I. DEVELOPMENT OF CHILD
- Development, Growth & Maturation – Concept & Nature
- Principles of development
- Factors influencing Development – Biological, Psychological, Sociological
- Understanding Development – Piaget, Kohlberg, Chomsky, Carl Rogers
- Individual differences – Intra & Inter Individual differences in the areas of Attitudes, Aptitude, Interest, Habits, Intelligence and their Assessment
- Development of Personality – Concept, Factors effecting development of Personality
- Adjustment, Behavioural problems, Mental Health
- Methods and Approaches of Child Development – Observation, Interview, Case study, Experimental, Cross sectional and Longitudinal
- Developmental tasks and Hazards

2. UNDERSTANDING LEARNING
- Concept, Nature of Learning – input – process – outcome
- Factors of Learning – Personal and Environmental
- Approaches to Learning and their applicability–Behaviourism (Skinner, Pavlov, Thorndike), Constructivism (Piaget, Vygotsky), Gestalt(Kohler, Koffka) and Observational (Bandura)
- Dimensions of Learning – Cognitive, Affective and Performance
- Motivation and Sustenance – its role in learning.
- Memory & Forgetting
- Transfer of Learning

3. PEDAGOGICAL CONCERNS
- Teaching and its relationship with learning and learner
- Learners in Contexts: Situating learner in the socio-political and cultural context
- Children from diverse contexts–Children With Special Needs (CWSN), Inclusive Education
- Understanding of pedagogic methods – Enquiry based learning, Project based learning, Survey, Observation and Activity based learning
- Individual and Group learning: Issues and concerns with respect to organizing learning in class room like Study habits, Self learning and Learning to learn skills
- Organizing learning in heterogeneous class room groups – Socio-economic background, Abilities and Interest
- Paradigms of organizing Learning-Teacher centric, Subject centric and Learner centric
- Teaching as Planned activity – Elements of Planning
- Phases of Teaching – Pre active, Interactive and Post active
- General and Subject related skills, competencies required in teaching and attributes of good facilitator
- Learning resources – Self, Home, School, Community, Technology
- Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice
II. LANGUAGE – I Telugu (Marks: 30)

(A) 

1. (i) మనిషిని మనం
(ii) మనిషి యొక్క
2. పట్టణం, నిదర్శనం, నిత్యం, నిల్వారం / నిల్వారం.
3. రామానుజు, వనరులు, వివిధ రుచియులు, ఆంత్రిక రేఖలు, పదార్థాలు, సమాచారాలు, సంస్కృతి, సాంప్రదాయాలు జాబితా, ప్రస్తుతం, ప్రతి పదార్థం, చారిత్రక ఉత్సవాలు, సాంప్రదాయక చర్చి నిర్ణయం, సంస్కృత పరిపాలన, సమీక్ష.
4. నాటకాలు, చిత్రాలు, కళాశాలాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు, నాటకాలు, చిత్రాలు.

(B) 

1. పతనం – కవిత పతనం.
2. కవిత పతనం.
3. పుస్తకాలు, పతనం – పతనం పతనం
4. భారతీయం, మహాత్మాగాంధీ, మహాత్మాగాంధీ, నాగార్జున దేవాలయం, నాగార్జున దేవాలయం.
5. పతనం, విశేషాలు, శివరాత్రుడు, శివరాత్రుడు పతనం, శివరాత్రుడు పతనం.
6. నాగార్జున దేవాలయం – పతనం
III. LANGUAGE – II (ENGLISH) (Marks: 30)
CONTENT (Marks: 24)
(1) Parts of Speech (2) Tenses (3) Active voice & Passive voice (4) Prepositions and Articles
(5) Degrees of comparison (6) Clauses (7) Verbs – Main Verbs – Auxiliary Verbs (8)
Adverbs – Types of Adverbs (9) Conjunction – coordinating conjunction – subordinating
conjunction. (10) Direct and Indirect speech (11) Questions and question tags (12) Types of
sentences – simple, compound and complex – synthesis of sentences (13) Phrases – uses
of phrases. (14) Composition – speech – précis writing or
Vocabulary – Antonyms, Synonyms and Spelling
PEDAGOGY (Marks: 06)
1. Aspects of English:- (a) English language – History, nature, importance, principles of
   English as second language. (b) Problems of teaching / learning English
2. Objectives of teaching English.
3. Phonetics / Transcription.
4. Development of Language skills:- (a) Listening, Speaking, Reading & Writing (LSRW).
   (b) Communicative skills – Imparting values through Communication.
5. Approaches, Methods, Techniques of teaching English:- (a) Introduction, definition &
   types of Approaches, Methods & Techniques of teaching English (b) Remedial teaching.
6. Teaching of structures and vocabulary.
7. Teaching learning materials in English.
8. Lesson Planning.
10. Evaluation in English language.

IVa. MATHEMATICS & SCIENCE (Marks: 60)
MATHEMATICS - CONTENT (Marks: 24)
1. Number System - Prime and Composite Numbers, Tests of divisibility, whole numbers,
   integers, fractions, decimal fractions, L.C.M. and G.C.M. rational numbers and irrational
   numbers. Properties of numbers, Real numbers; laws of exponents, squares, square roots,
   cubes, cube roots, finding missing number represented as alphabets in sums involving array
   of four operations, number patterns, number puzzles and frames
2. Arithmetic - Ratio and proportion, simple interest, compound interest, Time and distance,
   Discount, partnership, relative speed and angular speed
3. Sets - Concept of set, set language, empty set, finite and infinite sets, subset and equality of
   the set, Cartesian product of sets, cardinal number of set, set operations, representation of
   sets, Venn diagrams and their properties, Relations.
4. Algebra -Introduction to Algebra, expressions, exponents and powers, Factorization special
   products and expansions, linear equations and their graphs, system of inequations,
   polynomials.
5. Geometry - History of Geometry, Contribution of India in the Development of Geometry,
   Euclid Geometry, Lines & Angles, Properties of Circles, Triangles, Quadrilaterals and
   polygons, Parts of Circle : Construction of Circle, Triangles and Quadrilaterals, Circles and
   concurrent lines in triangles, Co-ordinate Geometry, Co-ordinates of a point, plotting of
   points, linking linear equations into variables (of the type ax+by+c=0 in the Cartesian
   coordination system), Linear equations with 2 variables, symmetry.
6. Mensuration - Perimeter and Area of a Square and Rectangle. Area of Triangle, Circle,
   Ring and Quadrilaterals. Surface area and volume of Cube, Cuboid.
7. Data Handling - Collection and Classification of Data, Frequency distribution table, Tally
   marks, Bar graph, Pictograph and Pie diagrams.
PEDAGOGY (Marks: 06)
1. Definition and Nature of Mathematics
2. Aims, values and instructional objectives of teaching Mathematics
3. Methods of Teaching Mathematics
4. Instructional material in Mathematics - TLM in Mathematics
5. Instructional Planning
6. Designing, Administration, Analysis of scholastic Achievement test (SAT)
7. The Mathematics Teacher
8. Resource Utilization
9. Curriculum and Text Book
10. Diagnostic and Remedial Teaching

SCIENCE - CONTENT (Marks: 24)
   - Fundamental and Derived units.
   - Measuring instruments – Scale, Tape, Vernier Calipers, Different types of clocks,
2. Natural Resources – Air, Water: Water pollution, Harnessing of water, States of water, Hardness of water, water pressure
   Air pollution, Atmospheric Pressure, Air pressure, Archimedes’ principle, Pascal’s law, Bernoulli’s Principle, Hydrometer, Barometer.
   - Laws of floatation, Specific gravity, Surface tension, Fluid Mechanics.
3. Our Universe: Constellation - Zodiac, Space travel; Solar system, Satellites, stars, comets; Earth- layers of earth.
4. Natural Phenomenon: Light: Rectilinear propagation of Light, Shadows, transparent and opaque materials; reflection, Laws of reflection, refraction, Reflection at spherical mirrors, refractive index of glass slab
   Sound: Sources of sound, Transmission of sound, Sound Pollution, Waves, Kinds of Waves, Wave Propagation, Musical instruments.
   Heat: Heat and Temperature, Measurement of Temperature and Thermometer, Change of State due to heat
   - Types of Motion; Speed, Velocity, Acceleration, Newton’s Laws of Motion, Friction, Momentum, Principals of Conservation, Centre of Gravity, State of Equilibrium.
   - Information and Communication Technology, Computers.
   - Action of heat on substances, Physical and Chemical changes, types of chemical changes
   - Preparation of Gases (Oxygen, Hydrogen, Carbon- Di-Oxide, Chlorine, Hydrogen Chloride)
   - Acids, Basis, Salt.
8. **Laws of Chemical Combination and Chemical Calculations**: Laws of chemical combination, Calculations based on chemical equations.
9. **Biology**: Its importance in everyday life, contribution of scientists, different branches.
10. **Living World – Characteristics**: Classification of Plants and Animals and their characteristics.
    a) **Cell**: Concept, Cell theory, differences between Plant cell and Animal cell, Cell division.
    b) **Tissues**: Animal tissues.
11. **Plant World – Types of plants**: Parts of a plant – their functions
    Reproduction – Asexual, Sexual, Vegetative propagation, Nutrition, Photosynthesis, Excretion, Respiration
    Economic importance of Plants, Agriculture, Crop diseases & pest control measure.
12. **Animal World**: Organ systems and their functions including man
    Digestive system, Respiratory system, Circulatory system, Excretory system, Nervous system, Reproductive system, Sense organs in man, Nutrition
    Deficiency diseases in man, First Aid
    Economic importance of Animals, Animal husbandry, Pisciculture, Sericulture.
13. **Microbes**: Bacteria, Viruses, Fungi, Protozoan
    – useful and harmful, microbial diseases in plants & animals
14. **Our Environment**: Biotic & Abiotic factors, Natural resources
15. **Recent trends in Biology**: Hybridization, Genetic engineering, Gene banks, Gene therapy, Tissue culture

**PEDAGOGY (Marks: 06)**
1. Definition, Nature, Structure and History of Science
2. Aims, Values and Instructional Objectives of teaching Science
3. Method of Teaching Science
5. Instructional Planning
6. Science Laboratory
7. Science Teacher - Changing Roles
8. Science Curriculum and its transaction
10. Evaluation – CCE - Designing, Administration, Analysis, Scholastic Achievement Test (SAT)

**IVb. SOCIAL STUDIES (Marks: 60)**
**CONTENT (Marks: 48)**

**GEOGRAPHY**
1. **OUR EARTH**: Earth its origin, Realms of the earth, Land forms, Movements of the earth, their effects, Interior of the earth, Movements of the earth, Earth crust, Oceans, Elements of the Climate
2. **SOLAR SYSTEM**: The Solar System, Solar energy and Insolation, Latitudes, Longitudes, Eclipses
3. **CONTINENTS**: Asia, Africa, Europe, North America, South America
   **Antarctica**: Landscape, Climate, Natural Vegetation, Native Animal life, Mineral Wealth, Scientific Investigation
5. **MAPS – SCALE – CARDINAL POINTS – CONVENTIONAL SIGNS.**
HISTORY
1. STUDY OF PAST: Prehistoric Age: Indian History periods, Sources, Indian history, Culture.
   Historical background: Growth and development of Early Cultures and Racial synthesis Characteristic features of Indian History - Various Stages of Development
2. HARAPPA CULTURE AND ARYAN CIVILIZATION
   Early and Later Vedic Civilization- Jainism- Buddhism
3. INDIA B.C 200-300 A.D:Andhra Satavahanas- Mourgian Empire- Sangam Age- Maghadha-Kushans Empire- Parsian, Greek invasion
4. MEDIEVAL PERIOD IN INDIA: 300 A.D - 800 A.D: Guptha, Harshavardhana, Pallavas,Chalukyas , Indian Culture abroad ,the Arab conquests of Sindh.
   800 A.D-1300 A.D: Political developments, Rise of new dynasties, Administration of important dynasties
   1206 A.D - 1526 A.D: Delhi Sultans, General conditions of Delhi Sultanate, Fall of Delhi Sultanate, Vijayanagara Empire, Bhakti movement, Development of National consciousness, Influence of Islam and Christianity
   Advent of Mughals, Advent of Europeans
   Fall of the Mughal Empire
5. INDIA AND THE MODERN WORLD
   Trade and Colonization, Beginning of the Modern age in Europe, Outline history of world, Major developments and their impact on India
6. ESTABLISHMENT OF BRITISH RULE IN INDIA AND REVOLTS AGAINST BRITISH RULE - INDIA DURING 1858 – 1947: Political, Economic and Social Policies of British - British Policy towards Indian Princes British Policy towards neighboring countries, Changes in Economic and Social sectors
   Agriculture, Famines in India between 1858 -1947,Transport facilities, Beginning of modern Industries, Rise of new classes in Indian society, Religious and social reform movements and Cultural awakening , Movements among Muslims for Social reforms

CIVICS
1. FAMILY AND COMMUNITY
2. INDIAN CONSTITUTION
   Indian Constitution at work, salient features, Federal, Unitary State,
   Fundamental Rights & Duties, Directive Principles, National Integration, Unity in diversity
3. GOVERNMENT AT THE CENTRAL & STATE LEVEL
   Legislative, Executive-Judiciary
4. LOCAL SELF GOVERNMENT: Local Self Govt. Institutions, Gram panchayat, Mandal Parishat, Zilla Parishat
   Urban Self Government Institutions, Municipal Corporations, Municipalities
   District Administration
6. SOCIALISM & SECULARISM: Socialism in the Indian context, Secularism in the Indian context, India as a Nation, Challenging issue of our country.
7. INFORMATION AWARENESS
8. TRAFFIC EDUCATION

ECONOMICS
   Micro and Macro Economics
2. BASIC CONCEPTS OF ECONOMICS: Basic concepts of Economics, Basic aspects of Production, Forms of Business Organization, Problems of Distribution
3. EXCHANGE: Exchange, Concept of Market, Demand and Supply, Equilibrium Price
5. ANDHRA PRADESH – ECONOMY: Economic Situation at the time of State formation, Agriculture, Water, Power, Service sector, Population
   Natural resources of Andhra Pradesh: Land, Water, Forests, Minerals

PEDAGOGY (Marks: 12)
2. Aims, Objectives and values of Teaching Social Studies.
4. Teaching, Learning Material and Resources.
5. Instructional Planning.
7. Social Studies Teacher.
8. Curriculum and Text Book
9. Disaster Management, Deforestation, Socio Economic Problems