

Atarra Post Graduate College, Atarra (Banda)
M.A. Geography (Previous)

Course Outcomes :

Title of the paper	Geomorphology
Course Code	1381
Credits	Maximum Marks 100
Total Hours	90

In this course the student will

CO1. Learn about development of Geomorphic thought, method, approaches, fundamental concepts, Geological structure, Geomorphic process and theories of landscape development.

CO2. Learn about Earth movement, Isostasy, Earth's interior, plate tectonics theory, Volcanoes and theory of mountain building.

CO3 . Learn about weathering and erosion, slope analysis.

CO4 . Learn about work of River, Glacier, Air and Karst topography, cycle of erosion and development of River valley.

CO5 . Learn about applied Geomorphology, related hydro urban and environmental geomorphology, Geomorphological study of Bundelkhand region of Uttar Pradesh.

Title of the paper	Geography of Resources
Course Code	1382
Credits	Maximum Marks 100
Total Hours	90

This paper enables the students to understand

CO1 . Nature, concepts, classification of Resources and techniques of their conservations.

CO2 . Soil, forest, water resources utilization and their conservation .

CO3 . Agriculture effecting factors and type of agriculture, Green, White and Blue revolutions, agricultural regions of the world. Minerals and power resources utilization and their conservation .

CO4 . Study of the industries and industrial regions of the world . Human resources , problems and prospects of it.

CO5 . Transport, trade, resource regions with special reference to India.

Title of the paper	Climatology and Oceanography
Course Code	1383
Credits	Maximum Marks 100
Total Hours	90

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

CO1 . About Atmosphere, Insolation, Temperature, Atmospheric motion and Precipitation.

CO2 . Air masses, El Nino, ENSO and La Nina, Monsoon winds, Western disturbances.

CO3 . Climatic classification, climatic changes, Global Warming, Atmospheric Hazards and Disasters.

CO4 . Major features of ocean basins, marine deposits and Coral land forms .

CO5 . Circulation patterns in the oceans – currents, waves and tides.

Title of the paper	Agricultural Geography
Course Code	1384
Credits	Maximum Marks 100
Total Hours	90

On completion of this course the student will learn about

CO1 . Definition, development, approaches of agricultural geography, Origin and dispersal of agriculture.

CO2 . Factors affecting agriculture, agricultural location theories and agriculture typology.

CO3 . Land use efficiency, agricultural productivity, crop intensity, diversification and also crop combination regions.

CO4 . Agricultural regionalization specially U.S.A., India, China and U.S.S.R.

CO5 . Contemporary Indian Agricultural Issues, Green, White, Blue and Yellow Revolutions. Agricultural problems and policies in India .

Atarra Post Graduate College, Atarra (Banda)
M.A. Geography (Final)

Course Outcomes :

Title of the paper	Regional Geography of India
Course Code	2381
Credits	Maximum Marks 100
Total Hours	90

In this course the student will

CO1 . Learn about Structure, relief, climate, soil and vegetation of India.

CO2 . Learn about agriculture, mineral and power resources.

CO3 . Learn about industries, problems and prospects of it and also industrial regions.

CO4 . Learn about different aspects of population and also Transport network and Trade.

CO5 . Learn about basis of regional division, Resource Regions of India, macro, meso and micro regions of India .

Title of the paper	History of Geographical Thought
Course Code	2382
Credits	Maximum Marks 100
Total Hours	90

This paper enables the students to understand

CO1 . Nature, concepts of Geography and its place in the classification of the sciences .

CO2 . Indian, Greek, Roman, Arab Geographer's contribution.

CO3 . German , French, British and American Geographer's thoughts.

CO4. Dualisms in Geography, concepts of region and regionalization.

CO5 . Recent Trends in Geography , progress, status and future of Indian Geography.

Title of the paper	Settlement Geography
Course Code	2384
Credits	Maximum Marks 100
Total Hours	90

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

CO1 . Meaning , Evolutions and classification of settlements.

CO2 . Spatial distribution and types of rural settlements specially India.

CO3 . Rural service centers, house types and their distribution, problems and planning also in India.

CO4 . Urban Morphology, theories of Christaller and Losch and their application to settlement hierarchy.

CO5 . Problems and prospects of urban growth specially in India.

Title of the paper	Political Geography
Course Code	2387
Credits	Maximum Marks 100
Total Hours	90

On completion of this course the student will be learn about

CO1 . Nature, scope, approaches and major schools of thoughts.

CO2 . Geographic elements and the state and also political geography and environment interface .

CO3 . Themes about state, nation, frontiers and boundaries, changing pattern of world powers.

CO4 . Geopolitical significance of Indian ocean and also political geography of SAARC, South –East, West and East Asia.

CO5 . Political geography of contemporary india about unity-diversity, centripetal and centrifugal forces.

Atarra Post Graduate College, Atarra (Banda)

B. A. Geography (First year)

Course Outcomes :

Title of the paper	Physical Geography -1 (Elements of Geomorphology)
Course Code	1152
Credits	Maximum Marks 35
Total Hours	90

In this course the student will

CO1 . Learn about nature and scope of Physical Geography and relation with other branches of science.

CO2 . Learn about interior of the Earth, Earth movements , Isostasy and wegner's theory of continental drift also.

CO3 . Learn about rocks, their classification and characterstics, wethering and soil formation .

CO4 . Learn about cycle of erosion and work of river, air, glacier and underground water.

CO5 . Application of Geomorphology, environmental hazards and assessment.

Title of the paper	Human Geography
Course Code	1153
Credits	Maximum Marks 35
Total Hours	90

This paper enables the students to understand

CO1 . Meaning, scope and development of human geography ,man and environmental relationship and basic principles.

CO2 . Distribution of population, migration, concepts of over and under population, human settlements.

CO3 . Human economy evolution, major innovations and their impact.

CO4 . Evolution of man, cultural diffusion and also word human Races and their classification, characteristics and distribution.

CO5 . Mode of life of world tribes and Indian tribes.

Atarra Post Graduate College, Atarra (Banda)

B. A. Geography (Second year)

Course Outcomes :

Title of the paper	Physical Geography –II (Climatology and Oceanography)
Course Code	2152
Credits	Maximum Marks 35
Total Hours	90

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

CO1 . Wether and climate, composition and structure of atmosphere, Insolation, temperature, atmospheric pressure and winds .

CO2 . Atmospheric precipitation, air masses and fronts, atmospheric disturbances.

CO3 . Climatic classification specially koppen’s classifications, role of climate in human life.

CO4 . Atlantic pacific and Indian ocean relief, distribution of temperature and salinity of oceans .

CO5 . Ocean currents and tides, marine deposite and coral reefs.

Title of the paper	Economic Geography
Course Code	2153
Credits	Maximum Marks 35
Total Hours	90

On completion of this course the student will learn about

CO1 . Nature , consepts and approaches of economics geography, typology of economic activities, concepts and classification of resources.

CO2 . Soil and forest types, agricultural landuse, location theory of Von Thunen, distribution of main crops of the world and agricultural regions.

CO3. Fisheries distribution and production, minerals and power resources in the world.

CO4 . Wevers theory of industrial location and study of major industries in the world.

CO5 . Trade and Transport, world trade organization and their effect on developing countries.

Atarra Post Graduate College, Atarra (Banda)

B. A. Geography (Final year)

Course Outcomes :

Title of the paper	Geography of India
Course Code	3152
Credits	Maximum Marks 35
Total Hours	90

In this course the student will

- CO1 . Learn about relief, drainage, climate and soil of India.
- CO2 . Learn about forest, minerals and power resources of India and river valley projects.
- CO3 . Learn about problems of Indian agriculture, agricultural regions and study of major industries.
- CO4 . Learn about population, transport and trade.
- CO5. Learn about regional disparities and development of india, study of bundelkhand , central and eastern U.P.

Title of the paper	Environmental Geography
Course Code	3153
Credits	Maximum Marks 35
Total Hours	90

This paper enables the students to understand

- CO1 . Meaning, scope and concepts of environmental geography, ecology and ecosystem.
- CO2 . Biomes, biodiversity and Geo-bio- chemical cycles.
- CO3 . Environmental degradation, ozone depletion and population explosion.
- CO4 . Environmental pollution, technology and awareness to it, Ganga action plan.
- CO5 . Natural resources management and their conservation.

Title of the paper	Far East (China and Japan)
Course Code	3154 - c
Credits	Maximum Marks 35
Total Hours	90

On completion of this course the student will learn about

- CO1 . Far East region as a geographical entity .
- CO2 . Structure, relief, climate, vegetation, minerals and power resources of China and Japan.
- CO3 .Different aspects of population, agriculture, industries, transport and trade of China and Japan.
- CO4 . Strategic importance of the region.
- CO5 . Detail regional study of China and Japan.

Atarra P.G College Atarra (Banda)

B.com (Department of commerce)

Course out comes: First year

Title of the paper – Business Communication

Course code –1201

Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Learn about Basic forms of communication, communication models and processes; effective communication; theories of communication; Audience analysis.

Co2. Learn about Self-development and Communication that are Development of Positive Personal Attitudes; Analysis; Interdependence; Whole Communication.

Co3. Learn about Corporate Communication : that are Formal and Informal Communication Networks; Grapevine; Miscommunication (Barriers); Improving Communication.

Co4. Learn about Practices in Business Communication; Group Discussions; Mock Interviews; Seminars; Effective Listening Exercises; Individual and Group Presentation and Reports Writing. Principles of Effective Communication

Co5. Learn about Writing Skills that are Planning Business Messages; Rewriting and Editing; The First Draft; Reconstruction the final draft ; business letters and memo formats; appearance request Letters, good news and bad news Letters, persuasive Letters, sales Letters; collection Letters, office memorandum.

Co6. Learn about Report writing that are introduction to a proposal, short report and formal report preparation.

Co7. Learn about principle of oral presentation, factors affecting presentation, sales presentation, training presentation, conducting surveys, speeches to motivate, effective presentation skills.

Co8. Learn about Effective Listening that are principles of effective Listening, factors affecting listening exercises, oral, written and video sessions.

Co9. Learn about Modern forms of communicating that are Fax, E-mail, Video conferencing etc.

Title of the paper – Business Statistics

Course code –1202

Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Learn about Statistics as a Subject; Descriptive Statistics - compared to Inferential Statistics; Types of Data; Summation Operation;

Co2. Learn about Analysis of Univariate Data: that are construction of frequency Distribution; concept of central tendency and Dispersion and their Measures; Skewness and Measures.

Co3. Analysis of Bivariate Date: Co-relation and regression

Co4. Learn about Index Number : that are Meaning, Types and uses; Methods of constructing price and quantity Indices (simple and aggregate); Tests of adequacy; Chain base Index Numbers; Base Shifting, Splicing and Deflating; Problems in constructing Index Numbers: consumer price Index.

Co5. Analysis of time series: causes of variations in time series; Data; Components of a time series; Decomposition- Additive and Multiplicative Models, Determination of Trend. (Including Linear, second degree, Parabolic and exponential Trend);

Co6. Learn about Forecasting and methods: forecasting-concepts types and Importance, general approach to forecasting, Forecasting Demand.

Co7. Learn about Theory of Probability :-that are Probability as a concept; Addition and multiplication laws of probability.

Title of the paper – Financial Accounting

Course code –1203

Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Learn about Meaning and Scope of Accounting :- need, development and definition of accounting; branches of accounting : Objective of accounting. Book keeping and accounting.

Co2. Learn about Accounting Principles :-that are International accounting standards (only outline); Accounting Principles; Accounting standards in India.

Co3. Learn about Accounting of banking companies. Accounting for general insurance companies.

Co4. Learn about Royalty accounts; Insolvency Accounts :-

Individual and Partnership firm. Branch Accounts :that are - Dependent branches; debtor system, stock and debtor system; final account system; wholesale branch; independent branch; foreign branch.

Co5. Learn about Hire-Purchase and Instalment payment system : Meaning of hire purchase contract; legal provision regarding hire purchase contract; Accounting records for substantial sale value, and accounting records goods of small values; Instalment purchase system; after sales service.



Title of the paper – Business Regulatory Frame work

Course code –1204

Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Law of Contract (1872) :- Nature of Contract; Classification; Offer and Acceptance. Capacity of parties to contract; Free Consent; Consideration: Legality of Object: Agreement declared void; performance of Contract; Discharge of Contract; Remedies for breach of contract.

Co2.Special contracts : Indemnity; Guarantee; Bailment and Pledge Agency.

Co3.Sale of Goods Act. 1930: Formation of Contracts of Sales: Goods and their Classification, Price, Conditions and Warranties; Transfer of Property in Goods; Performance of the contract of sales; Unpaid Seller and his rights, Sale by Action; Hire - Purchase Agreement. Negotiable Instrument Act, 1881 : Definition of Negotiable Instruments; Features Promissory note; Bill of Exchange and Cheque; Holder and the Holder in Due course; Crossing of Cheque, Types of Crossing; Negotiation; Dishonor and Discharge of negotiable instrument.

Co4.The Consumer protection act, 1881 : salient features; Definition of consumer; Grievance Redressal Machinery;

Co5.Foreign Exchange Management Act, 2000: Definition and Main Provision.

Title of the paper – Business Economics

Course code –1205

Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Meaning and limitation of economics and business economics; basic problems of economics, wants and its characteristics; law of diminishing marginal utility. working of price mechanism.

Co2. Concept of measurement of elasticity of demand; price, income and cross elasticity's. average revenue, marginal revenue, and elasticity of demand; determinants of elasticity of demand; Importance of elasticity of demand.

Co3. Law of variable proportions, Iso-quants; Economic regions and optimum factor combination : Expansion path; Returns to scale internal and external economics and diseconomies; Ridge lines.

Co4. short run and long run cost curves; traditional and modern approaches.

Co5. Market structures and business decisions objectives of a business firm. A perfect competition profit maximization and equilibrium of firm and industry; short run and long run supply curves; Price and output determination. Practical applications. Monopoly: determination of price under monopoly: Equilibrium of a firm; Comparison between perfect competition and monopoly; Multi-plant monopoly; Price discrimination, practical applications.

Co6. Marginal productivity theory and demand for factors: Nature of supply of factor inputs; Determination of wage rates under perfect competition and monopoly; Exploitation of labour; Rent concept; Ricardian and modern theories of rent; Quasi-rent.

<p>Title of the paper – Business Environment Course code –1206</p>
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Credits – Maximum Marks 50

Total Hourse – 90

In this Course the Student will

Co1. Learn about Indian Business Environment : that are Concept, Components and importance

Co2. Learn about Economic Trends : that are Income, Saving and investment; Industry : Trade and balance of payments, Money : Finance prices

Co3.Problem of Growth : Unemployment : Poverty, Regional imbalances, Social injustice; Inflation; Parallel economy; Industrial Sickness.

Co4. Learn about Role of Government :that are Monetary and fiscal policy; Industrial licensing, Privatizations; Liberalization & Globalization; Devaluation; Export-Import policy; Regulations of foreign investment; Collaborations in the light of recent changes.

Co5.The Current Five - Year plan that are : Major Policies; Resource allocation.

Co6. Learn about International Environemnt : that are International trading environemnt; Trends in World trade

and the problem of developing countries; Foreign trade and economic growth; International economics institutions-GATT, WTO, World Bank, IMF.

Course out comes: Second year

Tittle of the paper – Public Finance

Course code –2201

Credits – Maximum Marks 50

Total Hourse – 90

On Completion of this Course the Student will learn about

Co1.Definition and Scope of public Finance; Public & Private Finance; Principle of Maximum Social Advantage; Importance of Public Finance.

Co2. Classification of public Revenue; Sources of public Revenue; principle of Taxes; Problem of Equity in Taxation; Incidence of Taxation; Effect of Taxation; Requirements of a Sound Tax System; Taxable Capacity.

Co3. Classification of public Expenditure; Causes of public Expenditure; Importance & Objectives of public Expenditure; Economic Effects of public Expenditure; Principle of public Expenditure.

Co4. Objectives & Importance of public Debt; Classification of public Debt; External & Internal Debt; Effects of public Debt; Method of Raising Public Debt; Redemption of Public Debt; Capital Levi; Deficit Financing.

Co5. Finance Commission; Financial Administration; Govt. Budgeting - Meaning, Importance and types; Budget- Its Preparation Legislation and Execution; Central, State and Local Finance - Source of Revenue and Items of Expenditure and related Issues; fiscal Policy.

Title of the paper – Company Law

Course code – 2202

Credits – Maximum Marks 50

Total Hour – 90

In this course the Student will

Co1. Corporation Personality; Kind of companies, Promotion and incorporation of companies,

Co2. Memorandum of Association; Articles of Association; Prospectus

Co3. Capital management - borrowing Powers and charges, debenture,

Co4. Directors - Managing Directors, Whole time director, Company meeting-kinds, quorum, voting resolutions minutes, Majority Power and rights; preventions of oppression, and Mismanagement, minutes, Winding up-kinds and conduct.

Title of the paper – Cost Accounting

Course code – 2203

Credits – Maximum Marks 50

Total Hourse – 90

In this course the Student will

Co1. Learn about Introduction; Meaning, Objectives and Advantage of cost accounting VS Financial Accounting; Co2.Method and techniques; Element of cost; concept of cost audit,

Co3. Accounting for Material: Material cost control; concept and techniques; pricing of material issues;that are Treatment of material losses,

Co4.Accounting for Labour; Labour cost control, procedure; Lqbour turnover; Ideal time and over time; Method of wages payment-time and piece rates; Incentive Schemes,

Co5. Accounting for Overheads; Classification and Allocation of overheads; Absorption of overheads; Machine hour rate, Unit or output costing; job batch and contract costing Operating costing; Process costing,

Co6. Reconciliation of cost and financial accounting, Costing Techniques and marginal costing. Break-even-point (BEP)

This Paper Enables the Student tounder stand

Tittle of the paper –Principle of Business Managemnet Course code –2204 Credits – Maximum Marks 50 Total Hourse – 90

Co1.Introduction ;Concept, process and signigance of management; Contribution regarding modern management thought: Henery Fayol's & F w Taylor's :

Co2. An overview of functional of management :that are Development of management thought; Classical and neo-classical systems;contingency approaches,

Co3.Planning concept, process and types, significance of planning; Decision-making-concept and process; Management by objectives, Organising; concept; nature, process and significance; Authority and responsibility relationships;

Co4.Centralization and decentralization; Departmentalization, Organization Structure.

Co5. Motivating and leading people at Work: Motivation concept: Theories Maslow, Harzberg, McGregor, financial and non-financial incentives.

Co6. Leadership-concept and leaders styles / theories,

Co7. Communication-nature, process, network, and barriers; Effective communication,

Co8.Managerial Control:that are concept and process: Effective control system; Techniques of control.

Co9.STAFFING-Activities involved in staffing; function and significance. The process of recruitment and selection, Training -importance read and techniques, Management of change; Concept, nature, and process of planned change; Resistance to change; Emerging horizons of management.

Title of the paper – Income Tax
Course code –2205
Credits – Maximum Marks 50
Total Hourse – 90

In this course the Student will

Co1. Learn about Basic concepts:that are Income, agriculture Income, casual income, assessment year, previous year, gross total income, total income, person;, Basis of charge; Scope of total income, residence and tax liability, income that does not form part of total income.

Co2. Learn about Heads of income: Salaries; that are Income from House property; Profit and gains of business or profession, Capital Gains; Income from other sources,
Co3. Learn about Computation of Tax Liability: Computation of total income and tax liability of an Individual: Deduction from gross total income,
Co4. Learn about Tax Management: that are Tax deduction at source; Advance payment of tax; Assessment procedures; Tax Administration; Authorities, appeals, penalties.

Title of the paper – Money and Financial System

Course code – 2206

Credits – Maximum Marks 50

Total Hours – 90

In this course the Student will

Co1. Learn about Money : that are Functions; Alternative Measures to money supply in India-Their Different Components; meaning and Changing Relative Importance of each; High Powered Money,

Co2. Learn about Finance: that are Role of Finance in an Economy; Kinds of Finance; Financial System Components Financial Intermediaries; Markets and Instruments and their functions, Indian Banking System:

Co3. Learn about Definitions of Bank commercial Banks - that are Importance and Functions; Structure of Commercial banking System in India; Balance Sheet of a Bank; Meaning and Importance of main liabilities and assets; Regional Rural banks; Co-operative Banking in India,

Co4. Learn about Process of credit creation by Banks: credit creation process; Determination of money supply and Total Bank credit,

CO5. Learn about Developments Banks: that are developments Banks and other Non Banking Financial Institutions: Their main features; unregulated credit market in India- Main Feature, The Reserve Bank of India: Functions.

Co6. Learn about Instruments of Monetary and credit control; main features of monetary policy since Independence, Problems and Policies of Allocation of Instrumental Credit; problems between the government and the commercial Sector.

Course out comes: Final year

Title of the paper –Corporate Accounting

Course code –3201

Credits – Maximum Marks 50

Total Hourse – 90

In this course the Student will

Co1. Learn about Concept of Company : that are Structure of share capital, statutory accounts books, types of shares, issue forfeiture and re-issue of shares, issue of right shares

Co2., Issue and redemption of debentures, redemption of preference shares, issue of bonus shares,

Co3. Acquisition of buiness by a company, profit and loss prior to incorporation,

Co4. Amalgamation, Absorption and Reconstruction of companies as per accounting standard 14,

Co5. Accounting of holding companies and Liquidation, Valuation of goodwill and shares.

Title of the paper –Auditing 3202

Course code –

Credits – Maximum Marks 50

Total Hourse – 90

In this course the Student will

- CO1.Introduction : Meaning and objectives of auditing; Types of audit; internal audit
Co2.,that are Audit Process: Audit programme; Audit note book; working papers and evidence; consideration for commencing a new audit; Routine Checking and Test checking, CO3.Internal check System and Internal control, Audit procedure; Vouching; Verification of Assest and liabilities,
Co4.Audit of Limited Companies:
CO5. a. Company auditor - Appointment, Powers, Duties and Liabilities.
CO6.b. Divisible profits and dividend.
CO7.c. Auditor's report - clean report and qualified report.
Co8.d. Special audit of banking companies.
Co9.e. Audit of educational Institutions.
Co10.f. Audit of Insurance Companies.

Title of the paper –Marketing Management

Course code – 3203

Credits – Maximum Marks 50

Total Hourse – 90

In this course the Student will

- CO1. Learn about Introduction :- that are Concept of Market, Marketing and Marketing Management, Industrial and Consumer Marketing, system approach to marketing institutions, marketing functions.
Co2.Learn about The Consumer :- that are The consumer behavior, buyer's motivation and Incentives.
CO3.Learn about Marketing Structure :-that are Retailing functions and dimensions, Operating Problems of retailers and wholesalers; large and wholesalers large scale relating system.

O4.Learn about Channels of distribution :- that are Channel, policy and its importance selection of channels decision areas in channels distribution, managing distribution channels.

Co5.Learn about Market segmentation :- that are Meaning and importance, product, differentiation and market segmentation alternative marketing strategies.

Co6. Learn about Pricing :-that are Pricing objectives. Meaning and importance of price, basic methods of price determination, price policies and strategies.

Co7.Learn about Promotion :-that are The promotional programme management of personal selling management of advertising, advertising copy and media advertising and sales force decisions.

Co8. Learn about Government and Marketing :-that are State policy regarding marketing state trading in India, Regulation of stock exchange and product exchange.

Co9.Learn about Product :-that are Classification of products, new products development and introduction.

Title of the paper –Management Accounting

Course code – 3204

Credits – Maximum Marks 50

Total Hourse – 90

In this course the Student will

Co1. Learn about Management Accounting:-that are meaning nature, scope and function of management accounting, role of management accounting in decision making; management accounting vs financial accounting; Tools and techniques of management accounting.

CO2. Learn about Financial Statements :-that are Meaning and types of financial statement; limitations of financial statements; objectives and methods of financial statements analysis.

Co3.Learn about Ratio analysis :-that are classification of ratios; profitability ratios, turnover ratios. solvency ratios, Advantage of ratio analysis; Limitations of ratio analysis. Funds flow statement as per Indian Accounting standard 3, Cash flow statement.

CO4.Learn about Standard costing and variance Analysis :- that are Meaning of standard cost and standard costing:

CO5.Learn about Advantages and application; that are variance analysis, material labour and overhead variances. Break Even Analysis: Meaning, assumptions, Limitations and uses of break even analysis, profit volume analysis meaning and application of profit volume ratio; Marginal and differential as a tool for decision making.

Co6. Learn about Budgeting for profit planning and control :-that are Meaning of budget and budgetary control; Objectives; merits and limitations; Types of budget; Fixed and flexible budgeting; control ratios; Zero base budgeting; Responsibility accounting.

Title of the paper – Industrial Law

Course code – 3205

Credits – Maximum Marks 50

Total Hourse – 90

In this Paper enables course the Student to understand

CO1.The factories act Importance, Definition, Provisions of the Factories Act relating to health, Safety and Welfare of the workers. Working hours of Adults and Young persons.

Co2.Industrial Disputes Act Meaning of Industrial Disputes, Authorities under the Industrial Disputes Act, their duties and rights, strikes and lockouts, Lay off and Retrenchment.

Co3. Indian Trade Union Act Definition and Registration of Trade Unions. Rights and Liabilities of Registered Trade Unions,

Co4. Employees State Insurance Act. Constitution and Functions Employees, State Insurance Corporation, Standing Committee and Medical Benefit Council, Provisions Relating to Contribution and Benefits.

Co5. Workman compensation Act A brief study of the provisions to compensation of workman.

CO6. Minimum wages Act A brief study of Minimum Wages Act.

Co7. Payment of Wages Act A brief study of Payment of Wages Act.

Title of the paper – Personnel Management

Course code – 3206

Credits – Maximum Marks 50

Total Hours – 90

In this Paper enables course the Student to understand

Co1. Personnel management - introduction, nature and scope of Personnel management. Perception and interpersonal resources. Human resources and development.

Co2. Personnel policies, organization of personnel department. Employment and recruitment, promotion transfer demotion lay off.

Co3. Wage and salary administration, appraisal matter relating to wages payment systems and job evaluation.

Co4. Personnel problems - Description turnover, absentees, moral of workers, health, safety and welfare developing corporation, management of changes; Trade Unions and employers organization

Co5. Growth and problems - workers participation in management collective bargaining, prevention and settlement of disputes,

Co6. Human needs and motivation-workers need motivation leadership.

Title of the paper – Production Management

Course code – 3207

Credits – Maximum Marks 50

Total Hours – 90

In this course the Student will

Co1. Learn about Introduction :-that are Meaning of production and production management function, Organization of production Department.

Co2. Learn about Production Decisions :- that are Planning of New product, Product Development, principles, Diversification, Simplification, Standardization and specialization.

Co3. Learn about Factory Planning :-that are Plant location, Layout, Maintenance and Work Environment

Co4. Learn about Production Planning and Control : that are Meaning, Objectives and techniques - Routing, scheduling, Dispatching and Follow-up

Co5. Learn about Production Economics :- that are Determining Optimum size of plant, Multi-shift working, Product mix, capacity utilization and economics of substitutability make or buy decisions.

Co6. Learn about Production system and machines :- that are Continuous and intermittent system, Simplification of mechanization, consideration in selection of machines and tools, general purpose and special purpose machine and tools

Atarra P.G College Atarra (Banda)

Mcom (Department of commerce)

Course outcomes: First year

Title of the paper – Managerial Economics

Course code –1311

Credits – Maximum Marks 100

Total Hours – 90

In this course the Student will

Co1. Learn about Nature and Scope of Managerial Economics : -that are Objective of a firm; economic, Theory; Managerial Economist's role and responsibilities; fundamental economic concepts Incremental principle, Opportunity cost principle, discounting principle, Equi-marginal Principle.

Co2. Learn about Demand Analysis :that are Individual and market demand functions; Law of Demand, determinants of demand; elasticity of demand-its nature, meaning and importance; Price Elasticity, Income Elasticity and cross Elasticity; Using elasticity in managerial decisions.

Co3. Learn about Theory of Consumer Choice :that are cardinal utility approach, Indifference Approach, revealed Preference and theory of consumer choice under risk; demand estimation for major consumer durable and non-durable products; demand forecasting techniques.

Co4. Learn about Production theory : production function-that are production with one and two variable inputs; stages of production; economics of scale; Estimation of production function; cost theory and estimation; economic value analysis and long run cost function their nature, shape and interrelationships; law of variable proportions; law of returns to scale.

Co5. Learn about Price Determination under different Market conditions :that are characteristics of different market structures; price determination and firm's equilibrium in short-run and long-run under perfect competition, monopolistic competition, oligopoly and monopoly.

Co6. Learn about Pricing Practices :that are Methods of price determination in practice; pricing of multiple products; price discrimination; international price discrimination.

Title of the paper – Statistical Analysis

Course code –1312

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

Co1.Learn about Interpolation and Extrapolation :that are Definition, limitations methods ofinterpolationandextrapolation - parabolic curve method, Newton;s and Lagrange's methods.

Co2.Learn about Regression Analysis :that are meaning, difference between correlation and regression analysis, regression coefficients, regression analysis of two variables.

Co3. Learn about Association of Attributes that are Association of two attributes consistency of data in three attributes, coefficient of association of attribute and contingency, chi-square test in attributes.

Co4.Learn about Elementary Theory in probability :that are Concept probability simple, compound and mutually exclusive events, addition and multiplication theorems conditional and marginal probabilities.

Co5.Learn about Theoretical Frequency Distribution : that are Characteristics of binomial, Poisson and normal distribution. Pascal's tangle, Calculation of expected

frequencies through binomial, Poisson, and Normal Distribution Method, comparison of expected and observed frequency and chi-square test.

Co6. Learn about Sampling theory : that are Large and small samples analysis, standard errors test of Significance, Student's 't' test, 'f' test. Testing the significance on Proportions.

Co7. Learn about Analysis of Variance : that are Analysis of variance in one-way and two way Classification and construction of ANOVA table.

Title of the paper – Financial Management

Course code –1313

Credits – Maximum Marks 100

Total Hour – 90

In this course the Student will

COURSE INPUTS :

Co1. Financial Management : Meaning, Nature and scope of finance; financial goal- Profit vs. Wealth Maximization; Finance Functions- Investment, financing and Dividend Decisions.

Co2. Capital Budgeting : Nature of Investment Decision; Investment Evaluation Criteria - Net present Value, Internal Rate of Return, profitability Index, Payback Period, Accounting Rate of Return; NPV and IRR Comparison; Capital Rationing Risk Analysis in capital budgeting.

Co3. Cost of Capital : Meaning and significance of cost of capital, calculation of cost of debt preference capital equity, Capital and retained earnings combined cost of capital (weighted) cost of equity and CAPM

Co4. Operating and financial leverage : Measurement of Leverages; effects of operating and financial leverage on profit; Analyzing alternate financial plans; combined financial and operating leverage.

Co5.Capital structure theories : tradition and M.M. Hypothesis-Without taxes and with taxes; determining capital structure in practice Dividend Policies: Issues in Dividend Decisions Walter's model, Gordon's model, MM Hypothesis, dividend and uncertainty relevance of divided Dividend behavior

Co6.Management of working Capital : meaning, significance and types of working capital; calculating operating cycle period and estimation of working capital requiremnet; financing of working capital and norms of bank finance; source of working capital Factoring services; various committee reports on bank finance; Dimensions of working capital management, management of cash, receievables and inventory

Title of the paper– Human Resource Management

Course code – 1315

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

Co1. Learn about Human Resource Management (HRM) – that are Basic concepts, scope, objectives, importance and functions of human resources management.

Co2.Learn about Personnel polices –that are Meaning definition, objectives, needs of personnel policies, Basic principal of personnel polices, characteristics of an ideal personnel polices, formation of personal polices.

Co3.Learn about Man-Power Planning- that are Meaning definition need and importance of man power planning, process of man power planning.

Co4.Learn about Recruitment –that are need of recruitments, recruitment policy, source of recruitment, methods of recruitment. Selection basic principle of selection, Selection process, placement, education.

Co5. Learn about Promotion –that are Causes of promotion, principle of promotion, promotion policy, demotion, causes of demotion, transfer, causes of transfer, dismissal; discharge; suspension.

Co6.Learn about Training –that are Objective, need of training, methods of training, principle of training, executive development, importance of executive development, planning of executive development program, method of executive development.

Co7.Learn about Job analysis-Meaning, objective of job analysis, aspects of job analysis, job description and job specification. Performance appraisal, objectives, process and methods of performance appraisal, utility of performance appraisal. job evaluation.

Co8. Learn about Special problems - labour turnover, labour absenteeism; discipline accident; fatigue & evaluation.

Co 9.Learn about Grievance - meaning, causes of grievance handling procedure, principle of grievance handling. incentives & fringe benefits.

Co10.Learn about Motivation - elements, importance, types of motivation. Communication objectives. Elements of an effective communication, importance, types, process & barriers of an communication.

Title of the paper– Advertising and Sales Management

Course code – 1316

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

Co1. Advertising : defined, advertising as a tool of marketing; advertising effect economic and social, advertising and consumer behaviour, and advertising scene in India.

Co2. Advertising objectives and advertising budgets.

Co3. Advertising media-print media, broadcasting media, on media advertising; Media planning and scheduling; advertising on internet; media selection decision.

Co4. Message design and development : managing advertisement copy development, types of appeal, copy testing.

Co5. Measuring advertising effectiveness : managing advertising agency client relationship; promotional scene in India; technique for testing advertising effectiveness.

Co6. Selling : concept, objective and function of sales management; fundamentals of selling; selling process; salesmanship; product and customer knowledge.

Co7. Sales planning : importance and type of sales planning, sales planning process, sales forecasting; determining sales territories, sales quotas and sales budget.

Co8. Sales organization : setting up a sales organization; planning process; principle of determining sales organization.

Co9. Sales force management : estimating manpower requirements for sales department; planning for manpower recruitment and selection. Training and development, placement and induction; motivating sales force; leading the sales force; compensation and promotion policies; sales meeting and contest.

Course out comes: Second year

Title of the paper– Accounting for Managerial Decision

Course code –2311

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

Co1. management accounting as area of accounting; objectives, nature and scope of financial accounting. cost accounting and management accounting; management

accounting and management decision, management accounting position rule and responsibilities.

Co2. Accounting plan and responsibilities centers, meaning and significance of responsibilities accounting. Responsibilities centers - cost center, profit center and investment center, problem in transfer pricing objective and determinant responsibilities center

Co3. Marginal costing and break even analysis concepts of marginal cost marginal costing and absorption costing marginal costing versus direct costing, cost value, profit analysis, break even analysis assumptions and practical application of break even analysis, decision regarding sales make or buy decisions and discontinuation of a product line etc.

Co4. Analysis of financial statement, horizontal, vertical and ratio analysis, cash-flow analysis, fund flow analysis Reporting to management : objective of reporting needs at different levels, types of reports modes of reporting, reporting at different level of management

Title of the paper– Corporate Legal Framework

Course code –2312

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

COURSE INPUTS

Co1. Learn about The companies act, 1950 (relevant provision), that are Definition types of companies' memorandum of association, Articles of association prospectus memorandum of association, Articles of association prospectus share capital and

membership Meeting and resolutions, company .management managerial remuneration, winding up and dissolution of companies.

Co2.The Learn about negotiable instrument act, 1881, that are definition, types of negotiable instrument, negotiable holder and holder in due course, payment in due course endorsement and crossing of cheque presentation of negotiable instruments legal environment for security markets

Co3. Learn about SEBI Act 1992, that are organization and objectives of SEBI powers under securities Contract Regulation Act 1956 transferred to SEBI; Role of SEBI in Controlling The Security Markets.

Co4.Learn about Restrictive and Unfair Trade Practices, Consumer Protection Act. MRTP ACT 1969 that are Monopolistic trade practices, restrictive trade practices, unfair trade practices. The consumers protection Act 1986-salient Feature: definition of consumer, Rights of consumers, Grievance Redressal Machinery

Co5. Learn about Regulatory Environment for International Business: FEMA ACT, 1999 WTO, regulatory Framework of WTO, that are basic principle and its charter: WTO-Provisions Relating to preferential treatments developing countries; Regional Grouping, Technical Standards, Anti-dumping Duties And other NTBs; Custom valuation and dispute settlement: TRIP and TRIMs .

Title of the paper– Organisational Behaviour

Course code –2313

Credits – Maximum Marks 100

Total Hourse – 90

In this course the Student will

Co1.Organizational behavior - concept and significance; relationship between management and organizational behavior, Emergence and ethical perspective; Attitudes; Perception; learning; personality; transactional analysis.

Co2.Motivation : process of motivation; theories of motivation need hierarchy theory, theory X, theory Y, two factor theory, Alderfer's ERG theory, McClelland's learned need theory, Victor Vroom's expectancy theory, Stacy Adams equity theory.

Co3.Group Dynamics and Team Development : Group dynamics definition and importance, types of group, group formation, group development, group composition, group performance factor; Principle - centered approach to team development.

Co4.Leadership : Concept; Leadership styles; Theories - trait theory, behavioral theory, Fielder's Contingency theory; Heresy and Blanchard's situational theory; managerial grid; Likert's four System of leadership.

Co5.Orgnizational Conflict : Dynamic and Managerial; Sources, patterns, levels and types of conflict Traditional and modern approaches to conflict; Functional and dysfunctional conflictis; Resolution of Conflict.

Co6.Interpersonal and Organization communication : concept of two way communication; communication process; barriers to effective communication; type of organization communication; improving communication; transactional analysis in communication.

Co7.Organizational Development : Concept; Need for change, resistance to change; theories of planned change; Organizational diagnosis; OD intervention.

Title of the paper– Research Methodology

Course code – 2314

Credits – Maximum Marks 100

Total Hourse – 90

Introduction :

Co1. Research, meaning, objectives, types of research approaches, research and scientific method-criterion of scientific methods

Co2. How research is done, criterion of good research. Defining the research problem, selecting the problem research methods CASE study, features how to do a case study: application of case study method

Co3. Research design: purpose, feature, different types of research designs formularize research design, descriptive research design, experimental research design, process and step, ex-post facto research design.

Co4. Collection of data: Sampling design, census and sample survey, steps in sampling design, types of sampling design, random sampling, stratified random sampling, cluster and sampling Multi stage sampling, non- probability sampling measurement and scaling techniques, classification and tabulation

Co5. Questionnaire : Meaning types and application, Construction of questionnaire, interviews method, types of interviews, structured and unstructured interviews, interview approaches, Qualities a good interviewer, observation method.

Co6. Processing and Analysis of data : Processing operations : types of analysis; statistics in research measures of asymmetry; simple regression analysis, correlation; theory of attributes and associations; time series analysis canon inon analysis, factor analysis cluster analysis, testing of Hypothesis, parametric non parametric tests.

Co7. Interpretation and report writing Interpretation meaning technique and precautions, report writing steps involved layout of research report, types report, oral, presentation, mechanics' of report wting, precautions for writing research report. How to give reference.

Atarra Post Graduate College, Atarra (Banda) UP

POLITICAL SCIENCE

Course Outcomes : M.A. Previous

Title of the paper	Indian Political Thought
Course Code	1421
Credits	Maximum Marks 100
Total Hours	45

In this course the student will be able to understand :

CO1: About an Overview of Ancient Indian Political Thought : Genesis and development, Nature of State.

CO2: Origin of State, Constituents of state, Aims and Functions of State.

CO3: Kinship in Ancient India, Checks of Monarchy.

CO4: Democracy and Republics in Ancient India.

CO5: Inter-State Relations in Ancient India

CO6: The Indian Renaissance and Ram Mohan Roy. Dayanand Saraswati, Vivekanand.

CO7: The Debate between the Moderates and the Extremists.

CO8: Revolutionary National and Gandhism.

CO9: Communism-Communist Movement and M. N. Roy

CO10: Socialism - Lohia, Jai Prakash Narayan

CO11: Critique of Caste System : Ambedkar and Periyar.

Title of the paper	INDIAN GOVERNMENT AND POLITICS
Course Code	1422

Credits	Maximum Marks 100
Total Hours	45

In this course the student will learn :

- CO1: Background of the Constituent Assembly : Composition and Working.
- CO2: Ideological contents : Preamble, Fundamental Rights and Directive Principles of State Policy
- CO3: Constitution as an instrument of Social Change : Amendment process
- CO4: Federalism and its working with reference to Centre-State relations, and demands for state autonomy
- CO5: Union Government : President, Prime Minister, Cabinet and Parliament
- CO6: State Government : Governor, Chief Minister and State Legislative Assemblies
- CO7: Supreme Court and the constitutional process, Judicial Activism
- CO8: Nature of the Party System : National and Regional Parties, Pressure Groups
- CO9: Impact of caste, religion, regionalism and language
- CO10: Critical Assessment : Success and Failures

Title of the paper	COMPARATIVE POLITICS
Course Code	1423
Credits	Maximum Marks 100
Total Hours	45

In this course the student will be known about :

- CO1: Comparative Method in the study of political system - Approaches : Political Sociology, Political Economy and Structural Functionalism
- CO2: Political Culture and Political Socialization

CO3: Theories of State

CO4: Constitutionalism

CO5: Classes and Political Elites

CO6: Political Parties

CO7: Pressure Groups and Social Movements

CO8: Political Development

Title of the paper	WESTERN POLITICAL THEORY
Course Code	1424
Credits	Maximum Marks 100
Total Hours	45

In this paper the student will be familiar with the :

CO1: Nature and Significance of Political Theory

CO2: Importance of the Classical Tradition

CO3: Different Interpretations in Political Theory

CO4: Limitations of the Classical Tradition

CO5: Debate about the Decline of Political Theory

CO6: Nature of Revival of Political Theory

CO7: Debate about the End of Ideology and its Impact on Political Theory

CO8: Debate about the End of History

CO9: Recent Trends in Political Theory

CO10: Green Political Theory

Course Outcomes : M.A. Final

Title of the paper	Theories of International Relations
Course Code	2421
Credits	Maximum Marks 100
Total Hours	45

In this paper student will learn about :

CO1: Development of the study of International Relations.

CO2: Theories of International relations : Realism, Idealism and World State theory. Marxist theory and Pluralist theory.

CO3: The Concept of Power : Its constituents and Limitations

CO4: The Management of Power : Balance of Power Collective Security and cooperative Security, Changing nature of national Power

CO5: The concept of Non Alignment : Bases, Role and Relevance

CO6: Disarmament and Arms Control : CTBT, NPT and PNE

CO7: Regional Organizations : SAARC and ASEAN

CO8: Emerging Issues : Humanitarian intervention, Sanctions, Human Rights, Environmentalism, Terrorism and Democratic expansion

Title of the paper	CONTEMPORARY POLITICAL ISSUES
Course Code	2423
Credits	Maximum Marks 100
Total Hours	45

In this paper the student will learn about the:

CO1: Factors leading to the end of the Cold War.

CO2: Contemporary Issues in Post Cold War period

CO3: Key Issues in North South Relationship

CO4: Globalization

CO5: Gender Issues

CO6: Human Rights

CO7: Terrorism

CO8: Nature of the State and the Liberalization Process

Title of the paper	INTERNATIONAL RELATIONS INTERNATIONAL ORGANIZATIONS
Course Code	2430
Credits	Maximum Marks 100
Total Hours	45

In this course the student will learn about :

CO1: The Nature and Evolution of International Organization

CO2: The League of Nations

CO3: The United Nations : Structure and Functions

CO4: Pacific Settlement of Disputes and Enforcement Action

CO5: Economic and Social Development

CO6: United Nations in the Post Cold War Era

Title of the paper	INDIA'S FOREIGN POLICY
Course Code	2431
Credits	Maximum Marks 100

Total Hours	45
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In this course student will be known to the:

CO1: Principles and Objectives of India's foreign policy

CO2: Domestic Determinants : Geography, history and culture, society and political system

CO3: External determinants : Global, regional and bilateral

CO4: India's Foreign Policy in a comparative perspective

CO5: India's policy towards her Neighbours

CO6: India's approach to major global issues : Globalization, disarmament and arms control, cross border terrorism, environmental position, human rights.

विभाग समाजशास्त्र :

1. समाजिक परिवर्तन के अनुरूप अपनी सोच में बदलाव लायेगा।
2. विद्यार्थियों को अपने समाजिक जीवन तथा समस्याओं के प्रति जागरूक बनाना।
3. समाज कल्याण क्षेत्र में सामाजिक नीतियों को नया रूप देने का प्रयास किया जा सकता है।
4. ग्रामीण समाजिक संरचना की समक्ष्य विकसित करना।
5. ग्रामीण क्षेत्रों के विकास में योगदान दिया जाना।
6. सामाजिक अनुकूलन में सहायक बदलते हुए सामाजिक मुल्यों तथा व्यवहार प्रतिमानों में अनुकूलन करना।
7. समाजिक क्षेत्र में बदलाव एवं जागरूकता के लिए एन0जी0ओ0 ये जुड़ना।
8. सामाजिक जागरूकता।
9. जादू-टोना एवं अंधविश्वास से दूर होगा।

- 10.समाज में बढ रहे साइबर क्राइम के प्रति छात्रों की जागरुकता बढाना।
- 11.महिला सशक्तिकरण के विविध आयामों की जानकारी कराना।
- 12.समाज में होने वाले अनुसंधानो में उपयोग होने वाली पद्धतियों की जानकारी कराना।
- 13.पाश्चात्य एवं भारतीय समाज वैज्ञानिकों के विचारो को समझाना।
- 14.विकास के परिवर्तित स्वरूपों से छात्र-छात्राओं को अवगत कराना।
- 15.समाज मे होने वाले विभिन्न प्रकार के अपराध और अपराधियों की सामाजिक मनोवैज्ञानिक दशाओं को स्पष्ट करना।
- 16.आदि कवियों एवं जनजातीय समाज की सामाजिक एवं सांस्कृतिक पृष्ठ भूमि को समझना।

अतर्रा पी0जी0 कॉलेज, अतर्रा, बाँदा (उ0प्र0)

विभाग : हिन्दी, विषय : हिन्दी

हिन्दी देश की आत्मा, पहचान और स्वाभिमान की भाषा है। वह पूरे राष्ट्र को एक सूत्र में बाँधने में सक्षम है। हिन्दी क्षेत्रीय भाषाओं की बड़ी बहन है। हिन्दी ही संस्कृत भाषा की सच्ची उत्तराधिकारी और योग्य भाषा है; जबकि अन्य क्षेत्रीय भाषाएँ अपने राज्य तक सीमित हैं।

एम0ए0 पूर्वाद्ध : हिन्दी

1. पाठ्यक्रम परिणाम (Course out comes) : प्रथम प्रश्न पत्र

प्रश्न पत्र का शीर्षक	आदिकालीन एवं मध्यकालीन हिन्दी काव्य
पाठ्यक्रम कोड	1391
क्रेडिट्स	अधिकतम अंक-100
कुल घण्टे	45

इस प्रश्न पत्र में 12वीं शताब्दी से लेकर 16वीं शताब्दी के मध्य तक का अध्ययन शामिल है। इसके अन्तर्गत हिन्दी साहित्य के तीन काल- आदिकाल, भक्तिकाल व रीतिकाल

समाविष्ट हैं। इस पाठ्यक्रम में निम्न बिन्दुओं का अध्ययन करते हुए छात्र/छात्राएँ एक सुनिश्चित निष्कर्ष (Out comes) पर पहुँचेंगे—

CO-1. आदिकाल के अन्तर्गत केवल एक कवि जगनिक के 'आल्हखण्ड' को प्रमुखता के साथ रखा गया है। इसके अध्ययन से छात्र/छात्राएँ तत्कालीन ऐतिहासिक और सामाजिक गतिविधियों से परिचित हो सकेंगे।

CO-2. भक्तिकाल के अन्तर्गत कबीर की महत्वपूर्ण साखियाँ और पद, जायसी का पद्मावत, सूरदास के चुनिंदा भ्रमरगीतसार—पद, गोस्वामी तुलसीदास के रामचरितमानस का बालकाण्ड व विनयपत्रिका के प्रमुख पद शामिल हैं।

CO-3. रीतिकाल के अन्तर्गत केशव की 'रामचन्द्रिका', बिहारीलाल की 'बिहारी सतसई' तथा घनानंद के 'सुजानचरित' के प्रमुख छंद पाठ्यक्रम हेतु निर्धारित हैं। इन कवियों की भाषिक संरचना भिन्न होते हुए भी समस्त हिन्दी भाषा समुदाय को एकता के सूत्र में बाँधती है।

CO-4. इस प्रश्न पत्र के अध्ययन से भारत में प्रचलित संस्कृत, अपभ्रंश, अवधी, ब्रज, बुन्देली आदि बोलियों एवं उपभाषाओं का ज्ञान होता है।

CO-5. पाठ्यक्रम में सम्मिलित कवियों के अध्ययन से तत्कालीन सामाजिक, धार्मिक, आर्थिक, सांस्कृतिक और राजनैतिक अवस्थाओं का ज्ञान होता है।

2. पाठ्यक्रम परिणाम (Course out comes) : द्वितीय प्रश्न पत्र

प्रश्न पत्र का शीर्षक	हिन्दी साहित्य का इतिहास
पाठ्यक्रम कोड	1392
क्रेडिट्स	अधिकतम अंक—100
कुल घण्टे	45

इस पाठ्यक्रम में निम्नलिखित अध्ययन समाविष्ट हैं—

- CO-1. हिन्दी साहित्य का इतिहास भारतीय समाज का एक दर्पण है, जिसमें प्रत्येक काल की विभिन्न अवस्थाओं का अवलोकन किया गया है।
- CO-2. इसमें हिन्दी कविता के समग्र इतिहास को आदिकाल, पूर्वमध्यकाल, उत्तरमध्यकाल, आधुनिककाल आदि कालखण्डों में विभाजित कर अध्ययन की दृष्टि से सुगम बनाने का प्रयास किया गया है।
- CO-3. इसमें काव्य-साहित्य के साथ-साथ गद्य-साहित्य के क्षेत्र में हिन्दी उपन्यास, कहानी, नाटक, निबन्ध, ललित निबन्ध, आत्मकथा, संस्मरण, यात्रावृत्त, साक्षात्कार आदि विभिन्न विधाओं को स्थान दिया गया है; ताकि गद्य-ज्ञान का कोई भी क्षेत्र अछूता न रह जाए।
- CO-4. छात्र/छात्राओं की दृष्टि को पैना और नुकीला बनाने के लिए आलोचना या समीक्षा जैसे शीर्षक भी पाठ्यक्रम में रखे गए हैं।
- CO-5. हिन्दी साहित्य के इतिहास में नित्य नए परिवर्तन होते रहते हैं; उन परिवर्तनों और संशोधनों को संज्ञान की दृष्टि से छात्र/छात्राओं तक पहुँचाना हिन्दी- साहित्य के इतिहास की महत्त्वपूर्ण विशेषता है।

3. पाठ्यक्रम परिणाम (Course out comes) : तृतीय प्रश्न पत्र

प्रश्न पत्र का शीर्षक	बुन्देली साहित्य
पाठ्यक्रम कोड	1393
क्रेडिट्स	अधिकतम अंक-100
कुल घण्टे	45

इस प्रश्न पत्र के अन्तर्गत निम्नलिखित अध्ययन समाहित हैं—

- CO-1. बुन्देली-साहित्य में मूल पाठ के रूप में ईसुरी, गंगाधर व्यास, रामचरण मित्र 'हयारण', शिवानंद मिश्र 'बुन्देला', अवधेश, रतिभानु तिवारी 'कंज' संतोष सिंह 'बुन्देला', दुर्गेश दीक्षित आदि आठ कवियों को बुन्देली में स्थान देकर तत्कालीन सभ्यता और संस्कृति एक लम्बा इतिहास अनुरेखित किया गया है।

- CO-2. बुन्देली साहित्य में मूलपाठ के अतिरिक्त द्रुत पाठ भी रखा गया है। इसके अन्तर्गत बुन्देली लोकगीत (सोनारा, सुआटा, मामुलिया), बुन्देली लोकगाथा (आल्हा, अमान सिंह, हरदौल), बुन्देली लोकनाट्य (भड़ेंती, रहस, स्वाँग), तथा लोकनृत्य (राई, दिवारी, सैरा) आदि को प्रमुख स्थान दिया गया है।
- CO-3. बुन्देली साहित्य में निहित लोकसाहित्य या लोकसंस्कृति के मध्य सहसम्बन्ध स्थापित करते हुए समाज में व्याप्त अन्धविश्वास और अन्ध-परम्पराओं के उन्मूलन का व्यावहारिक सिद्धान्त भी निर्मित किया गया है।
- CO-4. 21वीं सदी में वैज्ञानिक और औद्योगिक विकास तथा बदलती हुई भौतिकवादी सोच के प्रति लगाव होने के कारण सामाजिक मूल्य विखण्डित हो रहे हैं। ऐसी स्थिति में पाठ्यक्रम में सन्निहित सामग्री के माध्यम से बुन्देलखण्ड की संस्कृति को सुरक्षित किया जा सकता है।
- CO-5. आज के कम्प्यूटरीकृत युग में निषेधवाद और विखण्डनवाद अपने चरम पर है। ऐसी अवस्था में लोकहृदय की पहचान कराने वाला बुन्देली साहित्य ही वह माध्यम है, जो इस आपाधापी से त्राण दिला सकता है।

4. पाठ्यक्रम परिणाम (Course out comes) : चतुर्थ प्रश्न पत्र

प्रश्न पत्र का शीर्षक	साहित्यशास्त्र (भार0 एवं पाश्चात्य काव्यशास्त्र)
पाठ्यक्रम कोड	1394
क्रेडिट्स	अधिकतम अंक-100
कुल घण्टे	45

इस प्रश्न पत्र के अन्तर्गत निम्न बिन्दुओं का अध्ययन किया जाएगा-

- CO-1. भारतीय काव्यशास्त्र के अन्तर्गत काव्य की परिभाषा, काव्य हेतु, काव्यप्रयोजन, काव्यसम्प्रदाय, रसनिष्पत्ति, साधारणीकरण, रसांग-परिचय आदि शामिल है।

- CO-2. पाश्चात्य काव्यशास्त्र में प्लेटो, अरस्तू, आई0ए0 रिचर्ड्स, लॉजाइनस वडर्सवर्थ, क्रोचे, टी0एस0 इलियट आदि विचारकों के महत्त्वपूर्ण काव्यशास्त्रीय विचारों का अध्ययन शामिल है।
- CO-3. काव्यशास्त्र निर्धारित मानदण्डों को लेकर चलता है। कविता के क्षेत्र में अराजकता और नितान्त स्वच्छंदता की स्थिति न पैदा हो, इसके लिए काव्यशास्त्र का अध्ययन आवश्यक है।
- CO-4. इस प्रश्न पत्र में यथार्थवाद, अस्तित्ववाद, मार्क्सवाद, मनोविश्लेषणवाद, उत्तर आधुनिकता, विखण्डनवाद आदि के माध्यम से छात्र/छात्राओं में भावबोध के स्थान पर चिन्तन-बोध की शक्ति को बढ़ावा देना है।
- CO-5. समालोचना की विभिन्न पद्धतियों के माध्यम से उसके ऐसे मानदण्ड स्थापित करना, जो साहित्य के लिए उपयोगी हों।

एम0ए0 उत्तरार्द्ध : हिन्दी

1. पाठ्यक्रम परिणाम (Course out comes) : प्रथम प्रश्न पत्र

प्रश्न पत्र का शीर्षक	आधुनिक हिन्दी काव्य
पाठ्यक्रम कोड	2391
क्रेडिट्स	अधिकतम अंक-100
कुल घण्टे	45

इसके अन्तर्गत निम्नलिखित अध्ययन समाहित है-

- CO-1. प्रथम प्रश्न पत्र के अन्तर्गत कुल 06 कवियों का अध्ययन किया जाना है, जिनमें छात्र/छात्राओं को भिन्न-2 काव्य-युगों से सम्बन्धित जानकारी हो सकेगी।
- CO-2. मैथिलीशरण गुप्त द्विवेदी युग के कवि हैं किन्तु वे राष्ट्रीय काव्यधारा से ओतप्रोत हैं। इसमें कवि के 'साकेत' महाकाव्य के नवम सर्ग में उल्लिखित उर्मिला के वियोग का चित्रण किया गया है।
- CO-3. जयशंकर प्रसाद, पन्त और निराला जैसे छायावादी कवियों में स्वच्छन्दतावाद तथा उपनिषद साहित्य के रहस्यवाद का प्रभाव अन्तर्निहित है। इसमें छात्र/छात्राओं को साहित्य की अभिव्यंजनाशैली, प्रतीक शैली, लाक्षणिकता एवं वक्रता से परिचित होने का सुअवसर मिलेगा।
- CO-4. इसमें अज्ञेय जैसे कवि की विभिन्न प्रयोगवादी कविताओं का परिचय दिया गया है। इन कविताओं में क्षण की महत्ता तथा लघु मानव की स्थापना का सवाल उठाया गया है।
- CO-5. मुक्तिबोध साठोत्तरी कविता के अन्तर्गत अन्तर्द्वन्द्व के कवि हैं। उनकी लम्बी कविता 'अँधेरे में' मानव जीवन की जटिल त्रासदी और अन्तर्द्वन्द्व का गहन चित्रण प्रस्तुत करती है।

2. पाठ्यक्रम परिणाम (Course out comes) : द्वितीय प्रश्न पत्र

प्रश्न पत्र का शीर्षक	आधुनिक गद्य साहित्य
पाठ्यक्रम कोड	2392
क्रेडिट्स	अधिकतम अंक-100
कुल घण्टे	45

इस प्रश्न पत्र के अन्तर्गत कुल 07 पाठ्य पुस्तकें निर्धारित हैं—

- CO-1. 'स्कन्दगुप्त' जयशंकर प्रसाद का एक ऐतिहासिक नाटक है, जिसमें विदेशी शक और हूणों के आक्रमण और स्कन्दगुप्त द्वारा उनके पराजय का वर्णन है। इसी प्रकार 'आधे अधूरे' मोहन राकेश का एक सामाजिक नाटक है, जिसमें पति-पत्नी के गृह-कलह को आधार बनाकर पारिवारिक कलह और घुटन का चित्रण किया गया है।
- CO-2. 'गोदान' मुंशी प्रेमचन्द का यथार्थवादी उपन्यास है जिसमें मुख्य रूप से तीन वर्ग है- कृषक वर्ग, मध्यम वर्ग और शोषक वर्ग। कृषक वर्ग के होरी जैसे पात्र आधार बनकर शोषण के चक्र से मुक्ति दिलाना तथा समाजवादी व्यवस्था की स्थापना करना गोदान का मूल संदेश है। इसी क्रम में 'इदन्नमम' मैत्रेयी पुष्पा का एक प्रसिद्ध उपन्यास है जिसमें महिला विमर्श को केन्द्र मानकर उन्हें निरन्तर जागरूक और सशक्त रहने की प्रेरणा दी गई है।
- CO-3. छात्र/छात्राओं को निबन्ध विधा में समर्थ व दक्ष बनाने के लिए श्रद्धा-भक्ति, आम्रमंजरी, कवि और कविता, देवदास, तुलसी के सामाजिक मूल्य, छायावाद तथा लोक सरस्वती जैसे निबंधों को पाठ्यक्रम में रखा गया है।
- CO-4. कहानी जीवन का यथार्थ बोध है। समाज के यथार्थ बोध से परिचित होने के लिए 'आधुनिक कहानी संग्रह' में उसने कहा था, गुण्डा, कफन, गुलकी बन्नो, सिक्का बदल गया जैसी कहानियों को स्थान दिया गया है।
- CO-5. 'पथ के साथी' महादेवी वर्मा का एक संस्मरण ग्रन्थ है; जिसमें उनके समकालीन सात विभिन्न साहित्यकारों के व्यक्तित्व, कृतित्व एवं उनके जीवन-दर्शन का संस्मरणात्मक रेखाचित्र खींचा गया है। छात्र/छात्राएँ इन संस्मरणों को पढ़कर स्वयं संस्मरण लिखने की क्षमता प्राप्त कर सकेंगे।

3. पाठ्यक्रम परिणाम (Course out comes) : तृतीय प्रश्न पत्र

प्रश्न पत्र का शीर्षक	भाषा विज्ञान एवं हिन्दी भाषा
पाठ्यक्रम कोड	2393
क्रेडिट्स	अधिकतम अंक-100

कुल घण्टे	45
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इस प्रश्न पत्र के अन्तर्गत निम्नलिखित अध्ययन समाहित हैं—

- CO-1. भाषा की परिभाषा, उसकी विशेषताएँ, भाषा विज्ञान की विभिन्न दिशाएँ संसार की भाषाओं का वर्गीकरण आदि की जानकारी देकर छात्र/छात्राओं के भाषा सम्बन्धी ज्ञान को विस्तृत करना है।
- CO-2. स्वन विज्ञान के अन्तर्गत ग्रिम नियम, ग्रेशमैन नियम, रूप विज्ञान, उसके भेद, रूप-परिवर्तन की दिशाएँ, रूप परिवर्तन के कारण आदि की जानकारी दी जाएगी।
- CO-3. अर्थ-विज्ञान के अन्तर्गत, शब्द और अर्थ का सम्बन्ध, अर्थ-परिवर्तन के कारण और दिशाएँ, बौद्धिक नियम आदि का अध्ययन किया जाएगा।
- CO-4. प्राचीन, मध्यकालीन और आधुनिक भारतीय आर्य भाषा और उनकी प्रमुख विशेषताओं तथा भाषाओं के वर्गीकरण आदि विभिन्न शीर्षकों के अध्ययन द्वारा छात्र/छात्राओं का भाषा सम्बन्धी ज्ञान प्रगाढ़ होगा।
- CO-5. हिन्दी की पाँच उपभाषाओं—पश्चिमी हिन्दी, पूर्वी हिन्दी, राजस्थानी, बिहारी तथा पहाड़ी का अध्ययन करके छात्र/छात्राएँ उन भाषाओं एवं बोलियों की क्षेत्रीयता से परिचित हो सकेंगे।
- CO-6. सम्पर्क भाषा, राष्ट्रभाषा, राजभाषा के साथ-2 देवनागरी लिपि के नामकरण, उसकी विशेषताएँ, देवनागरी लिपि में सुधार के प्रयास आदि के द्वारा छात्र/छात्राओं में राष्ट्रभाषा हिन्दी के प्रति प्रेम जाग्रत किया जाएगा।

4. पाठ्यक्रम परिणाम (Course out comes) : चतुर्थ प्रश्न पत्र

प्रश्न पत्र का शीर्षक	पत्रकारिता प्रशिक्षण (व्यावसायिक कार्य)
पाठ्यक्रम कोड	2394
क्रेडिट्स	अधिकतम अंक-100

कुल घण्टे	45
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‘पत्रकारिता प्रशिक्षण’ व्यावसायिक वर्ग के अन्तर्गत विकल्प के रूप में चयनित प्रश्न पत्र है। इसके अन्तर्गत निम्नलिखित अध्ययन समाहित है—

CO-1. हिन्दी पत्रकारिता का उद्भाव-विकास, पत्रकारिता का स्वरूप, उसमें प्रकार, विश्व पत्रकारिता का उदय आदि प्रमुख पाठ्य विषय हैं।

CO-2. समाचार पत्र की विशेषताएँ, समाचार संकलन, सम्पादन कार्य, समाचार पत्रों की स्तम्भ-योजना, संवाददाता की अर्हता, कार्यपद्धति आदि का अध्ययन किया जाएगा।

CO-3. मीडिया के अन्तर्गत प्रिन्ट मीडिया, इलेक्ट्रानिक मीडिया, मुक्त प्रेस अवधारणा, मुद्रण कला, प्रूफशोधन, ले आउट, पृष्ठ सज्जा आदि विषयों की जानकारी समाहित है।

CO-4. पत्रकारिता का प्रबन्धन, प्रशासकीय व्यवस्था, विक्री व वितरण व्यवस्था भारतीय संविधान में प्रदत्त मौलिक अधिकार, सूचनाधिकार एवं मानवाधिकार का विस्तृत व मौलिक अध्ययन समाहित है।

CO-5. लोक सम्पर्क तथा विज्ञापन, प्रसार भारती तथा सूचना प्रौद्योगिकी, प्रेस सम्बन्धी कानून तथा आचार-संहिता आदि का अध्ययन करके छात्र/छात्राएँ व्यावसायिक कला में प्रवीण होकर स्वरोजगार की तरफ उन्मुख होंगे।

Atarra Post Graduate College

B.Sc. Zoology

Course Outcomes: I Year

Title Of The Paper	Life And Diversity of Invertebrates
Course Code	1007
Credits	Maximum Marks : 33

Total Hours	
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In this course the student will

CO1. Get introduced to taxonomy all invertebrates brief history of classification the species concept and concept of nomenclature.

CO2. Learn about the general characters, classification of protozoan and their shape, size, habit and habitate and which diseases spread on other animal body and also learn precaution of diseases.

CO3. Get Basic Knowledge of porifera animal and their canal system and their morphology with anatomy and development, regeneration capacity and their economic importance.

CO4. Learn about the coelentrate their classification, general character morphology physiology anatomy and their coral reef and also learn their economic importance.

CO5. Learn about the helminthes their general characters, classification and habit and habitate, morphology, physiology and their diseases which spread on human and other animal and also learn about concept of parasitism and their type.

CO6. Get Basic knowledge and characters and morphology, physiology and their habit and habitate, classification of annelida, arthropoda Mollusca, their diseases and also learn prawn culture, pearl culture.

CO7. Learn about Echinodermata and hemichordate their classification, general character and their development and their physiology and their distribution.

Title of the paper	Life and diversity of chordates
Course code	1008
Credits	Maximum marks : 33
Total Hours	

In this course the student will

CO1. Learn about origin of chordates their introduction, general characters, classification and their biodiversity.

CO2. Basic idea of protochordata, cyclostomata and their classification, General characters, morphology, physiology and their habit and habitate and their harmful impact of other chordates and their comparative characters.

CO3. Learn about all type of fishes and their culture and also learn about scoliodon their anatomy physiology, morphology and their scales and habit and habitate also learn fish migration and parental care.

CO4. Get knowledge of amphibia and their origin and their parental care.

CO5. Learn about reptilian member like as uromastix their skeleton, extinct reptiles, poisonous and non-poisonous snake and their composition of poison and their apparatus.

CO6. Learn about aves like as pigeon their morphology, physiology their different type of feathers their flight adaptation and also learn bird migration.

CO7. Get knowledge of mammals specially rabbit their bones, evolution of man and their dentition.

Title of the paper	Cytology and Developmental Biology
Course Code	1009
Credits	Maximum Marks 34
Total Hours	

This Paper enable the student to understand.

CO1. Methods in cell biology which include structure of cell their cell organelles, microscopy.

CO2. Organisation of cell nuclear and extranuclear and also understand cell reproduction which include meiosis and mitosis division.

CO3. Elementary idea of cell transformation, cancer, their characters their causes agent and their type and immunity in cellular base their types and also learn about lymphocyte.

CO4. Gametogenesis which include oogenesis and spermatogenesis and fertilization their process.

CO5. Cleavage and their pattern, stages of chick and frog embryo and primitive streak and also know extra embryonic membrane and hen egg, different type of placenta, blastulation and fatemap construction in frog and chick gastrulation and formation of three germinal layers of frog and chick.

CO6. Primary organizer and regeneration

Course outcomes IInd year

Title of the paper	Genetics
Course Code	2007
Credits	Maximum Marks 33
Total Hours	

Completion of this Course the student will learn about

- CO1. Elements of heredity and variation gene expression translation, transcription.
- CO2. Linkage, sex chromosomes polytene chromosome lamp brush chromosome, sex linkage.
- CO3. Chromosomal aberrations and related diseases and their characters.
- CO4. Human genetics which include number shape type and structure of chromosome cytoplasmic inheritance which include kappa particles in paramoecium for example and other.
- CO5. Applied genetics which include eugenics, euphenics and euthenics.

Title of the paper	Animal physiology
Course Code	2008
Credits	Maximum Marks 33
Total Hours	

In this course the student will

CO1. Learn about nutrition, physiology of digestion, which include function of saliva, movement and part and juice of stomach and intestine and also learn about digestive gland pancreas and liver their function.

CO2. Get knowledge about metabolism which include protein and carbohydrates metabolism and also Learn about the basic structure of enzymology, discovery and nomenclature, characteristic of enzyme, concept of holoenzyme, coenzyme, cofactor, regulation of enzyme activity theory, mechanism of action.

CO3. Learn About respiratory pigments organ of respiration and their physiology.

CO4. Basic knowledge of regulatory mechanism.

CO5. Learn about neuromuscular coordination physiology of muscles construction.

CO6. Learn about endocrine gland and their hormones and related diseases.

CO7. Basic knowledge reproductive organ their physiology, and also learn excretory organs and physiology of circulation.

Title of the paper	Molecular Biology
Course code	2009
Credits	Maximum Marks 34

Total Hours	
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Completion of this course the student will learn about

CO1. Nucleic acid structure nature and function of genetic material which include DNA, RNA and their structure and type.

CO2. Protein synthesis in eukaryotes and prokaryotes and their structure and type.

CO3. Genetic code type of amino acid.

CO4. Genetic engineering and its application.

CO5. Molecular basis of mutation and their type.

Course outcome IIIrd year

Title of the paper	Applied Zoology
Course code	3007
Credits	Maximum Marks 50
Total hours	

In this course the student will

CO1. Learn about aquaculture which include prawn culture fish culture(pisciculture) and culture of other aquatic animals.

CO2. Well knowledge of sericulture and their economic importance.

CO3. Learn about apiculture and lac culture which include the structure lifecycle and also learn uses of their product like as honey and lac their economic value and medicine value.

CO4. Get knowledge of poultry keeping and their management economic importance and their diseases characters and treatment.

CO5. Learn about toxicology which include type of toxic material their impact use and treatment.

Title of the paper	Ecology and Environment
Course code	3008
Credits	Maximum Marks 50
Total Hours	

This paper enables the student to understand

CO1. Brief introduction to the mazor ecosystem of the world natural ecosystem artificial ecosystem their biotic and abiotic factor, community an environment.

CO2. Trophic structure, Energy flow, different type of ecological pyramids like as pyramid of biomass, energy and number.

CO3. Biochemical cycle which include nitrogen, phosphorus, sulphur cycle.

CO4. Conservation of natural resources their classification and their management.

CO5. Ecology morphology, physiology and behavioral adaptation to external factor such as temperature moisture salinity and light.

CO6. Different type of interaction like as competition, predation parasitism, commonsalism and mutualism.

CO7. Different type of pollution.

Title Of The Paper	Evolution and Microbiology
Course code	3009
Credits	Maximum Marks 50
Total Hours	

In this course the student will learn about

CO1. Concept and evidence of organic evolution and their different type of theories.

CO2. Orgin of life.

CO3. Concept of micro-macro and mega evolution and also learn about concept of origin of species.

CO4. Many type of fossils and fossilization.

CO5. Phylogeny of horse, evolution of man.

CO6. Introduce to microbiology and structure and classification of micro organism.

CO7. Bacterial and viral diseases their diagnostics character and precaution.

CO8 .Management of micro organism.

Program Outcomes

B.Sc. Zoology

PO1. Learn about the general character of vertebrates and invertebrates and also know about systemic position of different animal by classification.

PO2. Understand the nature and basic concept of zoology and allied branches of biological sciences such as cell biology, biochemistry, taxonomy and ecology.

PO3. Learn about economic importance of different animal like as aquaculture, poultry, piggy, sericulture, lac culture, pearl culture.

PO4. Basic idea about cell and cell biology and also know about mitotic and meiotic cell division.

PO5. Understand the analysis of relationship among animals, plants, microbes and environment and how they maintained equilibrium among them.

CO6. We learn about different animals lifecycle and their host and their infection and their precaution.

PO7. Understand the application of biological sciences agriculture and medicine.

PO8. Basic idea about origin of life and evolution of different animals by connective link, homologus, analogus and vestigial organs.

PO9. Perform procedure and techniques as per the laboratories standards in all branches of biological sciences.

PO10. They choose their carrier fairness in industries.

PO11. They choose their carrier as a biochemist.

Atarra Post Graduate College

MSc Physics

Course Outcomes: First Semester

Title of the paper	MATHEMATICAL PHYSICS
Course Code	6041
Credits	Maximum Marks 100
Total Hours	45

In this course the student will

CO1.Learn about Gradient, Divergence and Curl in orthogonal curvilinear and their typical applications in physics.

CO2 Learn about special type of matrices that are relevant in physics and then learn about tensors. CO3 Get introduced to Special functions like Gamma function, Beta function, Delta function, Dirac delta function, Bessel functions and their recurrence relations

CO4 Learn different ways of solving second order differential equations and familiarized with singular points.

CO5 Learn the fundamentals and applications of Fourier series, Fourier and Laplace transforms, their inverse transforms

Title of the paper	CLASSICAL MECHANICS
Course Code	6042
Credits	100 marks
Total Hours	45

This paper enables the students to understand

CO1 The Lagrangian and Hamiltonian approaches in classical mechanics.

CO2 The classical background of Quantum mechanics and get familiarized with Poisson brackets and Hamilton -Jacobi equation

CO3 Kinematics and Dynamics of rigid body in detail and ideas regarding Euler's equations of motion

CO4 Theory of small oscillations in detail along with basis of Free vibrations.

CO5 Basic ideas about Non linear equations and chaos.

Title of the paper	QUANTUM MECHANICS 1
Course Code	6044
Credits	Maximum Marks 100

Total Hours	45
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After successful completion of this paper, the student will be well-versed in

CO1 Linear vector spaces, Hilbert space, concepts of basis and operators and bra and ket notation

CO2 Both schrodinger and Heisenberg formulations of time development and their applications

CO3 Theory of angular momentum and spin matrices, orbital angular momentum and Clebsh Gordan Coefficient

CO4 Space-time symmetries and conservation laws, theory of identical particles

CO5 Theory of scattering and calculation of scattering cross section, optical theorem ,Born approximation, partial wave analysis etc.

Title of the paper	ELECTRONIC DEVICES
Course Code	6044
Credits	Maximum Marks 100

On completion of this course the student will learn about

CO1. Field Effect Transistors, their principles and applications

CO2 Photonic devices like LED, Laser diode, photodetectors, solar cells etc and their working in detail

CO3 Microwave devices like Tunnel Diode, IMPATT diode, TED etc and their working in detail

CO4 Digital semiconductor memory, their types

CO5 basic theory and applications of Piezoelectric effect, Electroopic effect, Accoutroopic effect

Course Outcomes: Second Semester

Title of the paper	QUANTUM MECHANICS 2
Course Code	PHY2 CO9
Credits	Maximum Marks 100
Total Hours	45

This course will enable the student to have basic knowledge about advanced techniques like

CO1 Approximation methods for time-independent problems like the WKB approximation

CO2 the variational equation and its application to ground state of the hydrogen and Helium atom

CO3 Perturbation theory and Interaction of an atom with the electromagnetic field

CO4 Relativistic Quantum Mechanics using Dirac equation, Dirac matrices,. The Klein Gordon equation etc

CO5 Second quantization of the Schrödinger wave field for bosons and fermions

Title of the paper	CNDENSED MATTER PHYSICS
Course Code	6047
Credits	Maximum Marks 100
Total Hours	45

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

CO1 - have a basic knowledge of crystal systems and spatial symmetries , - be able to account for how crystalline materials are studied using diffraction, including concepts like reciprocal lattice and Brillouin zones

CO2- know what phonons are, and be able to perform estimates of their dispersive and thermal properties , be able to calculate thermal and electrical properties in the free-electron model

CO3- know Bloch's theorem and what energy bands are and know the fundamental principles of semiconductors

CO4-know the fundamentals of dielectric and ferroelectric propertiesof materials

CO5- know basic models of dia, para and ferro magnetism

CO6 – be able to explain superconductivity using BCS theory

Title of the paper	ATOMIC & MOLECULAR PHYSICS
Course Code	6048
Credits	Maximum Marks 100
Total Hours	45

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

C01 : 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.

C02 :Have gained ability to apply the techniques of microwave and infrared spectroscopy to elucidate the structure of molecules

C03 : Be able to apply the principle of Raman spectroscopy and its applications in the different field of science & Technology.

C04 : To become familiar with different resonance spectroscopic techniques and its applications

C05 : to find solutions to problems related different spectroscopic systems.

Title of the paper	ELECTRODYNAMICS AND PLASMA PHYSICS
Course Code	6049

Credits	Maximum Marks 100
Total Hours	45

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

C01 : have gained a clear understanding of Maxwell's equations and electromagnetic boundary conditions.

C02 : know that laws of reflection, refraction are outcomes of electromagnetic boundary conditions. They will also be able design dielectric coatings which act like antireflection coatings. They will be able to distinguish between a good metal and a good dielectric.

C03 : have grasped the idea of electromagnetic wave propagation through wave guides and transmission lines.

C04 : extend their understanding of special theory of relativity by including the relativistic electrodynamics.

Course Outcomes: Third Semester

Title of the paper	COMPUTATIONAL METHOD AND PROGRAMMING
Course Code	7041
Credits	Maximum Marks 100
Total Hours	45

The students should be able to,

CO1. Have a strong base in FORTRAN language regarding different data type such as list, sets, dictionary etc.

CO2 It helps to understand the different modules like NUMPY, Matplotlib etc

CO4. 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

CO5: Solve problems in physics such as standing waves, central field motion, Kirchoffs law etc using FORTRAN language.

Title of the paper	NUCLEAR AND PARTICLE PHYSICS
Course Code	7042
Credits	M. M 100

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

CO1 - have a basic knowledge of nuclear size, shape, binding energy etc and also the characteristics of nuclear force in detail.

CO2 – be able to gain knowledge about various nuclear models and potentials associated.

CO3 – acquire knowledge about nuclear decay processes and their outcomes. Have a wide understanding regarding beta and gamma decay.

CO4 – Grasp knowledge about Nuclear reactions, Fission and Fusion and their characteristics.

CO5 understand the basic forces in nature and classification of particles and study in detail conservation laws and quark models in detail

Title of the paper	ELECTRONICS(Special Paper)-I
Course Code	7043
Credits	M. M 100

OP AMP

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

CO1 - have a basic knowledge of Differential Amplifiers, its utility and characteristics in detail.

CO2 – be able to gain knowledge about Operational Amplifier Characteristics, advantages of feedback in OP AMP

CO3 – acquire knowledge about various application of OP AMP in analog computation, comparator circuit, filter circuit etc.

CO4- have a basic knowledge of AD and DA converter circuits and their applications

CO5- to know about Photodetector, Phototransistor, LED application

Title of the paper	ELECTRONICS(Special Paper)-II
Course Code	7044
Credits	M. M 100

Analog Digital Communication

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

CO1 - have basic knowledge different types of noises and their origin

CO2 - have knowledge of need for modulation and various Modulation techniques

CO3 – be able to gain knowledge about sampling method in digital communication

CO4 – acquire knowledge about various digital modulation process and applications

CO4- have a basic knowledge of AD and DA converter circuits and their applications

Course Outcomes: Fourth Semester

Title of the paper	STATISTICAL MECHANICS
Course Code	7047
Credits	Maximum Marks 100
Total Hours	50

The students should be able to

CO1. Explain statistical physics and thermodynamics as logical consequences of the postulates of statistical mechanics

CO2. Apply the principles of statistical mechanics to selected problems

CO3. Grasp the basis of ensemble approach in statistical mechanics to a range of situations

CO4 To learn the fundamental differences between classical and quantum statistics and learn about quantum statistical distribution laws

CO5 Study important examples of ideal Bose systems and Fermi systems

Title of the paper	ELECTRONICS(Special Paper)-III
Course Code	7049
Credits	M. M 100

Microwave and Radar System

The student who opt this special paper will

CO1, Study the advantage and disadvantage of microwave transmission

CO2 learn various microwave devices such as Klystron, magnetron etc

CO3 Aware of RADAR system and the components,

CO4 have knowledge about the basic theory of Satellite communication

CO5-get idea about Geostationary satellite and application

Title of the paper	ELECTRONICS(Special Paper)-IV
Course Code	7050
Credits	M. M 100

Microprocessor

The student who opt this special paper will

CO1, Study the Organization and internal architecture of the Intel 8085,

CO2 learn assembly language programming and arithmetic

CO3 Aware of Memory interfacing and different Data transfer schemes,

CO4 Learn interfacing with peripheral I/O devices

CO5 Learn common applications of microprocessors like E Analog to Digital convert,7 segment LED displays,; Temperature measurement and control using a microprocessor etc

Title of the paper	LASER Spectroscopy and its Applications
Course Code	7053
Credits	M. M 100

Microprocessor

The student who opt this elective paper will

CO1, Study the Organization and internal architecture of the Intel 8085,

CO2 learn assembly language programming and arithmetic

CO2 Aware of Memory interfacing and different Data transfer schemes, CO4

CO5 Learn interfacing with peripheral I/O devices

CO6 Learn common applications of microprocessors like E Analog to Digital convert,7 segment LED displays,; Temperature measurement and control using a microprocessor etc

विभाग समाजशास्त्र :

1. समाजिक परिवर्तन के अनुरूप अपनी सोच में बदलाव लायेगा।
2. विद्यार्थियों को अपने समाजिक जीवन तथा समस्याओं के प्रति जागरूक बनाना।
3. समाज कल्याण क्षेत्र में सामाजिक नीतियों को नया रूप देने का प्रयास किया जा सकता है।
4. ग्रामीण समाजिक संरचना की समक्ष विकसित करना।
5. ग्रामीण क्षेत्रों के विकास में योगदान दिया जाना।
6. सामाजिक अनुकूलन में सहायक बदलते हुए सामाजिक मुल्यों तथा व्यवहार प्रतिमानों में अनुकूलन करना।
7. समाजिक क्षेत्र में बदलाव एवं जागरूकता के लिए एन0जी0ओ0 ये जुड़ना।
8. सामाजिक जागरूकता।
9. जादू-टोना एवं अंधविश्वास से दूर होगा।
10. समाज में बढ़ रहे साइबर क्राइम के प्रति छात्रों की जागरूकता बढ़ाना।
11. महिला सशक्तिकरण के विविध आयामों की जानकारी कराना।
12. समाज में होने वाले अनुसंधानों में उपयोग होने वाली पद्धतियों की जानकारी कराना।
13. पाश्चात्य एवं भारतीय समाज वैज्ञानिकों के विचारों को समझाना।
14. विकास के परिवर्तित स्वरूपों से छात्र-छात्राओं को अवगत कराना।
15. समाज में होने वाले विभिन्न प्रकार के अपराध और अपराधियों की सामाजिक मनोवैज्ञानिक दशाओं को स्पष्ट करना।
16. आदि कवियों एवं जनजातीय समाज की सामाजिक एवं सांस्कृतिक पृष्ठ भूमि को समझना।

