cell Biology and Genetres.**

1. Knowledge of cell, cell organelle, genitive material, gene expression and genitive variation.

### **B.Sc.-II**

#### **Subject: Botany**

##### **Paper-I Diversity of seed plants and their systematics.**

1. Diversity of gymnosperms and angiosperms.
2. Knowledge of Geological time scale and Fossils.

##### **Paper-II Structure, development and reproduction in flowering plants.**

1. The vegetative and reproductive structure and development of angiosperms.

### **B.Sc.-III**

##### **Paper-I Plant Physiology, Biochemistry and Biotechnology.**

1. To know the importance of plant water relation, nutrients, Photosynthesis, Respiration and other life supportive processes in plants.

##### **Paper-II Ecology and utilization of plants.**

1. Knowledge about plants and environment and how plants are important and influence of our life.



## **Course Outcomes:**

### **B.Sc.-I**

#### **Subject: Anthropology**

##### **Paper-I: Foundation of Anthropology**

Study About all most all branches of anthropology is physical, social, cultural and archaeology.

##### **Paper-II: Introduction to Physical Anthropology**

Know about evolution and distribution of human population.

##### **Practical**

This paper covers study of human bones & also applied field like Crainometry and Somateometry.

### **B.Sc.-II**

#### **Subject: Anthropology**

##### **Paper-I: Archeological Anthropology**

Study of past human culture which enables the students to understand present cultures in a better way.

##### **Paper-II: Tribal Cultures of India**

Acquire knowledge about tribal cultures in respect to family, marriage, worship economic, political, religion organization and present government policies for their development.

##### **Practical**

In this paper student will acquire knowledge regarding Paleolithic Mesolithic & acrolithic tools and it also ensure the students to know tribal material culture better.

### **B.Sc.-III**

#### **Subject: Anthropology**

#### **Paper-I: Fundamentals of Human Genetics and Human Growth**

Acquire basic knowledge of genetics and importance of growth, Ecology and Demography.

#### **Paper-II: Theories of Social Cultural Anthropology**

Know about cultural anthropology with different theories & contribution of famous Anthropologist in the field of social culture anthropology.

#### **Practical**

This paper deal with Somatometry genetics, Blood group Dermatographics and basic Statistical tools.

## **Course Outcomes:**

### **Name of Program: M.Sc. in Anthropology**

#### **M.Sc. Ist Sem**

##### **Paper I – Fundamentals of Social/Cultural Anthropology**

Upon successful completion of this subject the student will be able to:

1. About the meaning scope and branches of Social-Cultural Anthropology.
2. Relation of social anthropology with other science and social sciences.
3. Some basic concept of culture and society.
4. Social, economic and political organizations and religion in primitive society.

##### **Paper II – Fundamentals of Physical/Biological Anthropology**

Upon successful completion of this subject the student will be able to:

1. About the meaning, scope, branches of physical anthropology and its relation with other Sciences.
2. Theories of Organic evolution.
3. Comparative study of Man & Aps.
4. Concept of Race.

##### **Paper III – Prehistoric Anthropology & Palaeo- Anthropology**

Upon successful completion of this subject the student will be able to:

1. About the meaning, branches, aims and applications of Archaeology and its relation with other sciences and social sciences.
2. Cultural evolution of man during Paleolithic, Mesolithic stage and dating techniques are part of it.

##### **Paper IV – Research methods in Anthropology**

Upon successful completion of this subject the student will be able to:

1. Various tools and techniques used in research.

##### **Lab Course I – Practical in Craniology and Craniometry**

Study and measurement of skull is done in this paper.

##### **Lab Course II– Practical in Osteology and Osteology**

Study and measurement of bones is carried out in this paper.

## **M.Sc. IInd Sem**

### **Paper I – Indian Archaeology**

Upon successful completion of this subject the student will be able to:

1. Cultural Evolution during Paleolithic, Mesolithic, Neolithic and Chalcolithic period.
2. Indus civilization and megalith culture in India.

### **Paper II– Fundamentals of Human Genetics**

Upon successful completion of this subject the student will be able to:

1. History, scope, branches and elementary principles of genetics.
2. Study of genes & Inheritance.

### **Paper III – Medical Anthropology**

Upon successful completion of this subject the student will be able to:

1. Health, Illness and disease from a Social perspective.
2. Epidemiology, Health policy & programmes and Medical statistics.

### **Paper IV – Biostatistics & Computer Applications**

Upon successful completion of this subject the student will be able to:

1. Measure of dispersion, correlation, test of significance, vital statistics.
2. Introduction to computer.

### **Lab Course I – Practicals in Archaeology**

Prehistoric tools & techniques and Prehistoric sites are covered within the paper.

### **Lab Course II – Compulsory Fieldwork**

This is 7-10 days field based research programmes aimed at capacity building of these students to take up independent research programmes.

## **Course Outcomes:**

### **Name of Programme: B.Com-I**

#### **Group-I**

#### **Paper-I: Financial Accounting**

Upon successful completion of this subject the student will be able to:

1. State the uses and users of accounting information.
2. Explain and apply accounting concepts and principles and conventions.
3. Record basic accounting transactions and prepare annual financial statements.
4. Analyses interpret and communicate.
5. The information contained in basic financial statement and explains the limitations of such statements.

#### **Paper-II: Business Mathematics**

1. Analyze real world scenario to recognize when simple and compound interest annuities, pay roll preparation, pricing, invoice preparation, trade discount, takes and depreciation are appropriate.
2. Formulate problems about the scenario creatively models.
3. Appreciate business mathematics concepts understand and be able to communicate the business concept and mathematics.
4. Work out simple and compound interest annuities.
5. Preparation of pay roll pricing, invoice trade discount taxes and depreciation problem in various situations.

## **Group-II**

### **Business Management- Optional Group**

#### **Paper-I: Tax Procedure & Practice**

##### **Objectives:**

This course is to provide a brief idea about the framework of Indian Income Tax Laws and Provisions.

##### **Outcomes:**

Students can get the good basic knowledge of Income Tax Law and Procedure for business and accounting purpose.

#### **Paper-II: Business Communication**

Upon successful completion of this subject the student will be able to develop effective business communication skills among the students.

##### **Student Learning Outcomes -**

1. Apply business communication strategies and principles to prepare effective communication for business situations.
2. Utilize analytical and problem solving skills appropriate to business communication.
3. Communicate via electronic mail, internet and other technologies.
4. Deliver an effective oral business presentation.

#### **Paper-III: Business Regulatory Frame Work**

This course is to provide a brief idea about the frame work of Indian business laws.

##### **Student Learning Outcomes -**

1. Basic legal knowledge to commerce students.
2. Knowledge of special contracts.
3. Knowledge of Negotiable Instrument Act.
4. Knowledge of Consumer Protection Act.

### **Group-III**

#### **Paper-I: Business Environment**

Upon successful completion of this subject the student will be able to:

1. Define the term ethics.
2. Understand the concept of business ethics.
3. Identify the types of ethical issue.
4. Understand the problems in business ethics.
5. Appreciate the concept of work ethics
6. Apply the knowledge of ethics in real life situations.

#### **Paper-II: Business Economics**

Upon successful completion of this subject the student will be able to:

1. Analyze the demand and supply condition and access the position of a firm.
2. Analyze operations of market under varying competitive conditions.
3. Analyze the local and global business environment.
4. Apply effective written and oral communication skills to business situation.

## **Course Outcomes:**

### **B.Com-I**

#### **Subject: Commerce (Computer Application)**

#### **Paper-I: Computer Fundamentals and Office Automation**

#### **Objectives:**

On successful completion of this subject the student will be able to do the following:

To provide an in-depth training in use of office automation packages, internet etc. essential for common man for day to day office management and e-governance.

1. To understand what Computer is?
2. To understand the basics of operating systems.
3. To understand how to use software packages in day to day activities.
4. Learn the essential and use of internet.

#### **Outcomes:**

1. To learn an in-depth training in use of office automation packages and windows concept.
2. Essential for a modern office for day to day office management.
3. Understand the meaning and basic components of a computer system.
4. Discuss the advantages, limitation and applications of computers.
5. Define and distinguish hardware and software components of computer system
6. Understand the role of CPU and its components.
7. Understand the concept and need of primary and secondary memory.



## **Paper-II: Computerized Financial Accounting**

### **Objectives:**

Upon successful completion of this subject the student will be able to:

1. To provide an in-depth training in use of FoxPro database concept and tally.
2. Essential for a modern office for day to day office management.
3. Students will aware with the accounting concept, tools and techniques influencing business organization.

### **Outcomes:**

At the end of the course student should be able to use accounting and business terminology, explain the objective of financial reporting and related key accounting assumptions and principles.

## **B.Com-IIInd Year**

### **Subject: Commerce**

#### **Group-I**

#### **Paper-I: Corporate accounting**

Upon successful completion of this course the student will be able to define basic term-

1. A comprehensive understanding of the advanced issue in accounting for assets liabilities and owners equity.
2. The ability to account for a range of advanced financial accounting issues.
3. The ability to prepare consolidated account for corporate group.
4. An understanding of the principles of accounting for investments in associate.
5. Strong verbal and written communication skills.

#### **Paper-II: Cost Accounting**

Upon successful completion of this course the student will be able to define basic term-

1. Explain the terminology, basic concepts and principles of Cost Accounting
2. Prepare cost of goods manufactured statement
3. Analyze transactions and prepare accounting entries for job Costing and Process costing.
4. Analyzing data & prepare cost of production reports for process costing.

## **Group-II**

### **Paper-I : Principles of Business management**

Upon successful completion of this course the student will be able to define basic term-

1. To facilitate students understanding of their own managerial skills.
2. Use effective communication skill to promote respect, trust and relationships.
3. Practice critical and creative thinking to emplane the decision making process.
4. Conduct research to identify new business trends and customer needs.

### **Paper-II: Company law**

Upon successful completion of this course the student will be able to define basic term-

1. Demonstrate comprehensive knowledge and understanding of social and economic policy considerations arising in this area.
2. Critically analyze complex problems in relation to the regulation of companies, apply the legal principles studies to these problems, evaluate competing arguments or solutions and present well supported conclusions both orally and in writing.
3. Read and study primary and secondary sources of company law with minimal staff guidance critically analyze, interpret, evaluate and synthesise information.

## **Group-III : Applied Economics**

### **Paper-I: Business Statistics**

Upon successful completion of this course the student will be able to define basic term-

It enables the students to gain understanding of statistical techniques as are applicable to business

#### **Student Learning Outcomes -**

1. Studying statistics learn a general system of concepts for Statistical Analysis.
2. Demonstrate the ability to apply fundamental concepts in exploratory data analysis.
3. Apply and interpret basic summary and modeling techniques for deviate data define the concept of least squares estimation in liner regression.
4. Prepare index number.
5. Knowledge of Forecasting Method industry vs. Company Sales.

## **Paper-II Tax Procedure & Practice**

### **Objectives:**

It enables the students to attention the theoretical and practical knowledge of direct taxes.

### **Outcomes:**

Students can get the good practical knowledge of direct tax and income tax law about business and accounting purpose.

## **Paper-III: Fundamentals of Entrepreneurship**

Upon successful completion of this course the student will be able to define basic term-

1. Define basic term.
2. Identify the elements of success of entrepreneurial ventures.
3. Explain entrepreneurial project and its essential elements.
4. Consider the legal and financial conditions as well as the importance of the entrepreneurial infrastructure for starting a business venture.
5. Evaluate the effectiveness of different entrepreneurial strategies
6. Interpret their own business plan.

## **B.Com-IIInd Year**

### **Subject: Commerce (Computer Application)**

#### **Paper-I: Internet Application & E-Commerce**

Upon successful completion of this course the student will be able to define basic term-

1. Define E-commerce, its types, application.
2. Describe the life cycle of implementation of E-commerce.
3. Differentiate between E-commerce and other forms of commerce
4. List the modes of payments involved in E-commerce
5. Describe how to create web page and defining internet terminology.
6. Insert a graphics, link, table within web page.
7. Create validate & publish a web page.

### **Outcomes:**

1. Integrate user-centered design guidelines in developing user-friendly websites.
2. Create a static website using HTML and add dynamic functionality to it by using java script.
3. Gain confidence to create dynamic website on real world problems.
4. Demonstrate an understanding of the foundations and importance of E-commerce.
5. Analyze the impact of E-commerce on business models and strategy.
6. Describe the key features of internet, internets and extranets and explain how they relate to each other.
7. Assess electronic payment systems.

### **Paper-II: Database Management System (DBMS)**

#### **Objectives:**

Upon successful completion of this course the student will be able to define basic terms-

1. To understand the different issues involved in the design and implementation of a database system.
2. To study the physical and logical database design, database modeling.
3. To understand and use data manipulation language to query, update and manage a database.
4. To develop an understanding of essential DBMS concepts such as database security, integrity and concurrency.

#### **Outcomes:**

1. Gain a good understanding of the architecture and functioning of database management systems as well as associated tools and techniques, principles of data modeling using entity relationship and develop a good database design and normalization techniques to normalize a database.
2. Understand the use of structured query language and its syntax, transactions, database recovery and techniques for query optimization.
3. Acquire a good understanding of database system concepts and to be in a position to use and design database for different applications.

## **B.Com-IIIrd Year**

### **Subject: Commerce**

#### **Paper-I: Income Tax**

##### **Objective:**

It enables the students to know the basics of income tax and its implications.

##### **Outcome:**

Students can get the good basic practical knowledge of Income tax to develop the skill and techniques use in business and accounting.

#### **Paper-II: Indirect Taxes**

Upon successful completion of their course a student will be able to-

1. Analyze indirect taxes such as central excise duty, customs duty, state excise duty etc.
2. Learning the procedure of filing returns.
3. Learning the computation of various indirect taxes.

#### **Paper-III: Management Accounting**

##### **Objective:**

The course provides the students an understanding of the application of accounting techniques for management.

##### **Outcomes:**

Students can get good basic knowledge with skill concept of accounting and managerial decision about entrepreneurship.

#### **Paper-IV: Auditing**

Upon successful completion of the requirements for this course student will be able to:

1. Discuss the need for an independent or external audit and describe briefly the development of the role of the assurance provider in modern business society.
2. Explain the regulatory environment in which the external auditor operator and apply rules standards and pronouncement to the conduct of a financial report audit and assurance engagements.
3. Perform and apply professional ethics including code of conduct to specific scenario.

4. Describe the various level of persuasiveness of different types of audit evidence.
5. Understand auditor's legal liabilities and to be able to apply case law is making a judgment whether auditors might be liable to certain parties.
6. The course aims to develop student cognitive skills, especially, analytical, appreciative and communication skill.

## **Marketing Area**

### **Paper-I: Principles of Marketing**

Upon successful completion of this course a student will be able to:

1. Use an understanding of marketing and the market driven enterprise to differentiate market, enterprise.
2. Market economy as a foundation for future course work and employer selection.
3. Identify some of the basic approaches to formulating a market strategy in order to participate effectively when working with marketing policy coordinators.
4. Identify key stages of the market planning process in order to create marketing plan through development of key sections common to most plan.
5. Use knowledge of element of the marketing mix and the functional disciplines of marketing such as research and marketing communication in order to guide future course selections.
6. Use understanding of both the product marketing life cycle including professional role and responsibilities within the life cycle to guide marketing career and identify key stake holders in the business work place.

## **Group-II**

### **International Marketing**

Upon successful completion of this course a student will be able to:

1. Beaware of the differences between domestic marketing and international marketing.
2. Understand how culture affects marketing abroad.
3. Understand the concept of global market.
4. Understand how business customs and motivations may very from country to country.
5. Develop presentation and writing skills.
6. Work as a team.

## **Paper-I Central Excise - Procedure & Practice**

### **Objectives:**

This course is meant to acquaint the students with the basics of central excise duty.

### **Outcomes:**

Upon successful completion of this course a student will be able to:

1. Learning the computation of central excise duty.
2. Learning the procedure of filing return.

## **Paper-II: Custom duty - Procedure and Practice**

### **Objective:**

Upon successful completion of this course a student will be able to:

This course aims at imparting basic knowledge of custom duty

### **Outcomes:**

1. Learning the computation of custom duty.
2. Learning the procedure of filing returns.

## **B.Com-III**

### **Subject: Commerce (Computer Application)**

#### **Paper-I: Programming in Visual Basic**

### **Objective:**

Upon successful completion of this course a student will be able to:

1. Students will be able to learn visual programming basics and its components.
2. The objective of the course is to cover visual programming skills needed for modern software development.

### **Outcome:**

1. Demonstrate fundamental skills in utilizing the tools of visual environment in terms of the set available command menus and toolbars.
2. Explain and use of delegates and event for producing event-driven application.

3. Implement SDI and MDI applications while using forms, dialogs and other types of GUI components.
4. Produce and use specialized new GUI components.
5. Explain message passing mechanism between components and threads using messaging.
6. Apply visual programming to software development by designing projects with menus and submenus.

### **Paper-I: System Analysis, Design & MIS**

#### **Objective:**

Upon successful completion of this subject the student will be able to:

1. Define the term system, system analysis and system design.
2. Describe the principle functions of the system analyst.
3. Describe the phases of system development life cycle.

#### **Outcomes:**

1. Gather data to analyze and specify the requirements of a system.
2. Design system components and environments.
3. Describe the system design tools.
4. Describe the role of maintenance task in the system development life cycle.



## **Course Outcomes:**

### **M.Com-Ist Sem**

#### **Subject: Commerce**

#### **Paper-I: Managerial Economics**

##### **Objective:**

Upon successful completion of this subject the student will be able to:

Develops managerial perspective to economic fundamentals as aids to decision making under given environmental constraints.

##### **Outcomes:**

1. Understand the roles of managers in firms.
2. Understand the internal and external decision to be made by managers.
3. Analyze real world business problems with a systematic theoretical frame work.
4. Analyze the demand & supply conditions and assure the position of a company.

#### **Paper-II: Advanced Accounting**

##### **Outcomes:**

Upon successful conclusion of advanced accounting i will have out -lined the following topic areas.

1. An introduction to business combination concepts and definition.
2. An introduction to consolidated Financial Statements and the consolidation process.
3. The liquidation process of companies
4. An introduction to Global Accounting Standards and Diversity.

### **Paper-III: Income Tax Law and Accounting**

#### **Objective:**

Upon successful completion of this course a student will be able to:

It enables the students to advance and practical knowledge of income tax and its implication.

#### **Outcomes:**

Students can get the advance practical knowledge of Income Tax Law and provision to develop the skill and techniques use in different area of business income and accounting.

### **Paper-IV: Statistical Analysis**

#### **Objective:**

Upon successful completion of this course a student will be able to:

The objective of this course is to help students learn the application of statistical tools and techniques for decision making.

#### **Student Learning Outcomes:**

1. Studying statistic learn a general system of concept for statistical analysis.
2. Knowledge of data collection techniques.
3. Study both theory and practice in depth in certain specific areas.
4. Knowledge of the basic concept of probability and random variable.
5. Knowledge of probability distributions.

### **Paper-V: Corporate Legal Framework**

#### **Outcomes:**

Upon successful completion of this course a student will be able to:

1. Appreciate the importance of law and legal institutions in business.
2. Have a basic understanding of the law relating to contract, consumer protection, competition, companies and dispute resolution.

## **M.Com-IIInd Sem**

### **Subject: Commerce**

#### **Paper-I: Business Economics**

Upon successful completion of this subject the student will be able to:

1. Analyze causes and consequences of unemployment, inflation and economic growth.
2. Analyze operations of markets under varying competitive conditions.
3. Analyze the demand & supply conditions and assess the position of a company.
4. Apply effective written and oral communication skills in business.

#### **Paper-II: Advance Accounting**

Upon successful conclusion of advance accounting i will have out-lined the following topic areas.

1. An introduction to business combination concepts and definition.
2. An introduction to segment and interim reporting.
3. Emphasies the importance of ethical behavior in business.

#### **Paper-III: Tax Planning & Management**

##### **Objectives:**

It enables the students to advance and practical knowLaw of Income Tax and its implications for managerial decision.

##### **Outcomes:**

Students can get the advance practical knowledge of income tax law and provision. to develop the capacity for computation income tax liabilities and pay planning at personal & professional level.

#### **Paper-IV: Advance Statistics**

##### **Objective:**

The objective of this course is to help students learn the application of statistical tools and techniques for decision making.

### **Student Learning Outcome:**

Upon successful completion of business law course a student will be able to-

1. Through master courses you will be able to study both theory and practice in depth in certain specific areas.
2. Knowledge of statistical decision theory.
3. Knowledge of statistical techniques covered will include Z tests, T tests, F tests.
4. Knowledge of Statistical quality control and Sampling method.
5. Students learn interpolation and extrapolation method.

### **Paper-V: Business Law**

Upon successful completion of business law course a student will be able to-

1. Demonstrate an understanding of the legal environment of business.
2. Apply basic legal knowledge to business transactions.
3. Communicate effectively using standard business and legal terminology.

### **M.Com-IIIrd Sem**

#### **Subject: Commerce**

#### **Paper-I: Management Thought**

Upon successful completion of this course the student will be able to-

1. To facilitate students understanding of their own managerial skills.
2. To learn from the management experience of other.
3. To improve communication skills.
4. To develop and learn about goals specific to the students of this class.
5. To use management thought to develop a better understanding of motivation.

#### **Paper-II: Organizational Behavior**

Upon successful completion of this course the student will have demonstrated the ability:

1. To discuss the development of the field of organizational behavior and explain the micro and macro approaches.

2. To analyze and compare different model used to explain individual behavior related to motivation and rewards.
3. To identify the process used in developing communication and resolving conflicts.
4. To explain group dynamics and demonstrate skills required for working in groups (team building).
5. To identify the various leadership style and the role of leader in a decision making process.
6. To explain organizational culture and describe its dimensions and to examine various organizational designs.
7. To discuss the implementation of organizational change.

### **Paper-III: Advanced Cost Accounting**

Upon successful completion of this subject the student will be able to:

1. Apply cost accounting theory to problem solving.
2. Analyze data and prepare cost of production reports for process costing.
3. Prepare cost of goods manufactured statement.
4. Explain the terminology basic concept and Principles of Cost Accounting.
5. Analyze transactions and prepare accounting entries for job costing and process costing.

### **Paper-IV: Income Tax Law and Accounting**

#### **Objective:**

It enables the students to know about advance and practical know edge of income tax and its implication.

#### **Outcomes:**

1. Get the advance practical knowledge of income tax law.
2. Provision to develop the skill and techniques use in different area of business income and accounting.

### **Paper-V : Tax Planning & Management**

#### **Objectives:**

It enables the students to advance and practical knowledge of income tax and its implications for managerial decision.

#### **Outcomes:**

1. Get the Advance practical knowledge of Income Tax law.
2. Develop the capacity for computation income tax liabilities and pay planning at personal & professional level.

## **M.Com-IV**

### **Subject: Commerce**

#### **Paper-I: Principles of Marketing**

Upon successful completion of this subject the student will be able to:

1. Assess marketing's role in discovering and satisfying consumers needs, wants and behaviors.
2. Determine market size through a target market analysis.
3. Utilize environment scanning to identify opportunities and threats in the marketing environment.
4. Examine electronic commerce and interactive marketing and how they create customer value.

#### **Paper-II: Advertising & Sales Management**

Upon successful completion of this subject the student will be able to:

1. Develop effective marketing communication strategies and program.
2. Understand the implications of current trends in advertising and promotion.
3. Assess the strengths, weakness, opportunities and threats (SWOT) of different kinds of promotional campaigns.
4. Apply marketing communication functions such as advertising, direct marketing, the Internet interactive media and Sales Promotion.

#### **Paper-III: Marketing Research**

##### **Objectives:**

It enables the students to advance marketing practice and knowledge of marketing research.

##### **Out comes:**

Students can get the advance practical knowledge & research work of marketing development, consumer behaviors and marketing skill techniques used in different areas of business.

#### **Paper-IV: International marketing**

Upon successful completion of this subject the student will be able to:

1. Differentiate between domestic marketing and international marketing.
2. Understand the concept of global marketing.
3. Develop presentation and writing skills.

## **Course Outcomes:**

### **LL.B Part- I (Ist Sem)**

#### **Subject: LAW**

##### **Paper-I: Jurisprudence:**

Students are able to discuss the origins of legal philosophy in ancient society and its influence on the development of contemporary jurisprudence.

##### **Paper-II: Contract-I:**

Upon successful completion of this subject the student will be able to explain the legal terminology used in the area of contract law, also able to analyze the specific relief act issues and the provisions of the law of specific relief. They will also interpret the provisions of an existing contract.

##### **Paper-III: Contract- II**

Upon successful completion of this subject the student will be able to:

Specify the right and obligation of the parties. The breaching and non breaching parties can file a suit on the other party.

##### **Paper-IV: Law of Tort:**

Upon successful completion of this subject the student will be able to:

Critical thinking required to bring about solution to complex legal problem in the area of Law of tort.

##### **Paper-V: Legal History:**

Upon successful completion of this subject the student will be able to:

The study of legal history explores the history of intellectual developments and the study of an independent body of laws belonging to both Hindu and Muslim legal thoughts. They will also understand an assimilation of laws belonging to all the different cultural and political groups and how it can be adjusted further in legal and political imperatives.

## **LL.B Part- I (IInd Sem)**

### **Paper-I: I.P.C.**

Upon successful completion of this subject:

The Students understand the concept of main criminal code of India; they will also understand all the substantive aspects of criminal law.

### **Paper-II: Cr.P.C.**

Upon successful completion of this subject the student will be able to:

Identify the stages of criminal procedure like FIR, investigation, charge sheet, charge and trial in criminal cases, power function & duties of police & criminal courts.

### **Paper-III: Indian Evidence Act:**

Upon successful completion of this subject:

The student will understand to prevent laxity and negligence in the admissibility of evidence. They will also able to introduce a full- proof and uniform rule of practice in any case. It gives knowledge to confine the matter in issue and to produce best evidence in all cases with clarity.

### **Paper-IV: Hindu Law:**

Upon successful completion of this subject:

The students will be able to analyze the Hindu law, its historical and evolutionary perspective & can identify classical & modern theories and also understand the concept of word Hindu it means on which it will be applicable.

### **Paper-V: Muslim Law**

Upon successful completion of this subject:

The students will be able to analyze the Muslim law, its historical and evolutionary perspective & can identify classical & modern theories of Muslim law.



## **LL.B Part- II (Ist Sem)**

### **Paper-I: Constitutional Law- I:**

Upon successful completion of this subject:

The Students will be able to identify & understand the basic constitutional principles and can recognize the inter relationship of federal & state constitutional provisions.

### **Paper-II: Constitutional Law- II**

Upon successful completion of this subject the student will be able to:

Conduct research on legal topics and question primary legal materials constitutional, statutes, court decisions and regulation.

### **Paper-III: Administrative Law:**

Upon successful completion of this subject the student will be able to:

Give clarity on procedures for formal adjudication based on the principles of natural justice and for rule making.

Help the students to understand how law is having control over administrative power to provide protection to the citizens against the abasement of given power.

### **Paper-IV: Equity:**

Upon successful completion of this subject the student will be able to:

Study how the judicial system in India was in the ancient, middle and modern era.

### **Paper-V: Professional Ethics:**

Upon successful completion of this subject the student will be able to:

Understand of the essential elements of the ethical and professional practice. It involves everything from how you dress and present yourself in the legal field.

Get an opportunity to interact and discuss regarding various matters before stepping out in the wider world.

## **LL.B Part- II (IInd Sem)**

### **Paper-I: C.G. Land Revenue Code:**

Upon successful completion of this subject:

The students will explain the revenue system of the state & the legal provisions of the land revenue of the law.

### **Paper-II: Environmental Law:**

Upon successful completion of this subject:

The students will get an overview a variety of protection with the goal of protecting the environment. They will understand the environmental laws & policy concerns.

### **Paper-III & IV: Labour Laws- I & II:**

Upon successful completion of this subject the student will be able to:

Know laws in relation to the workers. How to protect a worker under workman Act? Minimum wages Act, the payment of Wages Act etc.

### **Paper-V: ADR:**

Upon successful completion of this subject the student will be able to:

Through this subject the students will understand the cases which can be solve with different perspective and also they will get knowledge regarding collection of processes used for the purpose of resolving conflicts or disputes informally and confidentially by avoiding lengthy and costly legal procedures.

## **LL.B Part- III (Ist Sem)**

### **Paper-I: Company Law:**

Upon successful completion of this subject:

The students will have a basic understanding of business law and principle of separate legal existence and also help them make good business.

### **Paper-II: International Law:**

Upon successful completion of this subject:

The students can explain the international system & function & impact of the law they will also analyze the UN, WTO & other regional agencies and their impact on the nations.

### **Paper-III: Interpretation of Statutes:**

Upon successful completion of this subject the student will be able to:

Understand and ascertain the intention of the legislature and not to control that intention or to confine it within the limits of the concerned judge or an advocate. They will also learn how to use various tools and methods of statutory interpretation.

### **Paper-IV: Human Rights:**

Upon successful completion of this subject the student will be able to:

Explain the history of human rights and also explain the international convention, treaties, organization related to human rights is acting as human rights.

### **Paper-V: Moot Court:**

Upon successful completion of this subject the student will be able to:

Understand the application of acts in a practical manner. It provides an opportunity to participate in simulated court proceedings which usually involves drafting briefs and for oral argument.

## **LL.B Part- III (IInd Sem)**

### **Paper-I: Transfer of Property:**

Upon successful completion of this subject the student will be able to:

Know what constitutes a transfer and the conditions attached to it and also learn how a person conveys the property to one or more persons or himself and one more other persons.

### **Paper-II: C.P.C:**

Upon successful completion of this subject the student will be able to:

Identify the stages of civil cases and what are civil cases. How to prepare a plaint, W.S, issues and jurisdiction of civil court draft appropriate documents needed by a lawyer or law firm in civil litigation.

**Paper-III: Law of Taxation:**

Upon successful completion of this subject:

Students will understand how the tax law dealing with the Constitutional, Common-law, statutory, tax treaty and regulatory rules that constitutes the law applicable to taxation.

**Paper-IV: Intellectual Property Law:**

Upon successful completion of this subject:

Students will understand the intellectual property law with a focus on copyright, trademarks & patent law and also understand their application to inform & communication technology.

**Paper-V: Drafting & Pleading:**

Upon successful completion of this subject:

It provides an expert knowledge of drafting and pleading, this is an art to give fair notice to each party within a well settled position of law. It also is acquainting the students about the various fundamental of drafting to develop the skills of pleading and conveyance.

## **Course Outcomes:**

### **LL.M Part- IST SEM**

#### **Subject: LAW**

Syllabus of LL.M as prescribed by Universities, two year course and divided into four semesters.

#### **Paper-I: Constitutional Law:**

Upon successful completion of this subject the student will be able to:

1. Explain the administration of scheduled areas & tribal areas.
2. Detailed information about the relations centers and states is received.
3. Explain the role of election commission in the independent election.
4. Explain different types of emergency under India constitution.
5. Explain the new challenges under election, emergency, panchayat and language used in judiciary and legislative.

#### **Paper-II: Administrative Law:**

Upon successful completion of this subject the student will be able to:

1. Explain particular focus is placed upon judicial review including its fundamental concept of jurisdiction, ultra virus and procedural fairness.
2. Explain the powers, duties, rights & liabilities of various organs of government.
3. Explain the role of government under welfare state.
4. Evaluations of corporation, like public and Private Corporation.

#### **Paper-III: General Principles of Law:**

Upon successful completion of this subject the student will be able to:

1. Define role of mens rea under criminal law.
2. Understand various types of crimes.
- 3 Understand various types of exceptions for discharge of liability.

#### **Paper-IV: Specific Tort:**

Upon successful completion of this subject the student will be able to:

1. Analyze new tort developed in India by judiciary and parliament.
2. Identify and distinguish negligent, vicarious liability and nuisance.
3. Differentiate fault based tort like vicarious and absolute liability.
4. Define the product liability.

#### **Paper-V: Legal research & Methodology:**

Upon successful completion of this subject the student will be able:

To research federal and state constitutions & statutes. Write a law office memorandum that accurately & objectively reflect the result of a research project.

#### **Paper-VI: Jurisprudence:**

Upon successful completion of this subject the student will be able to:

Explain the schools of the jurisprudence and its impact of Indian judicial system. The study draws on theoretic jurisprudence, a framework which posits that the proper design.

#### **Paper-VII: Penology:**

Upon successful completion of this subject the student will be able to:

Understand what exactly is meant by crime. It will give clarity at the origin of theory and briefly to trace its historical development.

#### **Paper-VIII: Dissertation:**

Upon successful completion of this subject the student will be able to:

Understand the utility of law and that gives immense satisfaction. Students will be able to analyze the situation of the society and find out the problems actually facing by the people, further they can study on the particular problem to give their opinion to solve the issue by investigating their objective of study and also able to conclude with intellectual suggestions.

## **Course Outcomes:**

### **PGDCA**

#### **Subject: Introduction to Software Organization**

#### **Course Objectives:**

Upon successful completion of this subject the student will be able to:

1. Understand basic knowledge of computer, their types, application and features.
2. Distinguish between Systems software and Application software.
3. Identify the primary functions of an Operating System.
4. Describe the “boot” process.
5. Identify Desktop and Windows features.
6. Use Utility programs.
7. Compare between Human and Computer Language.
8. Define computer communication process.

#### **Course Outcome:**

1. Understand the meaning and basic components of a computer system.
2. Discuss the advantages, limitations and applications of computers.
3. Define and distinguish Hardware and Software components of computer system.
4. Identify different computing machines during the evolution of computer system.
5. Gain knowledge about five generations of computer system.
6. Identify and discuss the functional units of a computer system.
7. Identify the various inputs and output units and explain their purposes.
8. Understand the role of CPU and its components.
9. Understand the concept and need of primary and secondary memory.

**Subject: Programming in “C”:**

**Objectives:**

Upon successful completion of this subject the student will be able to:

1. To gain experience about structured programming.
2. To understand the implementation of C language.
3. To understand various features in C.

**Outcome:**

1. Solve the given problem using the syntactical structures of C language
2. Develop, execute and document computerized solution for various problems using the features of C language
3. To read and write C program that uses pointers, structures, files etc.

**Subject: Office Automation and Tally:**

**Objective:**

Upon successful completion of this subject the student will be able to:

1. To provide an in-depth training in use of Office Automation packages, FoxPro windows concept and tally.
2. Essential for a modern office for day to day office management.
3. Student will learn to create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc.

**Outcome:**

1. To improve quality of output in terms of presentation and reduction in processing time
2. Student will do by their own create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc
3. Students do possess required skill and can also be employed as Tally data entry operator



**Subject: Office Automation and Tally Lab:**

**Objective:**

Upon successful completion of this subject the student will be able to:

Craft professional word documents, excel spread sheets, power point presentations using the Microsoft suite of office tools.

To familiarize preparation of documents and presentations with office automation tools.

**Outcomes:**

By learning the course, the students will be able

1. To perform documentation
2. To perform accounting operations
3. To perform presentation skills

**Subject: Practical Based on Programming in “C”:**

**Objective:**

Upon successful completion of this subject the student will be able to:

The purpose of this course is to introduce to students to the field of programming using C language. The students will be able to enhance their analyzing and problem solving skills and use the same for writing programs in C.

**Outcomes:**

After Completion of the course student should able to know concepts in problem solving, to do programming in C language, to write diversified solutions using C language.

**Subject: Database Management System (DBMS):**

**Objectives:**

Upon successful completion of this subject the student will be able to:

1. To understand the different issues involved in the design and implementation of a database system.
2. To study the physical and logical database designs, database modeling.
3. To understand and use data manipulation language to query, update, and manage a database
4. To develop an understanding of essential DBMS concepts such as: database security, integrity, and concurrency.

**Outcome:**

1. Gain a good understanding of the architecture and functioning of database management systems as well as associated tools and techniques, principles of data modeling using entity relationship and develop a good database design and normalization techniques to normalize a database.
2. Understand the use of structured query language and its syntax, transactions, database recovery and techniques for query optimization.
3. Acquire a good understanding of database systems concepts and to be in a position to use and design databases for different applications.

**Subject: Programming in Visual Basic:****Objective:**

Upon successful completion of this subject the student will be able to:

1. Learn visual programming basics and its components.
2. Cover visual programming skills needed for modern software development.

**Outcome:**

1. Demonstrate fundamental skills in utilizing the tools of a visual environment in terms of the set of available command menus and toolbars
2. Explain and use of delegates and events for producing event-driven application
3. Implement SDI and MDI applications while using forms, dialogs, and other types of GUI components
4. Produce and use specialized new GUI components
5. Explain message passing mechanism between components and threads using messaging
6. Apply visual programming to software development by designing projects with menus
7. and submenus
8. Use visual programming environment to create simple visual applications

**Subject: E-Commerce and HTML:****Objective:**

Upon successful completion of this subject the student will be able to:

1. Define E-commerce, its types, application
2. Describe the life cycle of implementation of E-commerce
3. Differentiate between E-commerce and other forms of commerce
4. list the modes of payments involved in E-commerce
5. Insert a graphic, link, table within a web page.
6. Use cascading style sheets.
7. Create, Validate & Publish a web page.

**Outcome:**

1. Design and implement an e-commerce application with a shopping cart.
2. Integrate user-centered design guidelines in developing user-friendly websites.
3. Analyze different types of portal technologies and deployment methodologies commonly used in the industry.
4. Create a static website using HTML and add dynamic functionality to it by using java Script.
5. Gain confidence to create dynamic website on real world problems.

**Subject: Practical Based on E-Commerce and HTML, RDBMS and Visual Basic:**

**Objectives:**

Upon successful completion of this subject the student will be able to:

1. Learn how to design and develop a Web page using HTML and CSS.
2. Design and develop a Web site using text, images, links, lists, and tables for navigation and layout. Style your page using CSS, internal style sheets, and external style sheets.
3. Understand, analyze and apply common SQL statements including DDL, DML and DCL statements to perform different operations.
4. Design and implement a database for a given problem according to well known design principles that balance data retrieval performance with data consistency.
5. Students will be able to design, code, test and debug at a beginning level.

**Outcome:**

1. Design and implement a database for a given problem according to well known design principles that balance data retrieval performance with data consistency.
2. Design, create, build, and debug Visual Basic applications
3. Write Windows applications using forms, controls, and events.
4. Create local HTML pages and move them to a remote web server.
5. Design and develop basic web pages using HTML and CSS
6. Link pages so that they create a Web site.

**Subject: Project:**

**Objective:**

Upon successful completion of this subject the student will be able to:

1. The objective of such a computerization system is to reduce paper work and save of time in particular defined project. There by increasing the efficiency and decreasing the work load.
2. The project provides us the flexibility of generating the required document on screen as well as on printer as and when required.

**Outcome:**

1. Acquire practical knowledge within the chosen area of technology for project development
2. Identify, analyze, formulate and handle programming projects with a comprehensive and systematic approach
3. Contribute as an individual or in a team in development of technical projects
4. Develop effective communication skills for presentation of project related activities

## **Course Outcomes:**

### **Subject: Diploma in Business Management:**

#### **Faculty of Commerce**

### **Paper-I : Principles and Practice of Management:**

This course aims to Imporing basic knowledge of the Subject

#### **Student Learning Outcomes –**

Upon successful completion of this course a Student will be able to:-

1. The course is designed to provide students with an understanding role of a professional manager.
2. Knowledge about management planning and decision making techniques.
3. Knowledge of business communication.
4. Knowledge of motivation, leadership and direction.
5. Skill development.
6. The student's knowledge control technique.

### **Paper-II: Managerial Economics & Business Environment:**

#### **Objective:**

This course aims to imparting basic knowledge of the subject.

#### **Outcomes:**

Upon successful completion of this course a Student will be able to:-

1. Analyze the demand and supply conditions and assess the position of a firm.
2. Analyze courses and consequences on unemployment, inflation and economic growth.
3. Analyze operation of market under varying competitive conditions.

### **Paper-III: Financial Management and Control:**

#### **Objective-**

This course aims to impart basic knowledge of the subject.

#### **Outcomes-**

Upon successful completion of this course a Student will be able to:-

1. List the primary sources of capital and incorporate their cost when making investment decisions.
2. Calculate the value of various financial assets.
3. Learn about the importance of the financial decision and optimum capital structure.
4. Understand the role of various financial institutions and financial investments in the money and capital market.

### **Paper-IV: Personnel Management and Financial Accounting:**

Upon successful completion of this course a Student will be able to:-

1. Acquire an insight in to the role and responsibilities of the personnel management functions.
2. The different system with in Personnel Management viz recruitment and selection, Performance management Compensation Managements employee Relationship Management and recognize their strategic contribution to business and organization.

#### **Outcomes -**

This course aims to imparting basic knowledge of the subject.

### **Paper-V: Production Management & Marketing Management:**

Upon successful completion of this course a Student will be able to:-

1. Apply decision-making techniques in Production Management.
2. Apply Work Force Management techniques in business cases.
3. Identify some of the basic approaches to formulating a market strategy in order to participate effectively.
4. Use knowledge of element of the marketing mix and the functional disciplines of marketing such as Research & Marketing Communication.