UPPSC Assistant Teacher LT Grade 2025 Exam Pattern/ Syllabus

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Appendix - 2

(1) सहायक अध्यापक (प्रशिक्षित स्नातक श्रेणी, पुरुष/महिला) की परीक्षा योजना

प्रथम चरण– प्रारम्भिक परीक्षा

सामान्य अध्ययन/वैकल्पिक (मुख्य) विषय

परीक्षा योजना

सामान्य परीक्षा (वस्तुनिष्ठपरक)

01–प्रश्नपत्र	–	एक
02–प्रश्नों की संख्या	–	150 (सामान्य अध्ययन के 30 प्रश्न तथा प्रत्येक वैकल्पिक (मुख्य) विषय के 120 प्रश्न)
03–कुल अंक	–	300 (प्रत्येक प्रश्न 2 अंक)
04–समयावधि	–	2:00 घण्टा

नोट :– **(i)** उपर्युक्त प्रथम चरण की वस्तुनिष्ठ प्रारम्भिक परीक्षा (वस्तुनिष्ठपरक) में उत्तीर्ण अभ्यर्थी ही नियमानुसार द्वितीय चरण की मुख्य परीक्षा (परम्परागत) में सम्मिलित हो सकेंगे।

(ii) For the post of Assistant Teacher, Social Science (Men/Women Branch), there shall be 04 sections In the main subject viz. Geography, History, Economics and Civics comprising of 60 Questions in each section. The candidates shall choose any 02 sections out of the aforesaid 04 sections and answer them.

aforesaid 04 sections and answer them.

द्वितीय चरण– मुख्य परीक्षा

वैकल्पिक (मुख्य) विषय

परीक्षा योजना

मुख्य परीक्षा (परम्परागत)

01–प्रश्न पत्र	–	एक
02–प्रश्नों की संख्या	–	20 (10+10)
03–कुल अंक	–	200 (80+120)
04–समयावधि	–	3:00 घण्टा

परीक्षा योजना – उक्त पाठ्यकम के आधार पर वैकल्पिक (मुख्य) विषयों के प्रश्नपत्रों की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत् होगा :–

मुख्य परीक्षा के प्रश्न– पत्र में सभी प्रश्न अनिवार्य होंगे तथा वे दो खण्डो में विभाजित रहेंगे। प्रश्नों की कुल संख्या खण्डवार निम्नवत् होगी :–

खण्ड – अ– के अन्तर्गत 10 प्रश्न, लघुउत्तरीय प्रश्न जिनके उत्तरों की सीमा 125 शब्दों में होगी। यहाँ प्रत्येक प्रश्न 08 अंक का होगा।

खण्ड –ब– के अन्तर्गत 10 प्रश्न, दीर्घउत्तरीय प्रश्न जिनके उत्तरों की सीमा 200 शब्दों में होगी। यहाँ प्रत्येक प्रश्न 12 अंक का होगा।

(2) दिव्यांगजन सशक्तीकरण विभाग के अन्तर्गत सहायक अध्यापक पद की परीक्षा योजना

(i) प्रशिक्षित स्नातक अध्यापक (एल०टी० ग्रेड) / विशिष्ट अध्यापक (स्पर्श दृष्टिबाधित विद्यालय / समेकित विशेष माध्यमिक विद्यालय)

परीक्षा–योजना

प्रथम चरण–प्रारम्भिक परीक्षा

प्रश्नपत्र की संख्या	–	(01) एक
प्रश्नपत्र का प्रकार	–	वस्तुनिष्ठ प्रकारक
प्रश्नों की संख्या	–	150 (सामान्य अध्ययन के 30 प्रश्न तथा प्रत्येक वैकल्पिक (मुख्य) विषय के 120 प्रश्न)
प्रत्येक प्रश्न पर निर्धारित अंक	–	2.00 (दो) अंक
निर्धारित कुल अंक	–	300 (तीन सौ)
समयावधि	–	02:00 (दो) घंटा

द्वित्तीय चरण–मुख्य (लिखित) परीक्षा (परम्परागत)

प्रथम प्रश्नपत्र

प्रश्नों की संख्या	–	20 (10+10)
कुल अंक	–	200 (80+120)
समयावधि	–	03:00 (तीन) घण्टा

संगत पाठ्यक्रम के आधार पर वैकल्पिक मुख्य विषयों के प्रश्नपत्रों की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंको का विभाजन निम्नवत् हैः–

1– मुख्य परीक्षा के सभी प्रश्न अनिवार्य होंगे तथा वे दो खण्डों में विभाजित रहेंगे। प्रश्नों की कुल संख्या खण्डवार निम्नवत होंगेः–

खण्ड 'अ' के अन्तर्गत 10 प्रश्न, लघु उत्तरीय (उत्तरों की शब्द सीमा 125) एवं प्रत्येक प्रश्न 08 अंक का होगा।

खण्ड 'ब' के अन्तर्गत 10 प्रश्न, दीर्घ उत्तरीय (उत्तरों की शब्द सीमा 200) एवं प्रत्येक प्रश्न 12 अंक का होगा।

द्वितीय प्रश्नपत्र

विशिष्ट अर्हता	–	ब्रेल लिपि–ब्रेल लिपि (पद्धति)।
निर्धारित कुल अंक	–	100 (सौ)
समयावधि	–	02:00 (दो) घण्टा

(ii) प्रशिक्षित स्नातक अध्यापक (एल०टी० ग्रेड) / विशिष्ट अध्यापक (संकेत मूक बधिर विद्यालय / समेकित विशेष माध्यमिक विद्यालय)

परीक्षा–योजना

प्रथम चरण प्रारम्भिक परीक्षा

प्रश्नपत्र की संख्या	–	(01) एक
प्रश्नपत्र का प्रकार	–	वस्तुनिष्ठ प्रकारक
प्रश्नों की संख्या	–	150 (सामान्य अध्ययन के 30 प्रश्न तथा प्रत्येक वैकल्पिक (मुख्य) विषय के 120 प्रश्न)
प्रत्येक प्रश्न पर निर्धारित अंक	–	2.00 (दो) अंक
निर्धारित कुल अंक	–	300 (तीन सौ)
समयावधि	–	02:00 (दो) घंटा

द्वितीय चरण–मुख्य (लिखित) परीक्षा (परम्परागत)

प्रथम प्रश्नपत्र

प्रश्नों की संख्या	–	20 (10+10)
कुल अंक	–	200 (80+120)
समयावधि	–	03:00 (तीन) घण्टा

संगत पाठ्यक्रम के आधार पर वैकल्पिक मुख्य विषयों के प्रश्नपत्रों की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत् हैः–

1– मुख्य परीक्षा के सभी प्रश्न अनिवार्य होंगे तथा वे दो खण्डों में विभाजित रहेंगे। प्रश्नों की कुल संख्या खण्डवार निम्नवत् होंगेः–

खण्ड 'अ' के अन्तर्गत 10 प्रश्न, लघु उत्तरीय (उत्तरों की शब्द सीमा 125) एवं प्रत्येक प्रश्न 08 अंक का होगा।

खण्ड 'ब' के अन्तर्गत 10 प्रश्न, दीर्घ उत्तरीय (उत्तर की शब्द सीमा 200) एवं प्रत्येक प्रश्न 12 अंक का होगा।

द्वितीय प्रश्नपत्र

विशिष्ट अर्हता	–	सांकेतिक भाषा।
निर्धारित कुल अंक	–	100 (सौ)
समयावधि	–	02:00 (दो) घण्टा

(iii) प्रशिक्षित स्नातक अध्यापक (एल०टी० ग्रेड) / विशिष्ट अध्यापक (प्रयास शारीरिक रूप से अक्षम विद्यालय / समेकित विशेष माध्यमिक विद्यालय)

परीक्षा योजना

प्रथम चरण–प्रारम्भिक परीक्षा

प्रश्नपत्र की संख्या	–	(01) एक
प्रश्नपत्र का प्रकार	–	वस्तुनिष्ठ प्रकारक
प्रश्नों की संख्या	–	150 (सामान्य अध्ययन के 30 प्रश्न तथा प्रत्येक वैकल्पिक (मुख्य) विषय के 120 प्रश्न)
प्रत्येक प्रश्न पर निर्धारित अंक	–	2.00 (दो) अंक
निर्धारित कुल अंक	–	300 (तीन सौ)
समयावधि	–	02:00 (दो) घंटा

द्वितीय चरण–मुख्य (लिखित) परीक्षा (परम्परागत)

प्रश्नपत्र	–	01(एक)
प्रश्नों की संख्या	–	20 (10+10)
कुल अंक	–	200 (80+120)
समयावधि	–	03:00 (तीन) घण्टा

संगत पाठ्यक्रम के आधार पर वैकल्पिक मुख्य विषयों के प्रश्नपत्रों की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत् हैः–

1– मुख्य परीक्षा के सभी प्रश्न अनिवार्य होंगे तथा वे दो खण्डों में विभाजित रहेंगे। प्रश्नों की कुल संख्या खण्डवार निम्नवत होंगेः–

खण्ड 'अ' के अन्तर्गत 10 प्रश्न, लघु उत्तरीय (उत्तरों की शब्द सीमा 125) एवं प्रत्येक प्रश्न 08 अंक का होगा।

खण्ड 'ब' के अन्तर्गत 10 प्रश्न, दीर्घ उत्तरीय (उत्तरों की शब्द सीमा 200) एवं प्रत्येक प्रश्न 12 अंक का होगा।

ध्यातव्य है कि उक्त तीन प्रकार के पदों के पाठ्यक्रम ब्रेल लिपि (पद्धति) / सांकेतिक भाषा को छोड़कर शासन द्वारा अनुमोदित सहायक अध्यापक, प्रशिक्षित स्नातक श्रेणी (पुरुष / महिला) के अनुरुप रखा गया है।

नोटः– प्रारम्भिक एवं मुख्य परीक्षा हेतु विज्ञापन के **परिशिष्ट–3** में विषयवार मुद्रित पाठ्यक्रम उभयनिष्ठ रहेगा।

Appendix - 3

सहायक अध्यापक, प्रशिक्षित स्नातक श्रेणी, (पुरुष / महिला) तथा दिव्यांगजन सशक्तीकरण के अन्तर्गत सहायक अध्यापक के

प्रारम्भिक एवं मुख्य परीक्षा हेतु विषयावार पाठ्यक्रम

SUBJECT - SOCIAL SCIENCE

(A) Geography:

1- Geography - Meaning and Scope.

2- Physical Geography: Solar system-introduction, Origin of the Earth-Kant Laplace, James and Jeans, Revolution, Rotation and inclination of the earth and their effects, Solar and Lunar Eclipse, Latitude and Longitude, Geographic Reference System and Geographic Positioning System, Prime Meridian, International Date Line and time.

3- Lithosphere: Interior of the Earth-Sial, Sima and Nife, Types of rocks and their characteristics, Vulcanicity and Volcanoes-types and world distribution, Earthquakes-origin and distribution, Distribution of continents and Ocean basins-Tetrahedral hypothesis (Lowthian Green) and Continental Drift Theory (Alfred Wegener), Classification of mountains and mountain building-Kober and plate tectonic theories, Plateau-general characteristics and classification, Plains-origin and classification, Weathering and Erosion, Davis's cycle of erosion and rejuvenation, Works of river, wind and glacier and resultant land forms.

4- Atmosphere: Composition and Structure of the atmosphere, Insolation and factors affecting its distribution, Temperature-its horizontal and vertical distribution, Pressure, pressure belts and planetary, Winds, Monsoon origin and distribution, Forms of Precipitation and types of rainfall, Climatic regions of the world- Thornthwaite and Trewartha.

5- Hydroshpere- Relief of ocean basins, Temperature and Salinity of ocean, currents-origin and their effects, Tides-types and origin-Newton and Whewell.

6- Biosphere- Meaning and Concept, Concept of ecosystem and biosphere as an ecosystem, Biotic succession-primary and secondary, major biomes of the world.

7- Human Geography- Meaning and Scope-Huntington and Brunhes, Man-environment interrelationship-determination, possibilism and stop and-go determinism, world Population-growth and distribution, Demographic transition, Human races-classification and characteristic features and distribution of Caucasian and Mongolian races, Habitat, Economy and Society Of Bushman, Eskimo, Kirghiz, Gaddis, Tharus and Gonds.

8- Human Settlements- Meaning and fundamental elements, settlement types and patterns, Rural and Urban settlements, size categories of towns in India, Urbanization in developing and developed countries, Mega cities of the World.

9- Economic Geography- Meaning and Scope, types of production-primary, secondary, tertiary and quaternary, World Production and distribution of Rice, Wheat, Sugarcane, Tea, Coffee and Rubber, Energy and mineral resources- coal, petroleum, iron ore, bauxite and non conventional energy resources, Factors of localization of industries-iron and Steel, Cotton Textiles, Aluminium and Oil Refinery, Industrial Regions and their delineation and industrial regions of U.S.A and Japan, major trade routes and ports of the world.

10. Geography of India- Location, extent and international borders, Indian Ocean-economic and Strategic importance, Physiographic and Drainage, Rainfall and its distribution, Vegetation, Climatic Regions Koppen, Trewartha and R.L. Singh, Forest resources and deforestation, Agriculture production, progress and problems, Green, Blue, White, Yellow and Round revolutions in Agriculture, Major crops-production and distribution of Wheat, Rice, Sugarcane, Tea, Agricultural regions 0. Slampa and B.L.C. Johnson, Mineral and Energy resources-distribution and utilization of Iron Ore, Coal and Petroleum, Energy crisis and alternative sources of energy, Industrial location and distribution of Iron and Steel, Cotton Textiles, Cement, Industrial Region- PP Karan, Population, Growth and Distribution, Population Policy of India, Urbanization, Means of transport-roads and railways, Foreign trade, Megacities and Major ports.

(B) History :

1. Salient features of Pre- Historic cultures of India.

2. Chief Characteristics of Indus Valley Civilization : (a) Town planning (b) Harappa and Mohanjodaro (c) Stone Sculpture and terracotta figurines, seals and sealings (d) Religion

3. Polity, society, economy and religion of the Early Vedic period: changes in Later Vedic Period

4. Salient Features of Jainism, Budhism, Vaishnavism and Shaivism

5. Mauryan Period : (a) Origin of the Mauryas **(b)** Achievements of Chandragapta Maurya **(c)** His administration and public works **(d)** Ashoka's Inscriptions **(e)** His Dhamma and spread of Dhamma **(f)** Philanthropic works **(g)** Estimate of Ashoka **(h)** Causes of the Downfall of the Mauryan Empire.

6. Political History of the Gupta Dynasty: (a) Chandra Gupta I, **(b)** Samudra Gupta, **(c)** Chandra Gupta II, **(d)** Kumar Gupta I and **(e)** Skanda Gupta **(f)** Huna invansion and its impact **(g)** Causes of the Downfall of the Gupta Empire.

7. Chola Period : (a) Achievements of Rajaraja I (b) Achievements of Rajendra Chola I (c) Local Self Government (d) Chola Art and Culture.

8. Foreign Invasions: (a) Arab invasion and its impact **(b)** Ghazanavi invasion and its impact **(c)** Invasion of Mohammad Ghori and its impact.

9. Delhi Sultante (Political and Administrative History): Qutubuddin Aibak Iltutmish, Balban, Alauddin Khilji, Mohammad Bin Tughlaq, Ferozshah Tughlaq, Invasion of Taimur, Sayyid and Lodhi Dynasties.

10. Mughals (Political and Administrative History): Babur, Humayun, Akbar, Jahanghir, Shahjahan and Aurangzeb, The decline of Mughal Empire.

11. Bahmani Empire, Vijaynagar Empire, rise and decline of the Marathas, Shivaji

12. Medieval Culture - Religious policy, Sufism, Bhakti movement, Art and Architecture, Literature.

13. Medieval Society and Economy-Agriculture, Industry, Trade.

14. Expansion of East India Company.

15. Agriculture, Trade and Industry in Modern India.

16. Development of modem education system and Constitutional Development

17. Revolt of 1857-causes, nature, and impact.

18. Renaissance in modern India, Social and Religious movements

19. Indian National Movement- Non-co-operation, Civil disobedience and Quit India movement.

20. Contributions of M.K.Gandhi,B.G.Tilak, Gokhale, and S.C. Bose in national movement.

21. Achievement of Independence - From Cripps Mission to Mountbatten Plan.

22. India after independence till 1950 A.D.

(c) ECONOMICS:

1. Nature of Economics: Definition of economics, problem of choice, Micro and Macro Economics, Methods of static and dynamic analysis, Concept of equilibrium.

2.Consumer behavior and demand analysis: Equilibrium of consumer, Marshall Approach, Indifference curve analysis (price, income and substitution effects), Law of demand, Elasticity of demand and supply, its types and measurement, consumer surplus.

3. Production and Theories of Population: Producer's equilibrium, Laws of production-laws of variable proportions and laws of returns to scale, Analysis of revenue and cost curves, Theories of population: Malthus, theory of optimum population, and theory of demographic transition.

4.Nature of Markets and Price Determination in different markets: Perfect competition, Imperfect and monopolistic competition, Monopoly.

5.Theory of Distribution: Marginal productivity theory of distribution, Wage determination in perfect and imperfect competition, Theories of rent Classical and Keynesian theories of interest, Theories of profit: Knight Schunnpeter and J.K. Mehta.

6. Money, Banking, Inflation and Monetary Policy: Determination of Value of money - Fisher and Cambridge versions, Keynes' saving and investment theory, Functions of central bank, functions of Commercial Banks, Credit creation and control, Concept of money supply, Concept of inflation types, control and policy.

7.International Trade and Policy: Theory of absolute advantage, Theory of comparative cost, Gains from trade and terms of trade, Free trade vs. protection, Theories of foreign exchange determination. Balance of payments: problem and solution.

8. Public Finance and Fiscal Policy: Public vs. Private goods, Importance and theories of public expenditure, Nature of tax, types and principles of taxation, Types of public debt: Its raising and redemption.

9. Economic development: Economic systems, Market vs. State, Measuring economic development and use of International indices for the same, Importance of Savings and capital formation in development, Theories of economic development: Rostows' stages of economic growth, critical minimum effort, big push and unbalanced growth theory, Important international economic institutions :IMF, World Bank, WTO, BRICS etc.

10. Challenges in Indian Economy: Characteristics of Indian Economy, Progress and evaluation of five year plans, Niti Aayog and economic policies, Efforts and policy to improve agriculture productivity in India; Poverty, unemployment and skill development in India, Education health and nutrition, Population dividend, urbanization and migration in India, New trends and policy of industrial development, Fiscal policy and Budget management in India, Centre - State financial relations and co-operative federalism, Challenges of inclusive growth, Various dimensions of globalization, economic development and world trade.

(D) Civics

Political Theory:

Civics: Definition, Nature and Scope State - Definition, Elements of State Origin of State: Divine Theory, Contract theory, Evolutionary Theory, Marxist Theory

Equality, Liberty and Rights

Sovereignty and Pluralism

Law and Theories of Punishment

Constitution: Definition and Classification, Government: Parliamentary, Presidential, Unitary and Federal

Organs of Government: Legislature, Executive and Judiciary Democracy and Dictatorship

Individualism, Liberalism, Scientific socialism, Fascism

Political Thinkers: Plato, Aristotle, Hobbes, Locke, Rousseau Jermy Bentham, John Stuart Mill

Karl Marx

Manu, Kautilya, Gandhi.

Indian Government and Politics:

Contribution of Gokhle, Tilak, Gandhi, Nehru, Subhash Chandra Bose and Dr. Bhim Rao Ambedkar in Freedom struggle.

Salient Features of Indian Constitution:

Fundamental Rights and Directive Principles of State Policy.

Federal System: Centre-State Relations

President, Council of Ministers, Parliament, Supreme Court, Judicial review State Government - Governor, Chief Minister, Legislature

Casteism, Regionalism and Communalism in Indian Politics

Political parties and Pressure Groups

Problem of national Integration

Electoral System, Election Commission, Electoral reforms

Indian Administration: Role of Bureaucracy, District Administration, District Magistrate, Democratic Decentralisation and Panchayati Raj: Lokpal and Lokayukta

Indian Foreign Policy: Salient Features, India's Relations with Pakistan, Nepal and Sri Lanka.

SYLLABUS

SCIENCE

(A) PHYSICS

General Physics & Mechanics

Units and dimensions, vector and scalar quantities, products (scalar and vector), gradient, divergence & curl, Gauss and Stoke theorems and applications, Motion, force and Acceleration equations of motion, Kinetic and potential energy, Linear and angular momentum, conservation of energy and momentum, conservative and non-conservative forces, Rotatory motion, centrifugal and centripetal forces, gravitational force, central force, Kepler's laws of planetary motion, geo stationary, satellites, acceleration due to gravity, escape velocity, simple and compound pendulums.

gravity, escape velocity, simple and compound pendulums.

Moment of inertia, Theorems of parallel and perpendicular axes, Moment of inertia of ring, circular disc, sphere and cylinder, Angular momentum and Torque, Viscosity, Streamline and Turbulent motion, critical velocity. Stoke's and Poissullis formula. Bernoulli theorem and uses. Surface tension: Excess pressure inside curved surfaces, surface energy and full of liquid through capillary, Elasticity: Elastic Constants and their mutual relations Bending moment, cantilever.

Theory of relativity, variation of mass, length and time with velocity, mass energy equivalence

Heat:

Concept of heat and temperature, Various scales of temperature, absolute temperature, Thermal expansion of solids, gases and liquids, good and bad conductors, radiation of heat, blackbody radiation, Rayleigh - Jen's Law, Planck Law, Wiens law, Newtons law of cooling and Stefan's law, internal energy, Isothermal and Adiabatic changes, 1^{st} & ^{2nd} Law of thermodynamics, Carrot engine, Entropy, Maxwell's thermodynamic relations, Joules Thomson effect, Clausius clapeyron equations.

Waves and Oscillations:

Simple harmonic motion; progressive and stationary waves, Phase and Group velocities, Damped harmonic motion, forced oscillation and resonance, Sharpness of resonance, superposition of waves, Beats and Lissajous figures, Doppler effect.

Optics:

Spherical mirrors and lenses, Reactive indices, Formulae for focal lengths, Coaxial lens system, Combination of thin lenses, Eye pieces: Ramsden and Huygen's eye piece, aberrations of lenses, Human eye, Hypermetropia and myopia. Basic concepts of Interference, Diffraction and polarization, Theory of Biprism, Newtons rings, Fresnel and Fraunhoffer diffraction, Zoneplate, Gratings Double refraction, Plane, Circular and Elliptical Polarisation, quarter and half wave plates. Rayleigh criterion and resolving power of prism and grating Introduction of laser, Ruby and Helium Neon laser.

Electricity and Magnetism:

Primary and Secondary cells, internal resistance, electromotive force, combinations of resistance and capacitances, current drift velocity and conductivity, galvanometer, ammeter and voltmeter, Wheatstone's bridge and applications, Biot-Savart law, Ampere's Circuital law, electro- magnetic induction, Faradays law & Lenz's law, self and mutual inductions, Alternating current, Series and parallel resonance (LCR) circuits, para-dia and Ferromagnetism, Maxwell's electromagnetic field equations, Displacement current Electromagnetic waves,

Modern Physics:

Atomic-structure, vector atom model and Bohr model, Paull's Exclusion principle, optical and X-ray spectra, Photoelectric effect, Compton effect and Zeeman effect, Taschen-Back effect, Raman effect, de Broglie waves uncertainty principle, Schrodinger equation and applications, Radioactivity, Metal. Semiconductor and insulaters. P N Junctions, Zener diode, Transistors: Construction and applications. Logic gates, Truth tables, Boolean Algebra.

(B) CHEMISTRY

General Organic Chemistry- Hyper conjugation, Inductive effect, Resonance, and Aromaticity and their applications. Electrophiles and nucleophiles. and reaction intermediates (carbocation, carbanion, free radical, carbine and benzyne)

Reaction mechanism- $SN_„$ SN2, $E_„$ and E2 reaction, electrophilic addition of alkenes, alkynes and free radical addition of alkenes. Nucleophilic addition of carbonyl compounds. Electophilic aromatic substitution, ortho/para/meta directing groups and activating and deactivating groups inArSE reaction.

Mechanism of name reaction: Aldol reaction, Perkin reaction, Cannizzaro reaction, Benzoincondensation, Witting reaction, Reimer-Tiemann reaction, Hoffmann Bromamide reaction, Knoevenagel reaction, Michael addition.

Carbohydrates: (only glucose and fructose) mutarotation formation of ozazone, oxidation and reduction.

Polymer: Natural (starch, cellulose, rubber and silk) and synthetic polymers, Nylon, Terylene, Polyethylene, PVC, and Teflon).

Isomerism: Structural and stereoisomerism (enantiomerism, diastereomerism R/S and E/Z nomenclature).

Absorption Spectroscopy UV: Chromophore, auxochrome, bathochromic and hypsochromic shift, effect of conjugation and stability on λmax Woodward- Fieser rule for calculation of λmax of polyenes. I R: Absorption frequency of Various functional groups and Factors on which Vmax depend.

Structure of Atom - Bohr's model, quantum numbers and Modern Atomic Theory. **Periodic properties:** Atomic and ionic radii, ionization potential, electron affinity, electronegativity Lattice energy, hydration energy and their relation to solubility of ionic compounds.

Chemical bonding: Ionic, covalent, coordinate and hydrogen bonding. Shape of molecules.

Coordination Chemistry: 3d block elements, nomenclature of complexes, ligands (monodentate, bidentate, polydentate), Werner theory and valence bond theory, Biologically active coordination compounds (haemoglobin, myoglobin, vitamin B12, chlorophyll)

Oxidation and Reduction: Oxidation number, redox reaction and standard electrode potential of half cell and its application in inorganic chemistry.

Radioactivity: Natural radioactivity, radioactive decay, properties of α, β and γ Rays, half-life period, nuclear fission and nuclear fusion.

Chemical kinetics and catalysis- Molecularity, order of reaction, examples of zero, first and second order reaction, examples of catalytic and enzymatic reactions.

Thermodynamics: First and second law of thermodynamics, enthalpy of a system and capacity at constant volume and pressure, relation between Cp and Cv Extensive and intensive property.

Chemical equilibrium: Law of mass action, Le-Chatelier principle and its application, degree of dissociation, relation between Kp and Kc activity and activity coeficient.

Ionic equilibrium: Dissociation of weak acid (Ka) and weak base. (K_b), hydrolysis of salts of weak acid and Weak base, strong acid-weak base and weak acid- strong base. Solubility and solubility product. Dissociation constant of water(Kw), buffer solution and pH of the buffer solution.

SYLLABUS
SUBJECT - BIOLOGY

(A) ZOOLOGY

1. Principles of Taxonomy; concept of species and sub-species; Bionomial nomenclature.

2. Classification and general characteristics of following Phyla: Protozoa, Porifera, Cnidaria, Ctenophora, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Mollusca, Echinodemata and Chordata

3. General organization and life history of representative of various Phyla: **(i) Protozoa-** Entamoeba, Euglena, Plasmodium and Paramecium **(ii) Porifera-** Leucosolenia and Sycon **(iii) Cnidaria-** Hydra, Aurelia and Obelia **(iv) Ctenophora-** Pleurobrachia **(v) Platyhelminthes-** Fasciola and Taenia **(vi) Aschelminthes-** Ascaris **(vii) Annelida-** Nereis, Pheretima and Hirudinaria **(viii) Arthropoda-** Cockroach, Musca, Mosquito and Prawn **(ix) Mollusca-** Unio and Pila **(x) Echinodermata-** Star fish **(xi) Chordata-** Herdmania, Amphioxus; Scoliodon, Rana, Uromastrix, Columba, Rabbit.

4. Brief knowledge of (i) Protozoa and diseases (ii) Polymorphism in Cnidarians (iii) Helminthes and diseases (iv) Harmful and beneficial Insects (v) Poisonous and non-poisonous snakes (vi) Economic importance of mammals.

5. Prokaryotic and eukaryotic cells; Ultra-structure of animal cell; Function of cell organelles; Types of chromosomes; structure of genes and genetic code, Mitosis and meiosis.

6. Mendel's laws of inheritance, Linkage and crossing over, Eugenics; Organic evolution, Evidences of organic evolution, Theories of organic evolution, Lamarckism, Neo-Lamarckism, Darwinism, Neo-Darwinism, Processes of evolution, Mutation, Evolution through ages; Evolution of man

7. Ecology, Components of ecosystem and major Ecosystems; Environmental pollution_

8. Elementary knowledge of (i) digestion (ii) respiration (iii) blood and Circulation (iv) excretion (v) nerve conduction (vi) muscle contraction (vii) Endocrine glands and their function

9. Characteristics and classification of (i) carbohydrates, (ii) proteins, (iii) lipids, (iv) enzymes and (v) hormones

10. Gametogenesis; Types of eggs and cleavage, Embryonic development ofAmphioxus, Frog and Chick, Placenta in mammals,

11. Biogeography, Zoogeographical realms and their characteristic fauna.

(B) Botany

Viruses- Definition, Nature, Transmission Structure of TMV , Bacteriophage, Viroids and Prions, Economic Importance of viruses.

Bacteria- Structure of Bacterial Cell, Nutrition, Reproduction and Economic Importance.

Fungi - General characters, structure, nutrition, reproduction and economic importance of fungi, Classification (Alexoppolus and Mims), characteristic features of different classes. Structure and life cycle of Rhizopus, Pythium, Albugo, Aspergillus, Agaricus, Puccinia, Ustilago and Alternaria.

Algae: General characters, Classification, characteristic features of different classes, Algal pigments, Economic Importance of algae. Structure and life cycle of Chlamydomonas, Volvox, Oedogonium, Vaucharia, Chara, Ectocarpus, Batrachospermurn„ Polysiphonia and Blue Green Algae (Nostoc and Anabaena),

Lichens- Nature, Types, Structure, Reproduction and Economic Importance

Bryophytes- General character, Classification, characteristic features of different classes, Reproduction and Economic Importance of bryophytes Structure and life cycle of Riccia, Marchantia, Anthoceros and Funaria.

Pteridophytes- General characters, Classification, characteristic features of different classes. steler system and economic importance of pteridophytes.

Structure and life Cycle of Lycopodium. Selaginella, Equisetum and Marsilea. Heterospory and seed habit.

Gymnosperm- General Character and affinities, Life cycle, classification characteristic features of different classes, Distribution and Economic importance.

Structure and life cycle of Cycas, Pinus and Ephedra

Paleobotany — Fossils types, Fossilization, geological time scale and its importance. Structure and Reproduction of Rhynia

Taxonomy Of Angiosperms - Binomial nomenclature, Bentham and Hookers System of Classification, Important Botanical Garden and Herbaria

Distinguishing features Of Ranunculaceae, Papavaraceae, Brassicaceae, Malvaceae, Fabaceae, Rosaceae, Cucurbitaceae, Apiaceae, Asteraceae, Rubiaceae, Apocynaceae, Solanaceae, Acanthaceae, Lamiaceae, Euphorbiaceae, Liliaceae and Poaceae.

Anatomy of Angiosperrns- Tissue and tissue system, Anomalous secondary growth, anatomy of root, stem

Anatomy of Tinospora root, Dracaena stem, Bignonia stem, Boerhavia stem and Nyctanthes stem

Economic botany- Timber, fibers, oils, Medicinal, Beverages, Spices and condiments yielding Plants.

Embryology-: Structure of anther, microsporogenesis and development of male gametophyte, Structure of ovule, megasporogenesis, Development and organization of embryo Sac, pollination, fertilization, development of Endosperm, Embryo development, Parthenocarpy, Apomixis and polyembryony

Cytology-Ultra Structure of plant cell with their typical cell organelles, Cell division and cell cycle.

Genetics- Chromosome structure, chromosome aberrations, Law of inheritance, Gene interaction, Linkage and crossing over, Mutation and Polyploidy.

Plant Physiology- Water absorption, ascent of sap, Transpiration, Mineral nutrition and deficiency, Photosynthesis, Respiration, Phytohormones, Vernelization, seed germination and dormancy, nitrogen cycle, Photoperiodism.

Biochemistry-: Classification, properties and biological role of carbohydrates, proteins, lipids, nucleic acid and enzymes.

Environmental Botany- Environmental factors, soil conservation, Ecological adaptations in plants, ecological pyramids, food chain and food webs, Ecosystem, plant succession, pollution, plant communities and biodiversity, in Situ and ex situ conservation.

Pant Pathology- General symptoms of bacterial, fungal-and viral disease. Different methods of plant disease control.

Symptoms, disease cycle and control measures of late blight of potato, early blight of potato, White rust of crucifers, black rust of wheat, loose smut of wheat, citrus canker, little leaf of brinjal, yellow vein mosaic of bhindi.

Biotechnology and genetic engineering- Importance in human welfare, vectors. recombinant DNA technology, transgenic plants, tissue culture, biopesticides and biofertilizers

Molecular Biology: Gene Concept, genetic code, Nucleic acids, replication of DNA, gene expression and Regulation.

SYLLABUS
Subject: Mathematics

1-Algebra Theory of equations, A.P., G.P. and H.P., sum of squares and cubes of natural numbers, permutation and combination, binomial theorem, exponential and logarithmic series. Algebra of sets, relation and function, types of relations, equivalence relation, types of functions, composition of functions, inverse of a function, binary operations on a set, group, subgroup, normal subgroup, quotient group, cyclic group, order of an element in a group, permutation group, even and odd permutations, Lagrange's theorem and its consequences, group homomorphism. Determinants, types of matrices, algebraic operations on matrices, symmetric and skew symmetric matrices, Hermitian and skew Hermitian matrices, inverse of a matrix, rank of a matrix, application of matrix in solving system of linear equations, eigen values, eigen vectors of a matrix, Cayley-Hamilton's theorem and its applications.

2- Real Analysis Sequence of real numbers, bounded and monotonic sequences, convergent sequences, convergence of series of positive terms, comparison test; Cauchy's nth root test, ratio test, Raabe's test, logarithmic test. De Morgan and Bertrand test. alternating series and Leibnitz test.

3- Vector Analysis Operations with vectors, scalar and vector product of two and three vectors and its applications, vector differentiation, gradient, divergence and curl,

4-Complex Analysis Complex numbers, functions of a complex variable, De-Moivre's theorem and its applications, n^{th} roots of unity, exponential, direct and inverse trigonometric, hyperbolic and logarithmic functions of a complex Variable. Continuity and differentiability of complex functions, Cauchy-Riemann equation, analytic functions, harmonic functions.

5. Calculus Limit of a function, continuity and differentiability, Rolle's theorem, Langrange's mean value theorem, L'Hospital rule, successive differentiation, tangent and normal, maxima and minima, Increasing and decreasing functions. Limit, continuity and differentiability of function of two variables, partial differentiation. Methods of integration, definite integrals, application of integration to find area bounded by curves, length of a curve, surface area and volumes of solids of revolution.

Solutions of differential equations of first order and of first degree.

6-Geometry

General equation of second degree and its classification as pair of straight lines, circle, parabola, ellipse and hyperbola, Asymptotes of hyperbola, Transferring of origin and rotation of axis.

Direction cosines and direction ratio's of a line, Cartesian and Vector equation of a plane, Cartesian and vector equation of a line, coplanar and skew lines, shortest distance between two lines, angle between two planes, two lines, a line and a plane, distance of a point from a plane, sphere, cone and cylinder.

7-Statistics and Probability

Frequency distribution, Graphical representation of statistical data, Measures of central tendency - Mean, median and mode of grouped and ungrouped data. Theorems on addition and Multiplication of probability.

Number system, basic theorem of algebra, triangle theorem, quadratic equation, trigonometry, coordinate geometry and field measurement.

SYLLABUS
COMMERCE

1- Accountancy: Concept and Principles; Double Entry System- Journal, Ledger, Trial Balance, Final Accounts with adjustment entries, Partnership-Admission, Retirement and Death Accounts, Company Accounts – Types of shares, Accounting for issue and forfeiture of shares, Royalty, Hire Purchase and Departmental Accounts.

2-Business Organization & Management: Meaning and nature of Trade and Commerce, Forms of Business Organization – Sole Trader, Partnership and Company. Nature and functions of marketing, Indigenous and Foreign trade, Management - nature, scope and principles, Contributions of F.W. Taylor and Henry Fayol, Functions of management. Planning, organizing, staffing, Directing and Controlling, Business environment. Economic, Social, Political & Cultural.

3-Business Economics: Concept and Scope, Demand Curve analysis, Elasticity of Demand, Marginal utility, Total utility and Law of diminishing marginal utility, Laws of returns, Price determination under perfect competition and monopoly, Trade cycle, Population theories. Indian Economy- position, problems and suggestions.

4-Money & Banking: Definition, scope and functions of Money, Importance of money in capitalistic and socialistic economy, Gresham's Law, Quantity theory of money, Inflation and deflation, Types of Banks, Functions of Commercial Banks and Reserve Bank of India, Digital Banking and E-Banking.

5-Statistics: Meaning, scope and importance, Collection, Classification and Tabulation of data, Measures of Central Tendency- Mean, Median and Mode, Measurement of Dispersion.

Auditing: Definition, objectives and importance of auditing, Meaning, types and importance of Vouching, Procedures of vouching of primary books.

Accountancy -

1. Indian book keeping System - Introduction, cash book, deposit ledger, debit ledger
2. Bank reconciliation statement form
3. Ordinary account related to negotiable Promissory note, cheque, bill, hundi, promissory note

Business organisation and management-

1. Organisation and functioning of business office, accounting of income and outgoing letters
2. Copying
3. Correspondence related to inquiries and orders
4. Destruction, indexing, messaging systems
5. Time and labour saving device in business office Invoice and sales details
6. Domestic trade wholesale, retail trade invoice and sales details

Business economics -

1. Definition, scope of economics, terminology related to economics like - utility, wealth, price, value etc.
2. Classification and characteristics of needs
3. Expenditure and saving Intention, mutual relationship, social Importance of saving
4. Means of origin - intention, characteristics and Importance

Money and Banking

1. General introduction to mudra system in India
2. State bank of India, co-operative bank, native banket.

State bank of India, co-operative bank, native banket.

Syllabus
Home Science

1- Extension Education

Unit -1

Extension Education — Concept meaning, goals principles and Functions. Formal, Non-formal and informal education.

Educational Psychology- Concept meaning, aims and it relationship With extension education and its application in Extension Education.

Unit-2

Community Development- Concept, Meaning, Scope, Objective and organization. Panchayati Raj System - concept organization, evaluation and its functions

Development Programmes - run by State and Central Govt. for the welfare of women and children under different five year plans.

Leadership — Concept, definition, types functions and principles Dynamics of leadership.

Unit-3-

Communication Process- concept, meaning, approaches, elements, models, channels, theories, problems and barriers of communication. Communication Skills - Speaking, writing and gestures.

Unit-4-

Extension teaching methods and audio-visual aids and their classifications.

Unit-5-

Programme Planning- concept, meaning, objectives, principles and types. Planning, controlling, monitoring and evaluation.

Unit-6-

P.R.A. (Participatory rural appraisal) – concept, meaning, tools and methods.

Unit-7-

Women empowerment and entrepreneurship

2. Home Management and consumer Education

Unit-1 Home and family:- Definition of Home, Types of house, criteria of selection of house, Definition of family and its types and their merits and demerits and contribution of family to the society. Concept of ideal Indian house and family. House wife as a consumer: Definition of consumer, problems rights sources and responsibilities and laws and acts related to consumer.

Unit-2 Managements of time and energy: Principle of Saving, time and energy, importance of time, source of saving. Work simplification, importance, Principles work chart, and work distribution.

Unit-3 Money management and consumer Education Family Income:- Various sources of family income and its type money and real income, direct and indirect income, supplementary family income, need, ways, procedure for keeping households accounts.

Unit-4 Budget Saving and investment: meaning and importance of saving, ways and methods of investment Bank, such as Nationalised and Private Banks, Post Office, L.I.C., P.P.F., P.L.I., Mutual Funds, various Insurance, tax saving, GST Laws.

Unit-5 Interior decoration: use of principle of arts and an- elements in interior decoration.

3-Foods and Nutrition

Nutrition, foods, food groups, Sources, functions, nutrients, Balanced diet, Type of Nutrition- Good nutrition, Mal nutrition, Over nutrition, Composition of foods, Adulteration, Food additives, Food hygiene, Preservation, Methods of Cooking, Types of kitchen, Food Microbiology, Diseases caused by Microbes Elementary Physiology of Different system- (Digestive, Excretory, circulatory, Blood, Blood groups, Haemoglobin, Diet-during different disorders-Diarrehea Constipation, Blood pressure, Dibeties, Kidney disorders, Elementary chemistry of carbohydrates, Proteins, Fats, function, sources and classification and deficiency symptoms, Minerals and vitamins Community nutrition, nutrition education, objectives and functions, Assessment of nutritional status, R.D.A. Nutrition education programmes.

4-Human development and family studies Meaning, Concept, significance, developmental tasks and stages. **Principles of development-** prenatal development, birth process and stages. **Life span development-**Physical, motor, social, emotional, moral, coginitive, speech, play, creativity and personality development. **Preschool Education-** need, significance and importance, educational philosophies and programmes. **Theories of Human Development-** Frued, Erikson, Piaget, Pavlav and Skinner, Kohlberg, Maslow. **Family Relationships-** Influence of family, Parental attitude, child training methods on family relationships, Broken homes, single parents families and reconstituted families, Juvenile delinquents. **Children with special needs-** Definition, labelling, mainstreaming, classification, Physically challenged, mentally challenged, speech impairment, hearing impairment, Visual impairment and learning disabilities.

5-Clothing and Textiles-

Importance, classification of fibres, its chemistry and manufacture. History of Textiles, Traditional textiles, Spinning weaving, knitting, history manufacture properties of cotton linen wool silk rayon nylon Sewing machine and its care, Pattern making, washing- care, colouring of clothes, selection of fabrics at different occasions. Embroidery, finished, Tie and Dye, and Batic printing, Factors affecting selection of clothes. Washing techniques, stain removal.

6- Human Physiology

Cell and Tissues- Meaning, Definition and structure, Type of tissues (with example)
Skeletal- Muscular system structure, type, function, joint types, Cartilage structure of muscles.

Digestive System:- introduction of alimentary canal and its parts, mouth and oral cavity, pharynx, oesophagus stomach and intestine

7- Research and statistics: Research its meaning scope, objectives, sources of data, tools and techniques of research, Different type of researches and its application. Frequency, mean, mode median, diagrammatic and graphic presentation of data, primary and secondary data.

8- Health and Hygiene

Unit 1- Definition of health and Hygiene, primary health care principles, common accidents and care at home. measuring of blood pressure, pulse and body temperature. types of pollution and prevention. health check-up.

Unit -2 - Environmental Security

(i) Energy- use of different types of smokeless chulha and use of solar cooker and induction plate.

(ii) Water security-

safe drinking water techniques

importance of quality of water, methods of purification of water such as filtering, use of faucet tap water, water alarm, use of clorine and use of modern technology.

(iii) Food Security- Grain storage methods, methods of cooking and preservation techniques.

(iv) Livelihood Security - Job opportunities in Govt. And Private Sector. self startup (self employment)

9- First Aid and Health

First aid-Meaning, principles, Things required in first aid box

Bandages- Types, uses, types of fracture, Sprain, Artificial respiration, dislocation, bleeding and pressure point.

Care & Maintenance- Care of patient and patient room, house-hold remedies for common Diseases.

SYLLABUS
Subject: English
Section 1
English Language

A.Unseen prose and poetry passages for language comprehension and appreciation

B. Grammar: Punctuation, parts of speech, spellings, word formation and vocabulary, tense, Narration, Conditional sentences, Concord, Phrasal verbs and idiomatic expressions, transformation and synthesis

C. Translation from English to Hindi and Hindi to English

D. Letter writing and dialogue writing

Section 2
Literatures in English

A. Literary Forms and Movements with special reference to allegory, ballad, ode, sonnet, blank verse, epic, mock epic, heroic couplet, lyric, elegy and other stanza forms, dramatic monologue, free verse and rhyme metre, Dramatic forms like tragedy, comedy, tragic-comedy, romance and One-act plays, Biography, autobiography, memoir and travel writing, Fictional forms, Different types of essays, Renaissance and Reformation, Neo-classicism, Metaphysical Poets, Romanticism, Pre-Raphaelites, Modernism, Impressionism, Expressionism and Surrealism understanding and identification of figures of speech.

B. Poetry: Trends and movements in poetry in English with special reference to the following: Shakespeare's sonnets (Sonnet No. 29: "When in disgrace with fortune and men's eyes" and Sonnet no. 138 "When my love swears that she is made of truth"), Milton's "On His Blindness" and Paradise Lost (bk 1, II. 1-26), John Donne's "Canonization", Pope's Rape of the Lock(Canto I), Gray's "Elegy Written in a Country Churchyard", William Wordsworth's (a) "Tintern Abbey" and (b) "The World is too Much with Us", Percy B. Shelley's (a) "Ode to the West Wind" (b) "To .a Skylark", John Keats' (a) "Ode on a Grecian Urn" (b) "La Belle Dame sans Merci", Tennyson's (a) "Break, Break, Break" (b) "Ulysses", Robert Browning's (a) "My Last Duchess" (b) Prospice", Arnold's (a) "Dover Beach" (b)"Memorial Verses", W. B. Yeats' (a) "The Second Coming" (b) "Sailing to Byzantium", T. S. Eliot's "The Waste Land", W. H. Auden's "In Memory of. W. B. Yeats", Ted Hughes' "Crow Alights", Philip Larkin's "Wants", Whitman's "0 Captain! My Captain!", Emily Dickinson's "Success is Counted Sweetest", Robert Frost's (a) "Birches" (b) "Stopping by the Woods", Rabindranath Tagore's From Gitanjali (11th, "Leave the Chanting' and 12th "Fruit Gathering"), Nissim Ezekiel's .(a) "Night of Scorpion" (b) "Philosophy", Kamala Das's "An Introduction", A K Ramanujan's "Obituary" and Derek Walcott's "A for Cry from Africa"

C. Drama: Trends and movements in drama in English with special reference to the following: Shakespeare's Macbeth, Twelfth Night and Merchant of Venice, Ben Jonosn' Every Man in his Humour, Dryden's All for Love, Bernard Shaw's Arms and the Man, Galsworthy's Justice, Harold Pinter's The Birthday Party, Eugene O' Neill's The Hairy Ape, Arthur Miller's. All my Sons and Girish Karnad's Hayavadana.

D. Prose and Fiction: Trends and movements in prose and fiction in English with special reference to the following: Francis Bacon's "Of Studies" and "Of Truth", Addison's "Sir Roger at Home' "Will Wimble", Steele's "The Spectator Club" Lamb's "Dream Children", E.V. Lucas' "Tight Corners", A. G. Gardiner's "In Defence of Ignorance", Bertrand Russell's "The Road to Happiness", Richard Wright's "Twelve Million Black Voices", Mahatma Gandhi's My Experiments with Truth, Jawaharlal Nehru's The Discovery of India, Maughm's "The Luncheon"; Anita Desai's "A Farewell Party" Katherine Mansfield's "The. Fly", 0' Henry's "The Last Leaf" ; Fielding's Joseph Andrews, Jane Austen's Pride and Prejudice, Dickens' Great Expectations, Hardy's The Mayor of ,Casterbridge, George .0rwell's Animal Farm, Woolfs Mrs- DalloWay, Golding's Lord of the Flies', Hawthorne's The Scarlet Letter, Hemingway's The Old Man and the Sea, Steinbeck's The Grapes of Wrath, Raja Rao's Kanthapura, R K Narayan's The Bachelor of Arts; Kamala' Markandeya's Two Virgins and Chinua Achebe's Things Fall Apart.

1. Post modern literature
2. Colonial literature
3. Post colonial literature
4. Indian writings and English

SYLLABUS
Subject: Hindi

हिन्दी साहित्य का इतिहास– आदिकाल, भक्तिकाल–संत काव्य, सूफी काव्य, रामकाव्य, कृष्ण काव्य, रीतिकाल, आधुनिक काल – भारतेन्दु युग. द्विवेदी युग. छायावाद, प्रगतिवाद, प्रयोगवाद, नयी कविता।

हिन्दी गद्य साहित्य का विकास– निबन्ध, नाटक, उपन्यास, कहानी, जीवनी, आत्मकथा, संस्मरण, रेखाचित्र, यात्रा–साहित्य, व्यंग्य।

हिन्दी के रचनाकार एवं उनकी रचनाएँ

काव्य का स्वरूप, रस– अवयव, भेद, छन्द (दोहा, रोला, सोरठा, चौपाई, बरवै, छप्पय, हरिगीतिका, इन्द्रवज्रा, उपेन्द्रवज्रा, वंशस्थ, बसंततिलका, कवित्त, सवैया)– लक्षण और उदाहरण, अलंकार (अनुप्रास, यमक, श्लेष, वक्रोक्ति, उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, प्रतीप, संदेह, भ्रांतिमान, अत्युक्ति, अनन्वय) काव्यगुण, काव्य दोष।

हिन्दी की विभाषाएं, बोलियाँ, हिन्दी की शब्द सम्पदा, हिन्दी की ध्वनियाँ, देवनागरी लिपि–नामकरण, विकास, विशेषताएं, सीमाएं, सुधार के प्रयत्न।

व्याकरण – कारक, लिंग, वचन, उपसर्ग, प्रत्यय, वर्तनी एवं वाक्य–शुद्धीकरण, पर्यायवाची, विलोम, श्रुति समभिन्नार्थक शब्द, वाक्यांश के लिए एक शब्द, मुहावरा, लोकोक्ति।

संस्कृत साहित्यः

(क) संस्कृत के प्रमुख रचनाकार एवं उनकी रचनाएं– कालिदास, भवभूति, भारवि, माघ, दण्डी. श्रीहर्ष, बाणभट्ट ।

(ख) सन्धि–स्वर, व्यंजन एवं विसर्ग, समास, शब्द रूप, सर्वनाम रूप एवं धातु रूप, कारक प्रयोग।

(ग) अनुवाद

SYLLABUS
Subject: Agriculture

Definition, concept, scope and development of Agronomy, Climate based classification of crops. Environmental factors affecting crop production. Weather forecast. Scientific cultivation of important cereals, pulses, Oil seeds, fodder. Fibre and cash crops.

Concept of horticulture, its importance and scope Orcharding and kitchen gardening. Scientific cultivation of major fruits and vegetable crops of U.P. Principles and methods of fruit and vegetable preservation. Causes of spoilage of fruits and vegetable products.

Definition of soil. Soil formation and development Physical, Chemical and Biological properties of soil. Soils of U.P. Essential plant nutrients and their deficiency symptoms. Manures, fertilizers and biofertilizers, problem soils and their reclamation. Soil erosion, causes and control measures. Soil testing.

Absorption of water and plant nutrients. Elementary idea of photosynthesis, respiration and transpiration. Types of seed and their quality.

Sources and methods of irrigation. Quality of irrigation water. Moisture conservation . Types of drainage-their merits and demerits.

Classification of pesticides, control measures of different weeds, insects and diseases of important cereal, fruits and vegetable crops.

Farm machinery and their maintenance. Tillage, intercultural and spraying equipments. Important breeds of cows, buffaloes, sheep and goats. Methods of animal breeding. Principles of feeding. Maintenance and production ration: Description, symptoms, diagnosis and treatments of anthrax, foot and mouth, disease, rinderpest, mastitis and milk fever.

Farm records. Revenue records of holdings: Village and agricultural development programmes of Central and State Governments Agricultural Universities, KVK and other extension organizations.

SYLLABUS
Subject: Computer

Digital Logic and Circuits and Discrete Mathematical Structures: Number Systems, Boolean algebra and Logic Gates, Simplification of Boolean Functions, Combinational Circuits, Sequential Circuits, Memory circuits, Sets, Relations & Functions, Mathematical Logic, Boolean algebra, Combinatorics & Recurrence Relations, Graph theory.

Computer Organization and Architecture: Stored Program Concept, Components of a Computer System, Machine Instruction, Op codes and Operands, Instruction Cycle, Organization of. Central Processing Unit, ALU, Hardwired & Micro programmed Control Unit; General Purpose and Special Purpose Registers. Memory Organization, I/O Organization, Functioning of CPU, Instruction Formats, Instruction Types, Addressing Modes, Common Microprocessor Instructions, Multi-core Architecture, Multiprocessor and Multicomputer.

Data Structures and Algorithm: Definition and types, Linear Structures, Non-Linear Data Structures, Hashing and Collision Resolution Techniques. Searching and Sorting, Algorithms, Analyzing. Algorithms, Complexity of algorithms, Growth of functions, Performance measurements, Advanced Data Structures, Red-Black trees, B - trees, Binomial Heaps, Fibonacci Heaps. Introduction to Design Techniques: Divide and Conquer, Greedy algorithms, Optimal ReliabilityAllocation, Knapsack, Minimum Spanning trees Prim's and Kruskal's algorithms, Single source shortest paths - Dijkstra's and Bellman Ford algorithms. Dynamic Programming, Kanpsack, All pair shortest paths - Warshal's and Floyd's algorithms, Resource allocation problem. Backtracking, Branch and Bound with examples such as Travelling Salesman, Problem, Graph Coloring, n-Queen Problem, Hamiltonian Cycles and Sum of subsets. Algebraic computation, fast Fourier Transform, String Matching, Theory of NP- completeness, Approximation algorithms and Randomized algorithms.

Problem Solving through C Programming: Basic Programming Concepts, Introduction to: C Programming Language and programming in C

Object Oriented Techniques: Object orientation, Encapsulation, information hiding, polymorphism, generosity, Object Oriented modelling, UML, Structural Modelling, Behavioural. Modelling and Architectural Modelling. Object Oriented Analysis, Object oriented design, Object design. Structured analysis and structured design (SA/SD), Jackson Structured Development (JSD). Object oriented programming style Introduction to Java, Java Beans, Enterprise Java beans (EJB), Java Swing; Java as internet programming language. The connectivity model, JDBC/ODBC, Bridge, Introduction to servlets.

Operating System: Definition, Design Goals, Evolution, Structure and Functions of Operating System. Process Management, Memory Management, Concurrent Processes, File and Secondary Storage Management, UNIX and Shell Programming, Windows Programming

Database Management Systems: Database Systems, View of Data Models, Database Languages, DBMS Architecture, Database Users and Data Independence. ER Modelling, Relational Model, Introduction to SQL Relational Database Design, Database Security, Transaction Management, introduction to Query. Processing and Query Optimization, Concurrency Control, and Recovery Techniques.

Computer Networks: Network definition, network topologies, network classifications, network protocol, layered network architecture, overview of OSI reference. Model, TCP/I P protocol suite. Data Communication Fundamentals and Techniques, Networks Switching Techniques and Access mechanisms, Data Link Layer Functions and Protocol, Multiple Access Protocol and Networks, Networks Layer Functions and Protocols, Transport Layer Functions and Protocols, Overview of Application layer protocol.

Software Engineering: Definition, Software development, and life-cycle models, CMM, Software Quality, role of metrics and measurement. Requirements Analysis and Specification, Software Project Planning, Software Architecture, Software Design and implementation, Software Testing and Reliability.

Internet Technology, Web Design and Web Technology: Internet Technology and Protocol, Internet Connectivity, Internet Network, Services on Internet, Electronic Mail, Current Trends on Internet, Web Publishing and Browsing, HTML Programming Basics, Interactivity Tools Internet. Security Management Concepts, Information Privacy and Copyright Issues, Web Technology: protocols, development strategies, applications, Web project and team. Web Page Designing, Scripting, Server Site Programming.

System Analysis And Design: Analysis and Design of a System, documenting and evaluating the system, Data Modelling, Development of Information Management System, Implementation, Testing and Security Aspects.

Information Security and Cyber Laws: Distributed Information Systems, Role of Internet and Web services, Threats and attacks, Assessing-Damages, Security in Mobile and Wireless Computing, Security Threats to E-Commerce, E—Governance and EDI, Concepts in Electronics payment systems, E-Cash, Credit/Debit Cards. Physical -Needs Disaster and Controls, Basic Tenets of Physical Security and Physical Entry Controls, Access Control. Model of Cryptographic Systems, Design and Implementation Issues, Policies, Network Security, Attacks, Need of Intrusion 'Monitoring and Detection, Intrusion Detection. Security metrics- Classification and their benefits. Information Security & Laws, Ethics- Ethical Issues, Issues in Data and Software Privacy. Overview and types of Cyber Crimes.

Security-Needs Disaster and Controls, Basic Tenets of Physical Security and Physical Entry Controls, Access Control. Model of Cryptographic Systems, Design and Implementation Issues, Policies, Network Security, Attacks, Need of Intrusion 'Monitoring and Detection, Intrusion Detection. Security metrics- Classification and their benefits. Information Security & Laws, Ethics- Ethical Issues, Issues in Data and Software Privacy. Overview and types of Cyber Crimes.

Computer Graphics Types of computer graphics,-Graphic Displays Random scan displays, Raster scan displays, Frame buffer and video controller, Line and Circle generating algorithms, Transformations, Windowing and Clipping, Three Dimensional graphics, Curves and Surfaces, Hidden Lines and Surfaces.

SYLLABUS
SUBJECT- ART

Unit-1

Elements of Painting, Medium, Technique and principles of Composition.

(A) Ancient Traditional and modern medium and Techniques of Painting.

Unit-2

Concepts of Eastern and Western Aesthetics-Definitions, Thinkers, Principles of Art and Inter-relationship of arts. (A) Six limbs of Indian Art.

Unit-3

Indian Pre-historic, Ancient, Classical, and Medieval Art-Development, Style and Specific area.

(A)Indian Modern, and Contemporary Art-Art Groups, Painters, Sculptors, Print-makers, Thinkers and their concepts.

Unit-4

European Pre-historic, Ancient, Classical and Medieval Arts- Development, Style and Specific Area.

(A) Modern Art of Europe, Art-Groups, Isms, Painters, Sculptors, Print-makers, Thinkers and their concepts.

Unit-5 Indian Contemporary Art-Art Scenerio Artists, Art activities and Current trends. Art market, Art Criticism and Art- thought.

Syllabus
Music

1- Vocal

Vibration and Frequency, Nad and its Characteristics Study of Swar and Shruti, Placement of Shuddha and vikrit Swaras according to Sharangdev, Ahobal, Lochan SriNiwas, Rammamatya and Pt. Bhatkhande. Study of the 72 mela system of Pt Vyankatmakhi, study of 10 thaats of Bhatkhande and modern 32 Thatas, placement of shuddha and Vikrit Swaras on the 36"

string of veena according of Pt. Sri Nivas, Sarana- chatustaie, Musical quality of Sound (Swayambhu Swara), Jati Raag, Gram Moorchana Consonance - Dissonance, Harmony-melody, Echo, Resonance, Reverberation, Various kinds of chords Salient Features of western Staff-Notation and its comparison with Pt. Bhatkhande and Pt. Vishnu Digambar Pulaskar.

Notation system:

Classification of Ragas, Classification of instruments, Comparative Study of Northern and Southern,Music Systems (with special reference to Raga and Tala), Study of the main Gharans of Vocal music, History of Ancient, Medieval and modern period of music, Short notes on Varna, Alankar, Pakad, Vakara Swara, Kan Murki, Gamak, Kampan Khatka, meend Vadi- Samvadi, Anuvadi, Vivadi, Grah, Ansha, Nyas, Geet, Margi, Deshi ,Nibaddha, Anibaddha, Gaan, Ragalaap, Roopalaap, Alaptigaan, Alpatva-Bahutva, Abirbhav- Tirobhav, Ardhadarshak Swar, Raga, and its Time -theory , Sandhi Prakash Raga, Poorv and Uttar Raga, Parmal- Praveshak Raga, Merits and demerits of Gayaka, Study of Styles of Dhrupad, Dhamar, Thumari, Tappa, Tarana, Chaturang , Trivat.

Study of main Treaties of music: Natyashastra, Brahadeshi, Sangeet Ratnakar, Biographies of eminent artists — Swami Haridas, Tansen, Pt. Bhatkhande Pt. Vishnu Digambar Pulaskar Ameer Khusro, Pt. Ravishankar, Pt. Onkar nath Thakur. Nikhil Bannergee.

Study of the main ragas : Kalyan , Bhairav , Bhairavi, Bilawal, Todi, Poorvi , Asavari, Desh, Baggeshwari, Marwa, Kafi, Khamaj, and comparative study of these Ragas.

2. Instrumental:

Study of different instruments-

Tabla, Sitar, Tanpura, Pakhawaj, Sarangi, Guitar, Voilin, Harmonium, Ten Pranas of Talas, Varna, Laya, and study of Laykaries; Deshi and Margi talas, study of Sam-Visham Talas, Shortnotes on taal- Tali, theka, Sam, Khali, Avartan, Vibhag, Peshkcara, Gat, Kayda, Tukra, Varieties of Paran, Palta, Rela, Peshkara, Damdar and Vedamdar, Tihai,

Mukhra,Tripalli, Chaupalli, Chakradaar bol, Laggi, Ladi, Jhala, Jod, krantan, Jamzama, Murki, Parts of Tabla, Tuning methods of Tabla, Recognition of instruments by its given bols, recognition of talas by given Bols of Theka, Historical description of instruments, Stuti ke bol, Tukra, Paran ke bol, Navhakka. Study of different Pairs,-Kayda-Peshkra, Chakardar Gat-Tukra, Laya, Tala, Rela.

Study of various Talas-Teental, Chartal, Ektal, Dhamar, Roopak, Keharwa, Adachartal, Deepchandi, Gazjhampa, Teevra, Jhoomra, Seven Talas of Karnatak Music, Study of different Gharanas and Baj of Sitar and Tabla, Biography of Eminent artists- Pt. Siddhar khan, Pt. Kanthe Maharaj„ Pt. Gudai Maharaj, Pt. Ram Sahai,Ahmed Jaan Thirakwa, Nana Saheb Panse, Pt Bhairav Sahai, NikhilBannerjee, Manilal Nag, Vilayat Khan, Imdad Khan, Ali Akbar Khan, LaIJi Srivstava.

Syllabus
Subject-Physical Education

1. Principle and History of Physical Education- Meaning and Definition of Physical Education, Its Aim and Objectives, Need and Importance of Physical Education, Biological Basis of Physical Education, History of Physical Education in India and world. Olympic game, Asian Game, Common Wealth Game, Afro Asian Game, Important Sports Institutes of India.

2. Psychology in Physical Education- Definition and Importance of Psychology in Physical Education, Define Learning, Laws of Learning and Transfer of Learning, Principle of Learning, Learning Curve, Developmental Characteristics at Different stages of Development, Meaning and Types of Intelligence, Intelligence Quotient, Theories of Intelligence, Meaning and Definition of Personality, Types of Personality, Meaning and Types of Motivation, Play Theory.

3. Organisation and Supervision in Physical Education- Meaning and Importance of Organisation and Supervision, Budget, Principle of Management, Leadership and its Types, Competition - Knockout, League, Combination and Challenge, competition. Extramural and Intramural Competition, Meaning and definition of Recreation, Aims and Objectives of Recreation, Meaning of Camp, Aims and objectives of camp, Types of camp.

Extramural and Intramural Competition, Meaning and definition of Recreation, Aims and Objectives of Recreation, Meaning of Camp, Aims and objectives of camp, Types of camp.

4. Anatomy and Physiology in Physical Education- Meaning and Definition of Anatomy and Physiology, cell and tissue, Muscular System, Circulatory System, Respiratory System, Digestive System, Excretory System, Nervous System, Skeleton System, Endocrine System, Sense Organ, Effect of Exercise on different system.

5. Kinesiology in Physical Education-Meaning and Definition of Kinesiology, Fundamental Movement in Body, Structure and Types of Joint, Newton's Law of motion, Levers, Equilibrium, Centre of Gravity, Force, Axis and Planes,

6. Sports Medicine- Meaning of Body Posture and Common deformities, Sports Injuries (Common Sports Injuries and their treatment), Therapeutics modalities and procedures, Massage and its Types.

7. Health Education- Meaning and definition of Health, Dimensions of Health, Meaning, Objective, scope and Principles of Health Education, Communicable Diseases and treatment, Nutrition, Personal Hygiene.

8- Sport's Theory And Rules- Athletics, Football, Hockey, Volleyball, Basketball, Kabaddi, Kho-Kho, Boxing, Gymnastics, Cricket, Hand Ball, badminton, Lawn Tennis, Swimming, Yoga.

9. Sports Training- Meaning, Definition and Principles of sports Training, Qualities and responsibilities of good coach and Official, Meaning and component of physical fitness, Load andAdaptation, Super compensation, Periodization, Training Methods.

10. Test and Measurement- Meaning, Definition and Importance of Test and measurement, Criteria of a good Test, AAPHER Test, Harvard Step Test, Soccer skill Test, Hockey skill Test, Volleyball Skill Test, Flexibility Test.

Syllabus
Subject-Sanskrit

गद्य, पद्य एवं नाटक–

अधोलिखित – ग्रन्थों के निर्धारित अंशो के आधार पर शब्दार्थ–विवेचन, सूक्ति, व्याकरणात्मक टिप्पणी एवं चरित्र–चित्रण से सम्बद्ध प्रश्नः कठोपनिषद् (प्रथम वल्ली), श्रीमद्भगवद्गीता (द्वितीय अध्याय), अभिज्ञानशाकुन्तलम् (चतुर्थ अंक), मेघदूतम (पूर्वमेघ), किरातार्जुनीयम् (प्रथम सर्ग) कादम्बरी–(शुकनासोपदेश), नीतिशतकम् (सम्पूर्ण) उत्तररामचरितम् (तृतीय अंक) एवं शिवराजविजयम्, (प्रथम निःश्वास)।

व्याकरण–

लघुसिद्धान्तकौमुदी के आधार पर प्रत्याहार, सन्धि, समास, कारक, प्रत्यय एवं शब्दरूपों तथा धातु– रूपों से सम्बद्ध प्रश्न।

प्रत्याहार– प्रत्याहारों का परिचय ।

सन्धिः – अच् सन्धि, व्यंजन सन्धि एवं विसर्ग सन्धि ।

समासः – अव्ययीभाव, तत्पुरूष, कर्मधारय, द्विगु, द्वन्द्वएवं बहुव्रीहि समास ।

कारकः– विभकत्यर्थ–प्रकरण ।

प्रत्ययः– क्त्वा (ल्यप), क्त, क्तवतु, शतृ, शानच, ल्युट, तुमुन, ण्वुल, तृच, अनीयर, तव्यत्, घञ, क्तिन, मतुप एवं अण् प्रत्यय ।

शब्द– रूप अकारान्त, इकारान्त, उकारान्त एवं ऋकारान्त, पुल्लिंग, स्त्रीलिंग तथा नपुंसकलिंग शब्दों के रूप।

सर्वनाम–शब्दः– सर्व, यत्, तत्, किम, एतत्, इदम्, अस्मद्, युष्मद् शब्दों के रूप।

धातु–रूपः– भू, गम्, पठ्, दृश्, अस्, पा, लभ्, हन्, दा, कथ्, प्रच्छ्, लिख्, वद्, कृ, तथा ज्ञा धातुओं के लट्, लोट्, लृट, लड् और विधिलिङ् में रूप ।

संख्यावाचक शब्दः– एक से सौ तक की संख्याओं के संस्कृत शब्दों का ज्ञान।

वाच्य – परिवर्तन अशुद्धि–परिमार्जन ।

सुभाषित एवं सूक्तियाँ:– संस्कृत सुभाषित एवं सूक्तियों का परिज्ञान।

साहित्य का इतिहासः– रामायण, महाभारत, रघुवंश, कुमारसम्भवं, किरातार्जुनीय, शिशुपालवध, नैषधीयचरित, प्रतिमानाटक, स्वप्नवासवदत्त, मुद्राराक्षस, अभिज्ञानशाकुन्तलं, दशकुमारचरित, कादम्बरी एवं पंचतंत्र काव्यों का सामान्य परिचय।

Syllabus
Subject-Urdu

1. A brief History of the Urdu language (Evaluation and Development)
2. The School of Poetry
3. The evolution of Urdu poetry
4. Genres of Urdu poetry and prose (Ghazal, Qasid, Masnavi, Masriya, Nazm, Daastaan, Novel, Drama, Afsana) Meer Hasan, Meer Anees, Nazeer Akbarabaadi, Mohammad Rafi Sauda and Hali with special reference.
5. Progressive movement (Beginning and evolution)
6. Famous Books- Bagh-O-bahar, Fasana-e-Ajaib, Fasana-e-Azad, Sher-ul-Azm, Comparison of Anees and Dabeer, Hamari Shayri, Umrao Jaan Ada
7. Famous Authors and poets- Meer Amman, Rajab Ali Baig Suroor, Sir Syed Ahamd Khan, Abul Kalam Azad, Mohammad Hussain Azaad, Altaf Hussain, Hali, Deputy Nazeer Ahmad, Ptras Bukhari, Rasheed Ahamd Siddiqui, Krishna Chandra Rajendra Singh Bedi, Molvi Andul Haq, Meer Taqi Meer, Zauq, Ghalib, Momin, Iqbal, Chakbast, Akbar Allahabadi, Firaq Gorakhpuri, Faiz Ahmad Faiz, Josh, Wali Dakani, Meer, Dard, Aatish, Dogh, Dahalvi, Hasrat Mohani, Asghar Gondavi, Fani Badayuni, Jigar Muradabadi
8. Grammar: Ism, Zameer, Sifat, Fail, Zamana (Mazi, Haal, Mustaqbil), Tazkeer-O-Tanees, Wahid-Jama, Tashbeen, Ista'ara, Tajnees, Husn-e-Taleel, Talmeeh, Tazaad, Laf-O-Nashr, Muhavre and Kahawaten
9. Famous poets and writers of current era:- Akhtar-ul-Emaan, Nasir Kazmi, Sheharyar Meeraji, Noon-Meem Rashid, Prof. Ehtisham Hussain, Shamsur-Rahman Farooqi, Aal Ahmad Suroor, Kaleemuddin Ahmad, Dr. Mohammad Hasan
10.Newspapers and Magazines.

SYLLABUS
GENERAL STUDIES

(1) History of India and Indian National movement:- In History of India emphasis should be on broad understanding of social, economic and politic aspects of Indian history. In the Indian National movement, the candidates are expected to have synoptic view of the freedom movement, growth of nationalist and attainment of Independence.

(2) Indian and World Geography- Physical, Social, Economic Geography of India and the World :- Questions on the Geography of India will relate to Physical, Social & Economic Geography of India. In World Geography only general understanding of the subject will be expected.

(3) Indian Polity and Governance, Constitution, Political system, Panchayati Raj & Public Policy, rights-issues etc:- Indian polity and Governance questions will test knowledge of country's Constitution, political- system including Panchayati Raj and Community Development.

(4) Indian Economy and Social Development :- The candidates will be tested with-respect to problems and relationship between population, Environment, Urbanisation., broad features of economic policy in India and Indian Culture.

(5) Current Events of National and International Importance:- This will also include questions on Games & Sports.

(6) Indian Agriculture :-The candidates will be expected to have general Understanding of agriculture in India, agricultural produce and its marketing.

(7) General Science :- Questions On General Science will cover general appreciation and Understanding of science including matters of everyday observation and special study of any scientific discipline. This will also include questions on role of science and technology in the development of India.

(8) Elementary Mathematics up to class 10th level:- Arithmetic, Algebra and Geometry.

Note:-The candidates are expected to have general awareness about the above topics with special reference to UP.

दिव्यांगजन सशक्तीकरण विभाग के अन्तर्गत प्रशिक्षित स्नातक, सहायक अध्यापक पद हेतु द्वितीय चरण मुख्य (लिखित) परीक्षा (परम्परागत) के द्वितीय प्रश्नपत्र के पाठ्यक्रम–

Curriculum for "LT Grade Teacher" Examination in U.P. Government Inter Colleges
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 Decial 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, Rhombas).
- 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).