

BOARD OF SECONDARY EDUCATION, ODISHA, CUTTACK

ODISHA TEACHER ELIGIBILITY TEST (OTET) – 2016 (2ND)

SYLLABUS STRUCTURE

(Paper – I)

Area	No. of Questions	Mark	Remark
Child Development & Pedagogy	30	30	30 question on Child Development & Pedagogy
Language-I, Odia/ Urdu	30	30	In each subject area 20 questions will be set form contents & 10 questions from Pedagogy. All 150 questions shall be of multiple choice type with four choices. Only one answer is to be chosen by the candidate.
Language-II (English)	30	30	
Mathematics	30	30	
Environment Studies	30	30	

(Paper – II)

Compulsory

Area	No. of Questions	Mark	Remark
Child Development & Pedagogy	30	30	30 question on Child Development & Pedagogy
Language-I, Odia/ Urdu	30	30	In each subject area 20 questions will be set form contents & 10 questions from Pedagogy. All 150 questions shall be of multiple choice type with four choices. Only one answer is to be chosen by the candidate.
Language-II (English)	30	30	

OPTIONAL

Either A or B

Area	No. of Questions	Mark	Remark
A- Mathematics & Science	60 (30 questions from Mathematics and 30 questions from Science)	60	In each subject area 20 questions will be set from contents & 10 questions from Pedagogy.
B - Social Studies.	60 (30 questions from History & Political Science & 30 questions from Geography).	60	In each subject area 20 questions will be set form contents & 10 questions from Pedagogy.

DETAILED SYLLABUS FOR OTET

PAPER - I

SECTION – A : CHILD DEVELOPMENT AND PEDAGOGY

Unit – 1 :- Understanding Child Development during Childhood (focus on children at primary level)

- Concept, principles and stages of child development
- Characteristics of physical, cognitive, social, emotional and moral development in childhood
- Influence of heredity and environment in understanding the child

Unit – 2 :- Understanding Learning Process and Learners

- Learning – concept, nature and individual differences in learning
- Understanding how child learns – learning through observation, limitation
- Understanding how child learns – various methods of learning
- Basic conditions of learning and promotion of learning through motivation, classroom learning environment and teacher behaviour
- Development of creative thinking

Unit – 3 :- Concept of Inclusive Education and Understanding Children with special needs

- Concept of inclusive education
- Addressing the needs of diverse group of learning in inclusive classroom (CWSN, girls, SC / ST)
- Addressing the talented, creative learning

Unit – 4 :- Approaches to teaching and learning

- Teacher-centred, learner-centred and learning-centred approach
- Competency-based and activity-based approach
- TLM – its importance, use and preparation for classroom transaction
- Teaching competency to handle mono-grade and multi-grade situation

Unit – 5 :- Assessment

- Continuous and comprehensive assessment
- Purpose of assessment
- Assessing scholastic and other scholastic areas
- Sharing of assessment outcomes and follow up

SECTION B : LANGUAGE (ODIA/URDU/HINDI/TELUGU/BENGALI)

GROUP – A : (PEDAGOGY)

- Unit – 1 :-** Learning Odia / Urdu / Hindi / Telugu / Bengali at elementary level
- Aims and objectives of teaching Odia / Urdu / Hindi / Telugu / Bengali as mother tongue
 - Principles of language teaching
 - Acquisition of four-fold language skills in Odia / Urdu / Hindi / Telugu / Bengali viz., listening, speaking, reading and writing
 - Interdependence of four language skills
 - Objectives and strategies of transacting integrated text for the beginners
- Unit – 2 :-** Teaching, Reading and Writing Skills
- Technique of developing intensive and extensive reading skills
 - Teaching-learning composition and creative writing
 - Critical perspective on the role of grammar in learning language for communicating ideas in written form
 - Challenges of teaching language in a diverse classroom, language difficulties and errors

GROUP – B : (CONTENT)

- Unit – 3 :-** Assessment of learning Odia / Urdu / Hindi / Telugu / Bengali
- Assessment language comprehensive and proficiency : speaking, listening, reading, writing – construction of different types of test items
 - Remedial teaching
- Unit – 4 :-** Language items
- Part of speech – Noun, Pronoun, Verb, Adverb, Adjectives, Conjunction
 - Formation of words – using prefix and suffix
 - Synonyms and antonyms
 - Phrases and idioms
- Unit – 5 :-** Language Comprehension
- Reading two unseen passages – one passage from prose and one poem with questions on comprehension, drama, inference, grammar and verbal ability (prose passage may be literary, scientific, narrative or discursive)

SECTION C : LANGUAGE (ENGLISH)

GROUP – A : (PEDAGOGY)

- Unit – 1 :-** Learning English at the Elementary Level

- Importance of learning English
- Objectives of learning English (in terms of content and competence specifications)

Unit – 2 :- Language Learning

- Principles of language teaching
- Challenges of teaching language in a diverse classroom

Unit – 3 :- Skills in learning English

- Four-fold basic skills of learning viz., listening, speaking, reading and writing : interdependence of skills
- Techniques and activities for developing listening and speaking skills (recitation, story telling, dialogue)
- Development of reading skills : reading for comprehension, techniques and strategies for teaching, reading (phonic, alphabet, word, sentence and story)
- Development of writing skill – teaching composition

Unit – 4 :- Assessment of English

- Assessing language comprehension and proficiency : listening, speaking, reading, writing

GROUP – B : (CONTENT)

Unit – 5 :- Comprehension

- Two unseen prose passage (discursive or literary or narrative or scientific) with questions on comprehension, grammar and verbal ability

Unit – 6 :- Language items

- Nouns, Adverbs, Verbs, Tense and Time, Preposition, Articles, Adjectives, Prepositions, Punctuation

Section D : Mathematics

GROUP – A : (PEDAGOGY)

Unit – 1 :- Mathematics Education in Schools

- Nature of Mathematics (exactness, systematic, patterns, preciseness)
- Aims and objectives of teaching Mathematics
- Specific objectives of teaching Mathematics

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

Mathematics

- Methods : Inductive, deductive, analysis, synthesis, play-way
- Approaches : Constructivist and Activity-based

Unit – 3 :- Assessment in Mathematics

- Assessment in Mathematics
- Formal and informal assessment
- Different types of test items
- Planning for remedial and enrichment programme in Mathematics

GROUP – B : (CONTENT)

Unit – 4 :- Number System and Operation in Numbers

- Number system (natural, whole, rational, real)
- Fundamental operation on numbers
- Fractional numbers and decimals – operations in fractional numbers and decimals
- Factors and multiples – NCF and LCM
- Percentage and its application

Unit – 5 :- Measurement

- Measurement of length, weight, capacity
- Measurement of area and perimeter of rectangle and square
- Measurement of time (concept of am, pm and time interval)

Unit – 6 :- Shapes and spatial Relationship

- Basic geometrical concepts (point, line segment, ray, straight line, angles)
- Geometry of triangles, quadrilaterals and circles
- Symmetry
- Geometrical solids (cube, cuboid, sphere, cylinder cone)

Unit – 7 :- Data Handling and Patterns

- Pictography, bar graph, histogram, pie chart
- Interpretation of these graphs
- Patterns in numbers and figures

SECTION E : ENVIRONMENTAL STUDIES (EVS)

GROUP – A : (PEDAGOGY)

Unit – 1 :- Concept

- Concept and Significance
- Integration of Science and Social Science
- Aims and objectives of teaching and learning EVS

Unit – 2 :- Methods and Approaches

- Basic principles of teaching EVS

- Methods : Survey, Practical Work, discussion, observation, project
- Approaches : Activity-based, theme-based

Unit – 3 :- Evaluation in EVS

- Tools and techniques for evaluation learning in EVS
- Diagnostic assessment in EVS

GROUP – B : (CONTENT)

Unit – 4 :- Governance

- Local-self, Government – State and Central
- Judiciary

Unit – 5 :- Physical Features of Odisha and India

- Landscape
- Climate
- Natural resources
- Agriculture and industry

Unit – 6 :- History of Freedom Struggle in India and Odisha

Unit – 7 :- Health and Diseases

- Nutritional, elements, balanced diet
- Nutritional, deficiency and diseases
- Waste materials and disposal
- First-aid
- Air and water pollution

Unit – 8 :- Internal Systems of Human Body

- Respiratory, circulatory, digestive and excretory system – structure and parts of plant – structure and function

Unit – 9 :- Matter, Force and Energy

- Matter and its properties
- Earth and sky, effect of rotation and revolution of earth
- Work and energy

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
- Date 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, Kzi Nazrul Islam, Bibhuti Bhusan Bandopadhyay

- Telugu – Srinanthadu, Gurajuda 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 – 6 :- 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

IMPORTANT

QUESTIONS WILL BE SET TO ASSESS THE CANDIDATE'S ABILITY TO ANALYZE, INTERPRET AND APPLY HIS / HER KNOWLEDGE ON THE SUBJECT.