

# **TEACHER ELIGIBILITY TEST JULY 2011**

## **PAPER II SYLLABUS**

### **I. CHILD DEVELOPMENT AND PEDAGOGY (Marks: 30)**

#### **1. DEVELOPMENT OF CHILD**

- Development, Growth & Maturation – Concept & Nature
- Principles of development
- Factors influencing Development – Biological, Psychological, Sociological
- Dimensions of Development and their interrelationships – Physical & Motor, Cognitive, Emotional, Social, Moral, Language relating to Infancy, early Childhood, late Childhood, Adolescence.
- 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
- Class room Management: Role of student, teacher, Leadership style of teacher, Creation of non-threatening learning environment, Managing behaviour problems, Guidance & Counselling, Punishment and its legal implications, Rights of a child, Time Management.
- Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice
- Understanding teaching & learning in the context of NCF, 2005 & Right To Education Act, 2009.

## II. LANGUAGE – I MARATHI (Marks: 30)

### (A) Content

Marks 24

#### I. -आकलन (Comprehension):-

- a) अपठित गद्य
- b) अपठित पद्य

#### II -कविपरिचय, लेखक परिचय, चरित्रकार,

गद्य, पद्य विविध प्रक्रिया

#### III -प्रयोगाचे प्रकार, योग्य क्रमवार लिहणे, आकारविल्हे भाषांतर

#### IV -वर्णमाला, शब्दाच्या जाती (प्रकार), वचन, काळ, विभक्ती, विराम चिन्ह, संधी, समास, विरुद्धार्थी, समानार्थी, पर्यायवाची शब्द वाक्यप्रचार, म्हणी, अलंकार.

### (B) Methodology

Marks - 6

#### I -भाषा - स्वरूप, त्रैभाषिक सुत्र, उद्दिष्टे

#### II -मातृभाषा - (ह्र) उद्देश, उद्दिष्टे, (ड)भाषा कौशल्य

#### III -गद्य, पद्य शिकवण्याची पद्धती (अध्ययन अध्यापनाच्या पद्धती)

#### IV -अभ्यासक्रम, वार्षिक नियोजन, घटक नियोजन, पाठ नियोजन

#### V -शैक्षणिक तंत्रज्ञान

#### VI -मुल्यांकन

### **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 – letter writing – précis writing (15) Comprehension (16) Vocabulary – Antonyms, Synonyms and Spellings

#### **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.
9. Curriculum & Textbooks – Importance and its need.
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)**

- 1. Measurements:** Units and Different Systems –C.G.S., M.K.S., S.I.
  - Triangulation method for measuring long distances, Measurement of Length, Area, Volume, Mass, Density and Time.
  - 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
- 5. Mechanics - Kinematics, Dynamics:** Scalar and Vectors.
  - Types of Motion; Speed, Velocity, Acceleration, Newton's Laws of Motion, Friction, Momentum, Principles of Conservation, Centre of Gravity, State of Equilibrium.
- 6. Magnetism and Electricity: Magnetism:** Natural Magnets and Artificial Magnets, properties of Magnets, Magnetic Induction, uses of Magnets, Methods of Magnetisation.
  - Electricity:** Circuit Connection-Components, Primary Cells, Charge; Effects of Electric Current (Light, Heat, Magnetic), Primary Cells, Current Flow, Heating and Magnetic Effects of an Electric Current, Series, Parallel connections, Symbols of Electrical Elements, Modern World Instrument.
  - Information and Communication Technology, Computers.
- 7. Matter-Its changes:** Elements and Compounds, Symbols, Formulae, Chemical Equations
  - 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.
  - Water and its constituents. Hardness of water. Sulphur, Nitrogen, Phosphorous and their compounds. Common salt and its constituents.

- 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
4. Instructional Material in Teaching Science – TLM in Science.
5. Instructional Planning
6. Science Laboratory
7. Science Teacher - Changing Roles
8. Science Curriculum and its transaction
9. Science Textbook.
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**  
 Location and extent, Physical features, Climate, Forests and Wild life, Population, Agriculture, Minerals, Industries, Transportation, Trade, Exports and Imports  
**Antarctica:** Landscape, Climate, Natural Vegetation, Native Animal life, Mineral Wealth, Scientific Investigation
- 4. GEOGRAPHY OF ANDHRA PRADESH:** Physical Regions , Rivers , Climate, Floods and Droughts , Forests , Animal Wealth , Soils, Soil erosion, Electricity , Agriculture, Mineral Wealth, Industries, Population, Transportation , Sea ports , Places of Interest
- 5. MAPS – SCALE – CARDINAL POINTS – CONVENTIONAL SIGNS.**

## **HISTORY**

**1. STUDY OF PAST: Prehistoric Age:** Indian History periods, Sources, Indian history, Culture.

**Pre – History :** The Evaluation of Life on Earth, Evolutionary stages of Human beings, Tools and implements, Economic life, Legacy of prehistory, Impact of Iron age on the Growth of Civilization.

**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- Mouryan 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

**7. RISE OF NATIONALISM - FREEDOM MOVEMENT:** Meaning of Nationalism and Emergence of Indian Nationalism, India's freedom Movement, Factors and Forces-Political Associations, Early phase of Freedom Movement from 1885-1905, Freedom Movement during 1905 -1919, Indian Freedom Movement and the World -1935 Act and Provincial Ministries - Freedom Movement during World War II, Gandhian Era 1920-1947

## **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

**5. DEMOCRACY:** Democracy, Problems of Democracy, Presidential and Parliamentary Democracy, Election process, Role of Political parties, World Peace and Role of India, India's Foreign Policy, Non-Alignment Policy, India' United Nations Organization, Contemporary Issues of the World.

**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**

**1. ECONOMICS – INTRODUCTION:** Economics, Nature, Scope, Need

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

**4. NATIONAL INCOME:** National Income, Gross National Product (GNP) , Net National Product (NNP) ,Gross Domestic Product (GDP),Net Domestic Product (NDP),Nominal and Real GNP, National Income of India , Per Capita Income , Standard of Living.

**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

Economic Development of Andhra Pradesh, Role of different sectors, Trends in Agricultural Development, Industrial Development, Development of Service sector, Welfare Programmes, Problems of Economic Development in the State.

## **PEDAGOGY (Marks: 12)**

1. Nature and Scope of Social Studies.

2. Aims, Objectives and values of Teaching Social Studies.

3. Methods & techniques of Teaching Social Studies.

4. Teaching, Learning Material and Resources.

5. Instructional Planning.

6. Evaluation.

7. Social Studies Teacher.

8. Curriculum and Text Book

9. Disaster Management , Deforestation, Socio Economic Problems

10. National Identity –Civic affairs – International Relations.