

# BOARD OF SECONDARY EDUCATION, ODISHA, CUTTACK

## ODISHA TEACHER ELIGIBILITY TEST (OTET) - 2016

### 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/ Hindi/ Telugu/ Bengali	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/ Hindi/ Telugu/ Bengali	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
- Mensurations (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.

Please note that as per NCTE guide line, the questions in the paper-I will be based on the topics of the Prescribed syllabus of the state for class I to V but their difficulty standard as well as linkages could be up to the secondary stage.

The questions in the paper-II will be based on the topics of the prescribed syllabus of the state for Class VI to VIII but their difficulty standard as well as linkages could be up to senior secondary/ higher secondary /+2 stage.

The guide lines prescribed by the competent authority do not indicate any specific Text or author for OTET Examination.

The OTET-2012 syllabus as developed by the TE & SCERT, Odisha as per the guidelines of the NCTE, shall be applicable for the OTET-2015. The detail syllabus of OTET is also available in [www.bseodisha.nic.in](http://www.bseodisha.nic.in) at the link "OTET Syllabus" & [www.scertorissa.org](http://www.scertorissa.org).

OMR Answer Sheets of OTET-2015 along with scoring keys shall be uploaded soon after the examination is over in the Board of Secondary Education, Odisha website [www.bseodisha.nic.in](http://www.bseodisha.nic.in), inviting objections in respect of questions or answers, if any. Objection shall be submitted to the Board within 7 days from the date of publication of Questions & Scoring keys in the website. No objection shall be entertained after the due date.