

PAPER – 2

Section A : Child Development and Pedagogy

30 marks

Unit – I : Child Development (Focus on Upper Primary School Children)

- Features of Physical, Cognitive, Social, Emotional & Moral development during pre-adolescence and adolescence
- Effect of Heredity and Environment on development
- Needs and problems of adolescents
- Individual differences among learners

Unit – II : Learning

- Learning as meaning making knowledge and construction
- How children learn – observation, initiation, trial, error, experience
- Learning as social activity
- Rote learning and meaningful learning
- Factors affecting learning
- Strategies for promoting lessons
- Addressing learners from diverse background including disadvantaged and deprived
- Addressing the needs of children with learning difficulties and impairment
- Addressing the talented, creative and specially abled learners

Unit – III : Curriculum Teaching – Learning Approaches and Evaluation

- Teacher-centred, learner centred and learning-centred approaches
- Principles of curriculum organization
- Teaching learning aids
- Continuous comprehensive assessment of learning, planning and designing achievement tests, rating scale, check list
- Test reliability and validity
- Data representation – mean, mode and median and standard deviation

Section B : Language 1 (Odia / Urdu / Hindi / Telugu / Bengali)

30 marks

GROUP A (PEDAGOGY)

Unit – 1 : Learning Odia / Urdu / Hindi / Telugu / Bengali at Upper Primary Level

- Aims and objectives of learning Odia / Urdu / Hindi / Telugu / Bengali as first language
- Principles of teaching mother tongue
- Development of language skills (speaking, reading, writing and listening)

Unit – 2 : Teaching Language

- Intensive and Extensive reading skills at upper primary level
- Teaching of non-detailed and detailed texts (prose, poetry)
- Teaching of composition and creative writing
- Teaching of grammar
- Challenges of teaching Odia / Urdu / Hindi / Telugu / Bengali in multi-lingual context

Unit – 3 : Assessment of Language

- Assessment of learning Odia / Urdu / Hindi / Telugu / Bengali language – listening, speaking, reading and writing
- Planning and designing achievement tests and other tools for assessment

GROUP B (CONTENT)

Unit – 4 : Elements of Odia / Urdu / Hindi / Telugu / Bengali Language

- Comprehension of two unseen passages (one from prose / drama and other from poem) with test items on comprehension, vocabulary and grammar.

Unit – 5 : Language Items

- Parts of speech (noun, pronoun, verb, adverb, adjectives, conjunction)
- Formation of words (pre-fix and suffix)
- Vocabulary (spelling and meaning of synonym and antonym)
- Phrases and idioms

Unit – 6 : Contribution of famous literates for development of Odia / Urdu / Hindi / Telugu / Bengali language

- Odia-Fakir Mohan Senapati, Gangadhar Meher, Radhanath Ray, Surendra Mohanty, Gopinath Mohanty
- Urdu – Altaf Hussain Hali, Niaz Fatepuri, Ali Sardar Jafri, Amir Khusroo, Majrooh Sultanpuri
- Hindi – Bharatendu Harischandra, Mahavir Prasad Dwivedy, Prem Chand, Jayashankar Prasad, Suryakanta Tripathy Nirala
- Bengali – Rabindra Nath Tagore, Sarat Chandra Chhatopadhyay, Tarasankar Bandopadhyay, Kazi Nazrul Islam, Bibhuti Bhushan Bandopadhyay
- Telugu – Srinanthadu, Gurajada Appa Rao, Kandukuri Veeresalingam, Arudra, C. Narayan Reddy

Section C : Language II (English)

30 marks

GROUP A (PEDAGOGY)

Unit – 1 : Learning English at Upper Primary Level

- Importance of learning English
- Objective of learning English

Unit – 2 : Development of English Language Skills

- Basic skills of language (listening, speaking, reading, writing), interdependence of skills
- Teaching of prose, poetry and composition
- Teaching of creative writing
- Principles of language teaching
- Challenges of teaching English as second language at upper primary level

Unit – 3 : Assessment of learning English Language

- Assessment of comprehension and language skills (listening, speaking, reading and writing)

GROUP B (CONTENT)

Unit – 4 : Comprehension

- Two unseen passages (one from prose / drama and another from poem) with questions on comprehension, grammar)

Unit – 5 : Language Items

- Parts of speech, tense, voice change and change of narration, use of article, use of punctuation mark
- Vocabulary – meaning and spelling

Section D : Mathematics (only for Mathematics and Science Teacher) **30 marks**

GROUP A (PEDAGOGY)

Unit – 1 : Mathematics at Upper Primary Stage

- Nature of Mathematics – logical, systematic, abstractions, pattern, mathematical language
- Aims and objectives of teaching Mathematics
- Specific objectives of teaching Mathematics

Unit – 2 : Methods and Approaches to Teaching-Learning Mathematics

- Methods : induction, deduction, analysis and synthesis
- Approaches : Constructivist and activity-based

Unit – 3 : Evaluation in Mathematics

- Formal and informal evaluation
- Error analysis
- Remedial and enrichment programmes

GROUP B (CONTENT)

Unit – 4 : Number System

- Number System (focus on real and rational numbers)
- Properties in different number systems

Unit – 5 : Algebra

- Basic concepts : terms, co-efficient, powers
- Algebraic equations and their applications (with one variable)
- Polynomials – operations in polynomials
- Laws of indices
- Identities

Unit – 6 : Commercial Arithmetic

- Percentage and its application (profit and loss, simple and compound, interest, banking, rebate)
- Ratio and proportion
- Variation and its application
- Square, square root, cube, cube root of natural numbers

Unit – 7 : Shapes and Spatial Relationship

- Triangles and Quadrilaterals
- Angles, complementary and supplementary angles, opposite angles, exterior angles of the triangle
- Angle sum property
- Parallel lines and properties relating to parallel lines
- Congruency and similarities
- Menstruations (area and circumference of circle, higher order problems relating to area of square, triangle, rectangle, parallelogram, trapezium, Pythagorean theorem)

Section E : Science (only for Mathematics and Science Teacher)

30 marks

GROUP A (PEDAGOGY)

Unit – 1 : Nature of Science

- Aims and objectives of teaching learning science at upper primary stage

Unit – 2 : Methods and Approaches

- Methods : Observation, Experimentation, Discovery, Project and Problem-solving
- Approaches : Integrated approach, constructivists approach

Unit – 3 : Evaluation in Science

- Tools and techniques for assessing learning in Science

GROUP B (CONTENT)

Unit – 4 : Physical Science

- Metal, non-metal and metalloid
- Elements and compounds
- Symbol, valence and chemical equation
- Acid, base and salt
- Physical and chemical change in matters
- Force, motion, friction, pressure in solid, liquid and gases

- Electricity and current chemical effects of electric current
- Refraction and reflection of light
- Solar system and planets

Unit – 5 : Life Science

- Biological adaptation among living beings
- Respiration and transpiration
- Soil and forest resource
- Cell structure and function of cell organelle
- Micro-organisms
- Adolescence in human being

Section F : Social Study (only for Social Study Teacher)

30 marks

GROUP A (PEDAGOGY)

Unit – 1 : Aims and Objectives of Teaching Social Studies

- Importance of teaching-learning Social Sciences at upper primary stage
- Aims and objectives of teaching-learning Social Sciences
- Specific objectives of teaching-learning Social Science

Unit – 2 : Methods and Approaches

- Methods : Survey, field work / trips, project, group work
- Approaches : Activity-based, theme-based

Unit – 3 : Evaluation in Social Science

- Tools and technique for assessment of learning in Social Science
- Diagnostic assessment and remedial teaching

GROUP B (CONTENT)

Unit – 4 : History and Political Science

- Methods of historical studies, social, economic and political conditions of sultanate, moghul and British period
- Slave, Khiligi, Tughlaq, Lodi Dynasty
- East India Company, British Crown, Impact of British rules, Ancient period, Kharabela, Ashoka
- Soma, Garganga, Surya, fall of Odisha, Odisha under Moghuls
- Nationalist movement in India
- Development of Nationalism and Europe

Unit – 5 : Political Science

- Indian Constitution
- Human Rights
- Governance at Central, State and Local level
- Political Parties and pressure group

Unit – 5 : Geography

- Odisha Geography – physical features, climate, agriculture and industry
- Natural resources (land, water, forest and wild animals, minerals)
- Atmosphere, biosphere and hydrosphere
- Earth – crust, internal structure, landscape (hills and mountains, plateau, plains, rivers)
- Temperature zones of earth