# UPPSC GIC Lecturer Recruitment 2025 Syllabus

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**Appendix - 2**

**Lecturer (Male/Female) Government Inter College**

**प्रारम्भिक परीक्षा हेतु परीक्षा योजना एवं पाठ्यक्रम**

प्रारम्भिक परीक्षा में सामान्य अध्ययन/वैकल्पिक विषय का एक प्रश्नपत्र होगा जो वस्तुनिष्ठ व बहुविकल्पी प्रकार का होगा। इसमें प्रश्नों की संख्या 120 (वैकल्पिक विषय के 80 प्रश्न तथा सामान्य अध्ययन के 40 प्रश्न) होगा जो कुल 300 अंकों का तथा समय 2 घण्टे का होगा।

**Syllabus**

**General Studies**

1- General Science (High School Standard)
2- History of India
3- Indian National Movement
4- Indian Polity, Economy & Culture

5- Indian Agriculture, Commerce & Trade
6- World Geography & Indian Geography & Natural resources of India
7- Current National and International Important events
8- Logic & Reasoning based on General Intelligence.
9- Specific knowledge regarding Education, Culture, Agriculture, Industry Trade, Living & Social Traditions of Uttar Pradesh.
10- Elementary Mathematics up to 8th level:- Arithmetic, Algebra and Geometry.
11- Ecology and Environment.

**वैकल्पिक विषय (Optional Subject)**

वैकल्पिक विषयों का पाठ्यक्रम मुख्य परीक्षा की भाँति होगा।

**Appendix - 3**

**मुख्य (लिखित) परीक्षा हेतु परीक्षा योजना एवं पाठ्यक्रम**

1– प्रथम प्रश्नपत्र – सामान्य हिन्दी एवं निबन्ध (परम्परागत) समय– 02 घण्टा पूर्णांक – 100 अंक
2– द्वितीय प्रश्नपत्र – वैकल्पिक विषय (परम्परागत) समय– 03 घण्टा पूर्णांक – 300 अंक

**Syllabus**

**प्रथम खण्ड** **सामान्य हिन्दी** **निर्धारित अंक–50**

1– अपठित गद्यांश का संक्षेपण, उससे सम्बन्धित प्रश्न, रेखांकित अंशों की व्याख्या एवं उसका उपयुक्त शीर्षक।

2– अनेकार्थी शब्द, विलोम शब्द, पर्यायवाची शब्द, तत्सम एवं तद्भव, क्षेत्रीय, विदेशी (शब्द भण्डार), वर्तनी, अर्थबोध, शब्द–रूप, सन्धि, समास, क्रियायें, हिन्दी वर्णमाला, विराम चिन्ह, शब्द रचना, वाक्य रचना, अर्थ, मुहावरे एवं लोकोक्तियाँ, उत्तर प्रदेश की मुख्य बोलियाँ तथा हिन्दी भाषा के प्रयोग में होने वाली अशुद्धियाँ।

**द्वितीय खण्ड** **हिन्दी निबन्ध** **निर्धारित अंक–50**

इसके अन्तर्गत एक खण्ड होगा। इस खण्ड में से एक निबन्ध लिखना होगा। इस निबन्ध की अधिकतम विस्तार सीमा 1000 शब्द होगी। निबन्ध हेतु निम्नवत् क्षेत्र होंगे:–

1– साहित्य, संस्कृति
2– राष्ट्रीय विकास योजनायें / क्रियान्वयन
3– राष्ट्रीय–अन्तर्राष्ट्रीय, सामयिक सामाजिक समस्यायें / निदान
4– विज्ञान तथा पर्यावरण
5– प्राकृतिक आपदायें एवं उनके निवारण
6– कृषि, उद्योग एवं व्यापार

**(2) Optional Subjects**

**वैकल्पिक विषय**

**(द्वितीय प्रश्नपत्र)**

**परीक्षा योजना–** वैकल्पिक विषयों के (परम्परागत) प्रश्नपत्र की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत् है:–

1– प्रश्नों की कुल संख्या–20 होगी। सभी प्रश्न अनिवार्य होंगे। सभी प्रश्न खण्डों में विभाजित रहेंगे।

**खण्ड–अ–** के अन्तर्गत प्रश्नपत्र में 05 प्रश्न सामान्य उत्तरीय (उत्तरों की शब्द सीमा 250) एवं प्रत्येक प्रश्न 25 अंक का होगा।

**खण्ड–ब–** के अन्तर्गत 05 प्रश्न लघुउत्तरीय (उत्तरों की शब्द सीमा 150) एवं प्रत्येक प्रश्न 15 अंक का होगा।

**खण्ड–स–** के अन्तर्गत 10 प्रश्न अतिलघु उत्तरीय (उत्तरों की शब्द सीमा 50) एवं प्रत्येक प्रश्न 10 अंक का होगा।

**Subject-wise Syllabus of Optional Subjects for Lecturer (Male/Female) Government Inter College - Preliminary/Main (Written) Examination**

**प्रवक्ता (पुरुष / महिला) राजकीय इण्टर कालेज – प्रारम्भिक / मुख्य (लिखित) परीक्षा हेतु वैकल्पिक विषय का विषयवार पाठ्यक्रम**

**हिन्दी**

● **हिन्दी साहित्य का इतिहास:** हिन्दी–साहित्य के इतिहास–लेखन की परम्परा, हिन्दी–साहित्य के इतिहास का काल–विभाजन। आदिकाल– नामकरण, प्रमुख प्रवृतियाँ। भक्तिकाल– सामान्य विशेषताएँ, भक्तिकाल की धाराएँ– ज्ञानाश्रयी काव्यधारा, प्रेमाश्रयी (सूफी) काव्यधारा, कृष्णभक्ति काव्यधारा, रामभक्ति काव्यधारा, चारों काव्यधाराओं की प्रमुख प्रवृत्तियाँ। रीतिकाल–नामकरण, प्रमुख प्रवृत्तियाँ। आधुनिक काल– भारतेन्दुयुग, द्विवेदीयुग, छायावाद, प्रगतिवाद, प्रयोगवाद, नयी कविता, प्रपद्यवाद, नवगीत। विभिन्न कालों के प्रमुख कवि एवं उनकी प्रमुख रचनाएँ। प्रसिद्ध काव्य–पंक्तियों एवं सूक्तियों के लेखकों / कवियों के नाम।

● **गद्य–साहित्य का उद्भव और विकास:** निबन्ध, उपन्यास, कहानी, नाटक, आलोचना। गद्य की अन्य नवीन विधाएँ–जीवनी–साहित्य, आत्मकथा, संस्मरण, रेखाचित्र, रिपोर्ताज, यात्रा–साहित्य, डायरी–साहित्य, व्यंग्य, इण्टरव्यू, बाल–साहित्य, स्त्री–विमर्श, दलित–विमर्श। युगप्रवर्त्तक लेखकों के नाम तथा उनकी प्रमुख रचनाएँ।

● **पत्रकारिता:** प्रमुख हिन्दी पत्र–पत्रिकाएँ: प्रकाशन–स्थान, प्रकाशन–वर्ष तथा उनके प्रमुख सम्पादकों के नाम।

● **काव्यशास्त्र:** भारतीय काव्यशास्त्र–काव्य–लक्षण, भेद। रस, छन्द, अलंकार, काव्य–सम्प्रदाय, काव्ययुग, काव्यदोष, शब्दशक्तियाँ।

● **भाषाविज्ञान:** हिन्दी की उपभाषाएँ, विभाषाएँ, बोलियाँ, हिन्दी की ध्वनियाँ, हिन्दी शब्द–सम्पदा।

● **हिन्दी–व्याकरण:** सन्धि, समास, कारक, लिंग, वचन, काल, पर्यायवाची, विलोम शब्द, वर्तनी–सम्बन्धी अशुद्धिशोधन, वाक्य–सम्बन्धी अशुद्धिशोधन, वाक्यांश के लिए एक शब्द, अनेकार्थी शब्द, समोच्चरित–प्राय भिन्नार्थक शब्द, विरामचिन्ह, मुहावरा और लोकोक्ति। संज्ञा, सर्वनाम, क्रिया और विशेषण। उपसर्ग, प्रत्यय।

● **संस्कृत–साहित्य के प्रमुख रचनाकारों के नाम एवं उनकी प्रमुख कृतियाँ:** कालिदास, भवभूति, भारवि, माघ, भास, बाण, श्री हर्ष, दण्डी, मम्मट, भरतमुनि, विश्वनाथ, राजशेखर तथा जयदेव।

● **संस्कृत–व्याकरण:** सन्धि–स्वर सन्धि, व्यंजन सन्धि, विसर्ग सन्धि। समास, उपसर्ग, प्रत्यय। विभक्ति–चिन्ह (परसर्ग)– प्रयोग एवं पहचान। शब्दरूप– आत्मन्, नामन्, जगत्, सरित्, बालक, हरि, सर्व, इदम्, अस्मद्, युष्मद्। धातुरूप–स्था, पा, गम्, पठ्, हस्, धातु– केवल परस्मैपदी रूप में। काल। हिन्दी–वाक्यों का संस्कृत अनुवाद।

**English**

**Section 'A'**

**A. Authors and works**

Geoffrey Chaucer; Shakespeare, John Milton, Dryden, Pope William Wordsworth, P.B. shelley, John Keats, A.L. Tennyson, Matthew Arnold, Charles Dickens, Thomas Hardy, W.B, Yeat T.S. Eliot,. G.B. Shaw, George orwell, Raja Rao, Mulkraj Anand Nissim Ezzekiel, Robert Frost, Ernest Hemingway, Harold Pinte, R.N. Tagore, Girish Karnad, V.S. Naipal, Amitav Gosh, Vikram Seth, Kamla Das, Ted Hughes, Walt Whitman, Khushwant Singh.

**B.** Literary terms, Movements, Forms, Literary criticism

* Renaissance,
* Reformation,
* Metaphysical Poetry,
* Classicism
* Romanticism,
* The Pre- Raphaelites,
* Modern Literature
* Major stanza Forms
* Sonnet
* Ballad
* Mock Epic
* Elegy
* Post Modern Literature
* Colonial Literature
* Post Colonial Literature
• Indian Writings in English

* Aristotle, Dryden, Dr. Johnson, S.T. Coleridge, Wordsworth, Matthew Arlold, T.S. Eliot.

**Section 'B' Language**

* A short unseen passage for comprehension
* Correction of sentences
* Direct and Indirect narration
* Transformation of sentences including Active & Passive Voice
* Synonyms,
* Antonyms,
* Homonyms
* Rearranging the Jumbled sentences
* Fill in the blanks with appropriate Prepositions.
* Idioms & phrases
* One word substitution
* Figure of speeches
* Prefixes & Suffixes

**Physics**

**(I) MECHANICS:-** Vector algebra: scalar and vector products, vector identities, background of vector calculus, concept of line, surface and volume integrals, physical meaning of gradient, divergence and curl, Gauss and Stoke's theorems.

Centre of mass, rotating frame of reference, co riolis force, motion of rigid bodies, moment of inertia, theorem of parallel and perpendicular axes, movement of inertia of sphere, ring, cylinder and disc. Angular momentum, torque, central force, Kepler's Law, motion of satellite (including geostationary satellite), Galilieon transformation, special theory of relativity, Michelson - Morley experiment, Lorentz transformation equations, variation of mass and length with velocity, time dilation, addition of velocities and mass-energy equivalence relation.

Stream line and turbulent motions, Reynold's number, Stoke's law, Poiseulle's formula, flow of liquid through narrow tube. Bernoulli's formula with applications, surface tension, Stress- strain relationship, Hooke's Law, modulii of elasticity and interrelation between them Poisson's ratio, elastic energy.

Physical world and measurement, Kinematics, Laws of motion, Work energy and power, Gravitation.

**(II) THERMAL PHYSICS:-** Concept of temperature and the zeroth law, first law of thermodynamics and internal energy, isothermal and adiabatic changes, second law of thermodynamics, Entropy, Carnot cycle and Carnot engine, absolute scale of temperature. Maxwell's thermodynamical relations. The Clausius- Clapeyron equation, porus plug experiment and Joule Thomson effect.

Kinetic theory of gases, Maxwell distribution law of velocities, calculation of mean velocity, root mean square velocity and the Most probable velocity, degrees of freedom, Law of equipartition of energy, specific heats of gases, mean free path, transport phenomena.

Black body radiation, Stefan's law, Newtons law of cooling Wien's law, Rayleigh Jeans law, Planck's law, solar constant.

Production of low temperatures by adiabatic demagnetization.

Behaviour of ideal gas and molecular theory of gasses.

**(III) WAVES AND OSCILLATIONS:-** Oscillation, simple harmonic motion, stationary and progressive waves, damped harmonic-motion, forced oscillations and resonance, sharpness of resonance, wave equation, Plane and spherical waves superposition of waves. Fourier analysis of periodic waves- square and triangular waves, phase and group velocities, Beats.

**(IV) OPTICS:** Cardinal points of a coaxial system, simple problems on combination of thin lenses eyepiece- Ramsdon and Huygens eyepieces.

Huygen's principle, conditions for sustained interference Young double slit experiment division of amplitude and wavefront, Fresnel biprism, Newtons rings, Michelson-interferometer, diffraction by straight edge, single, double and multiple slits. Rayleigh's criterion, resolving power of optical instruments.

Polarization, production and detection of polarized light (linear circular and elliptical) Brewster's law, Huygen's theory of double refraction, optical rotation, ploearimeters.

**LESERS:-** Temporal and spatial coherence, stimulated emission, basic ideas about laser emission, Ruby and He-Ne lasers.

**(V) ELECTRICITY AND MAGNETISM:-** Gauss law and its applications, electric potential, Kirchoff's laws and their applications, Wheatstone's bridge, Biot-Savart law, Ampere's circuital law, and their applications. Magnetic induction and field strength, magnetic field on the axis of circular coil, Electro magnetic induction, Faraday's and Lenz's law, self and mutual inductances, alternating current, L.C.R. circuits, series and parallel resonance Circuits, quality factor. Maxwell's equations and electromagnetic waves transverse nature of electromagnetic waves, Poynting vector, dia-, para-, ferro-, antiferro- and feri-magnetism (qualitative approach only), hysterisis.

**(VI) MODEREN PHYSICS:** Bohr's theory of hydrogen atom, electron spin, Pauli's exclusion principle, optical and X-ray spectra, spatial quantization and Stern-Gerlach experiment, vector model of the atom, spectral terms, fine structure of spectral lines J-J and L-S coupling, Zeeman effect, Raman effect, photoelectric effect, Compton effect, de Broglie waves, wave-particle duality, Uncertainty principle, postulates of quantum mechanics, Schrodinger wave equation and its applications to (i) particle in a box (ii) motion across a step potential (iii) one dimensional harmonic oscillator, and eigen values, Einstein's and debye theory of specific heat of solids. Band theory of solids energy band, Kronig-Penny model in one dimension, energy gap, distinction between metals, semiconductors and insulators, variation of Fermi level with temperature and effective mass.

Radio activity, alfa, beta and gamma radiations, elementary theory of alpha decay, nuclear binding energy, Semi emperical mass formula, nuclear fission and fussion and

nuclear reactors elementary particles, particle accelerator, cyclotron, linear accelerator, Elementary idea's of super conductivity.

**(VII) ELECTRONICS:-** Intrinsic and extrinsic semiconductors, PN junction, Zener diode and their characteristics, unipolar and bipolar transisters solar cells, use of diode and transistor for rectification, amplification, oscillation, modulation and detection, r. f. waves. Logic gates and their truth tables, some applications.

## Chemistry

**(A) Physical chemistry** Gaseous-state:- Molecular velocity of gases, mean free path and collision diameter, liquification of gases joule thomson effect in ideal and nonideal gases, Joule "Thomson coefficient, inversion temperature, Deviation from ideal gas behavior vander waals equation of state, Law of corresponding state, critical constants and their relations with-vander waals constants

**Liquid state:-** surface Tension, effect of temperature on surface tension, viscosity, effect of temperature and pressure on viscosity.

**Solid State:-** symmetry in crystal systems, Miller inclices close packing, coordination number, structure of Nacl and CaF2, crystal-defects.

**Thermodynamics:-** first law of thermodynamics and its limitations, enthalpies of a system, heat of reaction formation, combustion and neutralization, Hess's law and its application bond energy and resonance energy, heat capacities at constant volume and constant pressure, relationship between. Ep and Eve extensive and intensive properties, statement of second law of thermodynamics Carnot cycle, concept of entropy, variation of entropy with temperature and volume/pressure, concept of free energy: Helmholtz and Gibbs free energies, Gibbs - Helmholtz equation, thermodynamic criteria of equilibrium, Elapeyron- clausius equation and its application, van;t hoff equation and Gibbs- Duhem equation.

**Dilute solution:-** Ideal and non ideal solutions, Raoult's Law colligative properties (thermodynamic treatment) Lowring of vapour pressure, osmotic pressure, elevation of boiling point and depression of freezing point in solution, abnormal colligative properties molecular weight determination by colligative properties.

**Surfacephenomenon-** physical and chemical adsorption Fraundlich adsorption isotherm Langmuir state value Gold-number, Hardy-Schulze rule stability of colloids, zeta potential

**Chemical Kinetics-Molecularity** and order of reaction, rate of reaction Zero first second and third order reactions and their determination effect of temperature on reaction velocity, energy of activation, catalysis, criteria of catalysis, enzymes catalysis, primary salt effect in ionic reactions.

**Chemical equilibrium-** Law of mass action and its application to homogeneous and heterogeneous equilibria, relationship between Kp and Kc. Le chatelier principle and its application to chemical equilibrium, degree of dissociation and abnormal; molecular Weight hydrolysis of salts, Bronsted & lewis acid and base. pH, buffer solution, solubility and solubility Product of sparingly soluble salts:-

**Electrochemistry-** Electrolytic conductance-equivalent,specific and molecular conductances, variation of conductances with dilution of solutions, Kohlausch's law of independent migration of ions, factors affecting the conductances, types of single electrode and their potentials, EMF of the cell, Nernest equation. EMF and equilibrium constant, concept of concentration cell With and without transference, liquid junction potential chemical cells without transference, fuel cells

**B- Inorganic:**

Atomic structure- dual nature of particle, Heisenberd's uncertainity principle, Schrodinger's wave equation atomic orbitatals, quantum numbers, shapes of s,p,d.
orbitals, Aufbau principle and pauli's exclusion principle, Hunds law, electronic configuration of elements, modern periodic table, periodic properties of the elements and their variation in periodic table, chemical bond- Ionic bond, lattice energy, Born- Haber cycle, salvation energy, Covalent bond (Fajan's rule) Bond order, energy level diagram, of homonuclear and heteronuclear molecules, Hybridisation and shapes of inorganic molecules and ions, valence shell electron pair repulsion theory and its application, stability of nucleus, mass defect and nuclear binding energy, radioactivity, nuclear reactions-fusion and fission, carbon dating.

**S-block elements-**chemistry of lithium and berilium, abnormal behavior and diagonal relationship.

**P-block elements-** chemical reactivity of elements in group, inert pair effect, structure of their hydrides and halides, oxyacids of N, P, S and halogens, interhalogens

**d-block elements:** General characteristics- variable oxidation state, complex formation, magnetic properties, colour and catalytic properties,
coordination compounds-nomenclature, stereo chemistry of metal, complex and isomerisation, effective atomic number and valence bond theory, crystal field theory, crystal field splitting in tetrahedral and Octahedral complexes, crystal field stabilization energy substitution reaction in square planar complexes, electronic spectrum, molecular orbital energy level diagram in tetrahedral and octahedrdal complexes (bond only) energy level diagram for d-1 and d_9 states

**Organometallic chemistry-** Definition, nomenclature and classification of organometallic compounds

**Bioinorganic chemistry-** Structure and function of myoglobin Hemoglobin, chlorophyll and cyano cobalamine-

**f-block elements:** Electronic structure, lanthanide contraction and its consequences, magnetic and spectral properties and their differences from transition metalsion exchange and solvent extraction methods of separation of lanthanides chemistry of actinides.

**A- ORGANIC CHEMISTRY:-**

**1- ORGANIC CHEMISTRY-** Some Basic Principles Techniques:-
(a) Classification of organic compounds
(b) I UPAC Nomenclature of organic compounds
(c) Types of organic reaction
(d) Mechanism of organic reaction- Homolytic & Hetrolytic fission of coralent Bond, carbocations, cambanians carbenes, free Radicals, Electrophile & Nueleophile Sn 1 & sn 2 reaction
(e) Electronic Displacements in covalent Bond- Inductive effect, electromeric effect Resonance, Hyperconjugation
(f) purification of organic Compounds:- fractional Distillation, chromatography
(g) estiation of elements in organic compounds

**2- Isomerism:-**
structural & stereo Isomerism, (Geometrical & optical Isomerism) Tautormerism conformation

**3- Hydrocarbon:-**
**a-** General methods of preparation, physical & chemical properties of Alkane, Alkene & Alkynes, Location of double bonds by ozonolysis of Alkene.

**b- Aromatic Hydrocarbon:-**
**Benzene-** It's structure, resonance Aromaticity preperation & physical and chemical properties of Benzene
Mechanism of electrophlic substitution- nitration, sulphonation, Halogenation, freidal craft's Alkylation & Acylation. Directive Influence of groups in mono substituted benzene. Carcinogenacity & (Toxicity chemistry of toluene)

**c- Derivatives of Benzene:-**
Preperation, Physical & chemical properties of Phenol, Aniline, Anisole Benzaldehyde & Benzoic Acid

**4- Haloalkanes:-**
General Methods of preperation, physical and chemical properties, preparation and properties of chloroform and lodoform, Freon

**5- Alcohols:-** classification, General methods of preparation, Physical & chemical properties, mechanism of dehydration of Alcohol, Denatured spirit, power alcohol, Absolute Alcohol fermentation of Alcohol Properties of Glyecerol.

**6. Aldehyde & Ketones:-**
General Methods of preparation, Physical & chemical properties, mechanism of Nucleophilic addition.

**7- Ether:-** General methods of preparation of ether, physical & chemical Properties of Ether &uses

**8- Carborxylic acid and their Derivatives:-**
General Methods of preparation, physical and properties, Influence of substituents group on acidic nature of carboxylic acid, General methods of preparation & properties of acid, Halide, ester, Amide,& Anhydride

**9- Organic compounds containing nitrogen:-**
a- Amines:- classification, general methods of preparation & properties, basic character of Amines, Distinction between primary, secondry and tertiary amines
b- Nitro Compounds:-
General methods of preparation & properties of nitro compounds
c- Cyanides & Isocyanides:-
General methods of preparation & properties of cyanides & isocyanides

**10. Bio-molecules:-**
a- Carbohydrates:- classification, Molisch's test of carbohydrate, Glucose & fructose: Preparation & properties, open & Ring structure of glucose mutarotation, Annomers.
**b- Proteins:** Alpha Amino acids, peptide bond, polypeptide, protein, structure of protein- Primary, secondry & tertiary structure, denaturation of proteins, Zwitter ion, Iso electric points;
**c- Lipids & harmones;**
oil & fats introducation, difference between oil & fats properties.
steroids- Natural & Artifical steroid Harmones- classification & physiological function
**d- Vitamins-** classification & functions, deficiencey diseases of vitamins
**e- Nucleic acids-**
Nucleotides & nucleosides, Difference between DNA and RNA primary structure of DNA, DNA finger printing

**11- Polymers:-** classification natural & synthetic polymers, methods of polymerisation (addition & condensation) addition polymers-polythene, Teflon, PVC buna-s, Buna-N condensation polymer-Nylon 6, Nylon 6,6, backelite, methyl melamine, Biodegradable & non biodegradable polymers

**12- Chemistry in everyday life:-**
a- chemicals in medicine:- Analgesic, tranquilizers, Antiseptics, Disinfectant, antimicrobials, antibiotics, antacids, antihistamins. antioxidants
b- chemicals in foods: food preservative, artificial sweetening agent,
c- cleansing agents-difference between soaps & detergents, cleansing action of Soaps.

## Biology

### Section:- (A)- BOTANY

**(1) Plant Diversity-**
(a) Classification (Taxonomy) of plants.
(b) Study of habits and habitats, Structure and reproduction of the followings-
(i) Algae
(ii) Bryophyta
(iii) Pteridophyta
(iv) Gymnosperms
(v) Angiosperms with the following families- Cruciferae, Compositae, Malvaceae, Liliaceae and Solanaceae.

**(2) Angiosperms-** Morphology and Morphological Modifications in roots, stem, leaves etc. Histology, growth, reproduction and development.

**(3) Plant Physiology-**
(i) Water Relations-Transpiration, Translocation.
(ii) Photosynthesis.
(iii) Respiration and metabolism.
(iv) Plant Nutrition (Nutrients, Nitrogen fixation).
(v) Plant growth regulators (Phytohormones).
(vi) Flowering and Stress Physiology
(vii) Plant growth and movements.

**(4) Microbiology-** (i) Viruses, Phytoplasma, Archaebacteria, Eubacteria.
(ii) Fungi (general characteristics, classification, growth and reproduction, life cycle).
(iii) Economic importance of Micro-organisms.

**(5) Economic Botany-**
(i) Medicinal and Aromatic Plants.
(ii) Food Plants.
(iii) Forage and Fodder Plants.
(iv) Fibre Crops.
(v) Fruit and Vegetable Plants.
(vi) Ethnobotany.
**(vii)** Ornamental Plants.
**(viii)** Oil Yielding Plants.
**(ix)**Timber Plants.
**(x)** Miscellaneous uses of Plants.

**(6) Plant Pathology**
(i) Causes, effects, control and cure of various Plant diseases.

(ii) Biological Control of Various Plant weeds, diseases and parasites.

**(7) Ecology and Environment-**

(i) Concept of Ecology and Environment

(ii) Various Habitats & Ecological Niches.

(iii) Ecosystem- Structure and function, Ecosystems stability, carrying capacity, Food-chain, Food -web, Energy flow, Ecological Pyramids, Biomes.

(iv) Population, biotic community.

(v) Bio-geo-Chemical Cycles.

(vi) Ecological Succession.

(vii) Natural Resources and their conservation.

(viii) Biodiversity and its conservation (In-situ and Ex-situ).

(ix) Environmental Pollution- Causes and its ill effects. Air, Water and Soil Pollution. Radioactive pollution, Noise Pollution, Ozone depletion , Acid rain, Eutrophication, Biological magnification, Ocean pollution, Ocean acidification, Control and prevention of various environmental Pollutions. Climate change, global warming and green- house effect, Environmental management. Renewable energy sources, food Security. for rising human population.

## Section - B - Zoology

**(1) Animal Diversity-**

(i) Animal Taxonomy with characteristic features.

**(2) Non-Chordates-**

(i) Classification of Non-chordate phyla.

(ii) Morphology, Anatomy, Nutrition, Respiration and reproduction of the following Non-chordates- Amoeba, Sycon Hydra, Ascaris, Cockroach, Pila and Star-fish.

(iii) Parasitic protozoa

(iv) Parasitic adaptation in Helminths.

(v) Economic importance of insects.

**(3) Chordates-**

(i) Classification of chordates and various-classes of chordates with characteristic features and examples.

(ii) Aquatic adaptation in fishes.

(iii) Origin and evolution of terrestrial chordates.

(iv) Flying adaptations in birds.

(v)Phylogeny of prototheria, Metatheria and eutheria.

**(4) Anatomy of** — Frog, Pigeon and Rabbit.

**(5) Animal Histology-** Study of various tissues.

**(6) Animal Physiology and Biochemistry-**

(i) Nutrition and Digestion.

(ii) Respiration and metabolism.

(iii) Circulation-Blood, Heart & Circulatory system.

(iv) Osmo regulation and Excretion.

(v) Movement and locomotion.

(vi) Nervous co-ordination and integration. Sense Organs.

(vii) Chemical co-ordination (Hormones and pheromones).

(viii) Immune system.

**(7) Animal Embryology-**

(i) Gametogenesis

(ii) Fertilization in lower and higher animals.

(iii) Types of Eggs and cleavage.

(iv) Organogenesis.

(v) Development of Frog and Metamorphosis.

(vi) Foetal membranes in Birds.

(vii) Placenta in mammals. Regeneration.

(viii) Human reproduction and reproductive physiology.

**(8) Cell Biology (Cytology and Molecular Biology)**

(i) Prokaryotic and eukaryotic cells- their structure and properties.

(ii) Cell division (mitosis and meiosis).

(iii) Structure and functions of various cell organelles.

(iv) Chromosome structure and their behavior during cell division.

(v) Nucleic acids-Molecular structure of DNA and RNA.

DNA 'as genetic material

DNA replication and repair.

(vi) Genetic: code central dogma, protein synthesis and Gene expression.

**(9) Genetics-**

(i) Mendel's laws of inheritance.

(ii) Co-dominance and incomplete dominance and interaction of Genes.

(iii) Chrosomal theory of inheritance.

(iv) Linkage and crossing over.

(v) Sex-determination.

(vi) Multiple gene inheritance and polyploidy.

(vii) Human genetic disorders.

(viii) Mutation.

**(10) Biotechnology-**

(i) Concepts, principles and scope of Biotechnology.

(ii) Tools and techniques in Biotechnology.

(iii) Recombinant DNA technology and its applications in human welfare.

(iv) Tissue culture, somatic hybridization.

(v) Genetically modified Organisms, GM crops (Risk and concerns), Gene Bank and ethical concerns.

**(11) Organic Evolution-**

(i) concept and principles of evolution.

(ii) Origin of life.

(iii) Theories of evolution (Lamark, Darwin).

(iv) Evidences for evolution.

(v) Neo-Darwinism and synthetic theory of evolution.

(vi) Variations.

(vii) Human evolution.

## Mathematics

**1. Relation and functions:** Types of relations: reflexive, Symmetric, transitive and equivalence relations. Equivalence class. One-one and onto functions, composite of functions, inverse of function, Binary operation.

**2. Algebra:**

**(i) Matrices:** Types of matrices, zero matrix, transpose of a matrix, symmetric and skew symmetric Matrices. Addition, multiplication & scalar multiplication of matrix. Singular and non-singular matrices Invartable matrices.

**(ii) Determinants:** Determinants of a square matrix (up to 3x3 matrix) Properties of determinants, Adjoin and inverse of a square matrix. Consistency and number of solutions of system of linear equations by examples. Solving system of linear equations in two or three variables (having unique solutions).

**(iii)** Theory of equations of degree greater than or equal to two. Arthmatical, Geometrical and Hormonical progressions. Permutations and combinations, Bionomical theorem. Sum of exponential and logerthimic series.

**(iv)** Prabability Multiplication theorem on probability, Conditional probability, Independent events. Total probability. Bayes's theorem distribution.

**3. Calculus .**

**(i) Limit of a function:** Continuity & differentiability, derivative of composite functions, and differentiation of different types of functions. Chain rule, Roles theorem and lagrange mean value theorem, Maclaurins & Taylor's series. L. Hospitals rule, partial differentiation, successive differentiation, Leibnitz theorem, equation of tangent & normal to a given curve, Maxima, minima, increasing and decreasing functions.

**(ii) Integration:** Various methods of intergration definite integration as a limit of sum, Basic properties of definite integrals & evalution of definite integrals. Application in finding the area under simple curves of spheres, cones & cylinders.

**(iii)Differential equations:** Order and degree of a differential equations. Formation of differential equations whose general solution is given. Solution of differential equations of Ist order & Ist degree. Linear differential equations with constant coefficients Homogeneous differential equations.

**4. Co-oridnate geometry of two dimensions:**

Equation of the pair of straight in homogeneous and non homogeneous form. Conditions when a non-homogeneous equation of 2nd degree represents circle, parabola, ellipse and hyperbola. equation of tangents & normals to the above conics. Common tangents to the two conics, Pair of tangents. Chord of contacts, polarlines to the above conics.

**5. Vectors and three dimensional geometry:**

**(i) Vectors:** Vector & scalars. Unit vectors, Direction cosines/ratios of a vector. Multiplication of a Vector by scalar, dot product, cross product of vector and their in physics (work done and moments, anguler velocity, projection of a vector on a line. Angle between two vector.)

**(ii) Three dimension Geometry:** Direction cosine/ratios of line joining two points, Cartesian and vector equation of a line. Coplanar and skew lines, shortest distance between two lines, cartesian and vector equation of a plane. Angle between (a) two lines (b) two planes (c) A line and a plane. Distance of a point from a plane. Intersection of two line, Intersection of a line of plane & intersection of two plane. Equation of a plane passing through the intersection of two planes.

**(iii) Equation of a sphere, cones, cylinders.**

**6. Group:** Examples- especially the group of nth rots of unity, group of residue class modulo n and modulo p where p is a prime. Subgroups, Homomorphism and isomorphisms properties of Homomorphism. Subgroups generated by a subset. Order of element in a group, Cyclic group, Symmetric group - Sn. Lagrange theorem, Fermat's theorem with application point of view. Narmal subgroups,Fundamental theorem of Homomorphism, Endomorphisim, automorphism, First isomorphism theorem and second isomorphism theorem.

Ring and field with simple examples as (Zn,.+,) & (zp,.+)

**Linear Algebra:** vector space with examples, subspace, linear dependence and independence, Basis and dimension of a vector space, Quotient space, Sum and direct sum of spaces. Linear transformation, Karnel and image of a-linear transformation, Rank and nullity of linear transformations, Rank nullity theorem. Composite of linear transformations and its rank & nullity. Singular and non singular linear transformation, Transpose of a linear transformation, Matrix of a linear transformation.

**Vector differentiation:** Gradient, divergence, curl, first order vector identities. Directional derivatives (with application point of view).

**Vector integration:** Line integral; surface integral, volume integral, Green's theorem, Gauss-divergence theorem, stokes's theorem, (From application point of view).

**Riemann integration:** Integration of discontinuous functions, Lower and upper integals of a bounded functions, Integration of a step function and signum function.

**Statices:** Equilibrium of a body under the action of three forces, coplanar forces, Equilibrium of a body Under the Action of a system of coplanar forces, Centre of gravity, common catenary Friction.

**Dynamics:** Motion of a projectile in vertical plane under gravity, Work power and energy, Direct impact of smooth bodies, Radial and transverse Velocity and acceleration. Tangential and normal acceleration.

**Trignometry:** Trignometric equations , Properties of triangles Inverse circular functions, Height and distance, Complex numbers, D-moivers theorem & its application, nth roots of unity.

Linear programming, logarithmic differentiation, derivatives of implicit function, approximation, application of derivatives in the form of rate of change of quantities, straight line, various form of the equation of line (parallel of axes, point - shape form, perpendicular form, slope - intercept form).

## संस्कृत

### वैदिक साहित्य

ऋग्वेद – अग्नि सूक्त (1.1.1), विश्वेदेवा सूक्त (1.89), विष्णु सूक्त (1.154), प्रजापति सूक्त (10.121)।

यजुर्वेद – शिव संकल्प सूक्त (34.1–6)।

कठोपनिषद् – प्रथम अध्याय (1–3 वल्ली)

ईशावास्योपनिषद – (सम्पूर्ण)

वैदिक वाङ्मय का संक्षिप्त इतिहास (काल निर्धारण, प्रतिपाद्य विषय)

वेदांग का संक्षिप्त परिचय (शिक्षा, निरुक्त, छन्द)

दार्शनिक चिन्तन

सांख्य दर्शन – सृष्टि प्रक्रिया, प्रमाण, सत्कार्यवाद, त्रिगुण का स्वरूप, पुरुष का स्वरूप (ग्रन्थ– सांख्यकारिका)

वेदान्त दर्शन – अनुबन्ध चतुष्टय, साधन चतुष्टय, माया का स्वरूप, ब्रह्म का स्वरूप (ग्रन्थ– वेदान्तसार)

न्याय / वैशेषिक दर्शन – प्रमाण (प्रत्यक्ष, अनुमान, उपमान, शब्द) (ग्रन्थ– तर्कभाषा, तर्कसंग्रह)

गीता दर्शन – निष्काम कर्म योग, स्थितप्रज्ञ का स्वरूप (गीता : द्वितीय अध्याय)

जैन दर्शन एवं बौद्ध दर्शन का सामान्य परिचय (ग्रन्थ– भारतीय दर्शन –बलदेव उपाध्याय)

**व्याकरण**

1. लघुसिद्धान्त कौमुदी – संज्ञा प्रकरण, सन्धि प्रकरण, कृदन्त प्रकरण, तद्धित प्रकरण, स्त्री, प्रत्यय, समास।
2. सिद्धान्तकौमुदी – कारक प्रकरण।
3. वाच्य परिवर्तन (कर्तृवाच्य, कर्मवाच्य, भाववाच्य)।
4. शब्द रूप (परस्मैपदी, आत्मनेपदी) – भू, एध, अद्, हु, दा, दिव्, सु, तुद्, रुध्, तन्, की, चुर।

**भाषा विज्ञान**

1. भाषा की उत्पत्ति और परिभाषा
2. भाषाओं का वर्गीकरण
3. ध्वनि परिवर्तन, अर्थ परिवर्तन

**साहित्य शास्त्र**

काव्य प्रकाश/साहित्य दर्पण– काव्य प्रयोजन, काव्य लक्षण, काव्यहेतु, काव्यभेद। शब्द–शक्ति (अभिधा, लक्षणा, व्यंजना)। रस का स्वरूप, रस भेद, विभाव–अनुभाव–संचारी भाव, स्थायी भाव, भाव का स्वरूप। गुण का स्वरूप एवं भेद। रीति का स्वरूप एवं भेद। अधोलिखित अलंकार का सामान्य परिचय–शब्दालंकार– अनुप्रास, यमक, श्लेष। अर्थालंकार– उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, अर्थान्तरन्यास।

दशरूपक– नाट्य लक्षण, नाट्य भेद, अर्थप्रकृति, अवस्था, सन्धि, नायक का स्वरूप एवं भेद। पारिभाषिक शब्द– नान्दी, प्रस्तावना, सूत्रधार, कंचुकी, प्रवेशक, विष्कम्भक, प्रकाश, आकाशभाषित, जनान्तिक, अपवारित, स्वगत, भरतवाक्य।

ध्वन्यालोक (प्रथम उद्योत) – ध्वनि का स्वरूप।

**लौकिक साहित्य**

रामायण एवं महाभारतः काल निर्धारण, उपजीव्यता, महत्व।

प्रमुख काव्य– किरातार्जुनीयम् (प्रथम सर्ग), शिशुपालवध (प्रथम सर्ग), नैषधीयचरितम् (प्रथम सर्ग), रघुवंशम् (द्वितीय सर्ग), कुमारसम्भवम् (प्रथम सर्ग)।

प्रमुख खण्ड काव्य– मेघदूतम्, नीतिशतकम्।

प्रमुख गद्य काव्य– कादम्बरी (कथामुख), शिवराजविजयम्(प्रथम निःश्वास)।

कथा साहित्य– पंचतंत्र, हितोपदेशः।

नाटक– अभिज्ञानशाकुन्तलम् (1–4 अंक), उत्तररामचरितम् (1–3 अंक), मृच्छकटिकम् (प्रथम अंक), रत्नावली, प्रतिमा नाटकम्

चम्पू काव्य– नलचम्पू (आर्यावर्त वर्णन)।

महाकाव्य, खण्डकाव्य, गद्यकाव्य, चम्पू काव्य एवं नाट्य–काव्य की उत्पत्ति एवं विकास।

## Economics

**1. Micro Economics:** Theory of consumer behaviour and demand analysis- Cardinal and ordinal approaches, Indifference curve technique, Theories of production, Laws of returns, returns to scale Production function, Cost and revenue curves, Equilibrium of firm under different market fonts- Perfect competition, Monopoly, Monopolistic competition

**2. Macro Economics:** National Income- Concepts, Components and methods of accounting. Classical and Keynesian theories of employment and income, Consumption and investment function, Inflation and measures to control inflation, Theories of trade cycle.

**3. Money and Banking:** Concept and function of money, determinants of money supply, Quantity theory of money-. Fisher and Cambridge approach, Keynesian approach, Central and Commercial banks. Functions, Credit creation, methods .of credit control by central bank.

**4. Public Finance:** Role of the Government in economic activities, Taxation- Direct and indirect taxes, Concepts of deficit and Budget of the Union Government of India, Public, expenditure Effects and evaluation, Public debts, Finance Commission, Fiscal Policy.

**5. International Trade and Foreign Exchange:** balance of trade and balance of payments, Foreign exchange rate - Purchasing Power Parity and Balance of payments theories. International Institutions- I.M.F., I.B.R. D., I.D.A., Asian Development Bank, W.T.O. etc.

**6. Indian Economy:** Basic feature of Indian economy- Planning objectives, approaches, priorities and problems of resource mobilization, Policies relating to population, poverty and unemployment in India, Agricultural policy- issues of food security, developing rural infrastructure and evaluation of policies promoting rural development. Industrial policy- industrial reforms and their impact on industrial growth. Public sector Undertakings, small scale enterprises in India.

**7. Elementary Statistics:** Meaning and importance of statistics, Data Collection, analysis and representation, Measures of central tendency, Measures of dispersion, Correlation, Methods of sampling, Index-numbers and time series analysis.

## Civics (Section-A)

Political Science- Meaning, definitions, nature and scope.

Difference among Politics, Political Science, Political Theory, and Political Philosophy.

Relationship of Political Science with Science, Sociology, Economics, History, Geography, Psychology and Ethics.

Definition of Civics, its nature and scope.

**Citizenship-** Meaning, Methods of achieving and loossing citizenship, Merits of an ideal citizen, Impediments in the path of ideal citizenship, Responsibility of a citizen toward environmental protection and conservation.

Concept of state, elements and Theories of origin-Social Contract, Evolutionary and Marxist.

Theories of the functions of state- Liberal, Socialist, and Welfare,

Sovereignty- Power, authority and influence.

Law, Liberty and Equality and Justice.

Constitution Meaning, kinds and classification

Concept of Government.

Modern Governments- Federal and Unitary, Parliamentary and Presidential.

Organs of government- Legislature, Executive and judiciary: Organizations, functions and significance and relationship among them.

Concept of democracy - its meaning, types and theories.

Party system, Pressure Groups, Public opinion,

Methods of election and Franchise.

Concept of Nation, Nationality, Internationality and Non-Alignment.

Factional elements of Political System-Caste, Language, Communalism and Region.

**Recent trends in Political Science-** Liberalization, Privatization, Globalization, Libertarianism, Equalitarianism, Concept of governance, State -Market Debates, Panchayati Raj and New Social Movement.

Indian Political Thinkers - Manu, Kautilya, Mahatma Gandhi and Ambedkar.

## (Section-B)

History of National Movement in India and the Constituent Assembly;

Indian Constitution and the Preamble; Salient features of Indian constitution, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy, Constitutional Amendment Procedure and Main Constitutional Amendments, Article 370.

Indian Federal System and the Centre State Relations;

Composition of Federal Government and its functioning. Federal Executive: President-Election, Powers and functions, Emergency powers.

Vice-President-Election and functions

**Federal Council of Ministers and the Cabinet:** Composition and functioning; Appointment of Prime Minister-Functions and importance;

**Federal Legislature:** Parliament-Composition, Powers and importance of Rajya Sabha and Lok Sabha; Relationship between Rajya Sabha and Lok Sabha.

**Federal Judiciary:** Supreme Court; Composition and Jurisdiction; Judicial Review; Public Interest Litigation Cases

Composition and functioning of State Government with special reference to UP.

State Executive: Governor- Appointment, Powers, Functions, Privileges and Roles.

**Council of Ministers-**Composition and functions

**Chief Minister:** Appointment; Powers, and Relationship with the Council of Ministers and the Governor; State Legislature: Composition, Powers and Function. Relationship between State Assembly and the Legislative Council

State Judiciary: High Court- Composition; Functions and Jurisdiction

Local Government and Local Self-govemment

Powers, Functions and Role of District Magistrate

District Courts: Composition and Functions; Lok Adalat Concept of Local Self-government with special reference to the 73rd and 74th Constitutional Amendment Act

Public Corporations and Commissions, in India: Planning Commission, Election Commission, Union Public Service Commission, Inter-state Council, Lok Pal and Lok Ayukta.

Foreign Policy of India; Regional Organizations and the United Nations Organization, Human Rights and Non-Alignment Movement.

## Geography

Meaning and scope of Geography, Approaches and methods to the study of geography, Major Geographical thoughts- Environmental Determinism, Possiblism, Probablism, Regionalism, Logical Positivism and Behavouralism.

Structure of atmosphere, insolation and heat budget, horizontal and vertical distribution of temperature, inversion of temperature, air pressure belts and planrtary wind system, movement of wind belt, local winds, humidity and precipitation, rain fall type, cyclone and anticyclones, classification of climates by Koeppen and Thornthwaite, Major climate regions of world.

International structure of earthrock types, Plate Tectonic Theory, Volcanoes and earthquakes, folds, faults, and resultant topography, WM Davis's concept of cycle of erosion, works of river, under ground water, sea and glaciers.

Ocean deposits, temperature and salinity of oceanic water, ocean currents, tides and waves, coral islands and coral reefs origin, distribution and environmental importance.

Concept of ecosystem, terrestrial ecosystems-types and their distribution, deforestation - problems and conservation, disaster types and management.

Man- environmental interrelationship, impact of technology-agricultural, industrial and information revolutions, population growth and distributional pattern, Demographic Transition Theory, rural and urban settlements.

Concept and classification of resources, Principles of resource conservation, Water, soil, mineral and energy, uses, problems and their conservation. Geographical conditions, world distribution, production and trade, major crops - rice, wheat, cotton, sugarcane, tea, coffee and rubber. major agricultural regions of world, major industrial regions of world, factors of localisation of industries, major theories of industrial location, international trade, Major trade blocks, major international transporation routes and harbors.

Cultural elements, major cultural realms. races and tribes.

Concept and types of regions, salient features of developed and developing countries of world study of some select regions of world - Anglo, America, European community, Russia, China, Japan, South-east Asia and South west Asia.

India's geographical features - relief, drainage system, climate, natural vegetation and soil. major mineral resources- iron - ore, mica, bauxite, atomic minerals and energy resources, major agricultural crops of food grains and each crops, recent trends in agriculture, irrigation and multipurpose projects. industrial development, industrial region, industrial policy, localisation distribution, production and problems of major industries-iron and steel, cotton textile, cement, sugar and paper, regional patterns of population growth and distribution, related problems and their solution, regional development disparity - causes and remedial measures, reorganization states - problems and their solution.

## History

### Physical characteristics

### Sources of Indian History

### Archeological, Literary foreign Accounts

**Unit 1. Prehistory -** Early man and his implements of stone, Chalcolith, Bronze and iron.

**Proto- History-**River valley civilization- harappan city civilization, Town-planning, Houses, Sanitation, Great Bath, Grainary, Household material, Dancing Bronze girl, dress and decorum, import and export, belief and religion and disposal of dead, art and artifacts, Dockyard, Seals, Main sites and causes of down fall.

**Vedic-Culture**

Sources-vedic Samhitas, Brahmanas, Aranyakas, upanisadas, Dharmasastras, Vedangas.

**Early Vedic Culture-**

Evolution of social structure, Varna, King and Ratnin, marriage and occupation, Gods and Godesses.

**Later Vedic Culture-**

Evolution of caste, occupation, king, vish, power of King, Yagyas. (Sacrifices), Purohita-system, Economic conditions- Pani, Niska, agriculture- industries.

**Unit 2-** Principal religious movements Jainism, Buddhism, Vaisnavism, Saivism.

**Unit -3-** Political History from 600 B.C. onward.

Sixteen- janapadas republication states foundation and
rise of Magadh-Empire.

Under Nandas

Under Mauryas, Chandra Gupta, Asoka the Great

Under Guptas, Chandra Gupta to Skand Gupta

Downfall of the Empire

Foreign invasions

Persian, Macedonian Alexander, Indo, Greeks.
Saka-Pahlava, Kusana, Huna
**North India from 500 AD to 650 AD.**
Later Guptas, Maukharis, Harshvardhan
Principal regional powers (Rajput Age 700 AD- 1200 AD)
Sunga - Kanva
Andhra - Kanva
Maukhari - Pushya Bhuti
Gurjara Pratihar, Chandella, Paramar, Chalukya, Chalukya of Badami and Vengi, Pallava, Rashtrakutas, Chalukyas of Kalyani and Pattadakal, Chola.

**Unit 4-**

**History of economy of Ancient India**
Agriculture, Trade and Industry, Srenis, Nanadesis, Coinage system.

**Unit 5-**

**History of Ancient Society**
Varna-Jati, Asram, Purusarth, Sanskar, Education

**Unit 6-**

**Art and Architecture**
Temples, Stupas, Sculpture, Paintings and minor arts. Ancient inscriptions inscribed on pillars, rocks.

**SECTION - SULTNATE - MUGHAL**

**Mohd. Ghori inventions of slave dynasty:-** Khiljis dysnasty, Tughlaqs dynasty, sayyiads and Lodis dynasty. Babar as a founder of Mughal empire, Humayun and Sher-shah-suri. Expansion of Mughal empire during Akbar to Aurangzeb. Decline and Disintegration of the Mughal Empire and Arrival of Britishes. Administration of Mughal and Economic Policies. Vijai Nagar and Bahmani State-Rise and downfall. Rise of Maratha during Shivaji and causes of Rise and downfall of Maratha.
**Administration:** Administration of Delhi Sultnate, Administration of Mughal- main features of administration. Central- Administration, Provincial Administration, Administration of Sher-Shah-Suri.
**Land Revenue System:** Land revenue system of Sher-Shah-Suri. Land revenue system of Akbar.
**Religions Policy of Mughal:** Babar, Humayun, Religious Policy of Akbar, Din-e-elahi, Religious Policy of Jahangir, Shajahan, Aurangzeb.
**Decan Policy of Mughals** - From Babar to Aurangzeb.
**Mughal's Culture and Civilization-**Education, Ladies's education, Literature, Architecture, Painting, Music.
**Organisation of Army -** Mansabdari system of Akbar, Jat, Sawar, The Maratha Military System.
**Society of Mughal:** Social system, Economic system; Trade and Commerce, Religious system.

**MODERN INDIAN HISTORY**

Mercantilism, European Traders in India in the Seventeeth & eighteenth centuries:- Arrival of Dutch, French, Portuguese and British, East India Company in india.
**Rise of the English Power in Bengal-** Battle of Plassey, Battle of Buxar and its importance
**Clive-** Second Governor of Bengal (I765-67)- Dual Government and its merit & demerit.
**Warren Hasting - (**1772-85)
Administrative reforms. Judical reforms, Revenue reforms.
**Administrative Reforms of Cornwallis (1786-93)**
Judical Reforms
**Revenue** Reforms - Permanent Settlement of Bengal 1793.
Lord Wellesley (1798-1805) - The subsidiary alliance System.
**Mysore Under Haider Ali and Tipu Sultan**
Ist Anglo Mysore War
IInd Anglo Mysore War
IIIrd Anglo Mysore War
IVth Anglo Mysore War
**Lord Hastings and Establishment of British Paramountacy in India**
The Anglo- Nepal War-(1814-18)
Pindaris War
Hastings Policy towards the Marathas.
**William Bentinck (1825-35)**
Abolition of Sati
Reforms of William Bentinck- Social, educational, Economic reform.
Education Policy of Lord Mecawley-
**Ranjeet Singh Achievement:** Early career of Rajneet Singh, Administration, Land Revenue, Military Administration.
**Lord Dalhousie (1848-56)**
The Doctrine of Lapse
The Annexation of Oudh, Reforms of Dalhousie
**Revolt 1857-** Causes of Revolt.
**Land Revenue system:** The Permanent settlement, The Mahalwari System, The Rayotwari System.
**Lord Curzon (1899-1905)** Partition of Bengal
**Religious and Social Reforms (Cultural awakening)**
The Brahm Samaj, The Prarthana Samaj, The Arya Samaj, The Ram Krishna Movement, The Theosophical Movement, Muslim Reform Movement, The Wahabi Movement, The Aligarh Movement.
**Rise and Growth of Indian National Movement-** Assesment of the Policies of the Moderates, Causes of rise of Extremism, Home Rule Movement, The Revolutionary Terroist Movement, Saimon Commission, Khilafat Movement, non-cooperation movement, The Civil Disobedience Movement, The role of Mahatma Gandhi in India's Struggle for Independence.

**Eminent National Leaders of India**

Ram Mohan Roy- Role in Modernization of India, Dadabhai Naoroji 1825-1917, Gopal Krishna Gokhale, Bal Gangadhar Tilak, Lala Lajpat Rai, Mahatma Gandhi, Jawahar Lal Nehru.
**Rise of Muslim Communalism-** Act of Sir Syed, Foundation of Muslim League, Two Nation Theory, Hindu Maha Sabha, Mount Batten's Plan-Partition of India.
**Act-** The regulating Act of 1773
Pit's India Act 1784
The Charter Act 1833
Act 1909
Act 1919
Act 1935
**First Phase of Independence**
The Indian Independence Act 1947
Princely States and Integration of States.
Murder of Mahatma Gandhi.
Five Year Plans
Relation with Neighour State- Pakistan, China, The Chinese Attack 1962, Bangladesh.

**Sociology**

**Unit-I**

**Basic Sociological Concepts**
**Sociology :** Meaning, Nature and scope
**Society:** Concept and characteristics.
**Other Related Concepts:** Institution, Community, Association Institution Social groups, Status and Role, Culture and Civilization.

**Unit-II**

**Social Processes** Cooperation, Competition, Conflict, Acculturation, Socialization, Stratification and Differenciation.

**Unit-III**

**Classical and Contemporary Social Thinkers**
Western Thinkers : August Compte, Karl Marx, Herbert Spencer, Emile Durkheim, Max Weber.
**Indian Thinkers:** M.N. Srinivas, G.S. Guriye, Radhakamal Mukerjee.

**Unit-IV**

**Contemporary Sociological Theories**
Phenomenonlogy and Ethnomethodology, Functionalism, Structuralism, Marxism, Conflict Theory, Exchange Theory and Symbolic Interactionlism.

**Unit-V**

**Social Change and Social Control**
Social Change : Concept, Factors and Theories.
Social Control : Concept, means and Agencies
Social Change Processes: Industrialization, Urbanization; Modernizations, Westernization and Globalisation.
Role of Media in Social change and Social control.

**Unit-VI**

**Indian Society and Culture**
Caste, Class, Marriage and Family
Sanskritisation, Secularisation, Great Tradition & Little Tradition, Universalization & Parachialisation.

**Unit-VII**

**Indian Rural Social Systems**
Caste System, Jajmani System, Kinship,
Panchayati Raj System

**Unit-VIII**

**Contemporary Indian Social Problems.**
Poverty, Unemployment, Gender Inequality, Corruption, Attrocities against Weaker Sections - Women, SCs, STs, and OBCs Problems of Minorities.

**Unit-IX**

**Social Research: Methods and Processes**
Social Research: Meaning and Various Steps of Social Research,
Designs of Social Research - Meaning and Types
Methods & Techniques of Data collection :
Statistical Analysis : Mean, Median, Mode
Standard Deviation and Correlation.

**Urdu**

**Part 1**

**1.** The beginning and development of Urdu language and literature in deccan (Bahmani period, Adil shahi period and Qutub shahi period)
- The early period of Urdu poetry and prose in northern India (Boket story Karbala katha)
- The mutual relationship between Urdu and Hindi.
- The story of school of poetry of Lucknow and Delhi (characteristics and distinctitious of language usage)
- Movement and trends in Urdu literature (Alio movement)
- The progressive writers movement, the circle of literary friends, modernism
- Urdu prose and fort William college and Delhi college (Meer Amman, Haider Baksh Haidari, Lallu Lal, Zakaullah, Master Ramchandra)

**Part - 2**

**6.**
- Genres of Urdu prose (Dastan - fasana - e - Ajaib, Bagh - o - bahar)
- Novel (umarao jaan ada, taubantunnasuh, fasana -e - azad, Aakhir shab ke humsafar)
- Afsana (short story) - Premchandra (Kafan, Roshni Bade ghar ki beti)
- Manto (Tauba Tek Singh) Asmat Chugtai (Chauthi ka joda)
- Rajendra Bedi (Garam coat, Lajwanti)
- Krishna Chandra (Pure chand ki raat, dadar pul ke bachche)
- Hayat Ullah Ansari (Akhiri koshish)
- Novel Sajjad Zaheer (London ki ek raat), Kazi Abdul Sattar (Rajjo Baji)
- Inshaiyan (Satirical and humorous essay)
- Pitras Bokhari (Severe jo kal ankh meri khuli, Cinema ka ishq
- Rasheed Ahmad Siddiqui (charpayi arhar ka khet)
- Mushtaq Ahmad Yusufi (Charpayi and culture)
- Farhat Ullah Beg (ek wasiyat ki taleem me)
- Kanhaiyya Laal Kapoor (Ghalib in the gathering of modern poets), betakallufi
- Shaukat Thanvi - swadeshi rail
- Essay and outline
  Mohammad Hussain Azad (shohrat-e-aam aur baqa - e - dawam ka darbar)
- Maulvi Abdul Hague (Naam Dev Mali, adab Urdu aur chakbast)
- Mehdi Afadi (The fue elements of Urdu prose) Abdul Haleem Sharar (Mashriqi tamaddun ka akhiri namuna: Guzishta - e - Lucknow)
- Farhatullah Beg (Delhi ka ek yadgar mushaira)
- Rasheed Ahmad Siddiqui (Jigar Saheb)
- Letters of Ghalib (Urdu - e - mualla)
- Abdul Kalam Azad (chidiya chide ki kahani - shuru decha ke panch-panch khutoot)

- Safer Nama - Yusuf Khan kambal posh (Ajaibat - e - farhang)
- Sayyed Ehtesham Hussain (Sahil aur Samandar)
- Biography of Hali (Hayat - e - saadi, yaadgar - e -Ghalib).
- Ismat chugtai (Kaghazi pairaahan)

**7. Urdu research and criticism** Azad Hali, Shibli, Imdad Imam Asar, Hafiz Mehmood Sherwani, Molvi Abdul Hague, Qazi Abdul Wadood, Imtiyaz Ali Arshi, Masood Masan Rizvi, Ehtesham Hussain, Aal Ahmad Suroor, Kaleemuddin Farooqi, Gopichand Narang, Rasheed Hasan Khan: Haneef Naqvi.

**8. Evolution and Development of Urdu journalism** Molvi, Mohammad Baqir (Delhi Urdu Akhbar) Munshi Sajjad Hussain (Awadh Panch), Zafar Ali Khan (Zameendar), Abul Kalam Azad (Al-Hilal) Hasrat Mohani (Urdu-e-mualla), Abdul Majid Dariyabadi (Sadq-e-Jadeed), Jo Ansari (Inquilab) Hayatullah Ansari (Qaumi Awaaz)

**9. Urdu Drama - Evolution and Development** AAmanat Lucknowi (Indra Safa), Agha Hasam Kashmiri (Silver king), Imtiyaz Ali Taj (Amarkali), Aijaz Hussain (Sayed Insha) Habeeb Tanveer (Agra Bazaar)

**Part - 3**

**10. Genres of Urdu Poetry - Evolution of Urdu poetry**

Genres of nazm - Ghazal, Qasida, Marsiya, Masnavi, Rubai, Qatah, Modern nazm, shahr-e-Aashob, waswakht, Mohd Quli Qutub Shah, Wali, Insha, Mushafi, Aatish Nasikh Yagana

- Ghazal poets - Sauda, Dard, Meer, Zauq, Ghalib, Aarzoo, Riya, Kher Abadi, Faani, Hasrat, Jigar, Asgar, Momin, Firaq Gorakhpuri, Nasir Kazmi, Jazbi, Majaz, Nashoor Wahidi
- Qasida writes: Mohsin Kakori (Samt Kashi chala...) Zauq Dehalvi, Mirza Ghalib, Ameer Meenai, Sauda (Uth gaya Bahaman), Muneer Shikohabadi (Dohrejuj) Tazheek Rozoor
- Marsiya writer: Meer Anees, Mirza Duber, Chakbast (Marsiya Gokhle), Josh (Awaaz-e-haq) Safi Lucknawi (Marsiya Hali), Majaz (Watan ka Lal-e-Darakhshan chala gaga)
- Qatah Writers - Akbar Allahabadi (Mashriq ka maghrib) Khatm-e-Bahar, Nayi Roshni, Kashmakash Hali (Araf-o-Bukht), Shibli
- Iqbal - Mastiye Kirdar, Naseehat, Mulla aur Bahisht
- Josh - Intezar, Mua'azrat
- Akhtar Ansari - Fitrat, Taj
- Rubai Writes - Hali, Akbar, Josh, Firaq, Meer Anees, Khan Pyare Miyan, Sahab Rasheed, Amjad Hydrabadi
- Nazm Write - Hali (Iqbal mandi ki Alamt)
- Nazeer Akbar Allahabdi (Mele ki ser, Aadmi Nama, Roti aur Gilhari)
- Akbar Allahabadi (Rangnama, Lab-e-Darbar Delhi, Mustaqbil)
- Iqbal (Ser-e-Falak, Shua-e-Ummeed, Haqeeqat-e-Husn, Khizr, Tulu-e-Islam, Safi-Lucknawi (Bahar), Meeraji (Clerk ka Naghma-e-Mohabbat), Majaz (Awara), Akhtar, Akhtar-ul-Eman (Ek Ladka), Waheed Akhtar (Kursinama), Noor-Meem Rashid (Saba-Veeran), Seemab Akbar Abadi (Taj, Shab-e-Tareek me), Josh (Albeli Subah, Awaaz ki Seedhiyan, Kisaan)
- Ehsan Danish (Wadi-e-Kashmir ki ek Subah)
- Faiz Ahmad Faiz (Raqeeb se, Zindan ki ek sham) Chakbast (Aasif-ud-dafa ka Imam bad, Ramayan ka ek scene), Afsar Meeruthi (Tulu-e-Khursheed-e-nu) Akhtar Sheerani (Naghma-e-zindagi), Daya Shankar Naseem (Gulzar-e-Naseem), Mirza Shauq Lucknawi (Zehr-e-Ishq), Iqbal Saqi-nama, Ali Sardar Jafri Soz-e-Hayat, Hafeez Jalandhari (Sehra Ki Dua)

**Part - 4**

**Urdu Grammar**

- Ism, Zameer, Fail, Sifat, Harf and its kind
- Ista'ara, Tashbeeh, Majaz Musrat, Kamaya Samae-wa-Badae-Luf-o-Nashr (Murattib-wa-non-murattib), Talmih, Husn-e-Talil.
- Tajnees (Naam, Naqis wa Zaid) Sawal-o-Jawab Tanseequs-sifaat, siaqatul Aadad, Tarseeh, Tazaad, Ibhaam, Mua-at-un-Nazeer, Mubalgha, Husn-e-Kalaam aur Baloohat-e-Ista'ara.

**Appendix- 4**

**प्रवक्ता, स्पर्श दृष्टिबाधित राजकीय इण्टर कालेज/समेकित विशेष माध्यमिक विद्यालय**

**परीक्षा योजना**

**प्रथम चरण–प्रारम्भिक परीक्षा**

| | | |
|---|---|---|
| **प्रश्नपत्र की संख्या** | – | (01) एक |
| **प्रश्नपत्र का प्रकार** | – | वस्तुनिष्ठ प्रकारक |
| **प्रश्नों की संख्या** | – | 120 (सामान्य अध्ययन के 40 प्रश्न तथा वैकल्पिक विषय के 80 प्रश्न) |
| **प्रत्येक प्रश्न पर निर्धारित अंक** | – | 2.5 (ढाई अंक) |
| **निर्धारित कुल अंक** | – | 300 (तीन सौ) |
| **समयावधि** | – | 02:00 (दो) घण्टा |

**नोटः–** सामान्य अध्ययन का पाठ्यक्रम परिशिष्ट–2 के अनुसार तथा वैकल्पिक विषयों का पाठ्यक्रम मुख्य परीक्षा की भाँति होगा।

**द्वितीय चरण मुख्य (लिखित) परीक्षा (परम्परागत)**

| | | |
|---|---|---|
| **प्रश्नपत्रों की संख्या** | – | 03 (तीन) |
| **प्रथम प्रश्नपत्र** | – | सामान्य हिन्दी एवं निबन्ध |
| **निर्धारित कुल अंक** | – | 100 (सौ)– (सामान्य हिन्दी–50, निबन्ध–50) |
| **समयावधि** | – | 02:00 (दो) घंटा |
| **द्वितीय प्रश्नपत्र** | – | वैकल्पिक विषय |
| **समयावधि** | – | 03:00 (तीन) घंटा |
| **निर्धारित कुल अंक** | – | 300 (तीन सौ) |

संगत पाठ्यक्रम के आधार पर वैकल्पिक विषयों (परम्परागत) के प्रश्नपत्र की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत हैः–

1– प्रश्नों की कुल संख्या 20 (बीस) होगी। सभी प्रश्न अनिवार्य होंगे तथा प्रश्न खण्डवार निम्नवत होंगेः–

**खण्ड 'अ'** के अन्तर्गत 05 प्रश्न सामान्य उत्तरीय (उत्तरों की शब्द सीमा 250) एवं प्रत्येक प्रश्न 25 अंक का होगा।

**खण्ड 'ब'** के अन्तर्गत 05 प्रश्न लघुउत्तरीय (उत्तरों की शब्द सीमा 150) एवं प्रत्येक प्रश्न 15 अंक का होगा।

**खण्ड 'स'** के अन्तर्गत 10 प्रश्न अतिलघुउत्तरीय (उत्तरों की शब्द सीमा 50) एवं प्रत्येक प्रश्न 10 अंक का होगा।

**नोटः–** प्रथम प्रश्नपत्र एवं द्वितीय प्रश्नपत्र का पाठ्यक्रम **परिशिष्ट–3** के अनुसार होगा।

| | | |
|---|---|---|
| **तृतीय प्रश्नपत्र** | – | विशिष्ट अर्हता– ब्रेल लिपि (पद्धति)/ सांकेतिक भाषा। |
| समयावधि | – | 02 (दो) घंटा |
| पूर्णांक | – | 100 (सौ) अंक |

**तृतीय प्रश्नपत्र का पाठ्यक्रम**

**Subject: Special Education-Braille Script**

**Unit 1**

- Knowledge of Braille 6 dots system.
- Capability to analyse Seven line system of Braille.

**Unit 2**

- Knowledge of Hindi and English Braille alphabets.
- Punctuation marks: Capital sign indicator, italics sign indicator, comma, full stop, semi colon, colon, brackets, quotation mark, exclamation marks, hyphen, dash, ellipses, question mark.
- Knowledge of Grade-II English Braille (Contractions, short forms and abbreviations).

**Unit 3**

- Knowledge of devices for transcribing Braille script: Braille Slate, Stylus, pocket frame, Brailler and Perkins style key Board.
- Paper less Braille: Braille embossers and duplicators, conversion software such as Duxbury Braille Translation (DBT), Braille Note takers and refreshable Braille Displays.

**Unit 4**

- Knowledge of computer Braille: Computer Braille indicators, writing e-mail ID in Braille, web address/URL in Braille.
- Knowledge of science symbols in Braille: Superscript & subscript, Radicals Greek letters and Logarithm, Reference signs, Negation signs, Degree, infinite, English letters, Compounded shape signs, Spatial arrangement.

**Unit 5**

- Knowledge of Mathematical Braille (arithmetic and algebra).
- Numerals.
- Numeric Indicator, Mathematical Comma, Mathematical Decimal Point, Punctuation Indicator.
- Signs of operation (Plus, minus, multiplication & division).
- Brackets (Round, Curly, Square).
- Fractions: Simple fraction & Mixed fraction.
- Measurements.
- Roman Numerals.
- Superscript and subscript.
- Shape Signs-Basic Shapes (Angle, Triangle, Circle, Square, Rectangle, Quadrilateral, Rhombus).
- Miscellaneous: (At mark, Check Mark, Ditto Mark, Percentage, Ratio of proportion, since, therefore).

**Subject: Special Education-Sign Language**

**Unit 1**

- The history of Indian Sign Language: origin, development, and relationship of Indian Sign Language with other spoken languages.
- Legislative status for Indian Sign Language.
- Introduction to various Sign languages.
- Aspect of deaf culture and linguistic identity

**Unit 2**

- Modes of Communications.
- Methods of Communications: Oralism, Total Communication, and Educational Bilingualism.
- Communication challenges.

**Unit 3**

**Structure and Grammar of Indian Sign Language:**

- Manual and non-manual components of Indian Sign Language.
- Word-level structures.
- Sentence types.
- The meaning of signs.

**Unit 4**

**Expressions in Indian Sign Language**

- Greetings terms
- Alphabets and Numbers
- Name of Months
- Name of Colours
- Question
- Name of Fruits
- Name of Foods
- Name of Vegetables
- Stationery
- Means of transport
- Daily routine activities

**Unit 5**

**ISL grammar and usage**

- Use language resources to search for ISL materials.
- ISL grammar and usage.
- Sentence types: Simple statements, questions, negatives.
- Describing people and objects (Adjectives and Opposites).
- Pronouns and kinship terms.
- Expression of time, numbers and measures.
- Verbs and uses of the sign space.
- Possession (Having and not having).

**Appendix- 5**

**प्राध्यापक, उत्तर प्रदेश जेल प्रशिक्षण विद्यालय (अध्यापक वर्ग) सेवा**

**परीक्षा–योजना**

**प्रथम चरण–प्रारम्भिक परीक्षा**

| | | |
|---|---|---|
| **प्रश्नपत्र की संख्या** | – | (01) एक |
| **प्रश्नपत्र का प्रकार** | – | वस्तुनिष्ठ प्रकारक |
| **प्रश्नों की संख्या** | – | 120 (सामान्य अध्ययन के 40 प्रश्न तथा वैकल्पिक विषय के 80 प्रश्न) |
| **प्रत्येक प्रश्न पर निर्धारित अंक** | – | 2.5 (ढाई अंक) |
| **निर्धारित कुल अंक** | – | 300 (तीन सौ) |
| **समयावधि** | – | 02:00 (दो) घण्टा |

**नोटः–** सामान्य अध्ययन का पाठ्यक्रम परिशिष्ट–2 के अनुसार तथा वैकल्पिक विषयों का पाठ्यक्रम मुख्य परीक्षा की भाँति होगा।

**द्वितीय चरण – मुख्य (लिखित) परीक्षा (परम्परागत)**

| | | |
|---|---|---|
| **प्रश्नपत्रों की संख्या** | – | 03 (तीन) |
| **प्रथम प्रश्नपत्र** | – | सामान्य हिन्दी एवं निबन्ध |
| **निर्धारित कुल अंक** | – | 100 (सौ)– (सामान्य हिन्दी–50, निबन्ध–50) |

**समयावधि** – 02:00 (दो) घंटा

**नोटः–** प्रथम प्रश्नपत्र का पाठ्यक्रम परिशिष्ट–3 के अनुसार होगा।

**द्वितीय प्रश्नपत्र** – वैकल्पिक विषय

**समयावधि** – 03:00 (तीन) घंटा

**निर्धारित कुल अंक** – 300 (तीन सौ)

संगत पाठ्यक्रम के आधार पर वैकल्पिक विषयों (परम्परागत) के प्रश्नपत्र की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत हैः–

1– प्रश्नों की कुल संख्या 20 (बीस) होगी। सभी प्रश्न अनिवार्य होंगे तथा प्रश्न खण्डवार निम्नवत होंगेः–

**खण्ड 'अ'** के अन्तर्गत 05 प्रश्न सामान्य उत्तरीय (उत्तरों की शब्द सीमा 250) एवं प्रत्येक प्रश्न 25 अंक का होगा।

**खण्ड 'ब'** के अन्तर्गत 05 प्रश्न लघुउत्तरीय (उत्तरों की शब्द सीमा 150) एवं प्रत्येक प्रश्न 15 अंक का होगा।

**खण्ड 'स'** के अन्तर्गत 10 प्रश्न अतिलघुउत्तरीय (उत्तरों की शब्द सीमा 50) एवं प्रत्येक प्रश्न 10 अंक का होगा।

## Subject-wise Syllabus of Optional Subjects for Lecturer, Uttar Pradesh Jail Training School (Teaching Staff) Service - Preliminary/Main (Written) Examination

### Psychology

1- What is Psychology? Study of observable behaviour, cognitive processes, Physiological events, social and cultural influences and hidden or unconscious processes.

2- Theoretical Approaches: Behaviourist, Cognitive, Information Processing and humanistic.

3- Biological bases of behaviour: Nervous systems, cerebral functioning, endocrine glands.

4- Attention: Nature: Selective and sustained attention; Processes; theories and factors affecting.

5- Perception: Sensory input, selection, transduction organization and interpretation, Perceptual organization and its laws. Theories of pattern recognition-bottom up and top down.

6- Motivation: Nature and Conceptual issues: Theories of motivation: Drive, arousal and expectancy. Need Hierarchy, Intrinsic and Extrinsic motivation.

7- Emotion: Physiological framework physiological changes in Emotion. Theories of Emotion.

8- Learning: Classical and Instrumental conditioning, Extinction, Reinforcement and cognitive elements, stimulus and response generalization, Insightful learning and observational learning.

9- Memory: Sensory memory, short-term memory and long term memory Encoding, storage and retrieval, Theories: Atkinson and Shiffrin (Craik & Lockhart) semantic and episodic memories. Factors influencing retention: Measurement of memory, Forgetting: Theories.

10- Language and Thinking: Whorf and Chomsky, Factors involved in problem solving: algorithm and heuristics.

11- Individual Differences: Mental Abilities, Factorial approaches, Spearman, Thrustone, Guilford, Vernon & Jensen , Piaget, Gardner, Mental Ability Tests and scales. Emotional intelligence.

12- Personality: Types and Traits: Al 1 port, Cattle, Guilford, Eysenck, Murray and Freud. Measures of personality: Psychometric and Projective, Item Analysis, Reliability, validity and norms.

13- Social Psychology: Social cognition, attribution, interpersonal attraction, attribution, interpersonal attraction, Leadership.

14- Organizational Psychology: Personnel selection, Job analysis, interview, cohesiveness, organizational development, communication channels, Organizational change, union management relations, organizational efficiency, organizational citizenship, social loafing, Correctional Psychology.

15- Development Psychology: Development stages, cognitive, social and moral development.

16- Experimental Design and Statistics: Problem, hypothesis, variables and their control, Design : between group, single group, matched group, Factorial designs: Main and interaction effects and repeated measures. Statistics: Test, analysis of variance, Factor analysis, regression equation, Non parametric statistics: Chi-square, Median Test, Mann-Whitney Test, Friedman Test.

17- Mental Health and Disorders: Classification of disorders (ICD-10 and DSM IV-TR) Psychoneurosis, psychosis, psychopathic personality and Anti social personality, Stress, coping and management Selye and Lazarus. Relaxation, biofeedback and Shawasana.

18- Clinical Psychology : Diagnosis, Treatment and Research: Diagnosis: case study, Interview, Testing, MMPI-2, Rorschach, TAT, Therapeutic Measures. Psychoanalysis, Person-Centered Therapy (Rogers), Behavior therapy, Cognitive Therapy (Ellis and Beck), Humanistic, Gestalt and Transactional Analysis.

### Lecturer in Criminology and Penology

Unit-1: Definition of Criminology: Scope and Nature, Concept of Crime, Classification of Crime, Types of Criminals, Theories of Causation of Crime: Classical, Positivistic, Psychological, Geographical, Economic and Sociological Theories, Theories related to Social Structure: Durkheim & Merton, Theory of Cultural Conflict, Theory of Sub-Culture, Ecological Theory, Theories related to Criminalization process: Sutherlands theory of Differential Association, Labelling theory, Multiple Factor Approach.

Unit-2: Punishment System, Justification and Theories of Punishment, Capital Punishment: Arguments for and against, Principle and Types of Finger Print.

Unit-3: Prison System: Emergence and Development, Prison organization, Role of Jail Superintendent and Security Staff, Prison Reforms, Wall less Prison, Prohibited activities in Prison.

Unit-4: Probation and Parole System Concept, Administrative Organization, Probation and Parole Officer, Advantages and Disadvantages of Probation, Objective and Success of Parole, After-Care Services.

Unit-5: Juvenile Delinquency: Nature and Types, Causes and Theories of Juvenile Delinquency, Constitutional Provisions, Juvenile Court, Remand Homes, Reformative and Borstal Schools, Certified Schools.

Unit-6: Organized Crime: Modus Operandi, Forms of Organized Crime, Types of Criminal Organizations.

Unit-7: Professional and Habitual Criminals, White-Collar Criminals: Concept and Types, Women Criminals, Reforms and Rehabilitation, Cyber Crime and Drug Addiction.

Unit-8: Criminal Administration of Justice: Indian Penal Code(IPC), Criminal Procedure Code(CrPC) and Civil Procedure Code(CPC).

Unit-9: Victims and Crime.

Unit-10: Police System: Present Police Administration and Organisation, Police and Criminal nexus, Police and Corruption, Cruelty and Ill-treatment, Police and Programs of Reforms.