

**Scheme for Computer Based Recruitment Examination (CBRE)
for Recruitment of Initial Appointee Teachers
In Govt. Secondary Schools**

Test Duration	150 Minutes
Total Questions	150 Objective Type Multiple Choice Questions
Total Marks	150 marks*

* Every question will carry one mark each and there will be negative marking @0.25 marks for each wrong response.

Post	Paper	Type of Questions	Number of Questions	Full Marks	Level	Subjects	Languages (Medium)
Common Paper for All posts	I	MCQ	50	50	-NA-	a)General Knowledge & Current Affairs, b)Reasoning Ability, c)Computer Literacy, d)Pedagogy, & Evaluation.	English & Odia
TGT Science PCM	II	MCQ	100	100	Graduation	a)Physics, b)Chemistry, c)Mathematics	English
TGT Science CBZ	II	MCQ	100	100	Graduation	a)Chemistry, b)Botany, c)Zoology	English
TGT Arts	II	MCQ	100	100	Graduation	a) History+ Political Science, b) Geography+ Economics, c)English	English
						d) Odia	Odia
Hindi Teacher	II	MCQ	100	100	Graduation	Hindi	Hindi
Sanskrit Teacher	II	MCQ	100	100	Graduation	Sanskrit	Devanagari
Telugu Teacher	II	MCQ	100	100	Graduation	Telugu	Telugu
Physical Education Teacher	II	MCQ	100	100	Intermediate(+2)	Physical Education	English & Odia

Paper-I

- | | |
|--|------------|
| 1. General Knowledge and Current Affairs | (15 Marks) |
| 2. Reasoning Ability | (10 Marks) |
| 3. Computer Literacy | (10 Marks) |
| 4. Pedagogy & Evaluation | (15 Marks) |

Paper-II

- | | |
|------------|-------------|
| 5. Subject | (100 Marks) |
|------------|-------------|

Total Marks

(150 Marks)

**Syllabus for Computer Based Recruitment Examination (CBRE) for
Recruitment of Initial Appointee Teachers
in Govt. Secondary Schools**

Paper -I

(Total 50 marks)

[General Knowledge and Current Affairs, Reasoning Ability, Computer Literacy, Pedagogy & Evaluation]

Section-I

1. General Knowledge and Current Affairs

(15 Marks)

- i. Current events of State (Odisha), National and International Importance-
- ii. History of Odisha / India
- iii. Indian and World Geography
- iv. Indian Polity
- v. Economic and Social Development
- vi. Everyday Science

Section-II

2. Reasoning Ability

(10 Marks)

- i. General mental ability
- ii. Logical reasoning and analytic ability-
- iii. Basic numeracy-
- iv. Decision Making & Problem Solving-

Section-III

3. Computer Literacy

(10 Marks)

- i. Basic computer literacy skills for use of ICT in classrooms-
- ii. Concepts, terminology and operations that relate to general computer usage.-
- iii. Basic Hardware of Computer-
- iv. Common Applications,
- v. Networking and Internet -
- vi. Social Networking -
- vii. Digital Citizenship

Section-IV (For all posts except PET)

4. Pedagogy & Evaluation (15 Marks)

A. Learning Process / Pedagogy

1. Understanding the Learning Process

- Learning as a process and an outcome
- Approaches – Humanistic (Karl Rogers)
- Constructivist (Piaget and Vygotsky)
- Basic conditions of learning: Readiness, Maturation, Motivation, Task and Methods

2. Organizing Learning

- Teacher-Centric, Learner –Centric, Learning-Centric
- Characteristics and Process

3. Addressing Classroom Diversity

- Using varieties of TLMs and AV Aids
- Using context of the learner
- Using variety of activities while group learning, small group learning and self learning
- Learner in the context of Inclusive Education

C. ASSESING THE LEARNER / PERFORMANCE (EVALUATION)

1. Assessment and Evaluation

- Assessment and evaluation in constructive perspective
- Concept, Continuous and Comprehensive Evaluation , Formative, Summative and Diagnostic Assessment

2. Assessment and Learning

- Assessment of Learning, Assessment for learning, Assessment as Learning
- Subject-based learning in a constructivist perspective
- Assessment tools and techniques –Projects, Assignments, Observation, Teacher made Tests
- Self-assessment, Peer-assessment

3. Test Construction

- Steps and Principles of Test Construction
- Development of blue print
- Preparation of test items
- Standardized and Teacher made Test

Section-IV (For the post of PET)

Pedagogy, Planning & Evaluation- 15 Marks

1. Pedagogy

- Teaching Techniques(Lecture method, Demonstration Method, Discussion method and Project method etc)
- Important devices and methods of teaching
- Teaching Procedure-Whole method, Part method, Whole and Part method
- Difference between teaching methods and Teaching Aids

2. Programme Planning & Evaluation

- Programme planning, principles of programme planning in Physical Education
- Function of planning-organisation of school sports, coordination and conducting of Physical Education activities
- Evaluation of School Physical Education activities and School Health Education Programme

Paper -II

(Total 100 Marks)

TGT Science: (PCM)

Section I

PHYSICS

[30 questions are to be asked. Each question carries 01 mark]

Unit-1 Motion

Newton's laws of motion, Kinematic Equations of motions with acceleration, Graphical representation of Kinematics Equations of motion, Relative velocity and relative acceleration, work energy and power, conservation of energy, collision problem and conservation of linear momentum, forces of nature, friction force.

Circular motion, Rotational Kinematics, Conservation of angular momentum, Moment of Inertia.

Motion under Gravity, project motion, Simple harmonic motion, and Kinematics of simple harmonic motion, simple pendulum.

Unit-2 Gravitation

Kepler's law of planetary motion, Newton's law of gravitation, Acceleration due to gravity, Gravitational field and potential, Escape velocity and satellite motion, Geo stationary Satellites.

Unit-3 Properties of Matter

Inter- atomic and intermolecular force, Elasticity, Stress, Strain and Hook's law , Elastic module

Kinetic theory of gases, concept of heat, pressure and temperature, specific heat, law of equipartition of energy, Universal Gas laws, measurement of Pressure

Surface tension, surface energy, angle of contact, excess pressure, capillarity, viscosity, Poiseuille's law, Stokes's Law, Bernoulli's Equation of fluid motion.
Hydrostatics, Buoyancy, Archimedes Principle, Laws of flotation.

Unit-4 Sound

Waves, Progressive and stationary waves, mechanical waves, equation of a progressive wave, transverse vibration of a string, speed of sound waves, Newton's formula, Super-position of sound waves, Beats, Echo, Doppler's effect, Musical sound and its characteristics.

Unit-5 Optics

Laws of reflection and refraction in transparent medium, total internal reflection, refraction through prisms, Dispersion, Reflection and image formation plan and spherical mirrors, equation for object and image distances for spherical mirrors, image formation in convex and concave

lenses, lens equation for convex and concave lenses, power of single and combination of two lenses. Image formation in the eye and defects of vision, microscope and astronomical telescope.

Wave optics, Huygens's principle, Coherent sources and interference, Young's double slit, Bi-prism, Newton's ring experiments, Diffraction of light through single slit and plane transmission grating.

Unit-6 Electrostatics

Coulomb's law and unit of charge, force on charge due to discrete and continuous charge distributions, lines of force and electric field, field due to a point charge and a dipole, electrostatic potential, potential due to a point charge and an electric dipole, electric potential energy of a group of point charges, electric flux, Gauss law and applications, Capacitor, capacitance of parallel plate and spherical capacitors, combinations of capacitors in series and parallel.

Uni-7 Current Electricity

Ohm's law, current and voltage measurements, resistance and Resistivity, combination of resistances in series an parallel, electromotive force, grouping of resistors and cells. Kirchhoff's laws and their applications.

Electric energy and power, heating effect of electric current, Faraday's law of electrolysis.

Magnetic field and magnetic induction, Biot-Savart law, magnetic field due to a straight conductor, a circular coil and a solenoid carrying current. Ampere's circuital law, Lorentz force on a charge particle in uniform electric and magnetic fields. Force between two parallel conductors' carrying current.

Unit-8 Electromagnetic induction

Faraday's law of electromagnetic induction, Lenz's law, eddy current, self and mutual induction, emf induced in a rotating coil. Alternating current, average and RMS values of alternating currents, simple AC circuits (RC, RL and RLC), concept of admittance and impedance. Transformers and simple AC devices (motor, dynamo).

Section-II

CHEMISTRY

30 questions are to be asked. Each question carries 01 mark

Unit-1 Basic Concepts

Atomic, molecular and equivalent masses, mole concept, types of chemical reactions, calculations based on stoichiometry. Equivalent mass of acid, salt, oxidant and reductant.

Unit-2 States of Matter

Gas laws- Boyle's law, Charles' law, combined gas equation, ideal gas equation, Graham's law of diffusion/ effusion, Dalton's law of partial pressure.

Characteristics of Liquids: Vapour pressure, viscosity and surface tension. Colligative properties of solutions (solute and solvent forming binary solution).

Unit-3 Structure of Atom

Bohr's model and its limitations, concept of shells and sub-shells, dual nature of matter and light. De Broglie's relationship, Heisenberg uncertainty principles, concepts of orbital's, quantum numbers, shape of s,p and d orbital, rules of filling electrons in orbitals- Aufbau principle and Hund's rule, electronic configuration of atoms, stability of half filled and completely filled orbitals.

Unit-4 Classification and elements and periodicity in properties

Modern periodic law and the present form of periodic table, periodic trends in properties of elements- atomic radii, ionic radii, ionization enthalpy, electron gain enthalpy, electro negativity, valency.

Unit-5 Chemical bonding and molecular Structure

Ionic bond, covalent bond, polar character of covalent bond, covalent character of ionic bond, concept of hybridization, VSEPR Theory and shapes of some simple molecules, hydrogen bond and metallic bond.

Unit-6 Chemical reactions

Types of chemical reactions, redox reaction, Oxidation number calculations, balancing of redox equations by oxidation number and ion electron methods, neutralization reactions and volumetric analysis.

Unit-7 Chemical Equilibria and Ionic Equilibria

Equilibrium in physical and chemical processes, law of mass action, equilibrium constants (K_c , K_p , K_x) relation among them, the reaction quotient and its relation with equilibrium. Le-Chateliers principle and its applications.

Theories of acids and bases, ionization of weak acids and bases, ionic product of water pH and other logarithmic terms, common- ion effect, solubility product and its application in salt analysis.

Unit- 8. General Principles of extraction of metals

Occurrence of metals, ores and minerals, concentration, calcinations, roasting, smelting, reduction methods (carbon reduction, alumino-thermic process, electrolytic and self- reductions) and metal extraction, flux and slag refining of metal. Reactions involved in the Blast furnace for extraction of iron.

Unit-9 Some basic principles of organic chemistry

- a) Classification and IUPAC nomenclature of organic compounds
- b) Electronic displacement in covalent bond: inductive effect, electronic effect, resonance and hyper conjugation
- c) Homolytic and heterolytic fission of a covalent bond: free radicals, carb-cations, carbanions, electrophiles and nucleophiles, types of organic reactions.

Unit-10 Hydrocarbons

Classification of Hydrocarbons.

- a. Aliphatic Hydrocarbons: general methods of preparation, properties and uses of alkanes, alkenes and alkynes.
- b. Aromatic Hydrocarbons: benzene, resonance aromaticity, chemical properties, directive influence of functional group in mono-substituted benzene.

Section-III

MATHEMATICS

[40 questions are to be asked. Each question carries 01 mark]

- 1. Set Theory and its Application**
 - Union, intersection, difference, complement, power set, number of elements in union and inter-section of finite sets.
- 2. Relations and Functions**
 - Reflexive, Symmetric, transitive and equivalence relations, injective, subjective and objective functions, inverse of a function.
- 3. Number System**
 - Natural numbers, integers, rational numbers, irrational number, real number, absolute values of numbers, triangle inequality.
- 4. Quadratic & Linear Equations**
 - Fundamental theorem of Algebra, roots, discriminates, nature the roots, relation between the roots and coefficients.
- 5. Calculus of One Variable**
 - Limit, continuity, derivative, tangent, normal, increasing and decreasing functions.
- 6. Sequence and Series**
 - Arithmetic and Geometric progressions, monotonic sequence, exponential series, logarithmic series, Taylor's series, Maclaurin's series.
- 7. Coordinate geometry**
 - Distance formula, section formula, area of a triangle, locus and its equation, straight line, circle, conic section.
- 8. Analytical Solid Geometry**
 - Plane, straight line, Sphere
- 9. Probability**
 - Trial, Sample point, Sample Space, Event, Addition Theorem, Binomial Distribution.
- 10. Statistics**
 - Mean, Mode, Median, Mean Deviation, Standard Deviation, Variance
- 11. Trigonometry**
 - Angles associated with 90, 180, 270, 360 compounded angle formula, sub-multiple angle formula, Trigonometry Equations, Inverse trigonometric functions, Height and Distance.
- 12. Mensuration**
 - Circumference of a circle, length of the arc of a circle, area of a circle, sector and segment, area of a circle annulus, area of a sectional region, area of segment, surface area and volume of a prism, right circular cylinder, cone and sphere.

TGT Science: (CBZ)
Section I

Chemistry

[30 questions are to be asked. Each question carries 01 mark]

(Same as in TGT PCM Syllabus)

Section II
BOTANY

[35 questions are to be asked. Each question carries 01 mark]

1. Plant Diversity and Conservation

- Nomenclature and classification of plant kingdom, plant divisions- Thallophyta, Bryophyte, Pteridophyta, Gymnosperms and Angiosperms, their habitat and complexity in their structural organization. Endangered plant species and their conservation measure.

2. Tissue System

- Meristematic and permanent tissues: their types, organization and functions.
- Tissue System: Epidermal, ground and vascular tissue system, internal structure of dicot and monocot stems and roots secondary growth in plants.

3. Photosynthesis

- Structure and photosynthetic pigments, Light reaction: light absorption, electron transport and photophosphorylation, Dark reaction- CO₂ fixation by C₃, C₄ and CAM plants, photorespiration.

4. Growth in Plants

- Photoperiodism, Phototropism, Auxins, Gibberellins, Cytokinins, Ethylene and Abscissic acid, their role in plant growth regulation.

5. Reproduction in plants

- Vegetative reproduction: Fission, budding and cutting(grafting) and propagation in angiosperms.
- Asexual Reproduction: Sporulation, Conidia formation and other special structure formation.
- Sexual Reproduction: Isogamy, Anisogamy and Oogamy, double fertilization and triple fusion in angiosperms.
- Parthenogenesis: Tissue culture and micropropagation

6. Mendelism

- Mendelian factors, Monohybrid cross and principles of dominance and segregation.
- Dihybridcross: Laws of independent assortment.
- Deviations from Mendelian principles

7. Plant Diseases and Control Measures

- Causal Organisms, symptoms, life cycle and control measures of following diseases: Late blight of potato, powdery mildew, Rust and Smut of Wheat, Leaf Sport and blast disease of rice.

Section III
ZOOLOGY

[35 questions are to be asked. Each question carries 01 mark]

- 1. Taxonomy**
 - Five kingdom classification, Characteristics and Examples of each animal phylum (in case of phylum Chordate up to Classes)
- 2. Cytology**
 - Cell structure and cell division (mitosis and meiosis), DNA and RNA
- 3. Genetics**
 - Linkage, Crossing over, Mutation, Chromosomal aberration and chromosomal mechanism of sex determination
- 4. Evolution**
 - Darwinism, Modern Synthetic theory of evolution (variation, selection and isolation)
- 5. Ecology**
 - Eco-system, Food Chain and Food Web, Energy Flow, Ecological Pyramids, Renewable and Non-renewable energy resources, Biodiversity (meaning and conservation), Causes, Effects and Control of Air pollution.
- 6. Nutrition**
 - Types of food and types of nutrition,
- 7. Respiration**
 - Types of respiration (aerobic and anaerobic) Glycolysis and Krebs Cycle
- 8. Circulation**
 - Blood (Composition and function) in man, structure and working of human heart
- 9. Excretion**
 - Human Kidney (structural details), mechanism of urine formation
- 10. Control and Coordination**
 - Structure of neuron, synaptic transmission, structure of human brain and function of its different parts, names of endocrine glands and secreted hormones with their specific functions
- 11. Reproduction and Development**
 - Structure of Gonads (ovary and testes) and Gametes in man, Fertilization. Types of cleavage.

TGT Arts

(This section shall carry the questions from History & Political Science (15 Marks), Geography & Economics (15 Marks), English (35 Marks) & Odia (35 Marks) each.)

Section- I HISTORY + POLITICAL SCIENCE (15 MARKS)

HISTORY

1. Great Rulers of Ancient India
 - Ashoka – Conquests, administration and missionary activities
 - Kharavela – Achievements as mentioned in Hatigumpha inscription
 - Samudragupta – Conquests
 - Harshavardhana – Conquests, administration and religious activities
2. Development of Art and Architecture during Maurya Age, Gupta Age and Kushana Age
3. Development of Literature and Science in Ancient India
4. Administration during Delhi Sultanate with special reference to Balban, Alauddin Khilji and Feroze Shah Tughlaq.
5. Mughal architecture and painting during the reign of Akbar, Jahangir and Shahjahan
6. Rise of British power in India from 1757 to 1856
 - Robert Clive and foundation of British Power
 - Administrative and judicial reforms of Warren Hastings
 - Revenue reforms of Lord Cornwallis
 - Subsidiary alliance
 - Reforms of Lord William Bentinck
 - Doctrine of Lapse
7. Growth of India Nationalism, 1857-1905
 - Revolt of 1857
 - Development of press and literature
 - Education
 - Formation of Political associations
8. Indian National Movement, 1905-1947
 - Swadeshi movement
 - Non-cooperation movement
 - Civil Disobedience movement
 - Quit India movement
 - Indian National Army
 - Partition and Independence
9. First World War and Russian Revolution
 - Causes and consequences of First World War
 - Causes Progress and Effects of Russian Revolution
10. Second World War- Causes and Consequences

POLITICAL SCIENCE

1. Salient features of Indian Constitution
2. Preamble, Fundamental Rights, Directive Principles of State Policy, Fundamental Duties
3. Union Government – President, Prime Minister, Council of Ministers, Parliament and Supreme Court

4. State Government – Governor, Chief Minister, Council of Ministers, Legislative Assembly and High Court.
5. Local Governance – Urban and Rural
6. Electoral Process and Election Commission
7. India's Foreign Policy and its relation with neighbours
8. United Nations – General Assembly, Security Council Human Rights
9. Socialism, Liberalism, Democracy, Authoritarianism, Welfare State and Globalization
10. Kautilya, Raja Ram Mohan Roy, Bal Gangadhar Tilak, Swami Vivekananda, Mahatma Gandhi, Nehru, B.R. Ambedkar

Section- II

GEOGRAPHY + ECONOMICS (15 MARKS)

GEOGRAPHY

1. Physical Geography of India
 - Physiography
 - Drainage
 - Climate
2. Resources with Special Reference to India
 - Types and Classification, Land Resources; Biotic Resources
 - Mineral, Energy, Water Resources
 - Agriculture and Industrial Resources
3. Physical Geography
 - First, Second and third order land forms; Development of land forms – work of rivers, wind and glaciers. Interior of the earth, rocks and their types
 - Structure and composition of the atmosphere, insolation and temperature; Pressure and Winds; Humidity and Rainfall
 - General relief of ocean floor: Salinity and temperature of the ocean water. Oceanic circulation – waves, tides currents
4. Globe and Maps
 - Basic features; types of maps; map scale; contours of relief features
 - Concept of latitude and longitude; International dateline Time Zones; Local and Standard Time.

ECONOMICS

1. Indian Economy
 - Features and broad demographic characteristics; Need and Policies for facing the challenges of over population
2. Current Challenges of Indian Economy
 - Poverty – Measures of poverty; causes, consequences, policy and programmes adopted for poverty eradication; Remedies.
 - Unemployment – Types and measures of unemployment; Causes, consequences and programmes adopted for reducing unemployment.
 - Inflation – Meaning and types; Demand pull and cost push inflation; Causes and consequences and measures taken to control inflation.
3. Economic Development

- Meaning and Indicators – National income, Physical Quality of Life Index(PQLI), Human development Index (HDI); concept of and need for sustainable development.
4. Money and Banking
- Meaning, types and functions of money; Banking: Commercial Banks – Meaning, functions; Credit creation by commercial banks; Central Banking – Meaning and functions; Monetary Policy.

Section- III

ENGLISH (35 Marks)

1. Comprehension:
 - a) An unseen passage in about 150 words. Questions testing factual, understanding, inferential and interpretive aspects including vocabulary and usage.
 - b) A poem (neither very old nor very absurd but a simple one). Questions testing factual, understanding, referential, appreciative aspects including vocabulary in context)
2. Grammar and usage
Testing of grammar and usage in the following areas:
 - a. Prepositions
 - b. Direct and indirect speech
 - c. Passives
 - d. Tense
 - e. Identification of error in a sentence
 - f. Phrasal verbs
 - g. Clause patterns
 - h. Punctuations
 - i. Types of sentences
 - j. Spelling
 - k. Agreement of verbs with subjects
3. Speaking (Commonly mis-pronounced words, common errors)
4. **Teaching of English**
 - a) Importance of Teaching English/learning English in the present context
 - b) Objectives of Teaching English/learning English with reference to Language Skills & Sub-skills
 - c) Strategies of Teaching/learning English with special reference to NCF 2005
 - d) Stages of planning for a Text (pre-reading, while reading and post-reading)
 - e) Assessment of language skills, :Tools and Techniques with reference to Continuous and Comprehensive Assessment

Section- IV
ODIA (35 Marks)

ପ୍ରତ୍ୟେକ ପ୍ରଶ୍ନର ମୂଲ୍ୟ ୧ ନମ୍ବର ।

ନିମ୍ନ ପ୍ରଦତ୍ତ ବିଷୟମାନଙ୍କରୁ ପ୍ରଶ୍ନ ପ୍ରସ୍ତୁତ କରାଯିବ ।

୧. ଅବବୋଧ ପରୀକ୍ଷଣ : ପ୍ରାୟ ୧୫୦ ଶବ୍ଦ ବିଶିଷ୍ଟ ଏକ ଗଦ୍ୟ ଅନୁଚ୍ଛେଦ ପ୍ରଦାନ କରାଯାଇ ତା'ର ଆଧାରରେ ୫ଟି ପ୍ରଶ୍ନକରାଯିବ । ପ୍ରତିପ୍ରଶ୍ନର ୪(ଚାରି)ଟି ଲେଖାଏଁ ସମ୍ଭାବ୍ୟ ଉତ୍ତର ପ୍ରଦତ୍ତ ହୋଇଥିବ । ପରୀକ୍ଷାର୍ଥୀ ତା'ଉପରେ ସବୁଠାରୁ ଉତ୍ତରଟିକୁ ବାଛିବାକୁ ହେବ । ପ୍ରତି ଉପଯୁକ୍ତ ଉତ୍ତର ପାଇଁ ୧ ନମ୍ବର ରହିବ ।
୨. ଲେଖା ଓ ଲେଖକ : ସାରଳା ଦାସ, ଜଗନ୍ନାଥ ଦାସ, ଉପେନ୍ଦ୍ର ଭଞ୍ଜ, ଜୀମତୋଇ, ଫକୀରମୋହନ, ଗୋପାଳଚନ୍ଦ୍ର ପ୍ରହରାଜ, ଗୋପୀନାଥ ମହାନ୍ତି - ୭ଜଣ ଲେଖକଙ୍କର ଗୋଟିଏ କୃତିର ନାମ ଉଲ୍ଲେଖ କରାଯାଇ ଲେଖକଙ୍କ ନାମ ପ୍ରଶ୍ନ କରାଯିବ କିମ୍ବା ଲେଖକଙ୍କ ନାମ ଦିଆଯାଇ ଭିନ୍ନ ଭିନ୍ନ ଋଚିତ ଗଦ୍ୟ ମଧ୍ୟରୁ ଠିକ୍ ଉତ୍ତରଟି ବାଛିବାକୁ କୁହାଯିବ ।
୩. ପଦନିର୍ଣ୍ଣୟ : ଗୋଟିଏ ନିର୍ଦ୍ଦିଷ୍ଟ ବାକ୍ୟ ଦିଆଯାଇ ତହିଁରୁ ଗୋଟିଏ ପଦକୁ ଚିହ୍ନଟି କରାଯାଇ ଦେଖାଇ ଦିଆଯାଇ ତହିଁରୁ ଠିକ୍ ଉତ୍ତରଟିକୁ ବାଛିବାକୁ ପ୍ରଶ୍ନ କରାଯିବ । ଏଥିପାଇଁ ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯିବ । ପରୀକ୍ଷାର୍ଥୀ ଠିକ୍ ଉତ୍ତରଟିକୁ ବାଛିବେ । ଏଥିପାଇଁ ବିଶେଷ୍ୟ / ସର୍ବନାମ / ବିଶେଷଣ / ଅବ୍ୟୟ କ୍ରିୟାପଦ ଇତ୍ୟାଦି ୫ ପ୍ରକାର ମଧ୍ୟରୁ ୩(ତିନି) ପ୍ରକାରର ୩ଟିକୁ ଚିହ୍ନଟିବାକୁ ହେବ ।
ଏଥିପାଇଁ ଭିନ୍ନ ଭିନ୍ନ ୩(ତିନି)ଟି ବାକ୍ୟ ମାଧ୍ୟମରେ ୩ଟି ପ୍ରଶ୍ନ କରାଯିବ ।
୪. କୃଦନ୍ତ: ଦୁଇଟି କୃଦନ୍ତ ନିଷ୍ପନ୍ନ ପଦର ଗଠନ କିମ୍ବା ପ୍ରତ୍ୟୟ ଚିହ୍ନଟିବାକୁ ପ୍ରଶ୍ନ କରାଯିବ । ପ୍ରତ୍ୟେକରୁ ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯାଇ ଠିକ୍ ଉତ୍ତରଟି ବାଛିବାକୁ ନିର୍ଦ୍ଦେଶ ରହିବ ।
୫. ତଦ୍ଧିତ: ଦୁଇଟି ତଦ୍ଧିତ ନିଷ୍ପନ୍ନ ପଦ ଦିଆଯାଇ ପ୍ରତ୍ୟେକ ନିର୍ଣ୍ଣୟ କିମ୍ବା ୪ଟି ଭିନ୍ନଭିନ୍ନ ଶବ୍ଦ ମଧ୍ୟରୁ ତଦ୍ଧିତ ନିଷ୍ପନ୍ନ ପଦ ଠିକ୍ ଶବ୍ଦଟିଏ ରଖି ତାକୁ ଚିହ୍ନଟିବାକୁ କୁହାଯିବ ।

୬. ବାକ୍ୟ ପରିଚିତି: ସରଳ, ଯୌଗିକ, ଜଟିଳ ବାକ୍ୟ କିମ୍ବା ଦୁଇ ପ୍ରକାର ବାକ୍ୟର ମିଶ୍ରରୂପ ଭିତରୁ ଯେକୌଣସି ବାକ୍ୟଟିଏ ପ୍ରଶ୍ନରେ ଦେଇ ତା'ର ପ୍ରକାର ଚିହ୍ନଟିଆରାକୁ କୁହାଯିବ । ସମ୍ଭାବନା ସ୍ୱରୂପ ୪ ପ୍ରକାର ଉତ୍ତର ଦିଆଯିବ, ତା' ଭିତରୁ ପରୀକ୍ଷାର୍ଥୀ ଠିକ୍ ଉତ୍ତରଟିକୁ ବାଛିବେ ।
୭. ସାଧାରଣ ଅଶୁଦ୍ଧି : ଶବ୍ଦ ଓ ବାକ୍ୟ ପ୍ରତ୍ୟେକରୁ ୨ଟି ଲେଖାଏଁ ପ୍ରଶ୍ନ ଦିଆଯାଇ ସେଥିରୁ ଠିକ୍ ଶବ୍ଦ କିମ୍ବା ବାକ୍ୟ ବାଛିବାକୁ କୁହାଯିବ । ଏଥିରେ ଗାଠି ଅଶୁଦ୍ଧ ଶବ୍ଦ କିମ୍ବା ବାକ୍ୟ ଓ ଗୋଟିଏ ଶୁଦ୍ଧ ଶବ୍ଦ ବା ବାକ୍ୟ ଥିବ, ସେଥିରୁ ଶୁଦ୍ଧଟିକୁ ବାଛିବେ । ଶବ୍ଦ ଓ ବାକ୍ୟ ପାଇଁ ଅଲଗା ପ୍ରଶ୍ନ ପଡ଼ିବ ।
୮. ସନ୍ଧି : ସ୍ୱରସନ୍ଧି, ବ୍ୟଞ୍ଜନ ସନ୍ଧି ଓ ବିସର୍ଗସନ୍ଧି ମଧ୍ୟରୁ ଯେକୌଣସି ଗୋଟିଏ ସନ୍ଧି ନିଷ୍ପନ୍ନ ପଦନେଇ ତା'ର ଠିକ୍ ବିଚ୍ଛେଦ ବାଛିବାକୁ ୪ (ଚାରି)ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯିବ । ପରୀକ୍ଷାର୍ଥୀ ଠିକ୍ କୁ ବାଛିବେ ।
୯. କାରକ : ବାକ୍ୟଟିଏ ଦେଇ ଗୋଟିଏ ପଦକୁ ରେଖାଙ୍କିତ କରି ତାହା କେଉଁ କାରକ ଚିହ୍ନଟିଆରାକୁ ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ମଧ୍ୟରୁ ଠିକ୍ ବାଛିବାକୁ କୁହାଯିବ ।
୧୦. ବିଭକ୍ତି: ବାକ୍ୟଟିଏ ଲେଖା ଦେଇ ଗୋଟିଏ ପଦକୁ ରେଖାଙ୍କିତ କରି ତାହା କେଉଁ ବିଭକ୍ତି, ଦିଆଯାଇଥିବା ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ମଧ୍ୟରୁ ବାଛିବାକୁ କୁହାଯିବ । ଏହିପରି ଦୁଇଟି ଭିନ୍ନ ଭିନ୍ନ ପ୍ରଶ୍ନ ପ୍ରଦାନ କରାଯିବ ।
୧୧. ସମାସ: ତତ୍ପରୁଷ, କର୍ମଧାରୟ, ବହୁବ୍ରାହି, ଦ୍ୱିଗୁ, ଦ୍ୱୟ, ଅଲୁକ, ଅବ୍ୟୟୀଭାବ-୭ଟି ସମାସ ମଧ୍ୟରୁ ଦୁଇଟି ପ୍ରଶ୍ନକରାଯାଇ ସମାସ ଚିହ୍ନଟିଆରାକୁ କିମ୍ବା ବ୍ୟାସବାକ୍ୟ ଦିଆଯାଇ ସମାସ ନିଷ୍ପନ୍ନ ପଦ ନିର୍ଣ୍ଣୟ କରିବାକୁ ଦିଆଯିବ । ପ୍ରତିଟି ପାଇଁ ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ପ୍ରଦାନକରି ଠିକ୍ ଠିକ୍ ବାଛିବାକୁ ହେବ ।
୧୨. ରୁଚି : ଗୋଟିଏ ରୁଚି ଦିଆଯାଇ ତା'ର ୪ଟି ସମ୍ଭାବ୍ୟ ଅର୍ଥ ମଧ୍ୟରୁ ଠିକ୍ ଅର୍ଥଟି ବାଛିବାକୁ କୁହାଯିବ ।
୧୩. ଛନ୍ଦ : ଛନ୍ଦ ପାଇଁ ଗୁଜରୀ, ନଟ ବାଣୀ, ବଙ୍ଗଳାସୀ, ଦାଣ୍ଡିବୃତ୍ତ, ଚୋଖି-୫ଟି ମଧ୍ୟରୁ ଗୋଟିଏ ଛନ୍ଦର ଉଦାହରଣ ଉଦ୍ଧାରକରି ଛନ୍ଦ ଚିହ୍ନଟିଆରାକୁ କୁହାଯିବ । ଏଥିପାଇଁ ୪ଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯିବ ।
୧୪. ଅଳଙ୍କାର: ଅନୁପ୍ରାସ, ଉପମା, ରୂପକ, ବ୍ୟତିରେକ, ଉତ୍ପ୍ରେକ୍ଷା, ଅର୍ଥାନ୍ତରତ୍ୟାସ - ୬ଟି ମଧ୍ୟରୁ ଗୋଟିଏର ଉକ୍ତି ଦେଇ ଅଳଙ୍କାର ଚିହ୍ନଟିଆରାକୁ କୁହାଯିବ । ଏଥିପାଇଁ ଚାରିଟି ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯିବ ।
୧୫. ଏକ ପଦୀକରଣ : ବ୍ୟାଖ୍ୟା ପ୍ରଦାନ କରାଯାଇ ଏହାକୁ ଏକପଦରେ ପ୍ରକାଶ କରିବାକୁ କୁହାଯିବ ଏବଂ ଏକପଦ ରୂପ ଦିଆଯାଇ ଏହା ଅର୍ଥ ବ୍ୟାଖ୍ୟା ଚିହ୍ନଟିଆରାକୁ ପ୍ରଶ୍ନକରାଯିବ । ଏଥିପାଇଁ ଦୁଇଟି ଭିନ୍ନ ଭିନ୍ନ ପ୍ରଶ୍ନ କରିବା ଓ ପ୍ରତିଟି ପାଇଁ ୪ଟି ଲେଖା ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯିବ; ସେଥିରୁ ଠିକ୍ ଠିକ୍ ବାଛିବାକୁ ହେବ ।
୧୬. ଅବବୋଧ ପରୀକ୍ଷା: ଚାରି/ ପାଞ୍ଚ ପଦ ବିଶିଷ୍ଟ ଏକ କ୍ଷୁଦ୍ର କବିତା ଆଧାରରେ ୫ଟି ପ୍ରଶ୍ନ କରାଯାଇ, ପ୍ରତି ପ୍ରଶ୍ନର ୪ଟି ଲେଖାଏଁ ସମ୍ଭାବ୍ୟ ଉତ୍ତର ପ୍ରଦତ୍ତ ହେବ ଏବଂ ପ୍ରତି ଉତ୍ତର ପାଇଁ ୧ ନମ୍ବର ରହିବ ।

Paper –II

(Total 100 Marks)

Telugu Teacher

[100 questions are to be asked. Each question carries 01 mark]

1. Language – Mother tongue, Aims of teaching through mother tongue, Language teaching skills, Language – Methodology.
2. Teaching Methods, Teaching Practice; Teaching Aids, Literature works – Teaching Methods.
3. Education – Technology, Assessment of Learning, Planning and Designing Achievement Tests, Other Tools for Assessment, Utilization of Educational Sources, Evaluation
4. Unseen poetry passage, unseen prose passage with test items, vocabulary, opposite words, identification of parts of speech; identification of genders
5. Gramatical items : Pronunciation – voice – words formation, words, pratyayamulu, Kalalu, Drutaprakrutikalulu, Parusha, Saralalu, Parts of Speech; Sentences, Tense, Genders, Figures of Speech, Punctuation marks, Meanings, Synoniums, Antoniums, Deviations, Clauses, Phrases, Subjective and non-subjective sentences; different types of sentences, active voice – passive voices, direct – indirect speech, formation of sentences, foreign, country and village words; Sandhi, Samas, Idioms, Phrases and other meanings; Chandhassu, Alankara etc.
6. Contributions of famous literates for deve opment of Telugu language
 - Nannaya – “Mahabharat” Chapter 4 (120 – 165)
 - Karivi / Goparaju – Salivahana Vidyam. Chapter – 1 (115-165)
 - Garimella Satyanarayan – We do not want British ruling
 - Shri Shri – Mahaprastanam
 - Vimala – Vantillu Enta Adbutam

- Unit - 1 • భాష - మాతృభాష
 - మాతృభాష బోధనా లక్ష్యములు
 - బోధనా నైపుణ్యాలు
 - భాష - వివిధ భావనలు
 - Unit - 2 • బోధనా పద్ధతులు
 - బోధనా క్షామన
 - బోధన కోణము ఉపకరణాలు
 - సామాన్య ప్రక్రియలు - బోధనా పద్ధతులు
 - Unit - 3 • విద్య - సాంకేతిక రాస్త్రం
 - సహవాంశ్య కార్యక్రమాలు
 - ప్రణాళిక రచన
 - పాఠ్య గ్రంథాలు
 - వనరుల వినియోగం
 - మూల్యాంకనం
 - Unit - 4 • **GROUP "B"**
 - త్రిపరిచిత పద్య భాగము / త్రిపరిచిత గద్య భాగముపై ప్రశ్నోత్తరం
 - పదముల త్రిణాలు • వ్యతీరక త్రిణాలు • ఏ భాషా భాగము గుర్తించుట
 - మహద్వాచకం • సహజీవాచకం • త్రిమహద్వాచకం ముస్యగునవి
 - Unit - 5 • భాషాంశాలు :- ఉచ్ఛారణ - ధ్వని - ధ్వన్యభివ్యక్తి - స్థానాలు - పదము - ప్రాతిపదిక - ప్రత్యయములు - కళలు - ద్వితీయ ప్రకృతికాలు; పరుషాలు - సర్వలు; భాషాభాగాలు; వచనాలు, కాలాలు; వింగం; విభక్తులు; విరామ చిహ్నాలు; త్రిణాలు; నానాభాషలు; ప్రత్యయ పదాలు; స్వప్రత్యయాలు; సమాపక - త్రిసమాపక త్రియలు; త్రికర్ణక - సకర్ణక త్రియలు; వాక్య రూపాలు; కర్తాధిక - కర్తాధిక వాక్యాలు, ప్రత్యక్ష - పరోక్ష వాక్యాలు; వాక్య నిర్మాణం; తత్సమ - తత్సమ, ప్రేర్య, గర్భ్య, త్రిప్రేర్య పదాలు ముష్కగనవి తెలుగు - సంస్కృత సందులు; సమాసములు; తెలుగు జాతియములు - త్రిణవివరణ; ఛందస్సు (ఉత్పల సూల, చాపక సూల, నాకర్ణలం, మత్తీభం; త్రిపలవి, త్రిగళిత, కందము, త్రింజారములు
- Unit - 6 • తెలుగు భాషాభివృద్ధికి త్రిమూల్య గ్రంథాలు
 - నన్నయ :-
 - త్రింశ్ర మహాభారతం, త్రిపిపర్వము, 4వ త్రింశ్రాసం (120 - 125)
 - "నరవతుడుగు శతమనకు" నుండి "దివ్యభాష నాలంకృత" వరకు
 - కౌండిల గోపలజు :-
 - శాలివాహన విజయం
 - సింహాసన ద్వాత్రింశిక - ఓటువ త్రింశ్రాసం (115 - 165)
 - "సజ్జీవ దానధర్మ" నుండి "పల్ల విక్రమామృతాక్షిణ" వరకు
 - గరిమెల్ల సత్యనారాయణ :- "మాతృభాషా తెల్లదొరవనం"
 - శ్రీశ్రీ :- "మహాప్రస్థానం"
 - విమల :- "వంటిల్లు" ఎంత త్రింశ్రాసం మైనది" నుండి "తెలుగు వంటిగంటలు" వరకు

* * * * *

01. *[Signature]*
02. Y. Paparao.

Paper –II

(Total 100 Marks)

For Hindi Teacher Post

[100 questions are to be asked. Each question carries 01 mark]

UNIT- I (हिन्दी गद्य साहित्य)

(i) निबंध - निम्नलिखित पाठ्य विषयों से प्रश्न किए जायेंगे ।

- बालमुकुंद गुप्त - बनाम लार्ड कर्जन
- रामचन्द्र शुक्ल - क्रोध
- हजारी प्रसाद द्विवेदी - अशोक के फूल
- हरिशंकर परसाई - भोलाराम का जीव

(ii) उपन्यास -

- प्रेमचन्द - कर्मभूमि
- भगवती चरण वर्मा - चित्रलेखा
- मन्नू भण्डारी - आपका बंटी

(iii) कहानी -

- प्रेमचन्द - कफन, पूस की रात
- प्रसाद - पुरस्कार, आकाशदीप
- अज्ञेय - तत्सत्
- भगवती चरण वर्मा - प्रायश्चित्त
- कमलेश्वर - गर्मी के दिन
- जैनेन्द्र कुमार - पत्नी

- उषा पियम्बदा - वापसी
- भीष्म साहनी - चीक की दावत
- (iv) नाटक -
 - जय शंकर प्रसाद - चन्द्रगुप्त
 - लक्ष्मीनारायण मिश्र - सिंदूर की होली
 - मोहन राकेश - आषाढ़ का एक दिन
- (v) संस्मरण / रेखाचित्र
 - महादेवी वर्मा - गौरा
 - रामवृक्ष बेनीपुरी - रज़िया
 - विष्णु प्रभाकर - अंष्टावक्र

UNIT- II (पद्य विभाग)

- (i) कवीर दास - दोहे - गुरु गोविन्द दोउ खड़े, पानी केरा बुद बुदा, माटी कहै कुम्भारसे, जलमें कुंभ, कस्तूरी कुंडल बसै, माली आपन, कल करै सो आज कर, साधु ऐसा चाहिए... । पद - माया महा ठमिनी ।
- (ii) सूरदास - बाल वर्णन - मैया मैं नहीं माखन, मैया मोहि दाऊ बहुत खिझायौ, जसुमति हरि पालनै, मैया कबहुँ बदेगी चोटी ।
ध्रमर गीत - अंधो मन मानेकी बात, ऊधो मन जहिँ दस बीस, निर्गुन कौन देसकौ, अधा मोहि ब्रज विसरत नहिँ ।
- (iii) तुलसी दास - केवट प्रसंग, भरत-महिमा
- (iv) बिहारी - मेरी सब बाधा हरौ, कनक कनक तैं, बतरस लालच, कहत मटत रीझत.. ।
- (v) मैथिलीशरण गुप्त - यशोधरा
- (vi) दिनकर - कुरुक्षेत्र (प्रथम तीन वर्ष)
- (vii) बच्चन - पथकी पहचान, जुगनू
- (viii) सुभद्राकुमारी - झाँसी की रानी

- (ix) प्रसाद - भारतवर्ष, हिमाद्रि तुंग...
(x) पंत - प्रथम रश्मि, ताज
(xi) निराला - संध्यासुंदरी, तोड़ती पत्थर
(xii) केदारनाथ सिंह - अकाल में दूब
(xiii) नागार्जुन - बहुत दिनों के बाद

UNIT- III (प्रत्येक पाठ्य - बिन्दु से दो प्रश्न)

भाषा अध्ययन :

- i) हिन्दी और ओड़िआ ध्वनियाँ (व्यतिरेकी ज्ञान)
- ii) शब्द निर्माण - प्रचलित उपसर्ग और प्रत्यय
- iii) संधि तथा समास
- iv) विलोम और पर्यायवाची शब्द
- v) शब्दों की सही वर्तनी और उच्चारण
- vi) संज्ञा : लिंग, वचन
- vii) कारक विभक्ति और विशेषण के मुख्य प्रकार
- viii) क्रिया : (क) भेद (सकर्मक, अकर्मक, सरल, मिश्र, यौगिक, प्रेरणार्थक)
(ख) काल- तीन कालों का मुख्य भेद
- ix) वाक्य : मुख्य भेद और परिवर्तन
- x) अति प्रचलित मुहाबरे और कहावतें

UNIT- IV (भाषा प्रयोग)

- i) गद्य पाठ विधि - परिचयात्मक प्रश्न, बाचन, लेखन, बोध प्रश्न, ज्ञान, और चिंतामूलक प्रश्न ।

- ii) पद्य पाठ विधि - सामान्य परिचयात्मक प्रश्न, व्याख्या की पद्धति, आत्मीकरण, काव्यानन्दका स्वाद ।
- iii) व्याकरण पाठ विधि - आगमन / निगमन प्रणाली
- iv) अनुवाद - ओडिआ से हिन्दी पाँच सरल वाक्य या वाक्यांश
- v) अपठित गद्य/पद्यांश - (छोटे-छोटे दो अंश)

उसमें से बोध / ज्ञान मूलक प्रश्न होंगे

- ० -

Paper –II

(Total 100 Marks)

For Sanskrit Teacher Post

[100 questions are to be asked. Each question carries 01 mark]

शिक्षादान पद्धतिः

UNIT- 1 : Learning Sanskrit संस्कृतशिक्षणम्

- संस्कृतशिक्षणस्य सामौन्यम् उद्देश्यं महत्त्वं च
- माध्यमिकस्तरे संस्कृत शिक्षायाः महत्त्वम्
- संस्कृतशिक्षायाः मुगमं कौशलम्
- श्रवणम् पाठनम्, वाचनम्, पठनकौशलम् लेखनकौशलम्

UNIT- 2 : भाषाप्रशिक्ष

- व्याकरणानुवाद पद्धति : (Formal Grammar, Functional Grammar)
- प्रत्यक्षपद्धतिः (Preparation, Presentation, Comparison, Assimilation, (Directmethod) Application)
- परोक्षपद्धति : (Indirect Method) - अन्वय पद्धति Teaching Poetry,
- आरोह पद्धति : अस्या पद्धतेः गुणाः दोषाः च

Indirective Method - From Example to approach the sutra method in grammar.

- अवरोह पद्धति : (deductive method) Interpretation of the sutra and justification through the examples.

UNIT- 3 : भाषासाहित्यशिक्षण पद्धति :

Method of assessment learning sanskrit language and literature.

गद्य-पद्य प्रशिक्षण परीक्षण योजना

Planning of assessment of teaching prose and poetry.

परीक्षजस्य योजना साफल्यं च परीक्षणस्य अवान्तर साधनानि

श्रवणम्, भाषणम् पठनम्, वाचनम्, लेखनम्

Group-B (CONTENT)

UNIT- 4 : Elements of Sanskrit Language

संस्कृतभाषायाः मौलिकं ज्ञानम्

(अदृष्ट सन्दर्भगिता: प्रश्ना: (Comprehensiment to unseen passage)

One Passage from Prose (within 150 words)

गद्यभागस्य एकः सन्दर्भः (१५० शब्दमध्ये)

पञ्चतन्त्रतः हितोपदेशतः (From Panchatantra and Hitopadesha)

One verse from Purvamegha or Abhijnana sakuntalam

Word meming, Sandhi, Karaka Vibhukti Samasa, Prakriti Pratyaya

UNIT- 5 : Language Item, भाषागता विषया:

Parts of Speech - भाषा विभाग

शब्दरूपम्, धातुरूपम्, विशेषणम्, सर्वनाम, संख्यावाचक विशेषणम्

शब्दरूपम् - बालक, फल, लता, मुनि, पति, मति, वारि, नदी, भानु, धेनु, मधु,
वधु, पितृ, मातृ, गो, गुणिन् राजन्, गच्छत्

विशेषण सर्वनाम - सर्व, तद्, यद्, किम्, इदम्, अस्मद्, युष्मद्

संख्यावाचक - एक, द्वित्रि, चतुर, पञ्च, षड्

पूरणवाचक - प्रथम, द्वितीय इत्यादि

शब्द निर्माणम् - उपसर्गः, कृदन्तः स्त्रीप्रत्ययः

शब्दज्ञानम् - व्याकरणगताः पारिभाषिकाः शब्दाः

सन्धिः, णत्वविधिः, षत्वविधिः

शब्दरूपधातुरूपगतवर्गशुद्धिः :

Unit - 6 : Contributions of famous poet and authors to Sanskrit literature
(Prose, Poetry, Drama and composition.

Bhasa, Kalidas, Bhababiti, Dandin : Banabhatta

Bhartrihari - Jayadev Trivikrambhatta Sriharsa

Paper –II

(Total 100 Marks)

Physical Education Teacher

[100 questions are to be asked. Each question carries 01 mark]

PHYSICAL EDUCATION

1. Principle and History of Physical Education

- Meaning, Objectives, Aims of Physical Education
- Relationship of Physical Education to General Education, Health Education and Recreation
- Importance of Physical Exercise, Physical Training and Physical Culture
- Physical Education as a Socializing agencies
- Leadership and its importance, qualification and qualities of a Physical Education Teacher
- Contribution of Physical Education Teachers to General Education
- Scout and Guides, NCC, JRC, SGFI, NFC and its contributions
- Contribution of Yoga in modern civilization
- Olympics and Asian Games
- Teachers Training and Professional preparation in Physical Education

2. Sports Psychology

- Meaning and importance in Physical Education
- Mental Process – Body, Mind, Relationship and Neuro-muscular coordination
- Transfer of training, Theories of Play, Learning processes and play way in Education
- Individual differences as personality, mental hygiene and child guidance
- Discipline and behaviour : Nature and Development

3. Organization, Administration and Recreation

- Importance, objectives and guiding principles
- Construction and care of gymnasium and swimming pools
- Preparation of different playground
- Need, purchase and maintenance of sports equipments and maintenance of different registers and records
- Preparing time table and factor affecting time table in Physical Education and Sports
- Scheduling school sports, Problem in school sports, Interamural and extramural competitions
- Preparation of Budget, accounting and auditing
- Importance of Recreation in Human life

4. Anatomy Physiology and Health Education

- Joints structure, Types and Movements of the Joints, Importance of Good Posture and Remedies of Bad Posture
- Effect of regular activities on muscles, heart and respiratory system
- Fatigue, its causes and remedies
- Blood pressure, oxygen debt, second wind
- Importance of health education and the role of Physical Education Teachers in School Health Programme
- Medical Examination, effects of narcotics and drugs
- Nutrition and importance of diet for players and athletes
- Different diseases and their symptoms, detection care and prevention of diseases like Cholera, Diarrhea, Chicken Pox, Measles, Tetanus, Diphtheria and Malaria

5. Methods of Physical Education

- Meaning, Scope and Importance of Methods in Physical Education
- Drill and Marching Commands, Teaching aids, various methods of teaching physical activities, Games, Sports and Indigenous activities.
- Various Tournaments and Competitions
- Test, Measurement and Evaluation in Physical Education, National Physical Efficiency Test
- Layout of the track and field events and different play grounds
- Demonstration and Exhibitions, Awards and Incentives
- Lesson Planning – General and Specific

6. Officiating and Coaching

- The qualities of a good officials, relation of official with management, coaches, players and spectators
- Duties of the officials
- Promoting and maintaining different games, publicity, arrangement of training camps and schedules
- Conditioning of players and teams – General, Fundamental, Workload
- Warming up – Types and Values
- Various training methods – Isometric and Isotonic exercises, Circuit training, Weight Training, Fartlek Training and Interval Training
- Play of various positions in Games
- Officiating of different games and track and field events – its rules, signals and positional play
- Track and Field events, Major games like Kho-Kho, Kabaddi, Volleyball, Football, Basket ball, Soft ball, Cricket, Hockey and Badminton