जम्मू केंद्रीय विश्वविद्यालय
Central University of Jammu

राया–सूचानी (बागला), जिला सांबा–181143, जम्मू (जम्मू एवं कश्मीर)
Rahya-Suchani (Bagla), District: Samba – 181143, Jammu (J&K)

No: CUJ/Estab.T./ET-26/2025/ 1270 07.11.2025

अधिसूचना /Notification No. 238 /2025

Sub: **Tentative interview/ written test schedule for the posts advertised under Employment Notification No. 26 dated 16.05.2025 - Reg.**

Ref: Employment Notification (EN) No. 26 dated 16.05.2025.

It is hereby notified for the information of all candidates that interviews for the following posts advertised vide notification under reference will be held as per interview schedule given below:

TENTATIVE INTERVIEW SCHEDULE

Sl. No.	Name of the Department / Centre	Date of Interview	Post	Reporting Time
1.	Educational Studies (Geography)	**15.11.2025**	Assistant Professor	**9.30 am**
	Educational Studies (History)	**15.11.2025**	Assistant Professor	**9.30 am**
2.	English	**15.11.2025**	Professor	**9.30 am**
3.	Social Work	**16.11.2025**	Professor	**9.30 am**
		16.11.2025	Assistant Professor	**9.30 am**
4.	Public Policy and Public Administration	**16.11.2025**	Associate Professor	**9.30 am**
5.	Electronics & Communication Engineering	**16.11.2025**	Professor	**9.30 am**
6.	Human Resource Management & OB	**22.11.2025**	Associate Professor	**9.30 am**
7.	Marketing and Supply Chain Management	**22.11.2025**	Associate Professor	**9.30 am**
8.	Tourism and Travel Management *	**22.11.2025**	Assistant Professor*	**9.30 am**
9.	Chemistry & Chemical Sciences*	**23.11.2025**	Associate Professor	**9.30 am**
			Assistant Professor *	**9.30 am**
10.	Centre for Molecular Biology*	**23.11.2025**	Assistant Professor*	**9.30 am**
11.	Hindi and Other Indian Languages*	**24.11.2025**	Assistant Professor*	**9.30 am**

* As per the norms, the University will conduct written test to shortlist candidates for interviews if the number of eligible candidates exceeds 20. Marks obtained by the candidates in the written test will be used exclusively for short listing them for the interview. The final selection will be based solely on the performance of the shortlisted candidates in the interview. Written Test will be of ***objective type/MCQs*** and minimum qualifying marks will be 50%. There will be **negative marking of 0.33 marks** for each incorrect answer.

Schedule of Written test is as follows:

WRITTEN TEST SCHEDULE

Sl. No.	Name of the Department / Centre	Tentative Date of written test	Post	Tentative Reporting Time
1.	Tourism and Travel Management	**15.11.2025**	Assistant Professor	**9.30 am**
2.	Chemistry & Chemical Sciences	**15.11.2025**	Assistant Professor	**9.30 am**
3.	Centre for Molecular Biology	**15.11.2025**	Assistant Professor	**9.30 am**
4.	Hindi and Other Indian Languages	**15.11.2025**	Assistant Professor	**9.30 am**

Syllabus for written tests enclosed as **Annexure A**, **B** , **C** and **D** respectively.

Important Note:

1. Final Scrutiny lists have been uploaded on University website. Eligible candidates (bearing Application form No.) will be invited for interview.
2. Candidates can download Written test Admit cards / Interview call letters from SAMARTH portal w.e.f.. 10.11.2025 and intimation through email in this regard will also be sent to the candidates. The candidates are advised to regularly visit University website (www.cujammu.ac.in) for further updated information, if any.

3. Due to unavoidable circumstances, date of interviews can be changed. Candidates may regularly check email, University website and SAMARTH portal for further updation, if any.
4. Candidates who do not receive Written test Admit cards / Interview call letters, may request Establishment (Teaching) section through email teaching.recruitment@cujammu.ac.in at least two days prior to his/her interview for issue of duplicate /photo copy of same.
5. Candidates are required to report at least one hour prior to the time of interview/ written test.
6. The candidates are required to bring interview ***call letter in original*** along with ***copy of application forms with self attested documents*** (for submission) along with the following ***original documents*** for verification.
    i. Degree/Mark sheets clearly indicating percentage of marks.
    ii. Candidate belonging to SC/ST/OBC/PwBD/EWS categories are required to submit the recent certificate as per Govt. of India latest format at the time of interview.
    iii. Educational Qualifications, Experience Certificates, Category Certificate (if applicable), Original copy of papers published/ conferences attended/conference papers published/ books, awards and all other documents submitted online for the post etc.
    iv. Any other document relevant /required for the post as per the Employment Notification No. 26 dated 16.05.2025.
    v. In service candidates are required to submit **No Objection Certificate (NOC)** and Vigilance Clearance certificate ***without fail*** at the time of Interview.
    vi. Recent certificate to be endorsed by the Head of the Institution to certify the No Vigilance Enquiry, Disciplinary action etc is pending /envisaged against the candidate.
    vii. The Candidates belonging to SC/ST/PwBD category only will be paid Railway/Bus fare by shortest route on production of tickets, as per Government of India rules.
    viii. Candidates are required to bring all original documents with respect to remarks indicated in the final screening list uploaded on University website without fail.

Sd/-
कुलसचिव/Registrar
ईमेल:- registrar@cujammu.ac.in
दूरभाष. 91-8082197957

UNIVERSITY GRANTS COMMISSION
NET BUREAU

NET SYLLABUS

Subject: Tourism Administration and Management Code No.: (93)

Unit – I:

Tourist/ visitor/ traveller/ excursionist – Definitions and Differences, Early and Medieval Period of Travel, Renaissance and its Effects on Tourism, Birth of Mass Tourism, Old and New Age Tourism, Forms of Tourism – Inbound, Outbound, National, International, Nature, Scope and Characteristics of Tourism. Need for Measurement of Tourism, Interdisciplinary Approaches, Different Tourism Systems- Leiper's Geo-spatial Model, Mill-Morrison, Mathieson & Wall, Butler's Tourism Area Life Cycle (TALC) - Doxey's Irridex Index – Demonstration Effect – Crompton's Push and Pull Theory, Stanley Plog's Model, Gunn's Model

Meaning and Nature of Tourism Industry, Input and Output of Tourism Industry, Tourism Industry Network- Direct, Indirect and Support Services, Basic Components of Tourism - Transport- Accommodation- Facilities & Amenities, , Horizontal and Vertical Integration in Tourism Business, Tourism Business during Liberalization & Globalizations, Tourism Impacts: Economic Social, Cultural, and Environmental**;** Positive & Negative Impacts of Tourism**,** Factors affecting the future of tourism business; Seasonality & tourism, Sociology of tourism, Travel motivators.

Role and functions of Important Tourism Organizations in development and promotion of Tourism - UNWTO, IATA, ICAO, UFTAA, ASTA, PATA, WTTC, IHA, TAAI, IATO, FHRAI, ITDC, ICPB, State Tourism Development Corporations, Airport Authority of India, Archeological Survey of India, Ministry of Tourism, Culture, Railways , Civil Aviation of Government of India.

Unit – II:

Earth's movement; Latitude, Longitude; Areas, Sub Areas and Sub Regions as per International Air Transport Organization (IATA), IATA Three Letter City Code, Two Letter Airlines and Airport

Code, International Date Line, Time Zones, Greenwich Mean Time, Calculation of Local Time, Flying Time, Grounding Time, Elapsed Time, Daylight Saving Time.

World Geography - Climate & Vegetation of North, South and Central America – Europe – Africa - Asia & Australasia, Elements of weather and climate, Impact of weather and climate on tourist destinations, Climate and Vegetation of India, Physical Geography of India - Distribution of Rivers, Mountains, Plateaus & Plain area, Coastal area, Deccan, major lakes, deserts.

Tourists Movement - Demand and origin factors; destinations and resource factors; Contemporary trends in international tourists movements, Environment Act – Environment rules – Environmental Impact Assessment (EIA), Environmental Information System (EIS), Environmental Management System (EMS) & Carrying capacity, Forest Act – Forest Conservation Act – Wild life Protection Act,

Unit – III

Nature and Characteristic of Tourism Products of India - Seasonality and Diversities, Tourist attraction – Concept & Classification, Heritage – Indigenous; Colonial, Handicrafts of India; Fairs and Festivals of Social & Religious importance, Forms & Types of Performing Art, Classical Dances, Folk Dances of different Regions & Folk Culture, Indian Music - Different Schools, Status of Indian Vocal & Instrumental Music, Indian Music abroad, Indian Museums, Art Galleries, Libraries & their Location, Indian cuisine - Regional variations, Historical monuments of India – Ancient temples, caves, stupas, monasteries, forts, palaces, Islamic and colonial art and architecture, Indian rituals, dresses. World heritage sites of India, Major religious centers of India – holy places connected with Hinduism, Buddhism, Jainism, Sikhism, Islamism, Christianity, Zoroastrianism and other religious sects, places associated with the work and life of legendry figures – Mahatma Gandhi, Pt. Jawaharlal Nehru, Dr. B.R. Ambedkar, Swami Vivekananda, Rabindranath Tagore, Subash Chandra Bose & Sardar Vallabhai Patel. Important paces related to India's freedom struggle.

Major National Parks, Wildlife Sanctuaries and Biosphere reserves of India and their Locations - Accessibility, Facilities, Amenities, Uniqueness of Dachigam, Corbett, Ranthambore, Hazaribag, Similipal, Bhitarkanika, Kanha, Bandhavagarh, Mudumalli, Periyar, Gir, Sunderbans, Manas, Valley of flowers, Hill Stations - Locations, Accessibility, Facilities, Amenities, Uniqueness of Gulmarg, Kullu & Manali, Shimla, Mussorie, Nainital, Panchmarahi, Mahabaleswar, Chikmangulaur, Coorg, Munnar, Ooty, Kodiakanal, Arakku, Darjeeling, Gangtok, Shillong, etc., Tourist potential of Himalayas.

Beach Resorts of India - Locations, Accessibility, Facilities, Amenities, Uniqueness of important Beaches of Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Puducherry, Andhra Pradesh, Odisha, West Bengal, Lakshadweep, Andaman & Nicobar Islands. Emerging attractions for Medical Tourism, Ecotourism, Rural Tourism, Agri Tourism, Farm Tourism, Green Tourism, Wilderness Tourism, Film Tourism, MICE tourism, Countryside Tourism, Caravan Tourism, Adventure tourism, Golf tourism, Light house tourism, Fort tourism, Buddhist tourism, Sufi

tourism, Special interest tourism, Textile tourism, Aqua based tourism , wellness and spa tourism, culinary tourism, shopping tourism, indigenous tourism, industrial & Mining Tourism.

Unit – IV

Transportation - Evolution and importance of Transportation Systems; Role of Transportation in Tourism; Major transport systems – Rail, Road, Air and Water transport; Road Transport Network in North America, South America, Europe, South Africa, Asia and the Middle-East, Austria and New Zealand, Major Railway Transport Network in the World, Modes of transportations in India – Past & Present.

Licensing of air carriers; Limitations of weights and capacities; Scheduled and non-scheduled airlines services; No-frill airlines; Open sky policy; International conventions; Functions of IATA, ICAO, DGCA, AAI; GDS in air transportation. Types of air journey, MPM, TPM, Extra Mileage Allowance, One-way, Return Trip and Circle Tri Journey, Higher Intermediate Fare Check Point, Add-on and Open Jaw Fare, Excursion Fare , Components in International Air Tickets, Airline Business in the World, Major Air Carriers and Major Low-cost Airlines, Domestic Air Transport Business, Distribution of Sales of Airlines Tickets, Baggage and Travel Documents, Air Charter Services, Miscellaneous Charges order (MCO) - Multiple Purpose Document (MPD) - Billing and Settlement Plan.

Surface Transport System - Approved tourist transport, car hire companies including car rental scheme and tourist-coach companies, Documents connected with road transport viz. Regional Transport Authority, transport and insurance documents, road taxies, fitness certificate, contact carriage, state carriage, All India permits, maxi car, motor car etc. Railway System of world, British Rail, Euro Rail, Amtrak, Orient express, Trans-Siberian railway and luxury train of the world. Indian Railways - types of tours available in Indian Rail, Indrail pass, special schemes and packages available, palace on wheels, royal orient, fairy queen and toy trains. Planning itineraries on Indian Railways, reservation and cancellation procedures, Water Transport System - Historical past, cruise ships, ferries, hovercraft, river canal boats. Prospects and future growth of water transport in India. Major cruise lines of the world and their packages

Unit – V

Historical Background of Travel Trade, Significance of Travel Agency Business, Types of Travel Agent- Full Service Agency, Commercial Agency, Implant Agency, Group / Incentive Agency, Skills and Competencies for Running Travel Agency Business, Wholesale and Retail Agents, Future of Travel Wholesaling & Retailing. Types of Tour Operator- Inbound, Outbound , Domestic, Ground and Specialized, Types of Tour- Independent Tour, Escorted Tour, Hosted Tour, Incentivized Tour, Tour Wholesalers and Retailers, Diversified Role of Tour Operators, Distribution Networks of Tour Operation Business, Special Services for Charter Tour Operators, Meeting & Incentive Planners and Activities of Meeting Planners, Convention & Conference Tourism Business, Trade Fairs & Exhibitions, Essential Requirements for Starting Travel Agency & Tour Operation Business, Procedures for Obtaining Recognition, Travel Agency Organization Structure, Sources of Revenue, Use of Information Technology in Travel Agency Business.

Types of Itinerary - Resources and Steps for Itinerary Planning, Tour Costing: Tariffs, FIT & GIT, Confirmation of Tour, Creation of Docket/ File, Issue of Tour Vouchers, Reconfirmation with Airlines, Hotel & Ground Service Providers, Distributing Customized Itinerary to Tour Leader, Guide, Driver & Transporter, Standard Procedures for Pickup and Drop, Preparation of Feedback or Guest Comment Sheet, Analysis of Comments of Guest, Tour Guides & Escorts, WATA guidelines; Relation with service suppliers; Travel agency appointments; International regulations.

Familiarization with TIM (Travel Information Manual), Passport & VISA- Meaning, Types, Procedures, Validity, Necessary Information to fill the Passport and VISA Form for Issuance, Health Certificates, Currency, Travel Insurance, Credit & Debit Card, Customs, Currency, Baggage and Airport information, Citizenship – Passport - Visa - FEMA – Foreigners Registration Act – Customs – RBI guidelines - Criminal Law - Registration of cases, Cargo handling - Baggage allowance, free access baggage, Weigh and piece concept, Accountability of lost baggage, Dangerous goods, Cargo rates ad valuation charges Automation and airport procedures, Tour Brochures - element and importance of brochure.

Unit – VI

Distinctive characteristics of Hospitality Industry - Inflexibility, Intangibility, Perishability, fixed location, relatively large financial investment etc.; Concepts of Atithi Devo Bhavah; Hotel and the other lodging facilities; types of hotels and hotel departments; classification of hotels; chain operations; E- Hospitality. Types of accommodation; Activities in Accommodation Management – Front office – Housekeeping – Bar and Restaurant - Supporting services; Fiscal and non-fiscal incentives offered to hotel industry in India, ethical and regulatory aspects in a hotel, international hotel regulations.

Duties and responsibilities of front office staff; Reservation & registration- Types of Room, Types of Bedding, Meal plans, room assignments, check-in, methods of payment, type of hotel guests. Factors affecting the price of accommodation, important functions of Housekeeping Management, liaison with other departments, room supplies, Bed making and related types of service; Housekeeping department-Hierarchy, duties & responsibilities of housekeeping staff.

Food Production Organization, Kitchen, Buffets, Beverages Operation, Functions, Outlets of F & B, Types of Meal Plans, Types of Restaurant-Menu, Room Service, Catering Services-Food Service for the Airlines, Banquette, Corporate, MICE, Retail Food Market, Business/Industrial Food Service, Healthcare Food Service, club food services - Trends in lodging and food services. Food & Beverage Department of a hotel: Hierarchy, duties & responsibilities of staff.

Unit – VII

Concept of Goods & Services; Characteristics of Service; Salient features of Marketing Services: Services Marketing – Concept, Need & Significance, Types of Tourism Services, Tourism Marketing Environment, Strategic Planning and Marketing Process, Organizing and Implementing marketing in the Tourism Organization. Service Quality, Gap Model of Service

Quality. Marketing Research. Market Segmentation - Targeting and positioning for competitive advantage; Relationship Marketing; Familiarization Trip.

P's of Tourism Marketing- Product, Place, Price, Promotion, Physical Evidence, People, Process & Packaging, Designing Tourism Product – Branding and Packaging, Product Development – Product Life Cycle & Its Various Stages, Pricing Strategies and Approaches, Advertising – Sales Promotion – Publicity – Personal Selling, Tourism Distribution Channels, Cooperation and conflict Management. Global Marketing, Direct Marketing, Social Media & Digital Marketing, Green Marketing, Corporate Social Responsibility, Marketing Ethics & Consumerism.

Destination Image Development - Attributes of Destinations, Destination resource analysis, measurement of destination image - Destination branding perspectives and challenges- Creating the Unique Destination Proposition - Place branding and destination image - Destination image formation process; unstructured image -Product development and packaging - Institutional Support & Public Private Partnership in Destination Marketing.

Unit – VIII

Tourism planning - Role of Govt. public and private sectors in formulation of tourism policy; Roles of international, national, state and local tourism organizations in carrying out tourism policies. Tourism planning for thrust areas, special tourism areas & zones identified by Ministry of Tourism, Government of India. Sustainable tourism development, Pro-poor Tourism and Community Participation; Responsible tourism.

Tourism Policy - Factors influencing tourism policy; National Tourism Policy, Levels of Tourism planning - International, national, regional, state and local, the traditional, approach and PASLOP method of tourism planning; important feature of five year tourism plans in India; Elements Agents, Processes and typologies of tourism development; State tourism policies. National Planning Policies for Destination Development- WTO Guidelines for Planners - Role of urban civic bodies: Town planning -Characteristics of rural tourism planning.

Economic System and Its Impact on Tourism Development, Macro & Micro Economic System, Demand & Supply, Determinants , Measurement of Tourism Demand, Forecasting, Methods of Demand Forecasting, Inflation, Recession, Savings & Investment, Export & Import, Multiplier Effects &Its Types, Displacement Effect, Costs and Benefits of Tourism, Monetary Policy- Repo Rate, Reverse Repo Rate, Cash Reserve Ratio(CRR).

Unit – IX

Statistics: Measures of central tendency- mean, median, mode; measures of dispersion- range, standard deviation, variance, etc.; skewness and kurtosis; correlation and regression- scatter plots, lines of best fit, Pearson and Spearman correlation coefficients; Regression- bivariate and multivariate. Distributions- discrete and continuous; Normal distribution, sampling distribution. hypothesis testing – parametric vs. non-parametric tests, t-tests, ANOVA, Chi-square tests, run Test, sign tests, Wald- Walfowitz Test, Kursal Walis Test, Komogrov- Smirnov Test.

Research and theory, types and methods of research; review of literature; variables and measurement, concepts, constructs and formulation of hypothesis; Sampling, methods of data collection, development of schedules and questionnaires, scales and fieldwork. Qualitative research: quantitative vs. qualitative research; techniques- Grounded Theory, Ethnography, Case method of research, Content Analysis, Phenomenology, Narrative research, mixed methods.

Analysis, tools- Factor analysis, discriminant analysis, conjoint analysis, multiple regression, etc. Report writing, types of report.

Unit – X

Managerial processes, functions, skills, and roles in organization, Systems, contingency and operational approaches to management. External and internal environment affecting managerial decisions – social responsibilities of business – evolution of management thought; functions of planning, organizing, staffing, directing and controlling.

Understanding & Managing Individual & Group Behaviour – Personality, Perception, Learning, Values & attitudes, persuasion, Theories of Motivation, Factors affecting group behaviour, group & individual dimensions, understanding work team, Communication, Leadership & influence process, Organization structure, centralization vs decentralization, strategy & structure, flat & tall structures, work specialization, departmentalization, chain of command, span of control and formalization, Common organizational designs - Simple, bureaucratic, matrix, virtual, boundary less, feminine – Organization as an open system & influence of environment over organizational dynamics with reference to technological innovations.

Basic Accounting Records and Books of Accounts, Double Entry System, Journal, Ledger, Trial Balance, Cash Book, Depreciation Accounting, Final Accounts with Adjustments. Hotel Accounting, Financial management, Concept of raising funds, capital structure, capital budgeting, Internal financial control- meaning, problems unique to hospitality industry, Establishing cost standard, Types of budget, preparation of budget, and zero based budgeting, working capital Management, cash management, Opportunities and challenges for investments in hotel, aviation & Tourism related sectors, Role of TFCI and other financial organizations. Elements of Contract Act – Breach of Contact – Performance of Contract – Indemnity & Guarantee – Bailment - Consumer Protection Act.

CSIR-UGC National Eligibility Test (NET) for Junior Research Fellowship and Lecturer-ship

CHEMICAL SCIENCES

Inorganic Chemistry

1. Chemical periodicity
2. Structure and bonding in homo- and heteronuclear molecules, including shapes of molecules (VSEPR Theory).
3. Concepts of acids and bases, Hard-Soft acid base concept, Non-aqueous solvents.
4. Main group elements and their compounds: Allotropy, synthesis, structure and bonding, industrial importance of the compounds.
5. Transition elements and coordination compounds: structure, bonding theories, spectral and magnetic properties, reaction mechanisms.
6. Inner transition elements: spectral and magnetic properties, redox chemistry, analytical applications.
7. Organometallic compounds: synthesis, bonding and structure, and reactivity. Organometallics in homogeneous catalysis.
8. Cages and metal clusters.
9. Analytical chemistry- separation, spectroscopic, electro- and thermoanalytical methods.
10. Bioinorganic chemistry: photosystems, porphyrins, metalloenzymes, oxygen transport, electron- transfer reactions; nitrogen fixation, metal complexes in medicine.
11. Characterisation of inorganic compounds by IR, Raman, NMR, EPR, Mössbauer, UV-vis, NQR, MS, electron spectroscopy and microscopic techniques.
12. Nuclear chemistry: nuclear reactions, fission and fusion, radio-analytical techniques and activation analysis.

Physical Chemistry:

1. Basic principles of quantum mechanics: Postulates; operator algebra; exactly-solvable systems: particle-in-a-box, harmonic oscillator and the hydrogen atom, including shapes of atomic orbitals; orbital and spin angular momenta; tunneling.

2. Approximate methods of quantum mechanics: Variational principle; perturbation theory up to second order in energy; applications.

3. Atomic structure and spectroscopy; term symbols; many-electron systems and antisymmetry principle.

4. Chemical bonding in diatomics; elementary concepts of MO and VB theories; Huckel theory for conjugated π-electron systems.

5. Chemical applications of group theory; symmetry elements; point groups; character tables; selection rules.

6. Molecular spectroscopy: Rotational and vibrational spectra of diatomic molecules; electronic spectra; IR and Raman activities – selection rules; basic principles of magnetic resonance.

7. Chemical thermodynamics: Laws, state and path functions and their applications; thermodynamic description of various types of processes; Maxwell's relations; spontaneity and equilibria; temperature and pressure dependence of thermodynamic quantities; Le Chatelier principle; elementary description of phase transitions; phase equilibria and phase rule; thermodynamics of ideal and non-ideal gases, and solutions.

8. Statistical thermodynamics: Boltzmann distribution; kinetic theory of gases; partition functions and their relation to thermodynamic quantities – calculations for model systems.

9. Electrochemistry: Nernst equation, redox systems, electrochemical cells; Debye-Huckel theory; electrolytic conductance – Kohlrausch's law and its applications; ionic equilibria; conductometric and potentiometric titrations.

10. Chemical kinetics: Empirical rate laws and temperature dependence; complex reactions; steady state approximation; determination of reaction mechanisms; collision and transition state theories of rate constants; unimolecular reactions; enzyme kinetics; salt effects; homogeneous catalysis; photochemical reactions.

11. Colloids and surfaces: Stability and properties of colloids; isotherms and surface area; heterogeneous catalysis.

12. Solid state: Crystal structures; Bragg's law and applications; band structure of solids.

13. Polymer chemistry: Molar masses; kinetics of polymerization.

14. Data analysis: Mean and standard deviation; absolute and relative errors; linear regression; covariance and correlation coefficient.

Organic Chemistry

1. IUPAC nomenclature of organic molecules including regio- and stereoisomers.

2. Principles of stereochemistry: Configurational and conformational isomerism in acyclic and cyclic compounds; stereogenicity, stereoselectivity, enantioselectivity, diastereoselectivity and asymmetric induction.

3. Aromaticity: Benzenoid and non-benzenoid compounds – generation and reactions.

4. Organic reactive intermediates: Generation, stability and reactivity of carbocations, carbanions, free radicals, carbenes, benzynes and nitrenes.

5. Organic reaction mechanisms involving addition, elimination and substitution reactions with electrophilic, nucleophilic or radical species. Determination of reaction pathways.

6. Common named reactions and rearrangements – applications in organic synthesis.

7. Organic transformations and reagents: Functional group interconversion including oxidations and reductions; common catalysts and reagents (organic, inorganic, organometallic and enzymatic). Chemo, regio and stereoselective transformations.

8. Concepts in organic synthesis: Retrosynthesis, disconnection, synthons, linear and convergent synthesis, umpolung of reactivity and protecting groups.

9. Asymmetric synthesis: Chiral auxiliaries, methods of asymmetric induction – substrate, reagent and catalyst controlled reactions; determination of enantiomeric and diastereomeric excess; enantio-discrimination. Resolution – optical and kinetic.

10. Pericyclic reactions – electrocyclisation, cycloaddition, sigmatropic rearrangements and other related concerted reactions. Principles and applications of photochemical reactions in organic chemistry.

11. Synthesis and reactivity of common heterocyclic compounds containing one or two heteroatoms (O, N, S).

12. Chemistry of natural products: Carbohydrates, proteins and peptides, fatty acids, nucleic acids, terpenes, steroids and alkaloids. Biogenesis of terpenoids and alkaloids.

13. Structure determination of organic compounds by IR, UV-Vis, ^{1}H & ^{13}C NMR and Mass spectroscopic techniques.

Interdisciplinary topics

1. Chemistry in nanoscience and technology.
2. Catalysis and green chemistry.
3. Medicinal chemistry.
4. Supramolecular chemistry.
5. Environmental chemistry.

Annexure-C

CSIR-UGC National Eligibility Test (NET) for Junior Research Fellowship and Lecturer-ship

LIFE SCIENCES

1. Molecules and their Interaction Relevant to Biology
2. Cellular Organization
3. Fundamental Processes
4. Cell Communication and Cell Signaling
5. Developmental Biology
6. System Physiology – Plant
7. System Physiology – Animal
8. Inheritance Biology
9. Diversity of Life Forms
10. Ecological Principles
11. Evolution and Behavior
12. Applied Biology
13. Methods in Biology

1. MOLECULES AND THEIR INTERACTION RELAVENT TO BIOLOGY

A. Structure of atoms, molecules and chemical bonds.
B Composition, structure and function of biomolecules (carbohydrates, lipids, proteins, nucleic acids and vitamins).
C. Stablizing interactions (Van der Waals, electrostatic, hydrogen bonding, hydrophobic interaction, etc.).
D Principles of biophysical chemistry (pH, buffer, reaction kinetics, thermodynamics, colligative properties).
E. Bioenergetics, glycolysis, oxidative phosphorylation, coupled reaction, group transfer, biological energy transducers.
F. Principles of catalysis, enzymes and enzyme kinetics, enzyme regulation, mechanism of enzyme catalysis, isozymes
G. Conformation of proteins (Ramachandran plot, secondary structure, domains, motif and folds).
H. Conformation of nucleic acids (helix (A, B, Z), t-RNA, micro-RNA).
I. Stability of proteins and nucleic acids.
J. Metabolism of carbohydrates, lipids, amino acids nucleotides and vitamins.

2. CELLULAR ORGANIZATION

A) **Membrane structure and function**
(Structure of model membrane, lipid bilayer and membrane protein diffusion, osmosis, ion channels, active transport, membrane pumps, mechanism of sorting and regulation of intracellular transport,electrical properties of membranes).

B) **Structural organization and function of intracellular organelles** (Cell wall, nucleus, mitochondria, Golgi bodies, lysosomes, endoplasmic reticulum, peroxisomes, plastids, vacuoles, chloroplast, structure & function of cytoskeleton and its role in motility).

C) **Organization of genes and chromosomes** (Operon, unique and repetitive DNA, interrupted genes, gene families, structure of chromatin and chromosomes, heterochromatin, euchromatin, transposons).

D) **Cell division and cell cycle** (Mitosis and meiosis, their regulation, steps in cell cycle, regulation and control of cell cycle).

E) **Microbial Physiology** (Growth yield and characteristics, strategies of cell division, stress response)

3. FUNDAMENTAL PROCESSES

A) **DNA replication, repair and recombination** (Unit of replication, enzymes involved, replication origin and replication fork, fidelity of replication, extrachromosomal replicons, DNA damage and repair mechanisms, homologous and site-specific recombination).

B) **RNA synthesis and processing** (transcription factors and machinery, formation of initiation complex, transcription activator and repressor, RNA polymerases, capping,

elongation, and termination, RNA processing, RNA editing, splicing, and polyadenylation, structure and function of different types of RNA, RNA transport).

C) **Protein synthesis and processing** (Ribosome, formation of initiation complex, initiation factors and their regulation, elongation and elongation factors, termination, genetic code, aminoacylation of tRNA, tRNA-identity, aminoacyl tRNA synthetase, and translational proof-reading, translational inhibitors, Post- translational modification of proteins).

D) **Control of gene expression at transcription and translation level** (regulating the expression of phages, viruses, prokaryotic and eukaryotic genes, role of chromatin in gene expression and gene silencing).

4. <u>Cell communication and cell signaling</u>

A) **Host parasite interaction** Recognition and entry processes of different pathogens like bacteria, viruses into animal and plant host cells, alteration of host cell behavior by pathogens, virus-induced cell transformation, pathogen-induced diseases in animals and plants, cell-cell fusion in both normal and abnormal cells.

B) **Cell signaling** Hormones and their receptors, cell surface receptor, signaling through G-protein coupled receptors, signal transduction pathways, second messengers, regulation of signaling pathways, bacterial and plant two-component systems, light signaling in plants, bacterial chemotaxis and quorum sensing.

C) **Cellular communication** Regulation of hematopoiesis, general principles of cell communication, cell adhesion and roles of different adhesion molecules, gap junctions, extracellular matrix, integrins, neurotransmission and its regulation.

D) **Cancer**
Genetic rearrangements in progenitor cells, oncogenes, tumor suppressor genes, cancer and the cell cycle, virus-induced cancer, metastasis, interaction of cancer cells with normal cells, apoptosis, therapeutic interventions of uncontrolled cell growth.

E) **Innate and adaptive immune system** Cells and molecules involved in innate and adaptive immunity, antigens, antigenicity and immunogenicity. B and T cell epitopes, structure and function of antibody molecules. generation of antibody diversity, monoclonal antibodies, antibody engineering, antigen-antibody interactions, MHC molecules, antigen processing and presentation, activation and differentiation of B and T cells, B and T cell receptors, humoral and cell-mediated immune responses, primary and secondary immune modulation, the complement system, Toll-like receptors, cell-mediated effector functions, inflammation, hypersensitivity and autoimmunity, immune response during bacterial (tuberculosis), parasitic (malaria) and viral (HIV) infections, congenital and acquired immunodeficiencies, vaccines.

5. DEVELOPMENTAL BIOLOGY

A) Basic concepts of development : Potency, commitment, specification, induction, competence, determination and differentiation; morphogenetic gradients; cell fate and cell lineages; stem cells; genomic equivalence and the cytoplasmic determinants; imprinting; mutants and transgenics in analysis of development

B) Gametogenesis, fertilization and early development: Production of gametes, cell surface molecules in sperm-egg recognition in animals; embryo sac development and double fertilization in plants; zygote formation, cleavage, blastula formation, embryonic fields, gastrulation and formation of germ layers in animals; embryogenesis, establishment of symmetry in plants; seed formation and germination.

C) Morphogenesis and organogenesis in animals : Cell aggregation and differentiation in *Dictyostelium*; axes and pattern formation in *Drosophila*, amphibia and chick; organogenesis – vulva formation in *Caenorhabditis elegans*, eye lens induction, limb development and regeneration in vertebrates; differentiation of neurons, post embryonic development- larval formation, metamorphosis; environmental regulation of normal development; sex determination.

D) Morphogenesis and organogenesis in plants: Organization of shoot and root apical meristem; shoot and root development; leaf development and phyllotaxy; transition to flowering, floral meristems and floral development in *Arabidopsis* and *Antirrhinum*

E) Programmed cell death, aging and senescence

6. SYSTEM PHYSIOLOGY - PLANT

A. Photosynthesis - Light harvesting complexes; mechanisms of electron transport; photoprotective mechanisms; CO_2 fixation-C_3, C_4 and CAM pathways.

B. Respiration and photorespiration – Citric acid cycle; plant mitochondrial electron transport and ATP synthesis; alternate oxidase; photorespiratory pathway.

C. Nitrogen metabolism - Nitrate and ammonium assimilation; amino acid biosynthesis.

D. Plant hormones – Biosynthesis, storage, breakdown and transport; physiological effects and mechanisms of action.

E. Sensory photobiology - Structure, function and mechanisms of action of phytochromes, cryptochromes and phototropins; stomatal movement; photoperiodism and biological clocks.

F. **Solute transport and photoassimilate translocation** – uptake, transport and translocation of water, ions, solutes and macromolecules from soil, through cells, across membranes, through xylem and phloem; transpiration; mechanisms of loading and unloading of photoassimilates.

G. **Secondary metabolites** - Biosynthesis of terpenes, phenols and nitrogenous compounds and their roles.

H. **Stress physiology** – Responses of plants to biotic (pathogen and insects) and abiotic (water, temperature and salt) stresses.

7. **SYSTEM PHYSIOLOGY - ANIMAL**

A. **Blood and circulation** - Blood corpuscles, haemopoiesis and formed elements, plasma function, blood volume, blood volume regulation, blood groups, haemoglobin, immunity, haemostasis.

B. **Cardiovascular System:** Comparative anatomy of heart structure, myogenic heart, specialized tissue, ECG – its principle and significance, cardiac cycle, heart as a pump, blood pressure, neural and chemical regulation of all above.

C. **Respiratory system** - Comparison of respiration in different species, anatomical considerations, transport of gases, exchange of gases, waste elimination, neural and chemical regulation of respiration.

D. **Nervous system** - Neurons, action potential, gross neuroanatomy of the brain and spinal cord; central and peripheral nervous system, neural control of muscle tone and posture.

E. **Sense organs** - Vision, hearing and tactile response.

F. **Excretory system** - Comparative physiology of excretion, kidney, urine formation, urine concentration, waste elimination, micturition, regulation of water balance, blood volume, blood pressure, electrolyte balance, acid-base balance.

G. **Thermoregulation** - Comfort zone, body temperature – physical, chemical, neural regulation, acclimatization.

H. **Stress and adaptation**

I. **Digestive system** - Digestion, absorption, energy balance, BMR.

J. **Endocrinology and reproduction** - Endocrine glands, basic mechanism of hormone action, hormones and diseases; reproductive processes, gametogenesis, ovulation, neuroendocrine regulation

8. INHERITANCE BIOLOGY

A) Mendelian principles : Dominance, segregation, independent assortment.

B) Concept of gene : Allele, multiple alleles, pseudoallele, complementation tests

C) Extensions of Mendelian principles : Codominance, incomplete dominance, gene interactions, pleiotropy, genomic imprinting, penetrance and expressivity, phenocopy, linkage and crossing over, sex linkage, sex limited and sex influenced characters.

D) Gene mapping methods : Linkage maps, tetrad analysis, mapping with molecular markers, mapping by using somatic cell hybrids, development of mapping population in plants.

E) Extra chromosomal inheritance : Inheritance of Mitochondrial and chloroplast genes, maternal inheritance.

F) Microbial genetics : Methods of genetic transfers – transformation, conjugation, transduction and sex-duction, mapping genes by interrupted mating, fine structure analysis of genes.

G) Human genetics : Pedigree analysis, lod score for linkage testing, karyotypes, genetic disorders.

H) Quantitative genetics : Polygenic inheritance, heritability and its measurements, QTL mapping.

I) Mutation : Types, causes and detection, mutant types – lethal, conditional, biochemical, loss of function, gain of function, germinal verses somatic mutants, insertional mutagenesis.

J) Structural and numerical alterations of chromosomes : Deletion, duplication, inversion, translocation, ploidy and their genetic implications.

K) Recombination : Homologous and non-homologous recombination including transposition.

9. DIVERSITY OF LIFE FORMS:

A. Principles & methods of taxonomy:

Concepts of species and hierarchical taxa, biological nomenclature, classical & quantititative methods of taxonomy of plants, animals and microorganisms.

B. Levels of structural organization:

Unicellular, colonial and multicellular forms. Levels of organization of tissues, organs & systems. Comparative anatomy, adaptive radiation, adaptive modifications.

C. **Outline classification of plants, animals & microorganisms:**
Important criteria used for classification in each taxon. Classification of plants, animals and microorganisms. Evolutionary relationships among taxa.

D. **Natural history of Indian subcontinent:**
Major habitat types of the subcontinent, geographic origins and migrations of species. Comman Indian mammals, birds. Seasonality and phenology of the subcontinent.

E. **Organisms of health & agricultural importance:**
Common parasites and pathogens of humans, domestic animals and crops.

F. **Organisms of conservation concern:**

Rare, endangered species. Conservation strategies.

10. ECOLOGICAL PRINCIPLES

The Environment: Physical environment; biotic environment; biotic and abiotic interactions.

Habitat and Niche: Concept of habitat and niche; niche width and overlap; fundamental and realized niche; resource partitioning; character displacement.

Population Ecology: Characteristics of a population; population growth curves; population regulation; life history strategies (*r* and *K* selection); concept of metapopulation – demes and dispersal, interdemic extinctions, age structured populations.

Species Interactions: Types of interactions, interspecific competition, herbivory, carnivory, pollination, symbiosis.

Community Ecology: Nature of communities; community structure and attributes; levels of species diversity and its measurement; edges and ecotones.

Ecological Succession: Types; mechanisms; changes involved in succession; concept of climax.

Ecosystem Ecology: Ecosystem structure; ecosystem function; energy flow and mineral cycling (C,N,P); primary production and decomposition; structure and function of some Indian ecosystems: terrestrial (forest, grassland) and aquatic (fresh water, marine, eustarine).

Biogeography: Major terrestrial biomes; theory of island biogeography; biogeographical zones of India.

Applied Ecology: Environmental pollution; global environmental change; biodiversity: status, monitoring and documentation; major drivers of biodiversity change; biodiversity management approaches.

Conservation Biology: Principles of conservation, major approaches to management, Indian case studies on conservation/management strategy (Project Tiger, Biosphere reserves).

11. EVOLUTION AND BEHAVIOUR

A. Emergence of evolutionary thoughts

Lamarck; Darwin–concepts of variation, adaptation, struggle, fitness and natural selection; Mendelism; Spontaneity of mutations; The evolutionary synthesis.

B. Origin of cells and unicellular evolution:

Origin of basic biological molecules; Abiotic synthesis of organic monomers and polymers; Concept of Oparin and Haldane; Experiement of Miller (1953); The first cell; Evolution of prokaryotes: Origin of eukaryotic cells; Evolution of unicellular eukaryotes; Anaerobic metabolism, photosynthesis and aerobic metabolism.

C. Palcontology and Evolutionary History:

The evolutionary time scale; Eras, periods and epoch; Major events in the evolutionary time scale; Origins of unicellular and multi cellular organisms; Major groups of plants and animals; Stages in primate evolution including Homo.

D. Molecular Evolution:

Concepts of neutral evolution, molecular divergence and molecular clocks; Molecular tools in phylogeny, classification and identification; Protein and nucleotide sequence analysis; origin of new genes and proteins; Gene duplication and divergence.

E. The Mechanisms:

Population genetics – Populations, Gene pool, Gene frequency; Hardy-Weinberg Law; concepts and rate of change in gene frequency through natural selection, migration and random genetic drift; Adaptive radiation; Isolating mechanisms; Speciation; Allopatricity and Sympatricity; Convergent evolution; Sexual selection; Co-evolution.

F. Brain, Behavior and Evolution:

Approaches and methods in study of behavior; Proximate and ultimate causation; Altruism and evolution-Group selection, Kin selection, Reciprocal altruism; Neural basis

of learning, memory, cognition, sleep and arousal; Biological clocks; Development of behavior; Social communication; Social dominance; Use of space and territoriality; Mating systems, Parental investment and Reproductive success; Parental care; Aggressive behavior; Habitat selection and optimality in foraging; Migration, orientation and navigation; Domestication and behavioral changes.

12. **APPLIED BIOLOGY:**

A. Microbial fermentation and production of small and macro molecules.

B. Application of immunological principles, vaccines, diagnostics. Tissue and cell culture methods for plants and animals.

C. Transgenic animals and plants, molecular approaches to diagnosis and strain identification.

D. Genomics and its application to health and agriculture, including gene therapy.

E. Bioresource and uses of biodiversity.

F. Breeding in plants and animals, including marker – assisted selection

G. Bioremediation and phytoremediation

H. Biosensors

13. METHODS IN BIOLOGY

A. Molecular Biology and Recombinant DNA methods:

Isolation and purification of RNA , DNA (genomic and plasmid) and proteins, different separation methods.
Analysis of RNA, DNA and proteins by one and two dimensional gel electrophoresis, Isoelectric focusing gels.
Molecular cloning of DNA or RNA fragments in bacterial and eukaryotic systems.
Expression of recombinant proteins using bacterial, animal and plant vectors.
Isolation of specific nucleic acid sequences
Generation of genomic and cDNA libraries in plasmid, phage, cosmid, BAC and YAC vectors.
In vitro mutagenesis and deletion techniques, gene knock out in bacterial and eukaryotic organisms.
Protein sequencing methods, detection of post translation modification of proteins.
DNA sequencing methods, strategies for genome sequencing.
Methods for analysis of gene expression at RNA and protein level, large scale expression, such as micro array based techniques
Isolation, separation and analysis of carbohydrate and lipid molecules
RFLP, RAPD and AFLP techniques

B. Histochemical and Immunotechniques

Antibody generation, Detection of molecules using ELISA, RIA, western blot, immunoprecipitation, fluocytometry and immunofluorescence microscopy, detection of molecules in living cells, in situ localization by techniques such as FISH and GISH.

C Biophysical Method:

Molecular analysis using UV/visible, fluorescence, circular dichroism, NMR and ESR spectroscopy Molecular structure determination using X-ray diffraction and NMR, Molecular analysis using light scattering, different types of mass spectrometry and surface plasma resonance methods.

D Statisitcal Methods:

Measures of central tendency and dispersal; probability distributions (Binomial, Poisson and normal); Sampling distribution; Difference between parametric and non-parametric statistics; Confidence Interval; Errors; Levels of significance; Regression and Correlation; t-test; Analysis of variance; X^2 test;; Basic introduction to Muctrovariate statistics, etc.

E. **Radiolabeling techniques:**

Detection and measurement of different types of radioisotopes normally used in biology, incorporation of radioisotopes in biological tissues and cells, molecular imaging of radioactive material, safety guidelines.

F. **Microscopic techniques:**

Visulization of cells and subcellular components by light microscopy, resolving powers of different microscopes, microscopy of living cells, scanning and transmission microscopes, different fixation and staining techniques for EM, freeze-etch and freeze-fracture methods for EM, image processing methods in microscopy.

G. **Electrophysiological methods:**

Single neuron recording, patch-clamp recording, ECG, Brain activity recording, lesion and stimulation of brain, pharmacological testing, PET, MRI, fMRI, CAT .

H. **Methods in field biology:**

Methods of estimating population density of animals and plants, ranging patterns through direct, indirect and remote observations, sampling methods in the study of behavior, habitat characterization: ground and remote sensing methods..

Annexure-D

विश्वविद्यालय अनुदान आयोग
नेट-ब्यूरो

Code No. 20

विषय - हिन्दी

पाठ्यक्रम

इकाई - I

हिन्दी भाषा और उसका विकास।

हिन्दी की ऐतिहासिक पृष्ठभूमि : प्राचीन भारतीय आर्य भाषाएं, मध्यकालीन भारतीय आर्य भाषाएं– पालि, प्राकृत – शौरसेनी, अर्द्धमागधी, मागधी, अपभ्रंश और उनकी विशेषताएं, अपभ्रंश अवहठ, और पुरानी हिन्दी का संबंध, आधुनिक भारतीय आर्य भाषाएं और उनका वर्गीकरण। हिन्दी का भौगोलिक विस्तार : हिन्दी की उपभाषाएं, पश्चिमी हिन्दी, पूर्वी हिन्दी, राजस्थानी, बिहारी तथा पहाड़ी वर्ग और उनकी बोलियां। खड़ीबोली, ब्रज और अवधी की विशेषताएं। हिन्दी के विविध रूप : हिन्दी, उर्दू, दक्खिनी, हिन्दुस्तानी। हिन्दी का भाषिक स्वरूप : हिन्दी की स्वनिम व्यवस्था – खंड्य और खंड्येतर, हिन्दी ध्वनियों के वर्गीकरण का आधार, हिन्दी शब्द रचना –उपसर्ग, प्रत्यय, समास, हिन्दी की रूप रचना – लिंग, वचन और कारक व्यवस्था के सन्दर्भ में संज्ञा, सर्वनाम, विशेषण और क्रिया रुप, हिन्दी – वाक्य – रचना। हिन्दी भाषा – प्रयोग के विविध रूप : बोली, मानक भाषा, राजभाषा, राष्ट्रभाषा और सम्पर्क भाषा। संचार माध्यम और हिन्दी, कम्पूटर और हिन्दी, हिन्दी की संवैधानिक स्थिति। देवानागरी लिपि : विशेषताएं और मानकीकरण।

इकाई – II

हिन्दी साहित्य का इतिहास

हिन्दी साहित्येतिहास दर्शन

हिन्दी साहित्य के इतिहास लेखन की पद्धतियां

हिन्दी साहित्य का कालविभाजन और नामकरण, आदिकाल की विशेषताएं एवं साहित्यिक प्रवृतियां, रासो-साहित्य, आदिकालीन हिन्दी का जैन साहित्य, सिद्ध और नाथ साहित्य, अमीर खुसरो की हिन्दी कविता, विद्यापति और उनकी पदावली तथा लौकिक साहित्य

भक्तिकाल

भक्ति-आंदोलन के उदय के सामाजिक-सांस्कृतिक कारण, भक्ति-आंदोलन का अखिल भारतीय स्वरुप और उसका अन्तःप्रादेशिक वैशिष्ट्य।

भक्ति काव्य की सामाजिक-सांस्कृतिक पृष्ठभूमि, आलवार सन्त। भक्ति काव्य के प्रमुख सम्प्रदाय और उनका वैचारिक आधार। निर्गुण-सुगण कवि और उनका काव्य।

रीतिकाल

सामाजिक-सांस्कृतिक पृष्टभूमि, रीतिकाल की प्रमुख प्रवृत्तियां (रीतिबद्ध, रीतिसिद्ध, रीतिमुक्त)

रीतिकवियों का आचार्यत्व।

रीतिकाल के प्रमुख कवि और उनका काव्य

आधुनिक काल

हिन्दी गद्य का उद्भव और विकास। भारतेन्दु पूर्व हिन्दी गद्य, 1857 की क्रान्ति और सांस्कृतिक पुनर्जागरण, भारतेन्दु और उनका युग, पत्रकारिता का आरम्भ और 19वीं शताब्दी की हिन्दी पत्रकारिता, आधुनिकता की अवधारणा।

द्विवेदी युग : महावीर प्रसाद द्विवेदी और उनका युग, हिन्दी नवजागरण और सरस्वती, राष्ट्रीय काव्य धारा के प्रमुख कवि, स्वछन्दतावाद और उसके प्रमुख कवि।

छायावाद : छायावादी काव्य की प्रमुख विशेषताएं, छायावाद के प्रमुख कवि, प्रगतिवाद की अवधारणा, प्रगतिवादी काव्य और उसके प्रमुख कवि, प्रयोगवाद और नई कविता, नई कविता के कवि, समकालीन कविता (वर्ष 2000 तक) समकालीन साहित्यिक पत्रकारिता।

हिन्दी साहित्य की गद्य विधाएं

हिन्दी उपन्यास :भारतीय उपन्यास की अवधारणा।
प्रेमचन्द पूर्व उपन्यास, प्रेमचन्द और उनका युग।
प्रेमचन्द के परवर्ती उपन्यासकार (वर्ष 2000 तक)।

हिन्दी कहानी : हिन्दी कहानी का उद्भव और विकास, 20वीं सदी की हिन्दी कहानी और प्रमुख कहानी आंदोलन एवं प्रमुख कहानीकार।

हिन्दी नाटक : हिन्दी नाटक और रंगमंच, विकास के चरण, भारतेन्दुयुग, प्रसाद युग,प्रसादोत्तर युग, स्वातंत्र्योत्तर युग, साठोत्तर युग और नया नाटक
प्रमुख नाट्यकृतियाँ, प्रमुख नाटककार (वर्ष 2000 तक)।
हिन्दी एकांकी । हिन्दी रंगमंच और विकास के चरण, हिन्दी का लोक रंगमंच। नुक्कड़ नाटक ।

हिन्दी निबंध : हिन्दी निबन्ध का उद्भव और विकास, हिन्दी निबंध के प्रकार और प्रमुख निबंधकार।

हिन्दी आलोचना– हिन्दी आलोचना का उद्भव और विकास। समकालीन हिन्दी आलोचना एवं उसके विविध प्रकार। प्रमुख आलोचक।

हिन्दी की अन्य गद्य विधाएँ : रेखाचित्र, संस्मरण, यात्रा साहित्य, आत्मकथा, जीवनी और रिपोर्ताज, डायरी।

हिन्दी का प्रवासी साहित्य : अवधारणा एवं प्रमुख साहित्यकार।

इकाई – III

साहित्यशास्त्र

काव्य के लक्षण, काव्य हेतु और काव्य प्रयोजन।

प्रमुख संप्रदाय और सिद्धान्त – रस, अलंकार, रीति, ध्वनि, वक्रोक्ति और औचित्य।

रस निष्पत्ति, साधारणीकरण।

शब्दशक्ति, काव्यगुण, काव्य दोष

प्लेटो के काव्य सिद्धान्त।

अरस्तू : अनुकरण सिद्धान्त, त्रासदी विवेचन, विरेचन सिद्धान्त।

वर्ड्सवर्थ का काव्यभाषा सिद्धान्त।

कॉलरिज : कल्पना और फैंटेसी।

टी.एस.इलिएट : निर्वैयक्तिकता का सिद्धान्त, परम्परा की अवधारणा।

आई.ए.रिचर्ड्स : मूल्य सिद्धान्त, संप्रेषण सिद्धान्त तथा काव्य-भाषा सिद्धान्त। रूसी रुपवाद। नयी समीक्षा। मिथक, फन्तासी, कल्पना, प्रतीक, बिम्ब।

इकाई – IV

वैचारिक पृष्ठभूमि

भारतीय नवजागरण और स्वाधीनता आन्दोलन की वैचारिक पृष्ठभूमि

हिन्दी नवजागरण । खड़ीबोली आन्दोलन। फोर्ट विलियम कॉलेज

भारतेन्दु और हिन्दी नवजागरण,

महावीर प्रसाद द्विवेदी और हिन्दी नवजागरण

गांधीवादी दर्शन

अम्बेडकर दर्शन

लोहिया दर्शन

मार्क्सवाद, मनोविश्लेषणवाद, अस्तित्ववाद, उत्तर आधुनिकतावाद, अस्मितामूलक विमर्श (दलित, स्त्री, आदिवासी एवं अल्पसंख्यक)

इकाई – V

हिन्दी कविता

पृथ्वीराज रासो – रेवा तट

अमीरखुसरो – खुसरों की पहेलियाँ और मुकरियाँ

विद्यापति की पदावली (संपादक – डॉ. नरेन्द्र झा) – पद संख्या 1 - 25

कबीर – (सं.- हजारी प्रसाद द्विवेदी) – पद संख्या – 160 - 209

जायसी ग्रंथावली – (सं. राम चन्द्र शुक्ल) – नागमती वियोग खण्ड

सूरदास – भ्रमरगीत सार – (सं.- राम चन्द्र शुक्ल) – पद संख्या 21 से 70

तुलसीदास – रामचरितमानस, उत्तर काण्ड

बिहारी सतसई – (सं.- जगन्नाथ दास रत्नाकर) – दोहा संख्या 1 – 50

घनानन्द कवित्त – (सं.- विश्वनाथ मिश्र) – कवित्त संख्या 1 – 30

मीरा – (सं.- विश्वनाथ त्रिपाठी) – प्रारम्भ से 20 पद

अयोध्या सिंह उपाध्याय हरिऔध – प्रियप्रवास

मैथिलीशरण गुप्त – भारत भारती, साकेत (नवम् सर्ग)

जयशंकर प्रसाद – आंसू, कामायनी (श्रद्धा, लज्जा, इड़ा)

निराला - जुही की कली, जागो फिर एक बार, सरोजस्मृति, राम की शक्तिपूजा, कुकरमुत्ता, बाँधो न नाव इस ठाँव बंधु।

सुमित्रानंदन पंत – परिवर्तन, प्रथम रश्मि

महादेवी वर्मा – बीन भी हूँ मैं तुम्हारी रागिनी भी हूँ, मै नीर भरी दुख की बदली, फिर विकल है प्राण मेरे, यह मन्दिर का दीप इसे नीरव जलने दो, द्रुत झरो जगत के जीर्ण पत्र

रामधारी सिंह दिनकर – उर्वशी (तृतीय अंक), रश्मिरथी

नागार्जुन – कालिदास, बादल को घिरते देखा है, अकाल और उसके बाद, खुरदरे पैर, शासन की बंदूक, मनुष्य हूँ।

सच्चिदानंद हीरानन्द वात्स्यायन अज्ञेय – कलगी बाजरे की, यह दीप अकेला, हरी घास पर क्षण भर, असाध्यवीणा, कितनी नावों में कितनी बार

भवानीप्रसाद मिश्र – गीत फरोश, सतपुड़ा के जगल

मुक्तिबोध – भूल गलती, ब्रह्मराक्षस, अंधेरे में

धूमिल – नक्सलवाड़ी, मोचीराम, अकाल दर्शन, रोटी और संसद

इकाई –VI

हिन्दी उपन्यास

पं. गौरीदत्त – देवरानी जेठानी की कहानी

लाला श्रीनिवास दास – परीक्षा गुरू

प्रेमचन्द – गोदान

अज्ञेय – शेखर एक जीवनी (भाग – 1)

हजारी प्रसाद द्विवेदी – बाणभट्ट की आत्मकथा

फणीश्वर नाथ रेणु – मैला आंचल

यशपाल – झूठा सच

अमृत लाल नागर – मानस का हंस

भीष्म साहनी – तमस

श्रीलाल शुक्ल – राग दरबारी

कृष्णा सोबती – जिन्दगी नामा

मन्नू भंडारी – आपका बंटी

जगदीश चन्द्र – धरती धन न अपना

इकाई –VII

हिन्दी कहानी

राजेन्द्र बाला घोष (बंग महिला) - चन्द्रदेव से मेरी बातें, दुलाईवाली

माधवराव सप्रे – एक टोकरी भर मिट्टी

सुभद्रा कुमारी चौहान – राही

प्रेमचंद – ईदगाह, दुनिया का अनमोल रतन

राजा राधिकारमण प्रसाद सिंह – कानों में कंगना

चन्द्रधर शर्मा गुलेरी – उसने कहा था

जयशंकर प्रसाद – आकाशदीप

जैनेन्द्र – अपना–अपना भाग्य

फणीश्वरनाथ रेणु – तीसरी कसम, लाल पान की बेगम

अज्ञेय - गैंग्रीन

शेखर जोशी – कोसी का घटवार

भीष्म साहनी – अमृतसर आ गया है, चीफ की दावत

कृष्णा सोबती – सिक्का बदल गया

हरिशंकर परसाई – इस्पेक्टर मातादीन चांद पर

ज्ञानरंजन – पिता

कमलेश्वर – राजा निरबंसिया

निर्मल वर्मा - परिंदे

इकाई –VIII

हिन्दी नाटक

भारतेन्दु – अंधेर नगरी, भारत दुर्दशा

जयशंकर प्रसाद – चन्द्रगुप्त, स्कंदगुप्त, ध्रुवस्वामिनी

धर्मवीरभारती – अंधायुग

लक्ष्मीनारायण लाल – सिंदूर की होली

मोहन राकेश – आधे-अधूरे, आषाढ़ का एक दिन

हबीब तनवीर – आगरा बाज़ार

सर्वेश्वरदयाल सक्सेना – बकरी

शंकरशेष – एक और द्रोणाचार्य

उपेन्द्रनाथ अश्क – अंजो दीदी

मन्नू भंडारी – महाभोज

इकाई –IX

हिन्दी निबंध

भारतेन्दु – दिल्ली दरबार दर्पण, भारतवर्षोन्नति कैसे हो सकती है

प्रताप नारायण मिश्र - शिवमूर्त्ति

बाल कृष्ण भट्ट – शिवशंभु के चिट्ठे

रामचन्द्र शुक्ल – कविता क्या है

हजारी प्रसाद द्विवेदी - नाखून क्यों बढ़ते हैं

विद्यानिवास मिश्र – मेरे राम का मुकुट भीग रहा है

अध्यापक पूर्ण सिंह - मजदूरी और प्रेम

कुबेरनाथ राय – उत्तराफाल्गुनी के आस-पास

विवेकी राय – उठ जाग मुसाफिर

नामवर सिंह – संस्कृति और सौंदर्य

इकाई –X

आत्मकथा, जीवनी तथा अन्य गद्य विधाएं

रामवृक्ष बेनीपुरी – माटी की मूरतें

महादेवी वर्मा – ठकुरी बाबा

तुलसीराम – मुर्दहिया

शिवरानी देवी – प्रेमचन्द घर में

मन्नू भंडारी – एक कहानी यह भी

विष्णु प्रभाकर - आवारा मसीहा

हरिवंशराय बच्चन – क्या भूलूँ क्या याद करूँ

रमणिका गुप्ता – आपहुदरी

हरिशंकर परसाई – भोलाराम का जीव

कृष्ण चन्दर – जामुन का पेड़

दिनकर – संस्कृति के चार अध्याय

मुक्तिबोध – एक लेखक की डायरी

राहुल सांकृत्यायन – मेरी तिब्बत यात्रा

अज्ञेय – अरे यायावर रहेगा याद