Course Outcomes:

<u>B.A. I</u>

Subject:English Literature

Paper I - Literature in English(1550-1750) BAIEG-A

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- Literature in English (1750-1900) BAIEG-B

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 works prescribed.
- 4. Development of writing and analytical skills.

<u>B.A. II</u>

Subject: English Literature

Paper I: Modern English Literature BAIIEG-A

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 LiteratureBAIIEG-B

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 BAIIIEG-A

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 writing, analytical and expression skills.
- **5.** Create interest in the different genres of Indian writing in English.

Paper II(A): American LiteratureBAIIIEG-B

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

1. Develop passion for American language and 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.

Paper II(B): 20th Century Literature in EnglishBAIIIEG-B

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

1.gain knowledge of the major theoretical and critical terms of twentieth-century English literature.

2. Get an insight into the major issues related to the cultural and social context introduced in the literature of the 20th century.

3. Appreciate the masterpieces of literature written in this literary period.

4.Improve their interpretive skills and textual analysis in reading literature.

Course Outcomes:

M.A. I & II Sem.

Subject: English

Paper I: Poetry I and II MEGI-A and MEGII-A

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

1. 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 I and II	MEGI-B and MEGII-B
1	

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, tragicomedy, romantic comedy, satirical comedy, historical play, poetic drama, problem play etc.

3. Be familiarise 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 I and II MEGI-C and MEGII-C

On studying this paper, the student will be able:

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 I and II MEGI-D and MEGII-D

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

1. Be acquainted with the development of various genres i.e. poetry, prose, fiction and criticism correlating it with contemporary socio-economic, religious 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 insight and develop critical imagination.
- 8. Understand the complex dynamics of human relationship.

M.A. III & IV Sem.

Subject: English

Paper I: Critical Theory I and II

MEGIII-A and MEGIV-A

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 movements in 20th century.

5. Identify and use key concepts and theories to interpret literary texts.

Paper II: Indian Writing in English I & II MEGIII-B and MEGIV-B

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

1. Made 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. Made acquainted with the problems faced by Indian Writers in English.

Paper III: American literature I and II MEGIII-C and MEGIV-C

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

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

2. Develop analytical skill for critical engagement with the text and skills for argumentative writing.

3. Be familiar with the philosophy of America & showing its relation with oriental and German philosophy.

4. Explore American literary tradition from American thought and political writing to American literary expression.

Paper IV: Linguistics I and II MEGIII-D and MEGIV-D

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. Better understand 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. Be 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. Conceptualise framework and draw conclusions and apply language learning techniques in the classroom. This will also carve them to be a good teacher in future.

Paper V (A): New Literatures in English I & II MEGIII-E and MEGIV-E

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

1. Gain an understanding of unique aspects of diverged literatures.

2. Discover the universality and timelessness of literary texts.

3. Demonstrate knowledge and understanding of a range of New literatures in English in its historical and cultural contexts.

4. develop an understanding of issues of cultural plurality and hybridity.

5. Recognise literary negotiations of colonization and decolonization, identity, inequality, marginalization and so on.

6. Appreciate aesthetic, moral and cultural trends in literature in English language.

Paper V (A): Research Methodology and Computer Application I & II

MEGIII-E and MEGIV-E

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

- 1. Have a clear concept of research.
- 2. Understand the stages of research and the procedures involved in it
- 3. To highlight the significance of systematic planning and execution of research activity.
- 4. Demonstrate the ability to choose methods appropriate to research aims and objectives.
- 5. Develop advanced critical thinking skills
- 6. To give the students practice in the use of various tools and techniques of research.
- 7. Demonstrate enhanced writing skills
- 8. prepare a proposal (to undertake a project).
- 9. Write a research report and thesis.

Course Outcomes:

BA. / B.Sc. /B.Com. Part I

Subject: English Language: BAI-EL/ BSCI-EL/BCOMI-EL

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

- **1.** Develop comprehensive ability.
- **2.** Improve vocabulary.
- **3.** Learn effective communication skills.
- 4. Inculcate 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: BAII-EL/ BSCII-EL/BCOMII-EL

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

- **1.** Discuss and respond to the content of the passage.
- 2. Aquire 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: BAIII-EL/BSCIII-EL/BCOMIII-EL

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

- 1. Be familiar with values of Indian life and social system.
- 2. Understand the development of India in the Modern context.
- 3. Develop linguistic competence and communication skills.
- 4. Inculcate writing skills through essay writing and comprehension.

Course Outcomes:

<u>B.A. I</u>

Subject: Psychology

Paper I: Basic Psychological Processes BAIPY-A

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

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

Paper II: Psychopathology BAIPY-B

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

- **1.** Learn the concept of abnormality, various types of mental disorder and their management.
- 2. Learn various theories that can explain the causes of mental illness and the way to treat them.

3. Learn about psychopathology which provides various techniques of assessment of mental illness.

Practical

BAIPY-C

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

1. Learn to measure different behavior like level of Anxiety, Depression and Stress tolerance.

2. Learn to test type of personality.

3. Learn to test Adjustment level towards the society.

4. Learn to test achievement motivation level of students.

5. Learn through experiment, division of attention, effect on set on perception.

6. Learn practically about the emotions.

<u>B.A. II</u>

Paper I: Social Psychology BAIIPY-A

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 themselves and how they see themselves through others' point of view (impression formation).

Paper II: Psychological Assessment BAIIPY- B

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

1. Learn about the type of tests, their construction process, and their standardization.

2. Explain the use of these tests in life.

3. Learn the difference between Psychological and Physiological assessment.

Practical

BAIIPY-C

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

- 1. Learn Group behavior
- 2. Learn about self concept

3. Learn Interest for career

<u>B.A. III</u>

Paper I: Psychological Statistics BAIIIPY-A

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

1. Gain knowledge about various steps of research.

2. Learn the statistical tool for the analysis of their data.

Paper II: Human DevelopmentBAIIIPY-B

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

1. Know about various stages of life in 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 humans.

Practical

BAIIIPY-C

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

- 1. Learn learning with brain function
- 2. Depth Perception and illusion in vision
- 3. Learn to measure mental health
- 4. Through field study they get research experience.
- 5. Learn how aspiration level varies with each trial.

Course Outcomes:

<u>B.A.I</u>

Subject: Political Science

Paper I: Political Theories BAIPO-A

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 BAIPO-B

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.

<u>B.A. II</u>

Subject: Political Science

Paper I: Western Political Thought BAIIPO-A

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

1. Know about main western political thinkers 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 BAIIPO-B

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.

<u>B.A. III</u>

Subject: Political Science

Paper I: International Politics BAIIIPO-A

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 BAIIIPO-B

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. I Sem.

Subject: Political Science

Paper I: Political Thought MPOI-A

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

1. Understand different political ideologies of various thinkers.

2. Know students the importance of different political thought and theories.

Paper II: Comparative Politics MPOI-B

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 MPOI-C

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: CG Government and PoliticsMPOI-D

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

1. Gain general knowledge of history, culture and language of Chhattisgarh.

2. Get knowledge regarding the politics and Government of Chhattisgarh.

M.A. II Sem.

Subject: Political Science

Paper I: Western Political ThoughtMPOII-A

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 MPOII-B

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 MPOII-C

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 MPOII-D

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 Cylone.

2. Know about the basic and main features of Indian foreign policy.

M.A. III Sem.

Subject: Political Science

Paper I: Indian Govt. and Politics MPOIII-A

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 MPOIII-B

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 MPOIII-C

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

1. Gain knowledge of research methodology.

2. Develop research skills as research is necessary for the academic development of the subject.

Paper IV: International Organizations MPOIII-D

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

1. Get knowledge about the role and importance of international organizations like League of Nation and U.N.O.

2. Get knowledge about the structure and functions of these organizations and its agencies.

M.A. IV Sem.

Subject: Political Science

Paper I: Politics of State MPOIV-A

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 MPOIV-B

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 MPOIV-C

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 MPOIV-D

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

- **1.** Know what are international laws 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 (Harappan Culture to 319AD)BAIAH-A

Paper II: Political History of India (From 319AD-1300AD) BAIAH-B

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 the past history through the selection of significant facts.

<u>B.A.II</u>

Subject: Ancient Indian History

Paper I: Ancient Indian Social & Economic Institution BAIIAH-A

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 Social organization in India which is often remarked as the caste system.

Paper II: Ancient Indian Polity

BAIIAH-B

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

B.A.III

Subject: Ancient Indian History

Paper I:Fundamentals of Indian Art & Architecture BAIIIAH-A

Paper II: Fundamentals of Epigraphy and Nimismatics BAIIIAH-B

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

1. Study the Indian art tradition as one of the oldest living art traditions in the world.

2. Know the art of country with its history social & economical perspective.

3. Learn about excavation of the sites of the old towns like Harappa Mohenjo-Daro & Taxila and information of the other ancient monuments.

Course Outcomes:

M.A. I&II Semester

Subject: Ancient Indian History

Paper I: History of India (From Early Times to 4th Century BC) MAHI-A

Paper I: History of India (From 319-600 AD) MAHII-A

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

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

2. Get the glimpse of the glorious 'cultural heritage heritage of India in right perspective & without a tinge of bias & an iota of exaggeration.

Paper II: History of India (From 4th Century BC to 319 AD) MAHI-B

Paper II: History of India (From 600 AD-1200 AD) MAHII-B

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

1.Learn that Unity in diversity is the basic theme of Indian culture & continuity & changes are its main currents.

2. 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 ethic identities & are known today as "Indians" Bharat their motherland. Let us preserve this cultural unity & scorn communalism separatism & terrorism.

Paper III: Ancient Indian Social & Economic Institutions I MAHI-C

Paper III: Ancient Indian Social & Economic Institutions II MAHII-C

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

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

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

Paper IV: Ancient Indian Polity I	MAHI-D
Paper IV: Ancient Indian Polity II	MAHII-D

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

1. Know about the Arthasastra or science of polity of Kautilya as the cumulative expression of a long tradition of political speculation & theorizing.

2. Know about studies on state formation &state structures which have often stressed the importance of the ideology, despite the inherent analytical & conceptual difficulties that the notions of ideology possess.

M.A. III & IV Sem.

Subject: Ancient Indian History	
Paper I: Numismatics I	MAHIII-A
Paper I: Numismatics II	MAHIV-A

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

1. Study the Indian coins to be enlightened with a great deal regarding the history of ancient India.

2. Know that coins help us to build up the history of the country in many ways.

3. Get 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. Learn that Coins are discovered from time to time either in the archeological excavations purposely or accidently.

Paper II: Epigraphy & Paleography I	MAHIII-B
Paper II: Epigraphy & Paleography II	MAHIV-B

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 felling heads: commercial, magical, religious, administrative, eulogistic, dedicative, commemorative & literary.

Paper III: Art & Iconography I

Paper III: Art & Iconography II

MAHIII-C MAHIV-C 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.

MAHIII-D

MAHIV-D

Paper IV: Architecture I

Paper IV: Architecture II

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

1. Learn about architecture in India that is represented by many different types of buildings which however maybe referred to as two conventional divisions (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:

<u>B.A. I</u>

Subject: Economics

Paper I: Micro Economics BAIEC-A

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

- **1.** Learn about Factors affecting consumer demand.
- 2. Learn Production and cost matrix in output determination.
- **3.** Understand Various market forms and determination of prices in these markets.
- 4. Learn How factor prices are determined

5. Understand Factors of welfare as conceptualized by economist.

Paper II: Indian Economy BAIEC-B

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

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.

<u>B.A. II</u>

Subject: Economics

Paper I: Macro Economics

BAIIEC-A

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

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 BAIIEC-B

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

- **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 BAIIIEC-A

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

BAIIIEC-B

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

- 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:

<u>M.A. I Sem</u>

Subject: Economics

Paper I: Micro Economics

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

- **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.

MECI-A

4. Cost & Revenue analysis in various market forms.

Paper II: Macro Economics

MECI-B

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

- **1.** 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: Quantitative Methods

MECI-C

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

- **1.** Measure Skewers in data.
- 2. Measure relationship between economic variables.
- 3. Understand interdependence and permutation between various factors.
- **4.** Learn How to fine values through Extrapolation and Interpolation.
- 5. Understand time based variables and importance and construction of Index Number.

Paper IV: Indian Economy

MECI-D

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

- **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

MECI-E

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

- **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. II Sem.

Subject: Economics

Paper I: Micro Economics Analysis MECII-A

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

- 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 understand:

- 1. 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 MECII-C

MECII-B

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

- 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 Economic Policy

MECII-D

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

- **1.** Uses of planning process for growth and desired changes in Indian Economy.
- 2. Problem of poverty and measurs 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

MECII-E

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

- 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. III Sem

Subject: Economics

Paper I: Economics of Growth

MECIII-A

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

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

MECIII-B

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

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

MECIII-C

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

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

MECIII-D

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

- **1.** 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

MECIII-E

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

- **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. IV Sem.

Subject: Economics

Paper I: Economics of Development and Planning

MECIV-A

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

1. Process of Planning, Planning in India and achievements of Indian Five Year Plan.

- 2. Various theoretical perspectives on strategies to remove back wardress.
- 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

MECIV-B

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

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

MECIV-C

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

- **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

MECIV-D

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

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:

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

Course Outcomes:

<u>B.A. I</u>

Subject: Geography

Paper I: Physical Geography

Upon successful completion of this Paper the student will be able to understand: 1.The structure of different parts of earth and applied Geomorphology.

Paper II: Human Geography

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

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

Paper III: Practical Geography

Map making and scale of the maps and diagrams.

<u>B.A. II</u>

Subject: Geography

Paper I: Economic and Resource Geography

MECIV-E

BAIGE-A

BAIGE-B

BAHGE-A

BAIGE-C

Upon successful completion of this Paper the student will be able to understand: Natural resource management and optimum uses of resources.

Paper II: Geography of India

Upon successful completion of this Paper the student will be able to gain: Knowledge of physical and socio economical characteristics of India.

Paper III: Practical Geography

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

1. Making projections and statistical methods.

<u>B.A. III</u>

Subject: Geography

Paper I: Remote Sensing and GIS

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

- Remote sensing is the process of detecting and monitoring the physical characteristics of an area.
- It is a modern technique which needs practice and learning.
- Chhattisgarh is a rich state from resource point of view. It is very necessary to increase number of experts of remote sensing and GIS.
- Students are benefitted by the improved syllabus. This will help in monitoring state's resources as well as career opportunities of the students will be enhanced.

Paper II: Geography of Chhattisgarh

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

- Chhattisgarh is a new state. Physical, economic and politico-cultural study is a must for geography students.
- Study for natural resources is necessary for monitoring and planning.
- Detailed study of the state is mandatory for state-level competitive examinations.

BAIIIGE-A/BSCIIIGE-A

BAIIIGE-B

BAHGE-C

BAIIGE-B

Upon successful completion of this Paper the student will be able to understand: 1.Topographical Sheets and socio-economic survey of village.

Course Outcomes:

<u>M.A. I Sem</u> Subject: Geography

Paper I: Geomorphology

Upon successful completion of this Paper the student will be able to understand: 1. The structure of different part of earth and applied geomorphology.

Paper II: Climatology

Upon successful completion of this Paper the student will be able to understand: 1The structure of atmosphere and different types of climate_and its characteristics.

Paper III: Geographical Thought

Upon successful completion of this Paper the student will be able to get 1.Brief knowledge of history & development of Geographical Thoughts.

Paper IV: Geography of India

Upon successful completion of this Paper the student will be able to gain: 1.Knowledge of physical and socio economical characteristics of India.

Paper V: Practical Geography-Advanced Cartography MGEI-E

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

1. Acquire knowledge in the field of Map Making and Cartographic_techniques.

MGEI-A

MGEI-C

MGEI-D

MGEI-B

M.A. II Sem.

Subject: Geography

Paper I: Economic and Natural Resource Management **MGEII-A**

Upon successful completion of this Paper the student will be able to understand: 1.Natural resource management and optimum uses of resources.

Paper II: Oceanography

MGEII-B

Upon successful completion of this Paper the student will be able to: 1.Understand characteristics of oceanic water and their movement.

Paper III: Regional Development and Planning MGEII-C

Upon successful completion of this Paper the student will be able to understand: 1.Specific regions and their development.

Paper IV: Social Geography MGEII-D

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

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

Paper V: Practical-II Map Projections, Map Interpretation and Surveying MGEII-E

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

1. Map projection and digital surveying by advanced equipments.

M.A. III Sem.

Subject: Geography

Paper I: Population Geography

MGEIII-A

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

1. Knowledge of population condition of the world and related problems. 35

Paper II: Regional Development and Planning **MGEIII-B**

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

1. Rural and urban development of settlement and their problems.

2. Five Year Plans

Paper III: Geography of Chhattisgarh

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

1. Acquire knowledge of Chhattisgarh.

Paper IV: Research Methodology

Upon successful completion of this Paper the student will be able to understand: 1.Research techniques and their uses.

Paper V: Practical III : Remote Sensing, Interpretation of Map MGEIII-E

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

1.Knowledge of remote sensing, Geographic Information System.

M.A. IVth Sem.

Subject: Geography

Paper I: Urban Geography

Upon successful completion of this Paper the student will be able to gain: 1.Knowledge of urban structure and their problems.

Paper II: Agriculture Geography MGEIV-B

Upon successful completion of this Paper the student will be able to gain: 1.Knowledge of Agriculture Regions and their theories.

Paper III: Environmental Geography MGEIV-C

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

1.Understand elements of environment and its problems and management.

Paper IV: Field Work (Physical and Socio- Economic Survey) MGEIV-D

MGEIV-A

MGEIII-D

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

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

Paper V: Quantitative Techniques

MGEIV-E

Upon successful completion of this Paper the student will be able to understand: 1Statistical methods and new techniques.

Course Outcomes:

Name of Programme: 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.

<u>B.A.Part I</u>

Paper I: Outline of Indian Philosophy	BAIPS-A

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

1. And comprehend Indian culture and civilization.

Paper II: History of Western Philosophy BAIPS-B

Upon successful completion of this Paper it will:

1. Create an understanding about Western ethos and Society.

<u>B.A.Part II</u>

Paper I : Ethics: Indian and Western BAIIPS-A

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

1. Concepts of right and wrong conduct.

Paper II: Philosophy of Religion

BAIIPS-B

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

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

<u>B.A.Part III</u>

Paper I: Logic

BAIIIPS-A

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

1. 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

BAIIIPS-B

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

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 Programme: 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.

The course consists of two years divided into four semesters, the contents of each of which include:

M.A. I Sem

Paper I: Indian Ethics

MPSI-A

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

- 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

MPSI-B

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

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

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

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.

MPSI-C

MPSI-D

MPSII-A

MPSII-B

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

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. II Sem

Paper I: Western Ethics

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

1. Self and what is rationally or logically true.

2. Its importance on law and justice.

Paper II : Western Logic

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

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 MPSII-C

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

- **1.** The theory of knowledge.
- 2. The nature of knowledge, justification, and the rationality of belief.

Paper IV : Western Metaphysics MPSII-D

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

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

M A III Semester

Paper I: Indian Philosophy of Language MPSIII-A

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

1. It is the branch of the earliest Indian thinking about language, found in Vedas.

2. It is speculative, but later discussions involve sophisticated arguments among various schools of thought which concern speech unites and associated meanings(artha), share certain themes.

Paper II: Analytical Philosophy MPSIII-B

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

1. Analytical Philosophy is also called linguistic philosophy.

2.It is a loosely related set of approaches to philosophical problems, dominant in Anglo-American philosophy from the early 20th century, that emphasizes the study of language and the logical analysis concepts.

Paper III: Modern Indian ThoughtMPSIII-C

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

- 1. Modern Indian Thought is one of the fantastic areas of scholarly debates and discussions in contemporary india.
- 2. It also signifies a shift away from excessive reliance upon Eurocentric views, methods and concepts to study and interpret Indian philosophy and its society.

Paper IV: Phenomenology and Existentialism MPSIII-D

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

1. Fenomenology is a research technique that involves the caraful description of aspects of human life as they are lived.

2.Existentialism, deriving its insights from phenomenology, is the philosophical attitude that views human life from the inside rather than pretending to understand it from an outside, objectively.

M A IV Semester Paper I: Philosophy of Gandhi MPSIV-A

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

1.Gandhi was not concerned with constructing a system of philosophy, but mainly with applying the ideals and principles that had become a part of his life.

2. For understanding Gandhi's philosophy it is necessary that the concepts be understood in the context of Hindu Philosophy.

3.It is equally important to bear in mind that Gandhi's connotations of terms are different from the prevalent ones. Quite often they sound national or geographical, when in fact they are universal.

Paper II: Philosophy of Yoga MPSIV-B

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

- 1. Mind, body, and spirit are all one and cannot be clearly separated.
- **2.** There is a multitude of philosophical ideas that are helpful to explore the deeper dimencions of the body, mind and spirit.

Paper III: Applied Ethics

MPSIV-C

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

- 1. Practical application of moral considerations.
- 2. Applied ethics is, by its very nature, a multi-professional subject because it requires specialist understanding of the potential ethical issues in fields like medicine, business or information technology.

Paper IV: Philosophy of Swami Vivekananda MPSIV-D

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

- 1. Vivekananda linked morality with control of mind, seeing truth, purity and unselfishness as traits which strengthened it.
- 2. He advised his followers to be holy unselfish and to have shrddha (Faith).
- 3. He supported brahmcharya, believing it the source of his physical and mental stamina and eloquence.

Course Outcomes:

Name of Programme: M.A. in Public Administration

M.A. I Sem

Paper I: Introduction to Public Administration MPAI-A

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: Recent Trends in Public Administration MPAI-B

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 MPAI-C

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 MPAI-D

The student will acquire knowledge about:

1. Concept & theory of development administration.

- 2. Features of developed 7 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.

<u>M.A. II Sem</u>

Paper I: State Administration with Special Reference to Chhattisgarh MPAII-A

The student will acquire knowledge about:

1. State government & administration.

2. Organization & working of state finance commission, state election commission, 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 with Special Reference to CG State MPAII-B

The student will acquire knowledge about:

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 in ChhattisgarhMPAII-C

The student will acquire knowledge about:

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 with Special Reference to Chhattisgarh MPAII-D

The student will acquire knowledge about:

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 weaker 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.

<u>M.A. III Sem</u>

Paper I: Comparative Public Administration

MPAIII-A

The student will acquire knowledge about:

1. Concept & evolution of comparative public administration.

2. Approaches to study of comparative public administration.

3.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. Whitleyism in Britain IRC in U.S.A. prefect in France, ombudsman in Sweden & role communist party in China.

Paper II: Personnel Administration & Human resource Development MPAIII-B

The student will acquire knowledge about:

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 MPAIII-C

The student will acquire knowledge about:

- 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

MPAIII-D

The student will acquire knowledge about:

- **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. IV Sem

Paper I: Civil Service in India

The student will acquire knowledge about:

- **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: Public Policy

By the end of the course, students will be able to:

- 1. Identify the major theoretical debates in contemporary policy studies;
- 2. Engage in literatures relevant to the study of public administration and bureaucracy

MPAIV-B

MPAIV-A

- 3. Contrast and compare existing research on public policy, discuss theoretical traditions and frameworks and critically engage in their arguments;
- 4. Interpret and judge different methodological strategies used in public policy research, and evaluate their core assumptions as well as their heuristic and explanatory potential;
- 5. Evaluate the relevance of existing frameworks and approaches for their own work;
- 6. Have an understanding of the major challenges and requirement of doing advanced research professionally in an academic or practical context.

Paper III: Management of Public Enterprises and Industrial Relations MPAIV-C

The student will acquire knowledge about:

- **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

MPAIV-D

The student will acquire knowledge about:

- **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:

<u>इत्त िहास</u> <u>ब**ी.ए. इत**िहास प**्र वर**्</u>

Paper I: History of India (Origin - 1206 AD)

BAIHT-A

1. इस पाठ्य का उद्द दिाः प्रम राजक्वतक, सायाक्जक, आरं Tक एिसास् ततक प्रकास र्परारत कराचा है

Paper II: World History (1450 - 1789 AD)

<u>बी.ए. इत िहास त्िीत वर</u>्

Paper I: History of India (1206 - 1761 AD)

1. इस पाठ्य क् अध्व स् विदाव्य ग्धका का पारताः इतहास क् राजक्वतक, सायाक्जक, आव्याक एि सास्क तक पका का जाच पार हाता है

2. ्ह पाठ्य बििवभन पवत्थया पराकाओ क् क्षण् इव्तहास बििष् एि सायान जाच क् कए पठच सायगा उपकब कराता है

Paper II: World History (1890 - 1964AD)

1. ्ह पाठ्य हिदाव्ार् का तत्ताकाच हिश क् इक्तहास का पयम घटचाओ स् अियत करात् हए अतरााा् हिष्क सयझ उतन करच् ये सहा्क है

<u>ब**ी.ए. इत**िहास िृिीत वर</u>्

Paper I: History of India (1761-1950 AD)

1. इस पाठ्य क् अध्व स् िदाव्य प् काधव्यक काक क् राजव्यतक, आव्यक, सायावजक इव्तहास का जाच व्यकता है

2. इसक् अध्य च स छात ब्वटट का कये भारता ् पर हए दयच टथषण स परकरत हथत है

Paper II: Indian History (1761- 1947 AD)BAIIIHT-B

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BAIIIHT-A

BAIIHT-A

BAIIHT-B

BAIHT-B

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Course Outcomes:

<u>एर.ए. इत िहास पर्र एव हिीत से रेस</u>्

Paper I : Methodology of History/ Historiography

MHTI-A /MHTII-A

 1. इस पाठ्य क् अध्व क् याध्य स् बिदाब्ा क् स्प एि उसक् बिद्म का इतहास क् स्प एि उसक् बिद्म का सधाना स् परवरत करात् हए भारता् एि अतरााा इत्तहास क् म्य का बाधा स् परवरत कराचा एि भारताः इतहास का वाया क उपायय का बाध कराःा जाता है

2. इक्तहरास क् अध्व स् बा को को स्तायर ता का तक टा का कि का स्राह्य साय र ता का तक टा का कि का कि का स्राह्य का स्र स्राह्य का स

Paper II: History of Modern World (1871-1919)/Contemporary World (1919-1990)

MHTI-B /MHTII-B

1. इस पाठ्य का उद्द दिादार्ग् कः आधत्वक एि सयकाकाच हिश ये घत्टत घटचाओ, त्जनश्व् सयूर् हिश कः पभाहति तक्ा, स् अियत कराचा है

2. सााा हा गरिग्भन पग्त्थया पराकाओ ह्त गरिदावाा स्थ कथ पठच सायगा उपकब करात् हए अतरााा्च घटचाओ क्ष पग्त सयझ गरिकग्सत करचा है

Paper III: Ancient and Medieval Chhattisgarh/Modern Chhattisgarh (1818-200)

MHTI-C /MHTII-C

1. इस पर्पत का िदावर्ा ये सूक एि कर्ता इक्तहास क्र अतयत छतासयस राज क् सयूह इक्तहास स् अियत कराचर क् दव**ाकाण सर्र**क्तत करा यरा है

2. रिदाब्ारा स्थ राज सरा सयस पराकाओ (पात्थि) ह्त स् क्य तै्ार कर सकच् एि इप्तहास का रााः धारा क् परिाह ये छतासयस का भूव्यका का आककच भा इस पाठ्य का यय उद्द है

Paper IV: History of Indian National Movement (1885-1919)/ History of Indian National Movement(1920-1947) MHTI-D /MHTII-D

1. इस पाठ्य ये सयावहत विवभन अधा्य क् याधय स् विदावार्य क्य सततता आदब्वच क् विवभन ररणब् घटचा्य स् अियत करा्ा जाता है

2. इसकः अकािा इस अध्व सः विदााा आजादा का कायत आक सकः िः अचभि कर सकः क उचकः दः ट कः आजादा कतचा कबाव्यः कः पशातः सतत सघष करतः हए पार हः है व्यससः उचयः राा प्य का भािचा पर्त एि पलविति हः सकः और राा का सयवरत विकास सभरि हः सकः

<u>एर.ए. इत्तिहास िृिीत एव चरिु़् से रेस्</u>

Paper I: Modern India (from 1757-1857) Political and Administrative/ ModernIndia (from 1757-1857) Economic, Social and CulturalMHTIII-A /MHTIV-A

इस पाठ्य का उद्द िदारा के भारत ये ूरखप्च क् आययच क् कारण, राजव्यतक कर ये उसक् द्ररणाय, भारता् का पत्त्रा एि भारत क स**िैधा**त्वक तिकास का पर््ा स् अियत कराचा है

Paper II: Modern India (from1858-1964)Political and Administrative/ Modern India(from1858-1964)Economic,Social and CulturalMHTIII-B /MHTIV-B

 1. इस पाठ्य का उद्द द िदा
 ्र का भारत ये ूरा
 जायय क् कारणा,

 का ट्रा का ्
 राजव्यतक क् त ये उसक् द्ररणाय, भारता

 का पात
 राजव्यतक क् त ये उसक् द्ररणाय, भारता

 का पात
 राजव्यतक क् त ये उसक् द्ररणाय, भारता

 का पात
 राजव्यतक क् त ये उसक् द्ररणाय, भारता

 का पात
 राजव्यतक का का पात

 का पात
 राजव्यतक राजवा

 का पात
 राजवा

 राजवा
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2. पूरि औपत्त्वर्िटक भारत का आवाक, सायात्जक, सास् तक दटा स् बिदावा स् का परिवर्ग का परिवर्ग का उद्द है

3. ्गटट टासच का चाक्त्य क् पररणाय स्प भारता अाव्िा पर परितिचय एि भारत क् आधक्वकाकरण क् िक्मन आाय स् परकरत कराच ता सतत भारत ये व्टका, साव, क्रिजाच एि तकक्वका क्रिकास का जावकारा भा इस पाठ्य क् अध्व स् पार हथता है

Paper III: Tourism: Principles and Nature in Reference to History/ Tourism:Principles and Nature in Reference to HistoryMHTIII-C /MHTIV-C

प्टच क् िैग्शक यहत एि बििग्भन क्ता ये रंगजयार का समािचा् हंग्व् त**ा**ा छतासयस राज ये प्टच का सभािचा कं धाच ये रमत् हए प्टच कं सातकंग्तर ये एक प् पत क्र्प ये सन्कत क्वा या है

Paper IV : History of Great Britain(1815-1885)/Modern England(1885-1965)

MHTIII-D /MHTIV-D

1. इस पाठ्य क्याधय स् बिदाव्या का इग्ल ये समन ससदा् सधारा क् ्यब् बिकास एि व्वटट सामाज िाद क् बिकास त**ा ब**िश ्र ये इग्ल का भूव्यका एि उसक् पररणाया स् अियत कराचा है

2. इस पाठ्य क् अध्व स् िदावार् का काकतार्क आदाकचा एि िैवशक प्रभािा का जाच भा पार हाता है

Course Outcomes:

बी.ए./ बी. एससी. /बी .कॉर. प्र आधा

<u>पाठतकर</u>

प्पश - प**्र तहद**ी भार**ा**

BAI-HL/BSCI-HL/BCOMI-HL

<u> उदेदः-</u>

उदेदः-

1. भाषा - जाच का ब िकास

2. भाषा का ट् प्थय करचा

3. सप्षण कौटक बसाचा

बी.ए./ बी. एससी. /बी .कॉर. ा्िीत

प्पश – प**्र तहद**ी भार**ा**

BAII-HL/BSCII-HL/BCOMII-HL

53

1. रहदा भाषा क् र िर िध ्प ¹ का जाच	
२. स ाक्हत - सस्क् क्त स ् ज ण्ड़च ा	
3. व ाकरण ाक ज ाच क ा ब िक ास	
<u>बी.ए./बी. एससी./बी .कॉर. िृिोत</u>	
प्पश – प ्र तहद ी भार ा	BAIII-HL/BSCIII-HL/BCOMIII-HL
<u> उदेदः-</u>	
1. सप्षण कौटक का िि्स्	
2.स ाक्हत स स्ट् क्त एि स ाय ान ज ा च पद ा च व	গ্বনা
Course Outcomes:	
<u>बी.ए. प्र वर् (तहदी सातहत)</u>	
प्पश - प ्र (पाच ीच तहद ी क ाव)	BAIHI-A
<u> उदेदः-</u>	
1. वहदा सवाहत क् भाःकाक ए ि रावतकाक क	^र ा ज ा च
 भाषा, सस्क् ब्त, बरिरार,याचिता, काव 	- ि ैव्टष् का पररर्
प् पश-त ् िीत (तहद ी क्ा सातहत्त)	BAIHI-B
<u>उदेदः-</u>	
1. वहदा क् क ा - जयत का पररर ्	
2. कह ाचा एि उपन ास ब िधा क् याधय स ाकात्त ार	स् अचभूग्त्॥, स ि ्दच ाओ क ा
<u>बी.ए. ा्िीत वर् (तहद</u> ी सातहत)	

प्पश - प**्र: अव**ाच्च तहद**ी क**ाव

<u> उदेदः-</u>

1. आधरचक रहदा कर िता का पररर्

BAIIHI-A

2.ब्ि्दा ्याच, छा्ा िादा, रााििादा एि प्थयिादा काव -परि्ग्त्थ का जाच

प् पश-त**्िीत तहद**ी त्वबध ि्ा अन गद त्वध**ाए** BAIIHI-B

<u> उदेदः-</u>

1. याचि यच का अभवर क् सट ्याधय यद का पररर्

2.याच ि बरतच का ब िकास पर्ा के सयझचा

<u>ब**ी.ए. िृिोत वर**् (तहद</u>ी सातहत)

प्पश - प**्र जचपद**ीत भार**ा सा**तहत (छत**ीसगस**ी) BAIIIHI-A

<u> उदेद :-</u>

1. छतासयसा साक्हत का पररर्

क्ता् भाषा का पार्राहच

प्पश - त्िीत तहदी भारा सातहत का इत**िहास ि्ा काव**ाग तववेचच BAIIIHI-B

<u> उदेद :-</u>

1. व्हदा भाषा क् ििवर्िध रपः एि व्हदा साव्हत क् इव्तहास का समक जाच कराचा

2. क**ाव**ाय िि्रच

Course Outcomes:

<u>एर.ए. (तहदी सातहत) प्र सेरेस्</u>

प् पश - प**्र (तहद**ी सातहत क**ा इत**िह**ा**स)

MHII-A

<u> उदेदः-</u>

1. रहदा सारहत क् आरदकाक एि भाःकाक का परि्रत्थ िि ररचाकारथ का

अ**ध**्च

उ्काकथका सयस प्षभूष्य्थका अध्व

प्पश - त्**ि**ीत (पाच**ीच एव रधक**ाक**ीच क**ाव) MHII-B

<u> उदेदः-</u>

1. आब्दकाक एि भालकाक (ब्यिण भालकाव) का ररचाओ का अध्य

2.कथक जायरण का भा ि ब िकब्सत करचा

प्पश िृिीित (आधुत्वक तहदी काव) MHII-C

<u> उदेदः-</u>

1. च िाच भा िभू ग्य ए ि ैिरारक यक्तटाकता का पसार

2.आधब्चकता, इहकौक्ककता, बर्िशजचाचता एि ििौजाब्चक दबर्ाकथण का बर्िकास

प्पश च िु् ् (आधुत्वक गद सातहत)

MHII-D

<u> उदेदः-</u>

1. यद का ब**िब**िध बरिधाओ क्याधय स**्याचरि-जारिच क्वििवरिध पक**्ष का उद्घाटच

२. ऐक्तहाक्सक, सायाक्जक, सास्कृ क्तक यू ला का कि कास

<u>एर.ए. (तहदी सातहत) त्िीत सेरेस्</u>

प्पश:-प्र (तहदी सातहत का इत िहास)

MHIII-A

<u> उदेदः-</u>

1. रहदा सारहत्त्तहास क्रातकाक, आधत्वक काक एि छा्ािादातर काक का वापक अध्व

2. सयस प्षभू त्य् प**ि्**त् एि पत्तव्वध ररचाकारथ का पररर्

प्पश: 🕡 िीत (पाचीच एव रधकाकीच काव) MHIII-B

<u> उदेदः-</u>

1. यधकाकाच (सयठा भाष्धारा / राक्तकाक) काव का अध्व

2.कथक ययक भािचातक एकता एि सास् व्तक परमरा स् जथड़चा

प्पश: िृिोत (आध**ुत्वक तहद**ी क**ाव)** MHIII-C

<u> उदेदः-</u>

- 1. पयग्तिाद एि प्१यिाद क् पयम हस्राकर का अध्च
- 2. सयकाकाच भािःभतजचा एिः व्टलयत च िाचता स् पररर्

प्पश: चिु्् (आधुत्वक गद सातहत)

MHIII-D

<u> उदेदः-</u>

- 1. स**ाव्हत सय**ाज-सर्स्ट् ब्त का दटच
- 2. आरक्किता स् रबर करचा

<u>एर.ए. (तहदी सातहत) िृिीत से रेस्</u>

प्पशः प्र (काव्ाश एव सातहतकग्वच)

MHIIII-A

<u> उदेदः-</u>

1. ररचा ये य्ादा का पाकच करचा

2.ररचा कृष उसका सयगता ये जारचा परमचा

3.सवहस्तक सयझ ब िकक्सत करच

प्पश: त्**ि**ीत (भार**ा त्वज**ाच एव तहद**ी भार**ा) MHIII-B

<u> उदेदः-</u>

1. सार्वाहत क् यभार अध्च ह्त भाष्षक व**ि**्ा **ग**ा जाच

2. वहदा भाषा क् ऐवतहाक्सक व िकास्य क्य सयझचा

3.द् िचायरा कृष्प और याचकाकरण का पर्ा कृष् सयझचा

प्पश: ििृिोत (पतगजचरनकक -तहदी) MHIII-C

<u> उदेदः-</u>

1. रगजयार एि जावलिका क् क्त ये भाषा कौटक वलिकक्सत करचा

2. जािच और सयाज का बर्िग्भन आिदकताओ, क् अच्प भाषा का दकता उतन करचा

प्पशः च]ु्ः (भा्]ीत सातहत)

<u> उदेदः-</u>

- 1. भारताः साक्तंतं का ्प ररचा जाचचा
- 2. पाताः भाषाओं क् साक्हत ये एक् पता मण्जचा
- 3. परसर तकच**ातक अध**्च करचा

<u>एर.ए. (तहदी सातहत) च िु् सेरेस्</u>

प्पश:प्र (काव्ाश एव सातहताकग्वच)

MHIIV-A

MHIIII-D

<u> उदेदः-</u>

1. बहदा ककण परम्मरा कथ जाचचा

2. वहदा आकथरचा का पयम प ि्वत्थ कथ सयझचा

3.व िहाररक सयाका का जाच

प्पश: त् िीत (भार ा त्वज ाच एव तहद ी भार ा)

MHIIV-B

<u> उदेदः-</u>

1. व्हदा का उप भाषाओ का जाच	
2. वहद ा क् विविधि्प का जाच	
प्पश: िृिीित (पतग्जच रनकक तहदी (पशकार्ग्िा))	MHIIV-C
<u>उदेदः-</u>	
 पतकाररता क् स्प और इक्तहास का जाचचा 	
 विविभन जचसरार याधया क्याहत का सयझचा 	
6	

3. पयम प्स काचूच एि आरार सक्ता का जाचकारा

प्पशः च**ि**ु्् (जचपद**ीत भार**ा एव सातहत (छत**ीसगस**ी)) MHIIV-D

<u> उदेदः-</u>

- 1. छतासयसा भाषा क् चायकरण, बक्षक्ा और वाकरण का जाच
- 2. छतासयसा सावहत क् इव्तहास का पररर्

Course Outcomes:

<u>Sociology</u>

B.A.Part IPaper I: Introduction to SociologyBAISO-ANk=@Nk=kvkkkkftd vo/kkj.kkvkkku gku d kFk&kFkIkekftd rknkE;LFkkfir djuk vkfn का जाचकारा A

Paper II: Contemporary Indian SocietyBAISO-Beu'; thou e rFkk kekftd thou e /ke , de , ek{k vk'ke vkfn ikphure vo/kkj.kkdk Kku A

<u>B.A.Part II</u>

Paper I: Sociology of Tribal Society

;g i'ui= tutkfr lekt dk lekt'kkL= g A mDr i'ui= e Hkkjr dh ie[k tutkfr;k dh lLdfr, thou'kyh] mud vkfFkd ,o lkekftd thou d lHkh i{kk dk i < k;k tkrk g tk fd lekt'kkL= d Nk=@Nk=kvk d Kku ,o fiNMh tkfr d thou pØ dk tkuu gr egRoi.k g A

Paper II: Crime and Society

BAIISO-B

BAIISO-A

इस i'ui= e lekt e vijk/k dk v/;kiu djk;k tkrk g A mDr fo'k; d ek/;e l Nk=@Nk=kvk dk vijk/k D;k g \ mud dkj.k] fl>kr] vijk/k d fofHkUu idkj tl&vkRegR;k] lQnik'k vijk/k] lkbcj vijk/k] e|iku] ngt vkfn dk v/;;u ,o vijk/k dh jkdFkke] ifyl] U;k;वoLFkk vkfn dk v/;kiu djk;k tkrk g tk fd lekt'kkL= d Nk=@Nk=kvk d Kku foLrkj gr vko';d g A

B.A.Part III

Paper I: Foundation of Sociological ThoughtBAIIISO-A

1- fo|kfFkZ;ksa dks lekt'kkL= ds varxZr dkSu&dkSu ls fo}ku gSa mldh tkudkjh gksrh gS A

2- fofHkuu lekt'kkfL=;ksa ds fl)karksa dh tkudkjh izkIr gksrh gS A

3- Hkkjr esa lekt'kkL=h; fopkj/kkj ;k fpatu dk fodkl dSls vkSj dc gqvk ,oa Hkkjrh;

foPkkjd tSls egkRek xka/kh ,oa jk/kkdey eq[kthZ ds fopkjksa ,oa fl)karksa ls ifjfpr gksrs gS

4- fons'kh ¼if'pe½ ds fopkjdksa dks tkudj muds fl)karksa dh tkudkjh izklr gksrh gS A

5- izfr;ksxh ijh{kk,a tSls P.Sc. UPSc. esa mUgsa ykHk gksrk gS A

Paper-II: Method of Social Research

BAIIISO-B

1- fo|kfFkZ;ksa dks 'kks/k dh tkudkjh gksrh gS fd 'kks/k dSls djrs gS A

2- 'kks/k djus dh i)fr;kasa dh tkudkjh gksrh gS A

3- lkekftd 'kks/k esa dEI;wVj dk iz;ksx dSls djrs gS bldh mUgsa tkudkjh izkIr gksrh gS A

4- м.А., м.Phil. Ph.D. esa mUgsa 'kks/k djus esa vklkuh gksrh gS vkxs izfr;ksxh ijh{kkvksa gsrq ykHk

gksrk gS A

Course Outcomes:

Name of Programme: M.A. in Sociology

M.A. I Semester

Paper I: Classical Sociological Tradition

MSOI-A

इस पाठ्य क् अध्च स् बिदाब्ा म् क्य क्यम जाचकारा पार हथता है:

• ble lekt'kkL= d db lkekftd fopkjdk d ckj e tkudkjh A

- lekt'kkL=h; fopkjdk e vxLr dkEV] bekby n[khe] eDl oyj dky ekDl d ckj e tkudkjh A
- lekt'kkL= ijijk vkj vk/kfudrk dh tkudkjh A

Paper II: Philosophical and Conceptual Foundation of Research Methodology MSOI-B

इस पाठ्य क् अध्व स् बिदाब्ा पाट्य का जावकारा पार हाता है:

- "kk/k vull/kku dh tkudkjh A
- "kk/k dk; Ic/kh vulph, idkj ,o ifd;k dh tkudkjh A
- uohu "kk/k dh ifd;k A

Paper III: Social Change in India

इस पाठ्य क् अध्च स् बिदाब्ा म् क्य क्यम जाचकारा पार हथता है:

- Iekt'kkL= fo'k; e g, Ikekftd ifjoru fo'k; ij tkudkjh A
- $v_k/kfudhdj.k$ dh ifjo'k ,o cnyr v_k ; kek d lc/k e tkudkjh A
- lekt d le;kulkj gk jg ifjorru dh tkudkjh A

Paper IV: Rural Sociology

इस पाठ्य क् अध्व स् बिदाब्ा पाट्य का जावकारा पार हथता है:

- xkeh.k ifjo'k dh fo'k'k tkudkjh A
- xkeh.k lekt ,o ijij lc/kh tkudkjh A

Practical: ¹/₄Interview Schedule¹/₂

- 1- fo kFkhi *kk/k gn midj.k ,o ifof/k dk i;kx djuk lh[kn glA
- 2- Nk=@Nk=k, fdlh lkekftd fo'k; ;k lkekftd leL;k ij i'u cukuk lh[kr gi

MSOI-C

MSOI-D

MSOI-E

- 4 bl idkjollkexh dk ldyu djr g ;k rF;k dk ,d=hdj.k djr g A

<u>II Semester</u> Paper I: Classicai Sociological Thinkers

इस पाठ्य क् अध्च स् बिदाब्ा म् क्य क्यम जाचकारा पार हथता है:

- **l**ekt'kkL=h; fopkjdk d f**l**)kr **l**c/kh tkudkjh
- fl)krk dh ifd;k ,o mud i.kkyh d lc/k e tkudkjh

Paper II : Quantitative Research Techniques

इस पाठ्य क् अध्च स् बिदाब्ा पाट्य का जावकारा पार हथता है:

- xi.kkRed 'kk/k lic/kh tkudkjh dh ikflr
- xi.kkRed vuI/kku dh ifdi;k ,o 'kk/kdk; Ic/kh tkudkjh dh ikflr

Paper III: Sociology of Development

इस पाठ्य क् अध्च स् बिदाब्ा म् क्य क्यम जाचकारा पार हथता है:

- lekt'kkL=h; fodkl d lc/k e tkudkjh dh ikflr
- lekt d cnyr ifjo'k ,o lpkj d lc/k e tkudkjh dh ikflr
- ■ekt d fodk∎ d fofHkUu vk;kek ■c/kh tkudkjh A

Paper IV: Indian Rural Society

इस पाठ्य क् अध्च स् िदाव्य ग्ध कथ क्वम जाचकारा पार हथता है:

MSOII-B

MSOII-A

MSOII-D

MSOII-C

- Hkkjrh; xkeh.k lekt d lc/k e tkudkjh
- xkeh.k lekt dh : ij[kk, ifjo'k, ijijk rFkk ifjfLFkfr d lc/k e tkudkjh iklr gkrh g
- Hkkjr d fodkl e xkeh.k lenk; dk fodkl ,o fujrjrk ,o ifjoru lc/kh tkudkjh

Practical: (Questionnaire)

- l- fo∣kFkh iktDV gr VYI vkj VDuhd dk mi;kx djuk Ih[kr g|A
- 2- il'ukoyh cukuk Ih[kr gi vkj Mkd II Hktuk tkur gi A
- Ikexh Idyu ;k rF;k dk ,d=hdj.k djr g A

III Semester

Paper I: Theoretical Perspectives in Sociology

MSOIII-A

MSOII-E

इस पाठ्य क् अध्व स् बिदाब्ा म् क्य क्यम जाचकारा पार हथता है:

- lekt'kkL= d fo'k; e n[ku dk rjhdk] ifd;k, lekt dk ge fdl : lk l n[k jg g] lekt d lkFk 0;ogkj ,o mud Åij fd; tku oky ifd;k d ckj e tkudkjh iklr gkrh g A
- ijku ijijk fo'k; dh tkudkjh A
- dk;{kerk fl)kr d fo'k'k vk;ke dh tkudkjh iklr gkrh g A
- IjpukRed ,o I?k'k: ih fI)krk dh tkudkjh A

Paper II: Social Movement in India

MSOIII-B

इस पाठ्य क् अध्व स् बिदाब्ा पाट्य का जावकारा पार हथता है:

• Lkekftd vknkyu d lc/k e tkudkjh A

- Hkkjreg, Ikekftd vknkyu d Ic/k e vyx&vyx Ie; eg, fo'k; ij vk/kkfjr fo'k;k dh tkudkjh A
- lekt d fodkl d fy; fd; x; vknkyu ,o mld ifj.kkek dh tkudkjh iklr gkrh gA

Paper III: Social Change in India

MSOIII-C

इस पाठ्य क् अध्च स् बिदाब्ा मा का का जानकारा पार हथता है:

- lekt'kkL= fo'k; e g, lkekftd ifjor'u fo'k; ij tkudkjh A
- vk/kfudhdj.k dh ifjo"k ,o cnyr vk;kek d lc/k e tkudkjh A
- lekt d le;kulkj gk jg ifjorru dh tkudkjh A

Paper IV: Rural Sociology

MSOIII-D

इस पाठ्य क् अध्व स् बिदाब्ा पाट्य का जावकारा पार हथता है:

- xkeh.k ifjo'k dh fo'k'k tkudkjh A
- xkeh.k lekt ,o ijij lc/kh tkudkjh A

Project Reports

MSOIII-E

- 2- iktDV od vFkok ik;kfxd dk; gr mldk Synopsis ¼"kk/k ik:i½ cukuk lh[kr] g
- 3- iLrkouk I ydj v/;; u d egRo rd ijh tkudkjh Hkjr g A

IV Semester

Paper I: Recent thinkers & Sociological Theories

MSOIV-A

इस पाठ्य क् अध्च स् िदाव्य प् क्य क्यम जाचकारा पार हथता है:

- **lekt**'kkL=h; f**l**)kr fo'k;d tkudkjh
- orieku lekt d vulkjfl)kr ,o lekt dh fo'k'krk rFkk fopkjdk dh tkudkjh
- lekt'kkL=h; fl)kr tk vko';d gk lekt d fodkl e A

Paper II: Comparative Sociology

MSOIV-B

इस पाठ्य क् अध्व स् बिदाब्ा पाट्य का जावकारा पार हथता है:

- lekt d fodkl e g, ifjoiruk dk ryukRed v/;; u A
- lekt dh ryukRed tkudkjh tk le; d vulkj vko'; d g A
- $lekt d fofHkUu \lor k; ke , o m leig, ifjoriu dh fo'k'k tkudkjh A$

Paper III: Sociology of Development

MSOIV-C

इस पाठ्य क् अध्च स् बिदाव्ा म् कथ क्वम जाचकारा पार हथता है:

- lekt'kkL=h; fodkl d lc/k e tkudkjh dh ikflr
- lekt d cnyr ifjo'k ,o lpkj d lc/k e tkudkjh dh ikflr
- ■ekt d fodk∎ d fofHkUu vk;kek ■c/kh tkudkjh A

Paper IV: Indian Rural Society

MSOIV-D

इस पाठ्य क् अध्च स् बिदाब्ा म् क्य क्वम जाचकारा पार हथता है:

- Hkkjrh; xkeh.k lekt d lc/k e tkudkjh
- xkeh.k lekt dh :ij[kk, ifjo'k, ijijk rFkk ifjfLFkfr d lc/k e tkudkjh iklr gkrh g
- Hkkjr d fodkl e xkeh.k lenk; dk fodkl ,o fujrjrk ,o ifjoru lc/kh tkudkjh

Project Reports

MSOIV-E

- 1- fo | kFkh 'kk/k djuk lh[kr g fd fdl idkj fdlh xkeh.k@'kgjh leL;k ;k fdlh Hkh lkekftd fo'k; ;k ;ktuk dk v/;;u dj ldr g A
- 2- oKkfud i)fr dk viukdj fdl idkj lekt'kkL= e lkekftd fo'k;k dk vul/kku dj ldr g A
- 3- ikjHk iLrkouk 🛛 ydj 🖛 Hk xFk 🗤 ph rd fd 🖛 idkj dk; idjrig, 🖬 [krigi A
- 4 M.Phil , O PhD gr ykHk gkrk g $\mbox{\sc k}$ Dissertation vkj Thesis e $\mbox{\sc k}$
- 5- ifr;kxh ijh{kkvk tl & upsc ,o copsce help gkrh g A

<u>ukV %& mi; Dr ikB; de il.k: lk li lekt kkL= lic/kh tkudkjh nirk gi tk</u> <u>lekt kkL= di fo kfFki; ki di fy; i egRoii.ki gi A</u>

Course Outcomes

MSW I Semester

Paper I: Social Work History and Ideology- Indian Perspective MSWI-A

Hkkjr e lektdk; d bfrgkl ,o mnHko d lc/k e tkudkjh iklr gkrh

gA

Paper II: Population and Environment

MSWI-B

tul[;k ,o i;koj.k d fofHkUu igyvk rFkk bul uhfr] dkuu ,o vf/kfu;ek d lc/k e tkudkjh ikIr gkrh gA tk fd i;koj.k lj{k.k ,o tul[;k lc/kh leL;kvk d fujkdj.k gr vko';d gA Paper III: Working with Groups & Group Work MSWI-C

lekt dk; drk dk leg e dk; dju dh le> c<rh g rFkk leg lc/kh</td>ic/ku] urRo] leL; k fuokj.k bR; kfn x.kk dk fodkl gkrk gAPaper IV: Social Work Research – Qualitative MethodsMSWI-D

IkekU; cf, o oKkfud cf} e vrj Li''V gkrk g IkFk <math>vuI/k kurduhdk o midj.kk d Ic/k e tkudkjh feyrh gA

Paper V: Human Growth and Development

MSWI-E

ekuoh; thou pØ dh fofHkUu voLFkkvk d Ic /k e tkudkjh feyrh g rFkk mu IHkh voLFkkvk e 0;fDr dh vko';drkvk o IeL;k Ic /kh Iek;ktu dh Ie> c<rh g o Ikekthdj.k dh ifØ;k d ckj e irk pyrk gA

MSW II Semester

Paper I: Social Work History and Ideology -Western Perspective MSWII-A

if'peh n'kk e lektdk; d bfrgkl ,o mRifùk d lc/k e tkudkjh iklr gkrh g rFkk if'peh lH;rk e lektdk; dh rduhd ,o ifØ;k d ckj e irk pyrk gA

Paper II: Political Economy & Development

Ikekftd vFk0;oLFkkvoxr djkrh g rFkk vkfFkdIeL;kvk o mudIek/kkuIc/khekMydckjeIe>crhgAPaper III: Process & Evaluation of DevelopmentMSWII-C

leg fuek.k dh ifØ;k o mldh fofHkUu voLFkkvk d ckj irk pyrk g
rFkk leg fuek.k djr le; fdu ckrk dk /;ku j[kuk pkfg, bldh Hkh
tkudkjh feyrh g ,o leg dk eY;kdu fdl idkj gkuk pkfg, o dc
leg lekIr djuk g];g le>u e enn feyrh gA

Paper IV: Social Work Research – Qualitative Methods MSWII-D

 $\begin{aligned} & \mathsf{I}_{kku} d \mathsf{vrxr} \mathsf{I}_{kf}[;dh; \mathsf{x}_{kukvk} \mathsf{rFkk} \mathsf{I}_{kekftd} \mathsf{vuI}_{kku} \\ & \mathsf{dh} \mathsf{if}_{k} \mathsf{fo'y''k.k} \mathsf{,o} \mathsf{ifronu} \mathsf{vI}_{ku} d \mathsf{ckj} \mathsf{etkudkjh} \mathsf{ikIr} \mathsf{gkrh} \mathsf{gA} \end{aligned}$

Paper V: Social Work Practicum

fofHkUu ILFkkvk dh dk; i.kkfy;k dk ik;kfxd vuHko gkrk g rFkk Ihfer : i e MkVk dyD'ku dj ifronu fuek.k dju I Ikekftd vuI/kku d fy, 0;koIkf;d x.kk dk fodkI gkrk gA

MSW III Semester

Paper I: Sociology for Social Work in India

MSWIII-A

MSWII-E

MSWII-B

Hkkjrh; $lekt d lc/k \in le > c < rh g D; kfd ft l lekt e b dk; l$ djrk g loiFke mld $I \times B u$ o fofHkUu igyvk dk I e > uk vko'; d gA Paper II: Social Work Personnel, Training & Development **MSWIII-B**

lekftd dk;drk e 0;kolkf;d x.kk dk fodk∣ gkrk g rFkk ekuo $II_k/ku dh mi; kfxrk dh Ie > c < rh q o if'k{k.k d }kjk depkjh$ fodk d ckj e tkudkjh iklr gkrh gA Paper III: Family Social Work

> ifjokj ,o fookg uked ILFkk d ckj e IEi.k tkudkjh ftII mIdh mRifùk d fl}krk d ckj e irk pyrk g tk fd ikfjokfjd ijke'k e enn dirk gA

Paper IV: Social Policy in India

Hkkir e \mathbf{I} kekftd ,o \mathbf{v} kfFkd fodk \mathbf{I} dh uhfr;k o m \mathbf{I} d ik:ik dh tkudkjh feyrh gA ftll fd ,d lekt dk; dk; dk; dk; dk; e dk; dir q, bu uhfr;k dk mi;kx dj ldrk qA

Paper V: Legal System in India

Hkkir e dkuu o n.M if \emptyset ; k d cki e tkudkih feyrh g ft I 0; fDr dk iuokI ,o I/kkj tMk qvk qA bIdh tkudkjh qku ij Iektdk;drk lokfFk; k dh dkuuh enn vklkuh l dj ldrk gA

MSWIII-D

MSWIII-E

MSWIII-C

MSW IV Semester

Paper I: Social Control & Change in India

MSWIV-A

lekt eigku oky ifjorluk dickji eitkudkjh iklr gkrh girFkk mu
ifjorluk limRiUu leL;k dk lek/kku fdl idkj fd;k tk;]
lek;ktu ,o fu;≔.k di fofHkUu lk/kuk o rjhdk dickj ei irk pyrk gA
Paper II: Social Development MSWIV-B

Ikekftd fodkI d fofHkUu ?kVdk dh tkudkjh feyrh g ftII fd Ikekftd dk;drk Iekt e dk; djr Ie; fofHkUu igyvk d }kjk Ikekftd fodkI e viuk ;kxnku n Idrk gA

Paper III: Social Planning in India

MSWIV-C

Hkkjr e fofHkUu leL;kvk d fuokj.k rFkk fodkl d fy, cuk, x; ;ktukvk d lc/k e tkudkjh ikIr gkrh g ftll fd lok fFk;k ;k fgrxkfg;k dk ykHkkfUor fd;k tk ldrk gA Paper IV: Integrated Social Work Practice MSWIV-D

> lekt dk;drk }kjk lokFkh d lokfxu fodkl ftld vrxr 0;fDrxr lkekftd ekufld vkfFkd ,o vU; lHkh igyvk ij le> curh g rFkk lekt dk; dh ifØ;k d ckj e tkudkjh feyrh gA

Paper V: Research Project with Block Placement & Field Work Report MSWIV-E

Ikekftd vul/kku dh ik;kfxd tkudkjh feyrh g rFkk {k=h; dk;i
ifronu d }kjk ik;kfxd vuHko Hkh feyrk gA
Course Outcomes:

Name of the Programme: B.Sc. in Mathematics

B.Sc. I Year

Paper I: Algebra and Trigonometry

BSCIMT-A

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

1. <u>Matrices</u> :

- 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. <u>Theory of Equations</u>

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

3. <u>Algebra</u>

- **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

BSCIMT-B

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

- 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

BSCIMT-C

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

- 1. Understand 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. II Year

Paper I: Advanced Calculus

BSCIIMT-A

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

- 1. Use in almost all branches of Engineering.
- 2. Learn Differentiation & integration
- **3.** 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

BSCIIMT-B

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

- 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

BSCIIMT-C

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

- **1.** Study about 2-dimentional motion.
- 2. Study about Simple Harmonic motion, Projectile.
- 3. 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. III Year

Paper I: Analysis

BSCIIIMT-A

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

- 1. Properties of complex numbers.
- 2. The use of complex numbers in the field of Calculus.
- 3. It is used in fixed point theorem and mapping principles.
- 4. Study continuous functions and convergence of sequences on metric spaces.
- 5. Learn connected complete and compact metric spaces.

Paper II: Abstract Algebra

BSCIIIMT-B

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.** Learn about modules.
- 4. Learn about canonical forms.
- 5. Learn about Vector Space and Inner product.

Paper III: Discrete Mathematics

BSCIIIMT-C

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

- **1.** Understand the basics of graph theory.
- **2.** 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 and II Sem

Paper I: Advanced Abstract Algebra I and Advanced Abstract Algebra II

MMTI-A and MMTII-A

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 I and Advanced Real Analysis II

MMTI-B and MMTII-B

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 I and Topology II

MMTI-C and MMTII-C

- 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.
- <u>In Comp. Sc.</u>: 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 I and Advanced Complex Analysis II

MMTI-D and MMTII-D

- 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 I and Advanced Discrete Mathematics II

MMTI-E and MMTII-E

- 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 and IV Sem

Paper I: Integration Theory and
Functional Analysis I and Integration Theory and
MMTIII-A and MMTIV-A

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

Paper II: Partial Differential Equation and Mechanics I and Partial Differential Equation and Mechanics II MMTIII-B and MMTIV-B

- **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(with ANSI Features) I and Programming in C(with ANSI

Features) II

MMTIII-C and MMTIV-C

- **1.** Demonstrate how to use specific features of the C programming language to write object-orie nted programs and handle run-time errors.
- **2.** Explain in a public presentation how user interfaces should be designed to accommodate hu man 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 I and Operation Research II MMTIII-D and MMTIV-D

- **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 Its Application I and Fuzzy Sets and Its Application II

MMTIII-E and MMTIV-E

- **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

BSCICH-A

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, AI, 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

BSCICH-B

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 stainless 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 alkyls halides and aryl halides, mechanism and stereochemistry of nuclei Phillies substitution and elimination reaction.

Paper III: Physical Chemistry

BSCICH-C

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

1. Describe the mathematical chemists including logarithmic relation, cure sketching, linear graph, straight line with slope and intercept.

2. Determine and workout 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 lignifications 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 no ideal solutions.

7. Describe the colloid properties relate to vapor pressure osmosis, boiling and freezing points, molar masses and vent 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:

BSCICH-D

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

1. Analyse inorganic mixture containing four radicals (two acidic 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.

<u>B.Sc.Part II</u>

Subject: Chemistry

Paper I: Inorganic Chemistry

BSCIICH-A

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 Sulpher dioxide.

Paper II: Organic Chemistry

BSCIICH-B

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, nudeophilic 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 pgrrole, furan, thiophene and pyridine.

8. Describe preparation and reaction of in dole, quinoline and iso quinoline and reaction of in dole, quinoline and iso quinoline and electro phallic substitution reactions.

Paper III: Physical Chemistry

BSCIICH-C

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 Kohlnausch'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

BSCIICH-D

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

BSCIIICH-A

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

1. Describe metal- lagans bounding 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 qua titanium complexion.

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 myogblin, biological role of alkali and alkaline earth metals with special reference to Ca2+ 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

BSCIIICH-B

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, deshielding, chemical shift, spin-spin splitting coupling.

16. Interpret the PMR spectra of simple organic molecule.

Paper III: Physical Chemistry

BSCIIICH-C

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, ware 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

BSCIIICH-D

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 BaSO4 gravimetrically.

4. To verify Beer's law and determine the conc. of unknown solution of K2Cr2O7 by using digital photo elect uric 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 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 & legand.

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, Ade's rules, carbonates metalloboranes, metal carbonyl and halide cluster.

8. Draw the structures of borazon & phosphazenes.

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. favoroskii, Baeyer villagers oxidation, Sfork examine, Shapiro reaction etc.
- 4. Describe thermodynamic and kinetic requirements of reaction.
- **5.** Describe stability & reactivity of reaction intermediates carbonations, free radicals carbines, niters and benzenes.
- 6. Describe antrafacial and superficial additions.
- 7. Describe sigma tropic rearrangements
- **8.** Describe elements of symmetry, chirality and methods of resolution. Describe conformational analysis of cycloalkanes and decaling.
- 9. Describe stereochemistry of the compounds containing N, S and P.

MCHI-A

MCHI-B

Paper III: Physical Chemistry

MCHI-C

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-dimensinal 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 I & Group Theory

MCHI-D

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(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 (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 KMnO4.
- 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.

M.Sc. II 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.

MCHI-F

MCHII-A

MCHI-E

- 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

MCHII-B

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

- 1. Explain electrophilic substitution reactions.
- 2. Explain SE², SE¹ and SE¹ 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 SN², SN¹, mixed SN¹ and SN² and SET mechanism.
- 6. Explain neighbouring group mechanism and participation by ^ and ⁻ bonds.
- 7. Explain SNAr, SN¹, benzyne and SRN¹ 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_2 , E_1 and E_1CB mechanism and their spectrum.

Paper III: Physical Chemistry

MCHII-C

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 Tranlational, 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

MCHII-D

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 ¹³C, ¹⁹F and ³¹P.
- **4.** Explain Miller indices, Laue Method, Bragg Method and Debye-Scherer 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 - 1 (Organic Chemistry)

MCHII-E

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 prelparation using acetylation, aldol condensation, Bromination, Canizzaro 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 - 2 (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.

MCHII-F

- **6.** Determine solubility of inorganic salt in water at different tempature 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 CH₃COONa and NH₄U.
- **11.** Determine cations, anions and metal ions by flame photometry.
- **12.** Verify Beer's law spectrophotomtrically.
- **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 appied to scientific problems.

<u>M.Sc. III Sem</u> <u>Subject: Chemistry</u> Paper I: Organotransition Metal Chemistry

MCHIII-A

After completion of the course, the students would be able

- 1. To understand Nomenclature, Classification, Preparation and Stability of alkyls and aryls of transition metal complexes.
- 2. To get insight into Fluxional behavior of organometallic compounds.
- 3. To explain Nature of bonding, structure and chemical reaction involved in compounds of transition metal- carbon multiple bonds.
- 4. To describe Nature of bonding and structural features in transition metal pi-complexes.
- 5. To get insight into Catalysts, types of catalysts and catalytic reaction

Paper II: Natural Products

MCHIII-B

After completion of the course, the students would be able

- 1. To understand classification , isolation , structure determination , and synthesis of important Terphenoids & carotenoids.
- 2. To understand role of alkaloids in plants , their synthesis and isolation of alkaloids.
- 3. To describe Isolation, structure determination & synthesis of important steroids and harmones.
- 4. To explain occurrence, nomenclature, structure determination & synthesis of important plan pigments & porphyrin.

Paper III: Kinetics, Photo & Solid State Chemistry

MCHIII-C

After completion of the course, the students would be able

- 1. To understand types of rate equation for composite mechanism.
- 2. To describe theory of primary and secondary kinetic isotope effects and kinetic solvent effects.
- 3. To explain fate of excited molecule and determination of reaction mechanism.
- 4. To get insight into stoichiometry and non stoichiometry defects in crystals.

Paper IV: Spectroscopy

After completion of the course, the students would be able

- 1. To understand instrumentation of UV-visible spectroscopy , various electronic transitions and absorption spectra of some compounds.
- 2. To gain familiarized with principle and applications of photo electron and photo acoustic spectroscopy
- 3. To get familiarized with principle and applications of photo electron and photo acoustic spectroscopy
- 4. To understand the theory, instrumentation and applications of Mossbauer and Flame EmissionSpectroscopy.

Lab Course -1 (Organic Chemistry)

After the completion of the course, students would be able:

- 1. To perform multistep synthesis of organic compounds.
- 2. To perform qualitative organic analysis.
- 3. To estimate functional group by different methods.
- 4. To understand extraction of organic compounds from natural sources.

Lab Course -2 (Analytical Chemistry)

After the completion of the course, students would be able:

- 1. To determine different metal ions spectrophotometrically.
- 2. To understand pH metric and flame photometric determination.
- 3. To understand different methods for the separation of binary and ternary mixtures.
- 4. To estimate different elements by different methods.

MCHIII-D

MCHIII-F

MCHIII-E

<u>M.Sc. IV Sem</u> <u>Subject: Chemistry</u> Paper I: Bioinorganic Chemistry

After completion of this course, the student would be able

- 1. To get acquainted with role of metal ions in biological processes.
- 2. To get insight into Bioenergetics and ATP cycle, electron transfer and transport & storage of dioxygen.
- 3. To understand working of various enzyme and enzyme models.
- 4. To explain biotechnological applications of enzyme in medicine models.

Paper II: Medicinal Chemistry

After completion of this course, the student would be able.

After completion of this course, the student would be able.

- 1. To get an idea about development of new drugs and adverse effects of drugs.
- 2. To understand pharmacokinetics & pharmacodynamics.

2. To learn about disposal of waste and their management.

To gain insight into various air pollutants and their chemistry.
 To acquire knowledge of green house effect and acid rain.

3. To describe the properties and synthesis of various antibodies and anti malerials.

1. To know about composition of atmosphere, heat budget and biogeochemical cycle.

3. To learn about different causes of water pollution and water purification techniques.

- 4. To understand local anti infective drugs and anti neoplastic agents.
- 5. To understand recent development in cancer chemotherapy.

Paper III: Environmental Chemistry

Paper IV: Analytical Chemistry

After completion of this course, the student would be able.

- 1. To have basic idea of role of analytical chemistry.
- 2. To differential types of error and acquire knowledge to minimize tham

6. To analyse extent of water pollution by measuring different parameters.

- 3. To gain insight into composition of blood and techniques for the analysis of body fluids.
- 4. To classify drugs and describe the screening method

MCHIV-B

MCHIV-A

MCHIV-C

MCHIV-D

- 5. To have an insight into analysis of various contents of food, adulterants and contaminants in food.
- 6. To acquits with the type of fluids, analysis of various parameters and calorific value.

Lab Course -1 (Inorganic Chemistry) MCHIV-E

After the completion of the course, students would be able:

- 1. To perform analysis of alloys, ores and minerals.
- 2. To understand inorganic reaction mechanism.
- 3. To prepare selected inorganic complexes.
- To understand extraction of chlorophyll from green leaves and complexation study of Cu(II) ion.

Lab Course -2 (Physical Chemistry) MCHIV-F

After the completion of the course, students would be able to:

- 1. To determine % efficiency of given counter.
- 2. To study the effect of temperature, concentration of reactant and catalyst on the rate of a chemical reaction.
- 3. To get insight into autocatalytic reaction between KMnO4 and Oxalic acid.
- 4. To get insight into polarimetry, conductometry, pHmetry and potentiometry.

<u>Course Outcomes:</u>	
Name of Programme: B.Sc	
Subject: Physics	
<u>B.Sc. I</u>	
Paper I: Mechanics, Oscillations and Properties of Matter	BSCIPH-A

In this course the student will

1. Understand the motion of objects in different frame of references.

- 2. Understand laws of motion, reference frames, and its applications i.e. projectile motion, simple harmonic oscillator, Rocket motion, elastic and inelastic collisions.
- 3. Understand the idea of conservation of angular momentum, central forces and the effective potential.
- 4. Understand the application of central force to the stability of circular orbits, Kepler's laws
- 5. of planetary motion, Orbital Precession and Rutherford scattering.
- 6. Understand the dynamics of rotating objects i.e. rigid bodies, angular velocity, the moment of inertia, parallel axis theorem, the inertia tensor, the motion of rigid bodies. non-inertial frames: pseudo forces, examples involving the centrifugal force and coriolis force.
- 7. Understand the basics of material properties like, elasticity, elastic constants and their relation, torsion of a cylinder, bending of a beam, cantilever, beam supported at its ends
- 8. and loaded in the middle.
- 9. Understand the basics of motion of fluid which includes streamlined and turbulent flows, equation of continuity, critical velocity, flow of a liquid through a capillary tube, capillaries in series and parallel, Stokes' formula.

Outcomes:

Name of Programme: B.Sc Subject: Physics B.Sc. I Paper II: Electricity, Magnetism and Electromagnetic Theory

BSCIPH-B

In this course the student will

- 1. Understand the basic concepts of electric and magnetic fields.
- 2. Understand the concept of conductors, dielectrics, inductance and capacitance.
- 3. Gain knowledge on the nature of magnetic materials.
- 4. Understand the concept of dielectrics.
- 5. Gain knowledge on diamagnetic, paramagnetic and ferromagnetic materials.
- 6. Gain knowledge on electromagnetic induction and faraday's laws.

Practical Work

BSCIPH-C

- 1. Students will develop a quality of a new perspective to look at everything from 'Physics' point of view.
- 2. Students will develop a quality of understanding of basic and advanced concepts in Physics Theoretical and practical skills along with problem solving ability.
- 3. Student will be able to understand the use of pendulums (kater's pendulum, compound pendulum) to find the the value of acceleration due to gravity(g).
- 4. Students will be able to find the value of young's modulus of rigidity using cantilever and inertia table.
- 5. The course provides the students about the knowledge of LCR circuits.

 Students will be able to learn programming in fortran language and various components of programming viz., compilation and execution of programmes. . They will also expertise in practical implementation of programming in numerical analysis methods.

Course Outcomes: Name of Programme: B.Sc Subject: Physics B.Sc. II Paper I: Thermodynamics, Kinetic Theory and Statistical Physics BSCIIPH-A

In this course the student will

- 1. Understand the basic applications of thermodynamics.
- 2. Understand the basic statistical methods and concepts like probability, random variables and common probability distributions.
- 3. Understand the relation between microscopic and macroscopic description through statistical mechanics; know and can apply the laws of thermodynamics and principles of free energy.
- 4. describe thermodynamic processes and heat engines and master the use of
- 5. the chemical potential to describe diffusive equilibrium, phase equilibrium and chemical processes.
- 6. Understand the efficiency of Carnot's engine and the significance of first law and second of thermodynamics and implications of the second law of thermodynamics and limitations placed by the second law on the performance of thermodynamic systems.
- 7. Ability to evaluate entropy changes in a wide range of processes and determine the reversibility or irreversibility of a process from such calculations.
- 8. Understand the interrelationship between thermodynamic functions and ability to use such relationships to solve practical problems.

<u>Course Outcomes:</u> <u>Name of Programme: B.Sc</u> <u>Subject: Physics</u> <u>B.Sc. II</u> Paper II: Waves, Acaustics and Optics

BSCIIPH-B

In this course the student will

- 1. Understand the concepts of waves, acoustics and the properties of matter.
- 2. Ability to recognize and use a mathematical oscillator equation and wave equation, and derive these equations for certain systems, point out the limitations and be able to refer to very different solutions of identical oscillator equations due to different initial and boundary conditions.
- 3. Understand how several waves or parts of waves interact, and be able to calculate and analyze diffraction and interference phenomena, and explain the conditions required for such phenomena to appear.
- 4. Able to calculate what happens when waves move from one medium to another, and be able to explain dispersion and group and phase velocity.
- 5. Understand different types of diffraction.
- 6. Able to solve wave equation and understand significance of transverse waves and longitudinal waves.
- 7. Gain knowledge on applications of laser systems.
- 8. Understand application of acoustics in noise and music, musical scale, sonar and ultrasonic.

Practical

Work

BSCIIPH-C

- 1. Students will develop a quality of a new perspective to look at everything from 'Physics' point of view.
- 2. Students will develop a quality of understanding of basic and advanced concepts in Physics Theoretical and practical skills along with problem solving ability.
- 3. Student will be able to understand to use grating for finding the wavelength of different light sources.
- 4. Students will be able to find the resolving power of telescope and plane diffraction grating.
- 5. The course provides the students about the knowledge of different parameters like resonance frequency, thermal efficiency and adiabatic coefficient etc.
- Students will be able to learn programming in C language and various components of programming viz., compilation and execution of programmes. . They will also expertise in practical implementation of programming in numerical analysis methods.

<u>Course Outcomes:</u> <u>Name of Programme: B.Sc</u> <u>Subject: Physics</u> <u>B.Sc. III</u>

Paper I: Relativity, Quantum Mechanics, Atomic, Molecular and Nuclear Physics

BSCIIIPH-A

In this course the student will

- 1. Understand the origins of quantum mechanics
- 2. Understand and explain the differences between classical and quantum mechanics
- 3. Understand the idea of wave function
- 4. Understand the uncertainty relations
- 5. Understand the Schrödinger wave mechanics and operator formalism
- 6. Solve the Schrödinger equation for simple 1D time-independent potentials
- 7. Develop the idea of spin other quantum numbers.
- 8. Understand the ideas of basics of nucleus and their energy.
- 9. Understand the procedures for nuclear fission and fusion.
- 10. Understand the relationship between various types of spectral terms.
- 11. Ability to have insight into the interplay between theory, models, and data from modern experiments and into how the major open questions are being addressed.
- **12.** A basic understanding of nuclear properties and models that describe the quantum structure, decay, and reactions of nuclei.

Course Outcomes:Name of Programme: B.ScSubject: PhysicsB.Sc. IIIPaper II: Solid State Physics, Solid State Devices and ElectronicsBSCIIIPH-B

In this course the student will

- 1. Understand the basic concepts of force between atoms and bonding between molecules.
- 2. Understanding of diffraction experiment and reciprocal lattice
- 3. Understand free electron Fermi gas: density of states, Fermi level, and electrical conductivity
- 4. Understand electrons in periodic potential: energy bands theory classification of metals, semiconductors and insulators
- 5. Understand the properties of semi conductors
- 6. Understand the relationship between semiconductors devices and understand the applications of semiconductor devices
- 7. Understand the properties of semi conductors.
- 8. Understand the basics of diode and working of rectifier circuits and its characteristics.
- 9. Understand the relationship between semiconductors devices and understand the applications of semiconductor devices.

10. To have a basic introduction to computer organisation.

Practical Work

- 1. Students will develop a quality of a new perspective to look at everything from 'Physics' point of view.
- 2. Students will develop a quality of understanding of basic and advanced concepts in Physics Theoretical and practical skills along with problem solving ability.
- 3. Student will be able to observe the characteristics curves of tunnel diode and transistors in different modes.
- 4. Students will be able to learn the usage of the cathode ray oscilloscope by observing different lissajous figures.
- 5. Students will learn to use VTVM for measuring different parameters.

Course Outcomes:

<u>M.Sc. I Sem</u>

Subject: Physics

Paper I: Mathematical Physics

MPHI-A

In this course the student will

- 1. Learn about complex variables and their typical applications in physics.
- 2. Learn about special type of matrices that are relevant in physics and then learn about their properties.
- 3. Get introduced to Special functions like Gamma function, Beta function, Delta function, Dirac delta function, Bessel functions and their recurrence relations
- 4. Learn different ways of solving second order differential equations and familiarized with singular points and contour integration method.
- 5. Learn the fundamentals and applications of Fourier series, Fourier and Laplace transforms, their inverse transforms etc

Course Outcomes:

M.Sc. I Sem

BSCIIIPH-C

Subject: Physics

Paper II: Classical Mechanics

This paper enables the students to understand

- 1. The Lagrangian and Hamiltonian approaches in classical mechanics.
- 2. The classical background of Quantum mechanics and get familiarized with Poisson brackets and Hamilton -Jacobi equation.
- 3. Kinematics and Dynamics of rigid body in detail and ideas regarding Euler's equations of motion.
- 4. Theory of small oscillations in detail along with basis of free vibrations.
- 5. Basic ideas about central forces and scattering.

Course Outcomes:

M.Sc. I Sem

Subject: Physics

Paper III: Electrodynamics and Plasma Physics

MPHI-C

After successful completion of the course, the student is expected to:

- 1. Have gained a clear understanding of Maxwell's equations and electromagnetic boundary conditions.
- 2. Know about the radiations related to the motion of charges.
- 3. Have grasped the idea of bremsstralung and synchrotron radiation.
- 4. Extend their understanding of plasma related concepts.
- 5. Understand the rather complex physical phenomena and elementary concepts of plasma kinetic theory observed in plasma.

Course Outcomes:

<u>M.Sc. I Sem</u>

Subject: Physics

Paper IV: Electronics

On successful completion of course student will:

- 1. Acquire knowledge of operational amplifier circuits and their applications.
- 2. Gain knowledge and evaluate the Boolean expressions, combinational logic circuits and simplifications using karnaugh maps.
- 3. Analyze the operation of different logic families.
- 4. Understand the working of latches, flip-flops, designing registers, counters, a/d and d/a converters.
- 5. Design and Analyze synchronous and asynchronous sequential circuits.
- 6. Interpret the architecture, instruction set and also practice the basic programs of 8085 microprocessor.

Lab Course I-A: General and Optics

- 1. Students will acquire an understanding of basic and advanced concepts in Physics.
- 2. Students will have a knowledge of theoretical and practical skills along with problem solving ability Logical and abstract thinking and analytical approach.
- 3. The students will gain the practical knowledge of principles of general optics.
- 4. The students will have the knowledge of measurement of different physical quantities.
- 5. Student will learn to determine the band gap of semiconductors.
- 6. Student will have knowledge about transmission line.
- 7. Student will learn about the determination of ionization potential of mercury lamp.

Lab Course I –B: Electronics

- 1. Students will acquire an understanding of basic and advanced concepts in Physics.
- 2. Students will have a knowledge of theoretical and practical skills along with problem solving ability Logical and abstract thinking and analytical approach.
- 3. Student will learn to design and study regulated power supply.
- 4. Student will have knowledge about the astable, monostable and bistable multivibrators.

MPHI-F



MPHI-E

5. Students will learn about the basic logic gates and verification of their truth tables.

Course Outcomes:

M.Sc. II Sem

Subject: Physics

Paper I: Quantum Mechanics

After successful completion of this paper, the student will be ell-versed in

- 1. Linear vector spaces, Hilbert space, concepts of basis and operators and bra and ket notation
- 2. Both Schrödinger and Heisenberg formulations of timedevelopment and their applications
- 3. Theory of time independent perturbation theory and solutions of schrodinger equations.
- 4. To learn about the inadequacy of classical mechanics and the emergence of quantum physics.
- 5. Theory of central force problem and to solve the wave equations.

Paper II: Statistical Mechanics

MPHII-B

The students should be able to

- 1. Explain statistical physics and thermodynamics as logical consequences of the postulates of statistical mechanics
- 2. Apply the principles of statistical mechanics to selected problems
- 3. Grasp the basis of ensemble approach in statistical mechanics to a range of situations
- 4. To learn the fundamental differences between classical and quantum statistics and learn about quantum statistical distribution laws
- 5. Study important examples of ideal Bose systems and Fermi systems
- 6. Gain knowledge about classical and quantum statistical mechanics, including Boltzmann, Fermi-Dirac, and Bose-Einstein statistics.

MPHII-A

- 7. Apply the formalism of statistical mechanics and probability theory to derive relations between thermo dynamical quantities
- 8. broad understanding of Statistical Mechanics, and show a critical awareness of the significance and importance of the topics, methods and techniques.
- 9. Understand the physical statistics and its relation to information theory and able to Solve statistical mechanics problems for simple non-interacting systems.

Paper III: Electronic and Photonic Devices and Optical Modulators

MPHII-C

On successful completion of course student will:

- 1. Acquire the basic knowledge of bipolar devices and its application
- 2. Gain knowledge on characteristics of diodes.
- 3. Understand digital terminology and characteristics of unipolar devices.
- 4. Study of characteristics of special microwave devices.
- 5. Study the different photonic devices and their structure and working principle.
- 6. Understand, analyze and design p-n junction solar cell and interface thin film solar cell.
- 7. Gain knowledge about the optical modulators and their properties.

Paper IV: Computational Physics and Computer Programming MPHII-D

The students should be able to,

- 1. Have a strong base in FORTRAN language regarding different data type such as list, sets, functions etc.
- 2. It helps to understand the different methods of determining zeroes of the equations.
- 3. Understand different interpolation and integration and differentiation techniques. methods
- 4. Gets a wide knowledge of numerical methods in computational Physics that can be used to solve many problems which does not have an analytic solution
- 5. Solve problems related to ordinary differential equations using Runga kutta method and predictor corrector methods.

Lab Course –II- A Numerical Analysis and Computer Programming

- Students will be able to learn programming in fortran language and various components of programming viz., compilation and execution of programmes. . They will also expertise in practical implementation of programming in numerical analysis methods.
- 2. Student will learn to use fortran language to solve simultaneous linear equations by gauss elimination method and gauss siedal method.
- 3. Student will learn to find the roots of transcendental equation using fortran language by newton raphson method.
- 4. Student will understand the use of fortran language to find the numerical integration by simpson's rule and trapezoidal rule.
- 5. Student will learn to write fortran programs to find eigen values of different matrices.

Lab Course –II- B Digital Electronics and Microprocessor

- 1. Students will acquire an understanding of basic and advanced concepts in Physics.
- 2. Students will have a knowledge of theoretical and practical skills along with problem solving ability Logical and abstract thinking and analytical approach.
- 3. Student will have knowledge about different types of flip-flops; RS flipflop,JK flipflop,Master slave flipflop.
- 4. Student will learn about counters(Ripple counters,mode 3,mode 5 counters).
- 5. Student will learn the programming in 8085 microprocessor for addition of two 16 bit hexadecimal numbers, to find the parity of numbers.

M.Sc. III Semester

Paper I: Quantum Mechanics II

On successful completion of course student will:

- 1. Understand the kinematics of scattering process.
- 2. Evaluate the partial wave analysis using Born approximation method.
- 3. Apply time Independent perturbation theory for non degenerate case.
- 4. Gain knowledge on WKB approximation method to study turning points.
- 5. Remember time dependent perturbation theory .
- 6. Analyze the interaction of an atom with electromagnetic radiation and the relativistic quantum mechanics using Klein Gordon equation
- 7. Explore the properties of Dirac particle.

MPHII-E

MPHIII-A

MPHII-F

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Paper II: Atomic and Molecular Physics

After successful completion of the course, the student is expected to :

- 1. Know about different atom model and will be able to differentiate different atomic systems, different coupling schemes and their interactions with magnetic and electric fields.
- 2. Have gained ability to apply the techniques of spectroscopy to elucidate the structure of molecules
- 3. Be able to apply the principle of Raman spectroscopy and its applications in the different field of science & Technology.
- 4. To become familiar with different types of molecules and their rotational and vibrational spectra.
- 5. To find solutions to problems related different spectroscopic terms.

Paper III: Solid State Physics-I

On successful completion of course student will:

- 1. Understand different types of crystal structures in terms of the crystal lattice and the basis of constituent atoms.
- 2. Understand the theory of X-ray diffraction in the reciprocal lattice (k-space) formalism.
- 3. Apply the theory of lattice vibrations (phonons) to determine thermal properties of solids.
- 4. Study the problem of electrons in a periodic potential, examine its consequence on the band-structure of the solids.
- 5. Gain knowledge about the different properties of semiconductor crystals.

Paper IV: Physics and Nano Materials-I

On successful completion of course student will:

- 1. Methods of preparing nanostructure using chemical and physical process.
- 2. Structural and chemical characterization of nano structure.

MPHIII-C

MPHIII-D

- 4. Trained to prepare some nanoparticle by chemical and physical process

2. Structural and chemical characterization of nano structure.

3. To study about the carbon nano tubes and its types.

5. Characterization of the prepared nanoparticles for structural and optical properties

1. Methods of preparing nanostructure using chemical and physical

M.Sc. IV Semester

Paper I: Nuclear and Particle Physics

Lab Course III-B Physics of Nano Materials

process.

On successful completion of course student will:

On successful completion of course student will:

- 1. Understand Nuclear Force And Nuclear Models
- 2. Analyze the semi empirical mass formula and its applications using liquid

- 3. To study about the carbon nano tubes and its types.
- 4. Trained to prepare some nanoparticle by chemical and physical process
- 5. Characterization of the prepared nanoparticles for structural and optical properties

Lab Course III-A Materials Science and General

- 1. Student will learn to study the I-V characteristics of photovoltaic cell and finding its efficiency.
- 2. Student will be able to study the OPAMP IC 741 as inverting /non inverting amplifier and drawing its frequency response curve.
- 3. Student will be able to determine the curie temperature of ferromagnetic materials.
- 4. Student will be able to determine forbidden gap of a diode by plotting reverse saturation current as a function of temperature.
- 5. Student will be able to determine band gap of a given semiconductor using four probe method at room temperature

MPHIII-F

MPHIII-E

MPHIV-A

drop model and shell model.

- 3. Understand the concept of Nuclear Decay Processes
- 4. Interpret the Classification of nuclear reactions
- 5. Understand the Classification of elementary Particles and their Quantum Numbers

Paper II: Laser Physics and Applications

MPHIV-B

On successful completion of course student will:

- 1. Gain knowledge on laser rate equations for Two, Three, Four-level laser systems.
- 2. Understand Einstein relations for emission and absorption of radiation
- 3. Gain knowledge on classification of laser systems
- 4. Gain knowledge on application of various laser systems
- 5. Understand basic principles of lasing action and its applications

Paper III: Solid State Physics II

On successful completion of course student will:

- 1. Acquire knowledge about different experimental approaches in the study of plasmons and polaritons .
- 2. Understand piezo, pyro and Ferro electricity, ferroelectric domains and hysteresis.
- 3. Understand basic theories of magnetic materials like ferromagnetism, ferrimagnetism, anti-ferromagnetism.
- 4. Acquire basic knowledge on curie point and curie temperature.
- 5. Understanding of various optical processes and excitons and defects.

Paper IV: Physics of Nanomaterials- II

On successful completion of course student will:

- 1. Introduction to the physics of materials and solid in the nanoscale range
- 2. The variation of the properties of CNTs and its applications.
- 3. Imaging next generation applications for polymers nanofibers.
- 4. To understand the different photolithography principles.

MPHIV-D

MPHIV-C
5. To analyse the relation between sustainable nanotechnology and human health.

Project

MPHIV-E

Students will acquire an understanding of basic and advanced concepts in Physics.Students will have a knowledge of theoretical and practical skills along with problem solving ability Logical and abstract thinking and analytical approach. The project will rise the students intellectual level and will inculcate the observing and research qualities in their personality.

Course Outcomes:

Name of Programme: B.Sc

Subject: Zoology

<u>B.Sc. I</u>

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. Know the functions and components of immune system. Characters, Classification and life cycle of invertebrate animals.

Paper II: Vertebrate and Embryology

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

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

Practical Work:

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

- 1. Basic structure, components and functions of animal cell and their specifications.
- 2. Immune system. Characters, Classification and life cycle of invertebrate animals.
- 3. Origin and Classification of Chordates.

BSCIZO-A

BSCIZO-C

BSCIZO-B

- 4. Specific feature, special adaptations and peculiarities of Vertebrates.
- 5. Embryonic developmental stage of vertebrate animals.

<u>B.Sc. II</u>

Paper I: Anatomy and Physiology

BSCIIZO-A

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

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

Paper II Vertebrate Endocrinology, Reproductive Biology, Behavior, Evolution and Applied Zoology BSCIIZO-B

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

- **1.** 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:

BSCIIZO-C

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

1. Anatomical study of different Invertebrates and Vertebrates animals by Museum Specimens and Slides.

2. 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

BSCIIIZO-A

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

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1. 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 BSCIIIZO-B

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

- **1.** 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.

PracticalWork:

BSCIIIZO-C

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

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

<u>Course Outcomes:</u> <u>Name of Programme: M.Sc. in Zoology</u> <u>M.Sc. I Sem</u>

Paper I: Biosystemics, Taxonomy and Biodiversity MZOI-A

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

• Understand, classify and identify the diversity of animals.

- Understanding of general taxonomic rules on animal classification
- The importance of classification of animals and classify them effectively using the six levels of classification.
- Understand Mechanism of Speciation.
- Understand the Animal diversity around us Hot Spots ,Threats and Conservation
- Biodiversity and Conservation increase awareness and understanding of how human life depends on preserving animal species and natural ecosystems
- Apply the International rules of Nomenclature to give a scientific name to animals which are found during research.

Paper II-Structure and function of Invertebrates MZOI-B

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

- Understand the life cycle of Invertebrate animal of Different Phylum .
- Understand the structure and organization of invertebrate animals.
- Identify invertebrates and homology, analogy and modifications of mouthparts in relation to feeding habits.
- Students will have the knowledge and skills to: Describe the variety of invertebrate organisms and explain their evolutionary origin and diversification. Investigate invertebrates in laboratory and field conditions, and identify major taxonomic groups.

Paper III-Population genetics and Evolution MZOI-C

- The origin of life
- Evidences of EvolutionDestabilizingforces-for evolution like Mutation, variation, Isolation, Genetic Drift.

- Mode of Speciation
- Formation and types of Fossils.
- The students will be able to learn most of the essential aspects of Evolutionary Biology in detail which will help them in getting better understanding regarding the subject.
- Understand the gradual development and evolutionary history of different kinds of living organisms from earlier forms over several generations

Paper IV- techniques in Biology

MZOI-D

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

- Different techniques-phmetery, colorimetry, spectrophotometry.-
- Different types of Microscopies.
- Radio Isotopes Technique.
- Magnetic resonance Imaging.
- Separationtechniques-Centrifugation,Chromatography,Electrophoresis
- Students gain skills in techniques of chromatography, electrophoresis, spectroscopy and radioisotopes.

Lab Course I: Based on Paper I and II MZOI-E

- Understand, classify and identify the diversity of animals.
- Understanding of general taxonomic rules on animal classification
- The importance of classification of animals and classify them effectively using the six levels of classification.
- Understand Mechanism of Speciation.
- Understand the Animal diversity around us Hot Spots ,Threats and Conservation
- Biodiversity and Conservation increase awareness and understanding of how human life depends on preserving animal species and natural ecosystems

- Apply the International rules of Nomenclature to give a scientific name to animals which are found during research.
- Understand the life cycle of Invertebrate animal of Different Phylum .
- Understand the structure and organization of invertebrate animals.
- Identify invertebrates and homology, analogy and modifications of mouthparts in relation to feeding habits.
- Students will have the knowledge and skills to: Describe the variety of invertebrate organisms and explain their evolutionary origin and diversification. Investigate invertebrates in laboratory and field conditions, and identify major taxonomic groups.

Lab Course II: Based onPaper III and IV MZOI-F

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

- The origin of life
- Evidences of EvolutionDestabilizingforces-for evolution like Mutation, variation, Isolation, Genetic Drift.
- Mode of Speciation
- Formation and types of Fossils.
- The students will be able to learn most of the essential aspects of Evolutionary Biology in detail which will help them in getting better understanding regarding the subject.

Understand the gradual development and evolutionary history of different

kinds of living organisms from earlier forms over several generations

- Different techniques-phmetery, colorimetry, spectrophotometry.-
- Different types of Microscopies.
- Radio Isotopes Technique.
- Magnetic resonance Imaging.
- Separationtechniques-Centrifugation,Chromatography,Electrophoresis

• Students gain skills in techniques of chromatography, electrophoresis, spectroscopy and radioisotopes.

Semester II

Paper I- Comparative Anatomy of Vertebrates MZOII-A

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

- Gain knowledge the comparative anatomy of vertebrateUnderstanding of origin and salient features of Amphibians, Reptiles, birds and Mammals .
- Gain knowledge of functional anatomy of vertebrates from fishes to mammals•
- Gain Knowledge of Origin, Evolution and general organisation of Chordates.
- Gain Knowledge of Evolution of heart, lungs and urino-genital organs of vertebrates
- Gain Knowledge of comparative anatomy of all systems of vertebrates.

Paper II- Physiology of Vertebrates

MZOII-B

- Detailed concepts of digestion respiration excretion the functioning of nerves and muscles. blood coagulation
- About neurophysiology and Different types Receptor Physiology
- Communication
- Thermoregulation
- The students will be well equipped to become very competent in research.
- The course provides employability in teaching fields

- Students feel confident in teaching physiology as well as executing research projects.
- Students will gain skill to execute the roles of a medical lab technicians with training as they have basic fundamentals.

Paper III-Molecular Cell Biology and Biotechnology MZOII-C

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

- Molecular structure and function of Nucleus and Chromosome.
- Structure and types of DNA.
- Transportation of Biomolecules across biomembrane.
- Cell cycle –mitosis and meiosis.
- Cell cycle control in mammalian cell.
- 3. Apoptosis-Mechanism and regulation
- DNA-Replication Transcription Translation Regulation of translation in
- PCR Technology.
- R-DNA Technology. DNA Foot Printing
- It gives insight into various cell/tissues culture techniques
- Understanding of in vitro culturing of organisms and production of transgenic animals.
- Understanding of cloning of mammals, large scale culture and production from recombinant microorganisms
- Students Gains skills in medical, environmental biotechnology, biopesticides.
- This insight allows students to take into consideration about ethical issues involved in production transgenic animals.

Paper IV-Quantitative Biology (Computer and Biostatistics) MZOII-D

Students gain knowledge about various tools & techniques used in biological

systems

• Biostatistics teaches them to use the best data analysis methods in their research projects

- Students gains knowledge about statistical methods like measures of central tendencies, Probability
- Learns about hypothesis testing and inferential statistics
- Analyse biological data mathematically and statistically

Lab Course I: Based on Paper I and II

MZOII-E

- Gain knowledge the comparative anatomy of vertebrateUnderstanding of origin and salient features of Amphibians, Reptiles, birds and Mammals .
- Gain knowledge of functional anatomy of vertebrates from fishes to mammals•
- Gain Knowledge of Origin, Evolution and general organisation of Chordates.
- Gain Knowledge of Evolution of heart, lungs and urino-genital organs of vertebrates
- Gain Knowledge of comparative anatomy of all systems of vertebrates.
- Detailed concepts of digestion respiration excretion the functioning of nerves and muscles. blood coagulation
- About neurophysiology and Different types Receptor Physiology
- Communication
- Thermoregulation
- The students will be well equipped to become very competent in research.
- The course provides employability in teaching fields
- Students feel confident in teaching physiology as well as executing research projects.
- Students will gain skill to execute the roles of a medical lab technicians with training as they have basic fundamentals.

Lab Course II: Based on Paper III and IV

MZOII-F

- Molecular structure and function of Nucleus and Chromosome.
- Structure and types of DNA.
- Transportation of Biomolecules across biomembrane.
- Cell cycle –mitosis and meiosis.
- Cell cycle control in mammalian cell.
- 3. Apoptosis-Mechanism and regulation
- DNA-Replication Transcription Translation Regulation of translation in
- PCR Technology.
- R-DNA Technology. DNA Foot Printing
- It gives insight into various cell/tissues culture techniques
- Understanding of in vitro culturing of organisms and production of transgenic animals.
- Understanding of cloning of mammals, large scale culture and production from recombinant microorganisms
- Students Gains skills in medical, environmental biotechnology, biopesticides.
- This insight allows students to take into consideration about ethical issues involved in production transgenic animals.
- Biostatistics teaches them to use the best data analysis methods in their research projects
- Students gains knowledge about statistical methods like measures of central tendencies, Probability
- Learns about hypothesis testing and inferential statistics
- Analyse biological data mathematically and statistically

Semester III

PaperI–Reproductive Physiology and Embryology MZOIII-A

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

- Develop the basic concepts of development.
- Explain the fundamental concept of Oogenesis spermatogenesis.
- Explain the fundamental concept Female reproductive cycle.
- development of extra embryonic membrane and the nature and physiology of placenta.
- Provides students insight into maintaining healthy relationships with their opposite gender and allows them to make right choice about their life partner thus preventing congenital/consanguial diseases.

Paper II Animal behavior-

MZOIII-B

- In detail about patterns of behaviours-instinct and learning.
- Chronobiology, orientation, migration.
- Animal communication-design of signals
- Reproductive behaviour
- Social and cooperative behaviours.
- The basic ecological and evolutionary processes that shape animal behaviour
- The relevance of animal behaviour, both as a biologist and a human being.
- Improve quantitative skills in the application of mathematical models and theories to the study of animal behaviour.
- Further develop the ability to apply critical thinking and logic to the solving of biological problems relating to animal behaviour.

• Student Gains skills in Wildlife technicianAnimal services associateVeterinary assistant.Animal adoption specialistResearch technician

Paper III-Environmental Physiology

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

- In detail about different types of ecological adaptation in animals.
- Basic concept of environmental stress.
- The methods of relaxation of Stress and body by Yoga, Meditation, Asana & Pranayam
- Understanding of stress physiology will allow them to control their stress and emotions there by diverting their energy towards the positive nation building activities

PaperIV-Icthyology

MZOIII-D

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

- Integumentary system basic structure of skin, dermal and epidermal pigments, fins, and scales.
- Fishes habits and habitats and their functional anatomy
- The functional anatomy of all organ systems of fish
- Migration and adaptations in fishes.
- Importance of electric organs in fishes.
- The significance of Colouration, luminous and poisonous organs of fish.
- Identify fish by morph metric and meristic characters and apply the method in biodiversity oriented research.

Lab Work I: Based on Paper I and II MZOIII-E

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

- Develop the basic concepts of development.
- Explain the fundamental concept of Oogenesis spermatogenesis.
- Explain the fundamental concept Female reproductive cycle.

MZOIII-C

- development of extra embryonic membrane and the nature and physiology of placenta.
- Provides students insight into maintaining healthy relationships with their opposite gender and allows them to make right choice about their life partner thus preventing congenital/consanguial diseases.
- In detail about patterns of behaviours-instinct and learning.
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- The basic ecological and evolutionary processes that shape animal behaviour
- The relevance of animal behaviour, both as a biologist and a human being.
- Improve quantitative skills in the application of mathematical models and theories to the study of animal behaviour.
- Further develop the ability to apply critical thinking and logic to the solving of biological problems relating to animal behaviour.
- Student Gains skills in Wildlife technicianAnimal services associateVeterinary assistant.Animal adoption specialistResearch technician

Lab Work II: Based on Paper III and IV

MZOIII-F

- In detail about different types of ecological adaptation in animals.
- Basic concept of environmental stress.
- The methods of relaxation of Stress and body by Yoga, Meditation, Asana & Pranayam
- Understanding of stress physiology will allow them to control their stress and emotions there by diverting their energy towards the positive nation building activities

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- The functional anatomy of all organ systems of fish
- Migration and adaptations in fishes.
- Importance of electric organs in fishes.
- The significance of Colouration, luminous and poisonous organs of fish.
- Identify fish by morph metric and meristic characters and apply the method in biodiversity oriented research.

Semester IV

Paper I- Biology of Immune System

MZOIV-A

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

- The basic knowledge about immune system and allows the student to create insight as how to improve their immune system and good health.
- Types of immunity, antigens-antibodies and their properties.
- Complement system, MHC's and immune responses.
- Types of hypersensitivity reactions and auto immune diseases, Immunotolerance.
- Understanding of immune mechanisms in disease control, vaccination, process of immune interactions

Paper II- Ecology and Limnology MZOIV-B

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

- Anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.
- About fundamental of Ecosystem.
- Conservation of natural resources. Global warming, Ozone Depletion etc.
- Solid waste management.• Knowledge of physico-chemical and biological characteristics of fresh water bodies. •
- The significance of aquatic flora, fauna in water bodies.
- About pollution of rivers, causes and control measures.
- Legislation and regulation on discharge of industrial effluents and domestic wastes in rivers and reservoirs.
- The students will be well equipped to become very competent in research or teaching field.

Paper III -Biology of Parasitism

MZOIV-C

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

- Host-parasite relationship
- Different types of Viral, bacterial and Fungal Disease.
- Protozoan Healminthus Disease. Disease transmitted by insects.
- Understanding of pathology of diseases caused by various microorganisms such as bacteria, virus, parasites and fungus.

Paper IV - Aquaculture and Fisheries MZOIV-D

- The aquaculture practices. Overview importance of coastal and freshwater aquaculture,
- Types of Fish Farming.
- Physicochemical Condition of Water and its effect on Fishes.
- Construction and Maintenance of fresh water fish farm, Management of Ponds
- Fresh Water Fish Breeding (Dry & Wet bundh breeding and induced breeding).
- -Stocking and transport of fish seed and brood fish.

- Fishing Methods.
- Different type of Fish farming-integrated ,Sewage, prawn,Marine, Intensive culture.
- Preparation and Maintenance of Fish Aquarium.
- FishesPreservation and byproducts
- Fish Marketing
- Fish diseases and their control
- Disease Caused by Pollutants.
- Organizations related to Aquaculture Promotion.
- It is one of the small-scale industries which can provide the student employment opportunity.
- Provides knowledge of ornamental fish breeding which is highly professional and attractive avenue for youth.

Lab Work I: Based on Paper I and II MZOIV-E

- The basic knowledge about immune system and allows the student to create insight as how to improve their immune system and good health.
- Types of immunity, antigens-antibodies and their properties.
- Complement system, MHC's and immune responses.
- Types of hypersensitivity reactions and auto immune diseases, Immunotolerance.
- Understanding of immune mechanisms in disease control, vaccination, process of immune interactions
- Anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.
- About fundamental of Ecosystem.
- Conservation of natural resources. Global warming, Ozone Depletion etc.
- Solid waste management.• Knowledge of physico-chemical and biological characteristics of fresh water bodies. •
- The significance of aquatic flora, fauna in water bodies.
- About pollution of rivers, causes and control measures.

- Legislation and regulation on discharge of industrial effluents and domestic wastes in rivers and reservoirs.
- The students will be well equipped to become very competent in research or teaching field.

Lab Work II: Based on Paper III and IV

MZOIV-F

- Host-parasite relationship
- Different types of Viral, bacterial and Fungal Disease.
- Protozoan Healminthus Disease. Disease transmitted by insects.
- Understanding of pathology of diseases caused by various microorganisms such as bacteria, virus, parasites and fungus.
- The aquaculture practices. Overview importance of coastal and freshwater aquaculture,
- Types of Fish Farming.
- Physicochemical Condition of Water and its effect on Fishes.
- Construction and Maintenance of fresh water fish farm, Management of Ponds
- Fresh Water Fish Breeding (Dry & Wet bundh breeding and induced breeding).
- -Stocking and transport of fish seed and brood fish.
- Fishing Methods.
- Different type of Fish farming-integrated ,Sewage, prawn,Marine, Intensive culture.
- Preparation and Maintenance of Fish Aquarium.
- FishesPreservation and byproducts
- Fish Marketing
- Fish diseases and their control
- Disease Caused by Pollutants.
- Organizations related to Aquaculture Promotion.
- It is one of the small-scale industries which can provide the student employment opportunity.
- Provides knowledge of ornamental fish breeding which is highly professional and attractive avenue for youth.

Course Outcomes:

<u>B.Sc. I</u>

Subject: Botany

Paper I: Bacteria, Viruses, Fungi, Lichens and Algae BSCIBO-A

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

- Students are introduced to the world of microbes, different types, shapes and by close examination of beneficial and harmful microbes.
- General properties and Uses (Economic importance of Fungi, Lichens and algae)

Paper II: Bryophytes Pteridophytes, Gymnosperms and Paleobotany

BSCIBO-B

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

- Know the taxonomic position, occurrence, morphology, anatomy and reproduction of Bryophyta, Pteridophyta and Gymnosperms.
- Paleobotanical information is used to unravel the evolutionary history of plant in time and space.

Botany Practical:

BSCIBO-C

After the completion of the practical, the student will be able to know about -

• Knowing and understanding of the range of structures, functions and evaluation of the plant diversities.

- Know the type of fossils and geological timescale.
- Understand the various fossils representing different fossil group.

<u>B.Sc. II</u>

Paper I: Plant Taxonomy, Economic Botany Plant Anatomy and Embryology BSCIIBO-A

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

- Understand historical development of taxonomy.
- Know about the utility of plant resources.
- Understand the description, identification, nomenclature and classification of plants.
- Know about the internal structure of Plants-Study of the tissue and cell structure of plant organs.
- Knowing –growth, development and reproduction in plants.

Paper II: Ecology and Plant Physiology

BSCIIBO-B

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

- Know about the importance, scope and various physiological processes in plants.
- Understand the plant communities, ecological adaptation and conservation of biodiversities of plants.

Botany Practical:

BSCIIBO-C

After the completion of the practical, the student will be able to know about -

• Various physiological processes in plants

- To determine the community structure in terms to density, abundance and frequency.
- Study of morphology and anatomical adaptation in locally available hydrophytes and xerophytes.

B.Sc. III

Paper I: Plant Physiology, Bio Chemistry and Bio-Technology BSCIIIBO-A

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

- Understand the water relation of the plants, water transport, mineral absorption and their role in plant growth and metabolism.
- Describe and differentiable between the various steps of photosynthesis, respiration and enzymes controlling them.
- Describe classification, types and significance of important biomolecules viz. Carbohydrates, Proteins, Fats etc.
- Understand the mechanism of nitrogen fixation.
- Explain the basis of medium preparation, tissue culture, RDNA technology and applied aspects.

Paper I: Ecology and Utilisation of Plants

BSCIIIBO-B

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

- Understand how various factors like light, temperature, humanity, soil, water affect biological system and their adaptation.
- How ecosystem acts as dynamic system with its tropic levels and functioning of food web, food chains, energy flow and mineral cycling.
- Appreciate the economic value of different plant products and their processing.
- Understand therapeutic components of medicinal plants.

Botany Practical:

BSCIIIBO-C

After the completion of the practical, the student will be able to know about -

- Understand how various physiological phenomena like osmosis, diffusion, permeability, plasmolysis etc.
- Learn techniques like how to analyze the presence of carbohydrates, fats and proteins.
- Learn technique to determine community structure in terms of frequency, abundance, density etc and role of habitat in the adaptation.
- Demonstrate proficiency in the experimental techniques and method of analysis appropriate for their assigned lab works.

Course Outcomes:

<u>B.Sc. I</u>

Subject: Anthropology

Paper I: Foundation of Anthropology

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

Almost all branches of anthropology is physical, social, cultural and archaeology.

Paper II: Introduction to Physical Anthropology BSCIAN-B

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

Evolution and distribution of human population.

Practical Work

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

Human bones & also applied field like Crainometry and Somateometry.

<u>B.Sc. II</u>

Subject: Anthropology

BSCIAN-C

BSCIAN-A

Paper I: Archeological Anthropology

BSCIIAN-A

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

Past human culture which enables the students to understand present cultures in a better way.

Paper II: Tribal Cultures of India

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

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

Practical Work

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

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 BSCIIIAN-A

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

Genetics and importance of growth, Ecology and Demography.

Paper II: Theories of Social Cultural Anthropology

BSCIIIAN-B

BSCIIAN-C

BSCIIAN-B

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

Cultural anthropology with different theories & contribution of famous Anthropologist in the field of social culture anthropology.

Practical Work

BSCIIIAN-C

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

Somatometry genetics, Blood group Dermatographics and basic Statistical tools.

Course Outcomes:

Name of Program: M.Sc. in Anthropology

<u>M.Sc. I Sem</u>

Paper I – Fundamentals of Social/Cultural Anthropology MANI-A

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

- 1. 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 MANI-B

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

- **1.** 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 MAN-C

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

- **1.** 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 MANI-D

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

1. Various tools and techniques used in research.

Lab Course I – Practical in Craniology and Craniometry MANI-E

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

1. Study and measurement of skill is done in this paper.

Lab Course II– Practical in Osteology and Osteometry MANI-F

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

1. 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 know about:

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

Paper II– Fundamentals of Human Genetics MANII-B

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

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

MANII-A

MANLF

Paper III – Medical Anthropology

MANII-C

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

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

Paper IV – Biostatistics & Computer Applications MANII-D

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

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

Lab Course I – Practicals in Archaeology MANII-E

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

<u>1</u>.Prehistoric tools & techniques and Prehistoric sites .

Lab Course II (Practicals in Applied Biological Anthropology) MANII-F

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

- 1.To estimate health status of the given population.
- 2. Personal Identification by different Blood Group Systems.
- 3. Equip students to some pathological techniques.
- 4. Knowledge of some techniques used in Forensic Anthropology.
- 5. Knowledge of genetical traits

M.Sc. IIISemester

Paper-I Advanced Human Biology

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

1.To learn basics of genetics and genetic diseases

MANIII-A

- 2.To Learn about inborn metabolic errors
- 3. To develop an understanding of inbreeding and its consequences, pedigree etc.

Paper-II Human Growth and Nutrition MANIII-B

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

1.To develop familiarity with the concept of growth and development

2.To develop awareness reading various Health Programs

3. Learning about use of anthropometry in evaluation of nutrition status

Paper III: Disaster Management

MANIII-C

MANIII-D

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

1. To get introductory knowledge to students regarding disaster management, its meaning nature, scope and importance.

2. To learn about various types of natural and man-made disasters including deforestation and global warming

3. to understand issues related to Displacement and Rehabilitation of diasater victims.

4. to understand socio-political issues like ethnic conflict, naxalism, terrorism and its disastrous impact upon societal harmony.

Paper- IV Demographic Anthropology

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

1. give basic information about demography including its definition, scope and importance.

2. Learn about material, methods and techniques in Demography.

3. Learn about population growth theories and population projection

4. Understand the impact of population growth on environment and society

Lab Course I – Practical in Applied Biological Anthropology MANIII-E

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

1. To estimate Nutritional Status on the Basis of Various Body Measurements

2. To estimate Genetic Inheritance of Different Genetic Traits among Human Population

Lab Course: II (Practicals in Tribal Demography)

Anthropology is a research-oriented subject with tribals at its core. This practical provides a basic training to students in demographic studies.

Upon successful completion of this subject:

1. Students learn about tribal distribution in India and Chhattisgarh through Maps.

2. Develop research skills by learning to prepare research schedule, report writing, book review.

3. Analyse demographic data through statistical tools like mean, mode, median standard deviation, correlation, chi square etc.

4. Present the data through graph, pie chart, histogram, bar diagram, line diagram etc.

5. Presentatresearch work through PPT.

M.Sc IV Semester

Paper I : Indian Anthropology

MANIV-A

MANIII-F

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

1. Introduction to Indian Anthropologists and their contribution

2. Understanding bases of Indian Social System

3. Learning about popular anthropological concepts

Paper II : <u>Museology</u>

Upon successful completion of this subject the student will be able

- 1. To get an introduction to Museum and museography.
- 2. To learn documentation, care and storage of museum collection.
- 3. To learn about archival materials , their types, classification and storage.
- 4. Learn about tourism industry, cultural and natural heritage and related job opportunities.

MANIV-B

Upon successful completion of this subject the student will be able

1. To develop research aptitude among the students.

2. To familiarize with research tools and techniques.

4. To gain exposure to field work experiences.

1. To learn about definition, aims and scope of Forensic Anthropology.

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

2. Understand crime scene and assessment of time and course of death.

3. To learn about establishing age and sex related identity using skeletal, dental remains and dermatoglyphics.

5. Promotes in-depth study of a specific topic of socio-cultural and biological

4. Personal identification through somatometric, somatoscopic observation, handwriting etc.

Course Outcomes:

Paper III : Dissertation

3. To develop research skills

Paper IV: Forensic Anthropology

Name of Programme: B.Com I

<u>Group I</u>

interest.

Paper I: Financial Accounting

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

1. The uses and users of accounting information.

2. Accounting concepts and principles and conventions.

- **3.** Recording basic accounting transactions and prepare annual financial statements.
- 4. Analysis, interpretation and communication.

MANIV-C

MANIV-D

BCOMI-FA

5. The information contained in basic financial statement and the limitations of such statements.

Paper II: Business Communication

BCOMI-BC

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

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.

<u>Group II</u>

Business Management- Optional Group

Paper I: Business Mathematics

BCOMI-BM

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

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.

Paper II: Business Regulatory Frame Work

BCOMI-BR

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

1. Basic legal knowledge to commerce students.

2. Knowledge of special contracts.

3. Knowledge of Negotiable Instrument Act.

4. Knowledge of Consumer Protection Act.

Or

Paper II: Tax Procedure & Practice

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

Income Tax Law and Procedure for business and accounting purpose.

<u>Group III</u>

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.** Identity 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

BCOMI-BEN

BCOMI-BEC

BCOMI-TPP

Subject: Commerce (Computer Application)

Paper I: Computer Fundamentals

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

- **1.** 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: P C- Software and Multimedia

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

- **1.** Gain in-depth training in useof office automation packages.
- **2.** Essential for a modern office for day to day office management.
- **3.** Learn about text formatting and editing using MS Word.
- 4. Understand how the calculation is done with MS Excel.
- 5. Learn How to do effective presentation using MS Power Point.
- 6. Learn how to manage database with MS Access.
- 7. Students will be aware with basic concepts of animation and Multimedia tools.
- **8.** Able to make small video movies in flash.

B.Com IInd Year

Subject: Commerce

Group-I

Paper I: Corporate Accounting

BCOMII-COA

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

1. A comprehensive understanding of the advanced issue in accounting for assets liabilities and

BCOMI-CF

BCOMI-PC

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: Company law

BCOMII-CL

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.

<u>Group-II</u>

Paper I: 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.

Paper II : 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.

<u>Group III</u>

BCOMII-CA

BCOMII-PBM

Paper I: Business Statistics

141

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

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: Fundamentals of Entrepreneurship BCOMII-FE

Upon successful completion of this course the student will be able to define basic term-**1.** Define basic term.

Or

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.

Paper II Tax Procedure & Practice

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

B.Com IInd Year

Subject: Commerce (Computer Application)

Paper I: Internet Application & E-Commerce

BCOMII-IEC

BCOMII-TPP

BCOMII-BS

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

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 the relate to each other.

7. Assess electronic payment systems.

Paper II: Rational Database Management System BCOMII-RMS

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

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

Core Course (Compulsory Group)

Paper I: Income Tax

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

BCOMIII-INT

BCOMIII-IT

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

BCOMIII-MA

Students can get good basic knowledge with skill concept of accounting and managerial decision about entrepreneurship.

Paper IV: Auditing

BCOMIII-AU

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.

Optional Group

Paper I: Principles of Marketing

BCOMIII-PM

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.

Paper II: International Marketing

BCOMIII-IM

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 vary from country to country.

5. Develop presentation and writing skills.

6. Work as a team.

Or

Paper II – Indirect Taxes and GST

Upon successful completion of this course a student will be able to:

1. Learn the computation of central excise duty and Goods Service Tax (GST).

2. Learn the procedure of filing return and get credit refund.

B.Com III Subject: Commerce (Computer Application) Paper I: Programming in Visual Basic

Upon successful completion of this course a student will be able to:

1. Demonstrate fundamental skills in utilizing the tools of visual environment in terms of the set available command menus and toolbars.

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ni y to counti y.

BCOMIII-PVB

BCOMIII-GST
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 II: System Analysis, Design & MIS

BCOMIII-SAM

Upon successful completion of this course a student will be able to:

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 I Sem

Subject: Commerce

Paper I: Managerial Economics

Upon successful completion of this course a student will be able to:

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 theoritical frame work.

4. Analyze the demand & supply conditions and assure the position of a company.

Paper II: Advanced Accounting

MCOMI-B

MCOMI-A

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

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

Upon successful completion of this course a student will be able to:

- **1.** Learn a general system of concept for statistical analysis.
- 2. Gain Knowledge of data collection techniques.
- 3. Study both theory and practice in depth in certain specific areas.
- 4. Gain Knowledge of the basic concept of probability and random variable.
- 5. Gain Knowledge of probability distributions.

Paper V: Corporate Legal Framework

Upon successful completion of this course a student will be able to:

- 1. Appriciate 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 II 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.

^{g.} MCOMI-D

МСОМІ-Е

MCOMI-C

MCOMII-A

MCOMI-C

- 2. Analyze operations of markets under varying competitive conditions.
- **3.** Analyze the demand & supply conditions and access the position of a company.
- 4. Apply effective written and oral communication skills in business.

Paper II: Specialized Accounting

Upon successful completion of this course a student will be able to learn:

- **1.** Business combination concepts and definition.
- 2. Segment and interin reporting.
- 3. Importance of ethical behavior in business.

Paper III: Tax Planning & Management

Students can get the advanced 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: Advanced Statistics

Upon successful completion of the course a student will be able to-

- 1. 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.

MCOMII-C

MCOMII-D

MCOMII-B

MCOMII-E

- **2.** Apply basic legal knowledge to business transactions.
- 3. Communicate effectively using standard business and legal terminology.

<u>M.Com III Sem</u> Subject: Commerce

Paper I: Management Concept

MCOMIII-A

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

- 1. Learn their own managerial skills.
- **2.** Learn from the management experience of other.
- **3.** Improve communication skills.
- 4. Develop and learn about goals specific to the students of this class.
- 5. Use management thought to develop a better understanding of motivation.

Paper II: Organizational Behaviour

MCOMIII-B

Upon successful completion of this course a student will be able:

- **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

MCOMIII-C

Upon successful completion of this course a 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: Management Accounting MCOMIII-D

Upon successful completion of this course a student will be able to:

Various uses of financial accounting to get the quality oriented decisions for betterment of business.

Paper V: Accounting for Managerial Decisions MCOMIII-E

Upon successful completion of this course a student will be able to:

For the development of business in new area or the change of business subject will support in taking financial decisions logically.

M.Com IV Semester

Subject: Commerce

Paper I: Principles of Marketing

Upon successful completion of this course a 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 course a student will be able to:

1. Develop effective marketing communication strategies and program.

2. Understand the implications of current trends in advertising and promotion.

MCOMIV-A

MCOMIV-B

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

Upon successful completion of this course a student will be able to:

Get the advanced 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.

Paper V: Project Viva

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

Know about the business and Management Practice.

Course Outcomes:

LL.B Part I (I Semester)

Subject: Law

Paper I: Jurisprudence & Legal Theory

On Successful completion of this course Students will be able to –

- 1. Demonstrate an advanced understanding.
- 2. Demonstrate "Law in context of Political, Social, Historical, Natural Philosophical, economical and analytical.
- 3. Demonstrate various legal concepts such as property, Rights and duties, person, Possession, ownership, title, obligation and liability which are the roots of law.

MCOMIV-C

MCOMIV-D

MCOMIV-E

- 4. Understand ancient and modern source of Law.
- 5. Demonstrate briefly "Knowledge of Law"
- 6. Critically analyze complex problems relating to law and legal theory .
- 7. Engage in identification articulation and Critical evaluation of legal theory and legal concepts.
- 8. Have an elementary understanding around the nature of Law.

Paper-II: Law of contract & Specific relief Act 1963 LL.B.-102

On Successful completion of this course Students will be able to -

- 1. Able to define, distinguish and apply the basic concepts and terminology of law of contract.
- 2. Able to Know how a contract formed performed, breached and remedied.
- 3. Able to define various processes involved in valid contract formation
- 4. Able to identify the relevant legal issues in the area of supplementary contract Laws such as sale of goods, partnership. Negotiable instrument, specific performance issues etc.
- 5. Able to select a range of approaches to written communication and apply the critical thinking required to bring about creative solution in the area of contract law.

Paper-III: Specific contract, Indian Partnership Act 1932 & Sale of Goods Act 1930

LL.B.-103

On Successful completion of this course Students will be able to -

- 1. Able to define, distinguish and apply the basic concepts and terminology of law of contract.
- 2. Able to Know how a contract formed performed, breached and remedied.
- 3. Able to define various processes involved in valid contract formation
- 4. Able to identify the relevant legal issues in the area of supplementary contract Laws such as sale of goods, partnership. Negotiable instrument, specific performance issues etc.
- 5. Able to select a range of approaches to written communication and apply the critical thinking required to bring about creative solution in the area of contract law.

Paper IV: Law of Torts including Motor Vehicle Act & Consumer Protection Laws

LL.B.-104

LL.B.-105

On Successful completion of this course Students will be able to –

- 1. To Study the Principles of Tortious liability.
- 2. To Study the capacity of parties to sue and be sued.
- 3. To evaluate the specific tort against the individual and property.
- 4. To study the remedies provided under the Consumer Protection Act 1986 and Motor Vehicle Act.

Paper-V: Legal and Constitutional History of India

On Successful completion of this course Students will be able to -

- 1. To Understand the historical development of Law in ancient period medieval and British Period.
- 2. To understand the development of legal institutions, Law commission, Juridical Institutions and constitution of India.
- 3. To know the past of the present legal and judicial system.

LL.B Part I (II Semester)

Paper I: Law of Crime I (Indian Penal Code-1807) LL.B.-201

On Successful completion of this course Students will be able to -

- 1. Analyze the concept of crime and punishment with reference to structure of society.
- 2. Suggest the amendments regarding justice according to the changing needs of the society.
- 3. Indentify Criteria used to evaluate the Criminal Law of India.
- 4. Indentify social theory about Crime, Justice and Social deviance.
- 5. Address various obstacles experienced by individuals before during and after internment.
- 6. Understand and describe areas of criminal justice, law and society through a critical analysis of the subject.

- 7. Analyze lacunas within the criminal justice system and suggest the amendments to provide the justice according to the changing needs of the society.
- 8. Summarize the process of judicial review and identify criteria used by courts to evaluate the constitutionality of criminal law of India.
- 9. Indentify and synthesize social theory about crime, justice and social deviance that explain and address various obstacles and barriers experienced by individual before, during and after internment.
- 10. Problem solve complex issues in the criminal justice system and society related to policy, law enforcement, vulnerability and marginalization.

Paper II: Law of Crimes II Criminal Procedure code, Juvenile Justice Act and Probation of offenders Act LL.B.-202

At the end of the course a student will be able to understand.

- 1. To illustrate how society views about procedure of courts such as FIR, Bail etc
- 2. Demonstrate an in depth understanding of the aspects of criminal justice.
- 3. Indentify the principles of Criminal law with present scenario.
- 4. Students will understand importance of criminal procedure followed by criminal courts.
- 5. It is explain procedure from arrest till trial and punishment.
- 6. It is important legislation which gives practical knowledge to students.
- 7. It also covers the provision of appeals revision etc.
- 8. It explains hierarchy of criminal courts.

Paper III: Law of Evidence

On Successful completion of this course Students will be able to -

- 1. Analyse and define the concept and general nature of evidence and illustrate the different types of evidence and court procedure relating to evidence.
- 2. Analyse the rule relating to relevance of evidence and admissibility of evidence before the court.
- 3. Evaluate the rules relating to dying declaration and admissibility of dying declaration

Paper-IV: Family Law – I (Hindu Law)

On Successful completion of this course Students will be able to -

- Students learn about basic concept about religious and legal custom like marriage as a religious sacrament, divorce, parental custody. domestic abuse, succession.
- Family law examines historical and social circumstances that have influenced the modern regulations of families.
- This study gives examples of difference

Paper-V: Family Law – II (Mohammedan Law) LL.B.-205

On Successful completion of this course Students will be able to –

- Family law examines and compares other personal law.
- Students learn about basic concepts of Muslim culture like marriage as a contract, Meher, Talaq, Hiba, Succession, Marzul maul, wakf based on religious text Quran.

LL.B Part II (I Semester)

Paper I: Constitutional Law –I

On Successful completion of this course Students will be able to –

- 1. Students graduating with constitutional law understand the world, their country & their society.
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines.
- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation.

LL.B.-204

Paper II: Constitutional Law -II

LL.B.-302

On Successful completion of this course Students will be able to -

- 1. Students graduating with constitutional law understand the world, their country & their society.
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines.
- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation .

Paper III: Administrative Law and Rights to Information Act 2005 LL.B.-303

On Successful completion of this course Students will be able to –

- 1. Administrative law is mainly a judge made law and has secured its present features through a myriad of judicial decisions. Students got a deep knowledge of the operation and changing phenomenon of these standards from a comparative angle.
- 2. The ever increasing number of delegated legislation in the form of rules, regulation, circulars and general orders has the characteristic of law, that though framed by administration, impose burden on the rights of citizens.
- 3. Analyze the scope of review of delegated legislation and the limitations of the judicial review of administration action, the Principle of Natural Justice also have studied in details in this course.

Paper IV: Law of Equity and Trust Act 1882

LL.B.-304

On Successful completion of this course Students will be able to –

- 1. To understand the ancient law of equity and its use in Indian context.
- 2. To gain the knowledge about the law of trust in India and its implementation

Paper V: Professional Ethics and Professional Accounting System (Practical) LL.B.-305

On Successful completion of this course Students will be able to -

- 1. Demonstrate Personal and organizational entrepreneurship.
- 2. Engage in lifelong learning in Profession.
- 3. To Understand Bar-Bench relation and Accountancy for lawyers.
- 4. To give students as insight into moral decision making in the legal profession.
- 5. To know Lawyers aim to win at costs.
- 6. To balance duties towards their clien,t courts, judges, society and to themselves.

LL.B Part II (II Semester)

Paper I: CG Land Revenue Code and other local lawsLL.B.-401

Students graduating with C.G. Land revenue Code and other local laws.

- 1. To understand the land Revenue system in urban and non urban area.
- 2. To understand Bhumiswami, Diversion of Land and Government lessee.
- 3. To understand the various concept of Revenue Court and their Procedure.
- 4. Understand and describe legislative power to make laws relating to land and land ceiling is in the state list.
- 5. Different state have enacted their own laws on this subject and the application of these laws is varied from state to state.
- 6. The Constitutional perspectives relating to these subject have to be taught as an essential part of this course.
- 7. Problem solving complex issues in the land related matters and society related to policies, law enforcement, government bindings etc.

Paper II: Environmental Laws including Wild Life Protection and Animal Welfare

LL.B.-402

Students who has taken admission for this course will be able to :

- 1. Analyze advanced and integrated understanding of the complex body of knowledge in the field of environmental law
- 2. Develop the capacity to identify new law and apply existing law in the rapidly evolving legal context of environmental law
- 3. Understand in depth knowledge of the specialised area of environmental law and associated disciplinary areas.

- 4. Determine and analyze the different causes of population and legal remedies to control it on national level.
- 5. Analyzed and evaluate laws relating to environmental aspect on a national level and its comparison with other countries.

Paper III :Labour & Industrial Laws I

LL.B.-403

Students graduating with Labour Laws will be able to :-

- 1. Resolve the labour welfare problem and students will learn the laws relating to industrial Relations, Social Security, private sector wages problem etc .
- 2. Working conditions and also learns the enquiry procedural and industrial discipline.
- 3. Development and the judicial setup of Labour Laws.
- 4. The salient features of industrial dispute and trade union power and function also to integrate the knowledge of labour laws in General HRD Practice.
- 5. The Laws relating to Industrial Relations, Working conditions and also learns the enquiry procedure and industrial discipline.

Paper IV: Labour & Industrial Law II

LL.B.-404

Students graduating with Labour Laws will be able to :-

- 1. Resolve the labour welfare problem and students will learn the laws relating to industrial Relations, Social Security, private sector wages problem etc .
- 2. Working conditions and also learns the enquiry procedural and industrial discipline.
- 3. Development and the judicial setup of Labour Laws.
- 4. The salient features of industrial dispute and trade union power and function also to integrate the knowledge of labour laws in General HRD Practice.
- 5. The Laws relating to Industrial Relations, Working conditions and also learns the enquiry procedure and industrial discipline.

Paper V: Alternative Dispute Resolution (Practicals)LL.B.-405

Students graduating with 'Arbitration, Conciliation and Alternative Disputes Resolution Systems will be able to :

- 1. Familiarize with the modalities and techniques of resolution of conflict which is a necessary component in the endeavors of developing expertise in juridical exercise.
- 2. To understand and analyze the traditional justice delivery system through adjudication by along with an alternative mode of dispute resolution in the common law countries.
- 3. To approach the processes of arbitration, conciliation and mediation in areas where the traditional judicial system has its way in the past and in the new areas of conflicts that demand resolution by alternative methods.
- 4. Students to adopt a comparative approach, drawing on the experiences of many societies and jurisdictions in a large number of which, entrenched approaches to dispute handing are now under radical re-examination
- 5. Balancing theoretical and practical concerns, the principal areas of discourse and practice that the students will come to understand are the processes of negotiation and mediation .
- 6. The students will understand these processes in their own rights and also in the context of the emergence of new types of dispute resolution professional, who offer mediation and other services as alternatives of the lawyer often preferred practice of late settlement through litigation.

LL.B Part III(I Semester)

Paper I: Company Law

By the end of this course it is expected that the student will be able to :

- 1. Explain and apply to various fact scenarios the concept of separate legal entity.
- 2. To explain the basic documents such as MOA and AOA required for company.
- 3. To develop the ability to identify and effectively use the corporate law resources and to develop the ability to learn company law both independently and cooperatively in a professional environment.
- 4. To evaluate and analyze socially reasonable corporate behavior.

Paper II: Public International Law

On successful completion of the course students will be able to :

1. Demonstrate knowledge and understanding of the international rights frame work, its origins and justifying theories

LL.B.-501

- 2. Demonstrate capacity to assess how specific human rights may be asserted, enforced or violated
- 3. Critically evaluate the relationship between international and domestic law.

Paper III: Interpretation of statutes

Students graduating with 'Interpretation of Statute & Principles of Legislation' will be able to :

- 1. Know what are the techniques adopted by courts in construing statutes? And the importance of the Law making process in the present context.
- 2. What are the matters to be reckoned with by legislature while enacting laws?
- 3. Understand and analyze the judicial interpretation, construction of words, phrases and expressions

Paper IV: Human Rights Law

On Successful completion of the course students will be able to :

- 1. Demonstrate knowledge and understanding of the human rights framework, its origins and justifying theories
- 2. Demonstrate capacity to assess how specific human rights may be asserted, enforced or violated.
- 3. Critically evaluate the relationship between international and domestic law on human rights.

Paper V: Moot Court exercise and Internship (Practicals) LL.B.-505

On Successful completion of the course students will be able to :

- 1. Understand how to prepare a suit and how to file
- 2. Know the practical approach of the law course.

Get the practical training to make the career bright

LL.B Part III (II Semester)

LL.B.-503

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2. Employ a broad understanding of tax law.

1. This subject provides an introduction to, and overview of, fundamental concepts of

- 3. Conduct tax law research by using research skills to interrogate primary and secondary legal material and analyse and synthesis complex legal information.
- 4. Exhibit sophisticated knowledge related to tax accounting rules and regulation

Paper III: Law of Taxation

income tax law.

seller and buyer.

On Successful completion of the course students will be able to:

executing a decree and provision for appeal and revision are all matters which a lawyer

5. Analyse and evaluate the rules governing Mortgages, Leases, Exchanges, Gift and Actionable Claims rights and liabilities to transferor and transferee.

4. Determine and analyse the rules of sale of immovable property and rights and liabilities of

6. Analyse and evaluate the rules relating concept of easement and kinds of easement and rights

and liabilities of transferor and transferee.

Paper II: Civil Procedure Code and Limitation Act LL.B.-602

On Successful completion of the course students will be able to:

- 1. Know the details procedure for redressal of civil rights. 2. Understand, where the suit is to be filed? The essential forms and procedure for institution of suit the documents in supports and against, evidence taking and trail, dimensions of an interim. Order, the peculiar nature of the suit, the complexities of

for any side is to be familiar with.

3. To have good grounding in the subject before one enters the profession.

- the different types of transfer and rules relating to it. 2. Analyse the rule relating to transfer of property within two living persons and the consequences of it

- 3. Evaluate the rules relating to general transfer of immovable property.

On Successful completion of the course students will be able to: 1. Analyse and define the concept and nature of transfer of immovable properly, and illustrate

Paper I: Transfer of Property Act and Easement Act

- 5. Indentify define and resolve tax issue through their understanding, knowledge and application
- 6. Explain different types of income and their taxability and expense and their Deductibility.

Paper IV: Intellectual Property Law and IT Act 2000 LL.B.-604

On Successful completion of the course students will be able to:

- 1. Skill to understand the concept of intellectual property rights.
- 2. Develops procedural knowledge to Legal System and solving the problem relating to intellectual property rights.
- Skill to pursue the professional programs in Company Secretaryship , Law, Business (MBA), International Affair, Public Administration and other fields.

Paper V: Drafting Pleading and Convincing

LL.B.-605

On Successful completion of the course students will be able to:

- 1. Analyz and define the concept to Pleading and various rules of pleading and able to handle the client during the course of interaction.
- 2. Articulate the argumentation process and apply the legal drafting abilities during the appearances before Court and Tribunals.
- 3. Recognize the way to move to the criminal justice system with aid of various complaints.
- 4. Identify and discuss the various forms of conveyancing deed such as sale deed, gift, mortgage etc.
- 5. Apply legal drafting skills and understand practical aspect of registration of such documents.

Course Outcomes:

LL.M Part I (I Semester)

Subject: LAW

Syllabus of LL.M as prescribed by Universities, two year course and divided into four semesters.

Paper I: Legal and Constitutional History of India

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Students will be able

- 1. To Understand the historical development of Law in ancient period medieval and British Period.
- 2. To understand the development of legal institutions, Law commission, Juridical Institutions and constitution of India.
- 3. To know the past of the present legal and judicial system.

Paper II: Constitutional Law and New Challenges -I 102

- 1. Able to define, distinguish and apply the basic concepts and terminology of law of contract.
- 2. Able to Know how a contract formed performed, breached and remedied.
- 3. Able to define various processes involved in valid contract formation
- 4. Able to identify the relevant legal issues in the area of supplementary contract Laws such as sale of goods, partnership. Negotiable instrument, specific performance issues etc.
- 5. Able to select a range of approaches to written communication and apply the critical thinking required to bring about creative solution in the area of contract law.

Paper III: Constitutional Law and New Challenges -II 103

- 1. Able to define, distinguish and apply the basic concepts and terminology of law of contract.
- 2. Able to Know how a contract formed performed, breached and remedied.
- 3. Able to define various processes involved in valid contract formation
- 4. Able to identify the relevant legal issues in the area of supplementary contract Laws such as sale of goods, partnership. Negotiable instrument, specific performance issues etc.
- 5. Able to select a range of approaches to written communication and apply the critical thinking required to bring about creative solution in the area of contract law.

Paper IV: Research Methodology

- 1. There are two parts in course work syllabus: (i) Research Methodology & (ii) Research ethics.
- 2. The researchers can achieve appropriate knowledge or Research work & research writing by these research methodology & ethics.
- 3. Both the parts are essential to researchers. It has great significance for a researcher with out which he cannot work successfully.
- 4. It is the first & foremost vision to the researchers without which they cannot write the thesis or any type of research –oriented works.
- 5. Recognized primary and secondary source of legal research material.
- 6. Use and apply secondary source, case law and legislation using both paper based and online resources to a research problem.
- 7. Develop correct research strategies to critically evaluate the relevance, quality, authority and currency of the research materials.
- 8. Demonstrate good legal writing skills, including an understanding of the use and preparation of legal research material in legal writing and the correct methods of legal referencing.

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LL.M Part I (II Semester)

Paper I: Jurisprudence & Legal Theory

On Successful completion of this course Students will be able to -

- 1. Demonstrate an advanced understanding.
- 2. Demonstrate "Law in context of Political, Social, Historical, Natural Philosophical, economical and analytical.
- 3. Demonstrate various legal concepts such as property, Rights and duties, person, Possession, ownership, title, obligation and liability which are the roots of law.
- 4. Understand ancient and modern source of Law.
- 5. Demonstrate briefly "Knowledge of Law"
- 6. Critically analyze complex problems relating to law and legal theory.
- 7. Engage in identification articulation and Critical evaluation of legal theory and legal concepts.
- 8. Have an elementary understanding around the nature of Law.

Paper II: Interpretation of statutes and Theory of legislation 106

Students graduating with 'Interpretation of Statute & Principles of Legislation' will be able to:

- 1. Know what are the techniques adopted by courts in construing statutes? And the importance of the Law making process in the present context.
- 2. What are the matters to be reckoned with by legislature while enacting laws?
- 3. Understand and analyze the judicial interpretation, construction of words, phrases and expressions

Paper III: Indian Administrative Law

On Successful completion of this course Students will be able to -

- 1. Administrative law is mainly a judge made law and has secured its present features through a myriad of judicial decisions. Students got a deep knowledge of the operation and changing phenomenon of these standards from a comparative angle.
- 2. The ever increasing number of delegated legislation in the form of rules, regulation, circulars and general orders has the characteristic of law, that though framed by administration, impose burden on the rights of citizens.
- 3. Analyze the scope of review of delegated legislation and the limitations of the judicial review of administration action, the Principle of Natural Justice also have studied in details in this course.

Paper IV: Human Rights and Environmental Development Policy

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On Successful completion of the course students will be able to :

- 1. Demonstrate knowledge and understanding of the human rights framework, its origins and justifying theories 2. Demonstrate capacity to assess how specific human rights may be asserted, enforced or violated.
- 3. Critically evaluate the relationship between international and domestic law on human rights.
- 5. Analyze advanced and integrated understanding of the complex body of knowledge in the field of environmental law
- 6. Develop the capacity to identify new law and apply existing law in the rapidly evolving legal context of environmental law
- 7. Understand in depth knowledge of the specialized area of environmental law and associated disciplinary areas.
- 8. Determine and analyze the different causes of population and legal remedies to control it on national level.
- 9. Analyzed and evaluate laws relating to environmental aspect on a national level and its comparison with other countries.

LL.M Part II (I Semester)

(Constitutional Group)

109

Paper I: Constitutional Law of UK and Commonwealth Relation

- 1. Students post graduating with constitutional law of UK and Commonwealth understand the world, their country & their society.
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines in UK and Commonwealth Relation.
- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation.

Paper II: Constitutional Law of USA and Comparative Studies of Other Federal System 110

- 1. Students graduating with constitutional law of USA and Comparative Studies of Other Federal System understand the world, their country & their society.
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines of USA and Comparative Studies of Other Federal System.

- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation.

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Paper III: Constitutional Law of Canada and Australia

- 1. Students graduating with constitutional law of Canada and Australia understand the world, their country & their society.
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines of Canada and Australia
- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation .

Paper IV: Constitutional Law of Japan and Switzerland

- 1. Students graduating with constitutional law of Japan and Switzerland understand the world, their country & their society .
- 2. Relation between Government and citizen.
- 3. Learn their rights and duties towards nation as well as theme- selves.
- 4. Have awareness of social rights, values and responsibility to the self and to others.
- 5. Understand different disciplines of Japan and Switzerland.
- 6. Students will be able to indentify Constitutional concept and theories related to fundamental rights, duties, directive principles of state police and constitutional remedies.
- 7. Students will be able to integrate three main pillars of the Nation Judiciary, executive and legislature.
- 8. Students will be able to evaluate social welfare and interrelationship between fundamental rights and directive Principles through interpretation .

(Crime and Tort Group)

Paper I: Criminology

On Successful completion of the course students will be able to:

- 1. Demonstrate knowledge of the general history of crime movements and criminology.
- 2. Evaluate a number of different definitions of Crime hood.
- 3. Critically analyze the issue that underline the main needs of crime victims
- 4. Evaluate recent legislative changes that increase the opportunity for Criminals to crime to be active players in the criminal justice process.
- 5. Evaluate critically issues that emerge when particular types of criminals are involved with the criminal justice system and other agencies.
- 6. Critically analyze media and other political debate about Criminal and their needs in broader economics, optical and social contexts.

Paper II: Penology

On Successful completion of the course students will be able to:

- 1. This course provides the student and understanding of the various theories of punishment, Panel reform, Prison reform etc.
- 2. Penology is a multi disciplinary subject that aims for the study and evaluation of the application of Penal Laws.
- 3. Penology is almost seen in every aspect in type of punishment for the crime and offences.
- 4. Penology deals with care, custody, treatment, prevention, Parole, Probation and control of Crime as also the various modes of sentencing and rehabilitation of criminals.
- 5. Understand the various dimensions of the various aspects of the Indian Law and abroad Law related to Penology.
- 6. Understand the various aspect of the Indian Legal structure life that of the concept of restorative justice and compensatory schemes for victims.
- 7. Demonstrate a through and contextual knowledge of panel law and the various leading cases particularly in its application to real law problems.
- 8. Indentify and engage the key issue problem, trends, Ideas, and debates within the field of penology.

Paper III: General Principles of Criminology Law and IPC115

- 1. Analyze the concept of crime and punishment with reference to structure of society.
- 2. Suggest the amendments regarding justice according to the changing needs of the society.
- 3. Indentify Criteria used to evaluate the Criminal Law of India.
- 4. Indentify social theory about Crime, Justice and Social deviance.
- 5. Address various obstacles experienced by individuals before during and after internment.
- 6. Understand and describe areas of criminal justice, law and society through a critical analysis of the subject.
- 7. Analyze lacunas within the criminal justice system and suggest the amendments to provide the justice according to the changing needs of the society.
- 8. Summarize the process of judicial review and identify criteria used by courts to evaluate the constitutionality of criminal law of India.

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- 9. Indentify and synthesize social theory about crime, justice and social deviance that explain and address various obstacles and barriers experienced by individual before, during and after internment.
- 10. Problem solve complex issues in the criminal justice system and society related to policy, law enforcement, vulnerability and marginalization.

Paper IV: Law of Evidence

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On Successful completion of the course students will be able to:

- 1. Analyze and define the concept and general nature of evidence and illustrate the different types of evidence and court procedure relating to evidence.
- 2. Analyze the rule relating to relevance of evidence and admissibility of evidence before the court.
- 3. Evaluate the rules relating to dying declaration and admissibility of dying declaration

LL.M Part II (II Semester)

Constitutional Group

Paper I: Law & Social Transformation in India

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On Successful completion of the course students will be able to:

- 1. Demonstrate an advanced understanding.
- 2. Demonstrate "Law in context of Political, Social, Historical, Natural Philosophical, economical and analytical.
- 3. Demonstrate various legal concepts such as property, Rights and duties, person, Possession, ownership, title, obligation and liability which are the roots of law.
- 4. Understand ancient and modern source of Law.
- 5. Demonstrate briefly "Knowledge of Law"
- 6. Critically analyze complex problems relating to law and legal theory .
- 7. Engage in identification articulation and Critical evaluation of legal theory and legal concepts.
- 8. Have an elementary understanding around the nature of Law.

Paper II: Administrative Law UK, USA, France & India 118

- 1. Administrative law is mainly a judge made law and has secured its present features through a myriad of judicial decisions. Students got a deep knowledge of the operation and changing phenomenon of these standards from a comparative angle.
- 2. The ever increasing number of delegated legislation in the form of rules, regulation, circulars and general orders has the characteristic of law, that though framed by administration, impose burden on the rights of citizens.
- 3. Analyze the scope of review of delegated legislation and the limitations of the judicial review of administration action, the Principle of Natural Justice also have studied in details in this course.

Paper III: Dissertation

- After writing the dissertation any students may carry out his dissertation with the proper research method. or guidance.
- In a specific given time (generally one year) a students complete this dissertation work and after evaluate of his work he/she may be awarded a master degree.
- This kind of dissertation may be accounted as intellectual work. Similarly, it may be a great literary value.
- Master & students at all.

Paper IV: ViVa

- 1. Prepare comprehensively to answer questions from all the course of two semesters.
- 2. Attain Oral Presentation skills by answering question in precise and concise manner.
- 3. Gain confidence and inter-personal skills.

LL.M Part II (II Semester)

Crime & Tort Group

Paper I: Law of Tort- General Principles

On Successful completion of the course students will be able to:

- 1. To Study the Principles of Tortious liability.
- 2. To Study the capacity of parties to sue and be sued.
- 3. To evaluate the specific tort against the individual and property.
- 4. To study the remedies provided under the Consumer Protection Act 1986 and Motor Vehicle Act.

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Paper II: Specific Torts- Special Topic (1) Negligence (2) Vicarious Liability

On Successful completion of the course students will be able to:

- 1. To Study the Principles of Tortious liability.
- 2. To Study the capacity of parties to sue and be sued.
- 3. To evaluate the specific tort against the individual and property.
- 4. To study the remedies provided under the Consumer Protection Act 1986 and Motor Vehicle Act.

Paper III: Dissertation

- After writing the dissertation any students may carry out his dissertation with the proper research method. or guidance.
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Paper IV: ViVa

- 1. Prepare comprehensively to answer questions from all the course of two semesters.
- 2. Attain Oral Presentation skills by answering question in precise and concise manner.
- 3. Gain confidence and inter-personal skills.

Course Outcomes:

PGDCA

Paper I: Fundamentals of Computers

- 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.

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PGDCAI-A

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- 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.

Paper II: Office Automation and Tally

To improve quality of output in terms of presentation and reduction in processing time 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

Paper III: Programming in "C"

1. Solve the given problem using the syntactical structures of C language

2. Develop, execute and document computerized solution for various problems using thefeatures of C language.

3. To read and write C program that uses pointers, structures, files etc.

Practical based on PGDCAI-B

By learning the course, the students will be able

- 1. To perform documentation
- 2. To perform accounting operations
- 3. To perform presentation skills

Practical Based on PGDCAI-C

PGDCAI-E

PGDCAI-C

PGDCAI-D

PGDCAI-B

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.

Semester II

Paper I: Programming in VB.NET

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 .net programming to software development by designing projects with menus
- 7. and submenus
- 8. Use .net programming environment to create simple visual applications

Paper II: Database Management System (DBMS) PGDCAII-B

1. Gain a good understanding of the architecture and functioning of database managementsystems as well as associated tools and techniques, principles of data modeling using entityrelationship and develop a good database design and normalization techniques to normalize database.

2. Understand the use of structured query language and its syntax, transactions, databaserecovery and techniques for query optimization.

3. Acquire a good understanding of database systems concepts and to be in a position to use anddesign databases for different applications.

Paper III- Internet and Web Technology

PGDCAII-C

1. Design and implement an e-commerce application with a shopping cart.

PGDCAII-A

2. Integrate user-centered design guidelines in developing user-friendly websites.

3. Analyze different types of portal technologies and deployment methodologies commonlyused in the industry.

- 4. Create a static website using HTML and add dynamic functionality of CSS
- 5. Gain confidence to create dynamic website on real world problems.

Practical Based on PGDCAII-A

PGDCAII-D

1.To learn how to design and develop VB .Net application.

2.To familiar with all tools of VB .Net

- 3. Creation function and procedure.
- 4. To learn ADO .NET database programming .

Practical Based on PGDCAII-B and PGDCAII-C PGDCAII-E

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.

PGDCA

Semester I

PGDCA-101 Fundamentals of Computers

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 Outcomes:

- 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.

Course Outcomes:

Subject: Diploma in Business Management:

Faculty of Commerce

Paper I: Principles and Practice of Management

Upon successful completion of this course a Student will be able to:-

- **1.** To understand role of a professional manager.
- 2. Know about management planning and decision making techniques.
- **3.** Know about business communication.
- 4. Know about motivation, leadership and direction.
- **5.** Skill development.
- 6. The student's knowledge control technique.

Paper II: Managerial Economics & Business EnvironmentDBM-B

DBM-A

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 ControlDBM-C

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 DBM-D

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.

3. This course aims to imparting basic knowledge of the subject.

Paper V: Production Management & Marketing Management **DBM-E**

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.

Project

Upon successful completion of this course the students will be able to gain practical experience while studying upon a business unit.

Viva

Upon successful completion of this course students will be able to present and explain the report prepared by them systematically.

DBM-G

DBM-F