Part-II (Total Marks – 120)

LANGUAGE (ODIA/URDU/HINDI/TELUGU/BENGALI)

(30 Marks)

(PEDAGOGY - 10 Marks)

Unit- 1: Learning Odia/Urdu/Hindi/Telugu/Bengali at Elementary Level (Class I to V)

- 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

- Techniques 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.

(CONTENTS - 20 marks)

Unit-3: Language items

- Part of speech Noun, Pronoun, verb, Adverb, Adjective, Conjunction
- Formation of word using prefix and suffix
- Synonym and antonym
- Phrase and idiom

LANGUAGE (ENGLISH)

(30 Marks)

(PEDAGOGY - 10 marks)

Unit-1: Learning English at Elementary Level (Class I to V)

- 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, storytelling, dialogue
- Development of reading skills: reading for comprehension, techniques and strategies for teaching reading – phonic, alphabet, word, sentence and story
- · Development of writing skills teaching composition

(CONTENTS-20 Marks)

Unit-4: Language items

 Noun, Adverb, Verb, Tense and Time, Preposition, Article, Adjective, Punctuation.

MATHEMATICS

(30 Marks)

(PEDAGOGY - 10 Marks)

Unit- 1: Mathematics Education in Schools

- Nature of mathematics (exactness, systematic, pattern, 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

(CONTENT - 20 Marks)

Unit- 3: Number systems and operation in numbers

- Number system natural, whole, rational, real
- · Fundamental operation on numbers
- Fractional operation on numbers
- Fractional numbers and decimals operations in fractional numbers and decimals.
- Factors and multiples HCF and LCM
- Percentage and its application.

Unit-4: Measurement

- · Measurement of length, weight, capacity
- Measurement of area and perimeter of rectangle and square
- Measurement of time concept of a.m., p.m. and time interval

Unit-5: Shapes and Spatial Relationship

- · Basic geometric concepts point, line segment, ray, straight line, angles
- · Geometry of triangles, quadrilaterals and circles
- Symmetry
- Geometrical slides cube, cuboids, sphere, cylinder, cone

Unit- 6: Data Handling and patterns

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

(PEDAGOGY -10 Marks)

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

(CONTENT - 20 marks)

Unit-3: Governance

- Local Self, Government State and Central
- Judiciary

Unit- 4: Physical Features of Odisha and India

- Landscape
- Climate
- Natural resources
- Agriculture and Industry
- Disaster management

Unit-5: History of Freedom Struggle in India and Odisha

Unit-6: Health and Diseases

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

Unit-7: Internal Systems of Human Body

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

Unit-8: Matter, Force and Energy

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