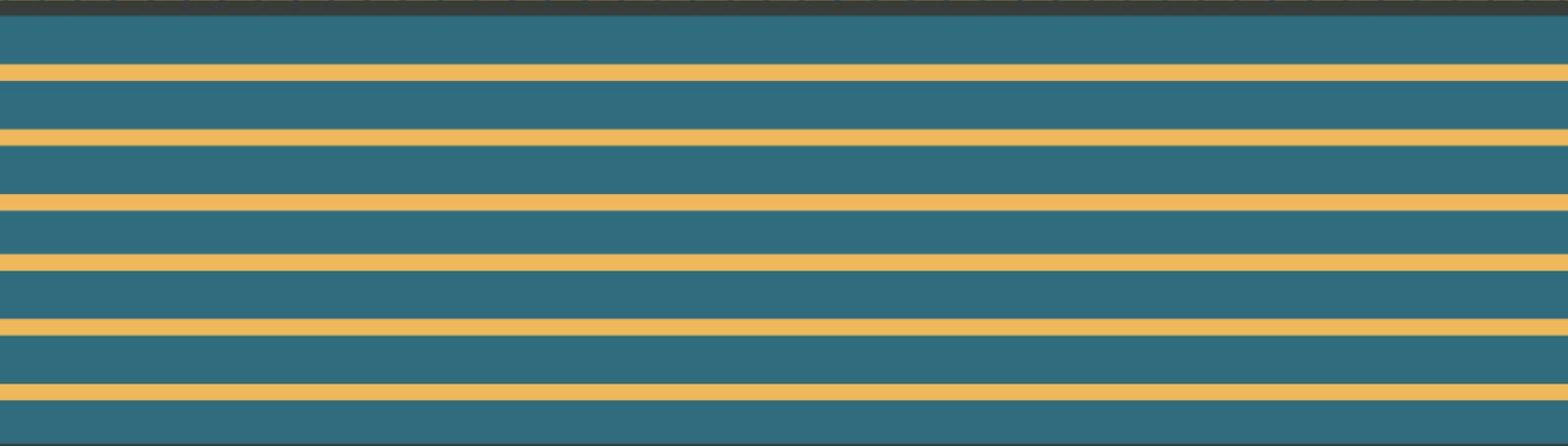




**SCERT-Sikkim**  
"Empowering Society through Education"  
Department of Education, Govt. of Sikkim

# Sikkim Teacher Eligibility Test Syllabus





# Foreword

Teachers are fundamental in fulfilling the aims and objectives of an education system. Their role in understanding the learner and providing appropriate participatory experiences is the basis of every classroom learning. In the process, the need for every teacher to develop and execute competencies that integrate knowledge and application is both significant and focal. Keeping this in mind and in alignment with the recommendations of National Education Policy (NEP) 2020 for Teacher Eligibility Test (TET) to be strengthened by inculcating better test material, both in terms of content and pedagogy, the State Council of Education Research and Training (SCERT) Sikkim has undertaken this initiative to revamp the Sikkim Teacher Eligibility Test (STET) .

The state has been conducting STET using the Central Teacher Eligibility Test (CTET) syllabus since 2013. With the new NEP guidelines, a need was felt to revise the existing syllabus and contextualize it to the state requirements. There was also a need to streamline the test development process by following certain academically rigorous and standardized practices. As a result, comprehensive assessment frameworks and item banks were also developed in alignment to well-established processes in test development.

This work is a result of the contribution of teacher educators of Sikkim who have been involved in a series of interactions and planned workshops during the year. Azim Premji University provided the academic support for planning, conceptualizing, and executing capacity building workshops and in creating resource materials that can be used to improve the quality of STET in subsequent years.

The SCERT Sikkim thanks all members who have contributed to the development of the document. We hope this document will enable all stakeholders in working towards fulfilling our goal of quality education through a more responsive approach to the current demands of the educational system.

**Dr. Rabin Chhetri**  
**Director**  
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# Preface

Recruiting well-qualified and passionate teachers into the school system plays an important role in ensuring a better quality of education imparted. Hence, the recruitment process needs to be carefully designed and implemented. The National Education Policy (NEP) 2020 highlights the need to strengthen the Teacher Eligibility Test (TET) conducted at both, the state as well as the central level to 'inculcate better test material, both in terms of content and pedagogy'. In the context of the state of Sikkim, the need to revamp and strengthen the State Teacher Eligibility Test (STET) was an imperative need. The State Council of Education Research and Training (SCERT), Sikkim recognised the need for the setting up of a quality test development process to ensure a fair, inclusive and meaningful selection of candidates to enter the teaching profession. Azim Premji University supported SCERT in the process of restructuring STET to better suit their shared vision of improving the quality of teacher recruitment in the state.

The entire approach to STET restructuring was undertaken in a phased manner. In the first phase, an exhaustive review of existing STET tools and processes was undertaken. This helped identify specific areas of concern that could be hindering the test quality. One of the core areas of concern was the need for improving the quality of the test instruments. This could be done through a better alignment of content and skills that are taught in Teacher Education Institutions (TEIs) in the state and what is being tested through TET. The second phase involved updating the STET syllabus in alignment with the current TEI curriculum used across the state. A working committee with around 50 subject matter experts (SMEs) from SCERT, DIETs and private TEIs within the state was constituted for this purpose with SMEs from Azim Premji University supporting the respective subject groups. Each of these groups further developed subject-wise assessment frameworks detailing specific competencies that could be tested in TET. This was part of the third phase. In the fourth and final phase, the group developed sample assessment items in alignment with the specific competencies listed in the framework. These model items would serve as exemplars for future TET instruments.

The present syllabus document intends to provide prospective candidates with a detailed understanding of subject-wise topics and sub-topics on which they will be tested both in terms of their content as well as pedagogic content knowledge. It attempts to support candidates in their preparation for the test in a structured manner by providing clarity in terms of what is going to be tested.

**Dr. Shanti Ram Adhikari**  
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# Acknowledgements

The State Council of Educational Research and Training (SCERT) Sikkim is thankful for the contributions made by members of the working committee towards revamping the STET syllabus and reconceptualizing the test development processes.

We are grateful to the team of subject experts from Azim Premji University Bengaluru for their continuous guidance and academic support to the working committee members.

We would like to extend our gratitude towards subject coordinators and faculty members of SCERT, District Institutes of Education and Training (DIETs), Govt. B.Ed College Soreng, Harkamaya College of Education, TTI Carmel Pakyong and subject experts of regional languages from Directorate of Languages, Education Department, Govt. of Sikkim for their contribution.

We also thank the Education Department of Sikkim for its continuous support and commitment to the project.

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## Background and Rationale

In accordance with the provisions of sub-section (1) of Section 23 of the RTE Act, the National Council for Teacher Education (NCTE) vide Notification dated 23<sup>rd</sup> August 2010 and 29<sup>th</sup> December 2011 laid down the minimum qualifications for a prospective candidate to be eligible for appointment as a teacher for class I to VIII. It had been inter alia provided that one of the essential qualifications for a candidate to be eligible for appointment as a teacher in any of the schools referred to in Clause (n) of section 2 of the RTE Act is that he/she should pass the Teacher Eligibility Test (TET) which will be conducted by the appropriate Government in accordance with the guidelines framed by the NCTE.

The rationale for including the TET as a minimum qualification for a candidate to be eligible for appointment as a teacher is as under:

- i. It would bring national standards and benchmark of teacher quality in the recruitment process.
- ii. It would induce teacher education institutions and students from these institutions to further improve their performance standards.
- iii. It would send a positive signal to all stakeholders that the government lays special emphasis on teacher quality.

The state of Sikkim has been conducting the STET from the year 2013. Over the years, it has been recognised that there is a need to situate the test process within the context of the state. As such, the proposed syllabus is an enhancement of the existing Central Teacher Eligibility Test (CTET) syllabus in such a way that it caters to certain requirements that are more contextual in nature. The syllabus has been designed in alignment with the existing D El Ed and B Ed curriculum used in the state.

## Navigating through the Syllabus

The proposed syllabus document differs from its previous versions in the following aspects:

- It provides a brief overview of what each subject section intends to test in a student-teacher entering the system.
- It clearly lays down the criteria on the basis of which content has been selected to assess student-teachers effectively using a paper-pencil test.
- It eliminates vagueness in articulation and provides an additional level of detailing in order to clarify specifically what areas will be covered as part of the examination.

While the syllabus provides an exhaustive list of topics that candidates should be familiar with, the question paper development will be based on assessment frameworks that will test a specific set of competencies in each round. These competencies, while extracted from the given topics, will test a limited set of knowledge, skills and dispositions every time.

## Structure and Content

All questions in STET will be Multiple Choice Questions (MCQs), with four alternatives out of which one answer will be the most appropriate. Each question will carry one mark and there will be no negative marking.

There will be two papers under STET.

- (i) **Paper I** will be for a candidate who intends to be a teacher for grades I to V.
- (ii) **Paper II** will be for a candidate who intends to be a teacher for grades VI to VIII.

### Structure of papers

#### Paper I (Primary Stage)

| <b>Subject area</b>            | <b>No. of questions (MCQs)</b> | <b>Total marks</b> |
|--------------------------------|--------------------------------|--------------------|
| Child Development and Pedagogy | 30                             | 30                 |
| Language I                     | 30                             | 30                 |
| Language II                    | 30                             | 30                 |
| Mathematics                    | 30                             | 30                 |
| Environmental Studies          | 30                             | 30                 |
| <b>Total</b>                   | <b>150</b>                     | <b>150</b>         |

#### Paper II (Elementary Stage)

| <b>Subject area</b>            | <b>No. of questions (MCQs)</b> | <b>Total marks</b> |
|--------------------------------|--------------------------------|--------------------|
| Child Development and Pedagogy | 30                             | 30                 |
| Language I                     | 30                             | 30                 |
| Language II                    | 30                             | 30                 |
| Mathematics and Science        | 60                             | 60                 |
| <b>OR</b>                      |                                |                    |
| Social Science                 | 60                             | 60                 |
| <b>Total</b>                   | <b>150</b>                     | <b>150</b>         |

## Nature of content

The content tested while in alignment with the teacher education curriculum of the state, also takes into consideration that the test is intended to recruit fresher teachers into the system. The syllabus is designed in such a way that all concepts are assessed effectively using a paper-pencil test. A subject-wise syllabus is given below:

**CHILD DEVELOPMENT AND PEDAGOGY:** As a beginner teacher, the theoretical and critical understanding of children's physical, cognitive, social, and emotional development lays a foundation that is crucial for understanding children and preparing oneself better to begin working with them. As such, this section intends to test the student-teacher's psychological foundations of teaching and learning and his/her understanding of the developmental processes of children with diverse abilities and multiple contexts. It also attempts to assess the student-teacher's knowledge of different approaches to child development and learning, in the light of principles of behaviourism, information processing, cognitive development, constructivist, socio-constructivist and cross-cultural awareness.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Core concepts based on theoretical foundations of child development and learning
- Policies and legislative frameworks envisaging child-friendly and inclusive education
- NEP 2020 recommendation on age-appropriate, critically important domains of language, cognitive, socio-emotional development, and child-centred system of learning based on empirical research on pedagogy

**LANGUAGES (English and Regional Languages):** Language learning is foundational to the learning of concepts, skills, and dispositions in different subjects. It is, therefore, essential that we work in alignment with the core elements that inform all the language courses taught under the teacher education curriculum and the national standards and benchmarks for the teaching of English and regional languages. Teachers will be assessed on their academic and pedagogical knowledge and their sensitivity to the diverse language contexts and backgrounds of learners. At the primary stage, when learners are acquiring foundational literacy skills, the objective of teaching is to facilitate the acquisition and learning of basic interpersonal communication skills. At the elementary stage, learners are cognitively equipped to become autonomous learners. They also begin to learn the academic language of different subjects. It follows that the teacher, at this stage, should be assessed for her ability to design materials and pedagogical processes for nurturing autonomous learners with higher-level academic language skills.

In both Paper I and Paper II, Language I and Language II have almost the same syllabus. This is because the content and pedagogical knowledge for teachers teaching all languages should be the same. There are only two differences (applicable to both Paper I and Paper II):

1. Under Section II of Pedagogical Processes, Content 2 for Language I is 'Challenges in the teaching of English as the medium of instruction'. In Language II, it is 'Challenges in the teaching of regional languages as a subject'.
2. The types of unseen texts for Language I and Language II are also different. This is indicated under Section I of Content.

Language I assesses proficiencies related to the medium of instruction, communication, and comprehension. In Sikkim, Language I is English as it is the medium of instruction, communication, and comprehension in school. Even though English may not be part of the children's home environment, especially in rural areas, it is an inclusive medium of instruction, which allows for a space for the regional languages in the classroom.

Language II comprises the regional languages of Sikkim, with which children are familiar in their home environment. Language II assesses elements of language, communication, and comprehension abilities. Its inclusion is also important for the preservation of local languages and the cultural heritage of the state.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Core concepts that inform the perspectives on the nature of language with reference to the position papers on the teaching of English and regional Languages
- Pedagogical processes of language teaching informed by best practices, based on robust educational theories
- Processes informed by core constitutional values, such as diversity and inclusion
- Context of Sikkim and the qualities of a good teacher as expressed in NCFTE 2009
- Recommendations for the recruitment process of quality teachers in NEP 2020
- CTET Syllabus

**MATHEMATICS:** The National Curriculum Framework, 2005 envisions that school mathematics focus on developing the inner resource of a child by getting the child to reason, communicate, be able to give validated arguments/justifications and understand and apply mathematics in the real world. Student-teachers' ability to develop among children important processes, like generalisations, reasoning, communication, representation, and problem-solving, is critical to attaining this vision. This

section would attempt to understand a student-teacher's ability to move from mathematical content to its well-rounded teaching-learning. The multiplicity of approaches to teaching-learning will also be assessed.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Themes and mathematical skills and processes that traverse through grade-wise concepts with varying levels of progression
- Inter-connected topics to ensure continuity and remove the stand-alone nature of any topic
- Pedagogical issues connected to mathematical content in order to enable the student-teacher to understand and address them
- Pedagogical processes of mathematics informed by teaching and learning theories and experiences in the classroom
- Blend of pedagogy and content which leads to effective teaching
- Processes informed by core constitutional values, for example, diversity and inclusion
- Context of Sikkim and the qualities of a good teacher as expressed in NCFTE 2009

**ENVIRONMENTAL STUDIES:** Children are naturally inclined to explore the world around them by touching, feeling, smelling and observing how people interact with a variety of objects and with each other. They observe relationships; engage with their environment; and develop concepts, emotions, and responses. Student-teachers need to exhibit an understanding of various inter-relationships and be able to engage the children in activities to understand the environment through illustrations from the physical, biological, social, and cultural spheres. The student-teachers' understanding of an inclusive and sensitive approach to teaching the subject and the use of specific skills such as observation, reporting, discussion, expression, questioning, analysis, cooperation etc. needs to be examined. This section takes into consideration all these aspects and takes an integrated approach to explore concepts from science, social science, and environmental education.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Objectives of the subject as articulated in the NCERT syllabus document
- Nature of EVS drawn from the NCF Position Papers on
  - Teaching of social science
  - Teaching of science

- Context of Sikkim and an inclusive approach to the selection of themes for the content
- EVS skills like observation, reporting, discussion, expression, questioning, analysis, and cooperation

**SCIENCE:** Scientific knowledge is generated through several interconnected processes such as observation, looking for regularities and patterns, making hypotheses, devising qualitative or mathematical models, deducing their consequences, verification or falsification of theories through observations and controlled experiments, and thus, arriving at the principles, theories and laws governing the physical world. A science teacher should be able to help children maintain the balance between both process and product of science learning. Student-teachers are expected to exhibit thorough content knowledge of the subject. Their ability to explore multiple pedagogic strategies to make the transaction of the subject meaningful and interesting will be assessed. Continuity and integrated progression of teaching concepts across grade levels is also an important skill that is expected from student-teachers.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Objectives of the subject as articulated in the NCERT syllabus document
- Nature of science drawn from the NCF position papers on teaching of science
- Context of Sikkim and an inclusive approach to the selection of themes for the content
- Science skills, like observation and recording, classification, inference, design and fabrication, estimation and measurement, speculation and conjecture, experiential learning through models, toys etc. and experimentation to discover/verify theoretical principles

**SOCIAL SCIENCE:** Social science encompasses diverse social concerns that enable the development of a critical understanding of society. At the elementary stage, its content is drawn from various disciplines like political science, history, and geography, which aid in the development of knowledge and understanding of the diverse and dynamic nature of society, inter-relationship among its various components and interactions among different cultures and environments. Students develop and apply skills as they investigate society, explore issues, make decisions, and work cooperatively with each other. Having such skills enable them to participate in society as informed, confident, and responsible citizens. A social science teacher needs to facilitate the development of the above-mentioned skills in children. To do this, it is of utmost importance that she/he has a sound conceptual understanding of the subject. Having a good understanding of concepts will guide the teacher not only in facilitating the same in the classroom but the values entrenched in the subject will also help the teacher to reason, argue and even question her/his own values and beliefs.

The content and pedagogical processes mentioned in the syllabus are selected on the following criteria:

- Contemporary issues and problems, like poverty, illiteracy, child and bonded labour, class, caste, gender, and environment
- Perspective building on issues concerning environment, resources, and development at different levels, from local to global
- India's past, with reference to contemporary developments in other parts of the world
- Formation and functioning of governments at the local, state, and central levels, and the democratic processes of participation

## Detailed Syllabus Structure and Content

Paper I: Primary Stage (Grades I to V)

**CHILD DEVELOPMENT AND PEDAGOGY**

**(30 questions)**

**I. Child development (primary school child)**

**(15 Questions)**

**1. Concept and principles of development and its relationship with learning**

- a. Principles of growth and development
- b. Factors influencing growth and development
- c. Domains of development and milestones in early and middle childhood
  - i. Gross and fine motor skills
  - ii. Cognitive development
  - iii. Social development
  - iv. Emotional development

**2. Development of speech and language**

- a. Language development in different ages
- b. Factors influencing language development
- c. Uses of language

**3. Socialisation processes: The social world and children (teachers, parents, peers.)**

- a. Parenting: Family and adult-child relationship; child-rearing practices; impact of separation from parents, and children in institutionalised settings
- b. Schooling: Peer influence, school culture, relationship with teacher, relationships with peers, competition and cooperation, competition and conflict, aggression and bullying during childhood
- c. Early childhood care and education: Definition; objectives and principles of ECCE; different approaches to early childhood education, planning and management of an ECCE curriculum; foundational literacy and numeracy

**4. Theoretical constructs and critical perspectives**

- a. Piaget's stages of cognitive development
- b. Kohlberg's theory (moral development)

**5. Acts and policies**

- a. National Policy on Education (1968, 1986), National Curriculum Framework 2005, National Education Policy 2020
- b. Right of Children to Free and Compulsory Education Act, 2009

## II. Concept of inclusive education

(5 Questions)

### 1. Meaning and importance of inclusive education

- a. Historical and contemporary perspectives on inclusive education
- b. Acts and policies: Rehabilitation Council of India Act (1992), Integrated Education for Disabled Children (IEDC), RPWD (2016), NEP 2020 (with special focus on inclusive education)

### 2. Addressing individual differences among learners from diverse backgrounds

- a. Understanding differences based on diversity of language, caste, gender, community, religion etc.
- b. Understanding challenges of socio-economically disadvantaged groups- regional, linguistic, and ethnic groups
- c. Gender as a social construct; gender roles, gender bias and educational practice
- d. Socio-cultural variations in language: Bilingual/multilingual children, linguistic variations, implications for a multicultural classroom

### 3. Addressing needs of children with different abilities

- a. Learning disabilities: Meaning, characteristics and identification of children with learning disabilities
- b. Approaches and techniques for helping learning-disabled children.
- c. Children with Disabilities: Types, role of teacher while dealing with Children with Special Needs (CWSN)/*divyang* children
- d. Gifted Learners: Meaning, characteristics and identification of gifted children

### 4. Child labour and child abuse

- a. Acts and policies, challenges, and their implications on child development (physical, sexual, emotional, verbal) (POCSO Act, Child labour Act, State Council for Protection of Child Rights)

## III. Learning and pedagogy

(10 Questions)

### 1. How children think and learn

- a. Theories of learning and their educational implications
  - i. Learning: Concept and type of learning (Gagne's Classification) Gagne's hierarchical theory of learning
  - ii. Behavioural or stimulus: Response connection theory; Pavlov's classical conditioning learning, Thorndike trial and error learning, Skinner's operant conditioning learning
  - iii. Bandura and Walter's social learning theory
  - iv. Vygotsky's theory; concept of Zone of Proximal Development (ZPD)
- b. Bloom's Taxonomy of cognitive domains
- c. Factors contributing to learning- Personal, social, and environmental
- d. Concept formation

- i. Meaning of concept
- ii. Mental processes in concept formation
- iii. Factors affecting development of concepts in childhood
- iv. Bruner’s model of concept learning
- v. Piaget’s views on concept formation
- e. Thinking and reasoning
  - i. Concept and nature of thinking
  - ii. Linkages between thinking and learning

**2. Basic processes of teaching and learning: Children’s strategies of learning (transfer of learning etc.); learning as a social activity; social context of learning**

- a. Learning process: Learning concept, characteristics, principles, types, domains
- b. Transfer of learning: Meaning, types, theories, and educational implication
- c. Approaches of teaching and learning: Project method, discussions, problem-solving method etc.
- d. Play – meaning, characteristics, and types
- e. Play and its functions: Linkages with the physical, social, emotional, cognitive, language and motor development of children; socio-economic differences in children’s play

**3. Assessment and learning**

- a. Different ways of recording and interpreting data: Measures of central tendency- mean, median and mode, anecdotal records, observation, checklists, portfolio etc.
- b. Approaches to assessment: Formative and summative assessment
- c. Characteristics of good assessment: Validity, reliability, fairness, objectivity etc.

**LANGUAGE I**

**(30 questions)**

**I. Content**

**(15 Questions)**

**Unseen passages:** Two passages, one prose (literary, scientific, narrative, or discursive) or drama of 300-350 words and one poem

**1. Reading comprehension**

- a. Skills of reading
  - i. Understanding subskills of reading: Skimming and scanning
  - ii. Understanding strategies of reading: Prediction, visualisation, summarisation etc.
  - iii. Higher Order Thinking Skills (HOTS): Inferences, conclusions, assumptions, textual evidence, cause-effect, point of view etc.
- b. Grammar knowledge
  - i. Functional and communicative grammar in everyday contexts
  - ii. Adjectives, adverbs, prepositions, determiners, modals, tenses, clauses, subject-verb concord, commands and requests, statements, and questions
- c. Vocabulary
  - i. Vocabulary in unseen texts (prose, poem, non-fiction, and authentic literature like newspaper reports and articles)
  - ii. Synonyms and antonyms, shades of meaning, semantic gradients, e.g., big, huge, gigantic

- iii. Figures of speech: Metaphor, symbol, image, rhyme scheme, alliteration, onomatopoeia etc.

## **2. Responding to literature**

- a. Interpretation of plot, character, setting and intention
- b. Critical thinking in unseen texts
- c. Gender, inclusion, and stereotypes

## **3. Language policies and languages in school education**

- a. Goals of a language curriculum and their relation to pedagogical processes and TLMs
- b. 'Three language formula' and its effect on languages in school education
- c. Language Policy of Sikkim and pedagogical issues related to its implementation
- d. Latest policies related to languages and language education at the State and national level

## **II. Pedagogical processes**

**(15 Questions)**

### **1. Language diversity and multilingual contexts**

- a. Perspectives
  - i. Perspectives on multilingual approach and language inclusion
  - ii. Perspectives on Cummins' theory of language interdependence
  - iii. Perspectives and classroom processes of multilingual pedagogy
  - iv. Code-mixing and code-switching
- b. Pedagogy
  - i. Language diversity and multilingualism as a resource for learning school languages
  - ii. Simultaneous translation and creative translation as teaching strategies

### **2. Challenges in the teaching of English as the medium of instruction**

- a. Social and pedagogical challenges facing the language teacher
  - i. English as a medium where an environment of English is not available
  - ii. Syllabus requirements and the textbook
  - iii. Mixed-ability groups and large classes
  - iv. Aspirations of parents
  - v. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
  - vi. Understanding the meaning of mistakes in a developmental continuum
- b. Development of the language teacher as a professional
  - i. Language proficiency and competence
  - ii. Knowledge of new pedagogies
  - iii. Connect with professional community
  - iv. Opportunities for professional development

### **3. Language across the curriculum**

- a. Perspectives
  - i. Language as a school subject and as a means of learning and communication
  - ii. Language as an instrument for abstract thought and knowledge acquisition (language abilities that facilitate the learning of other subjects)
- b. Pedagogy
  - i. TLMs, storybooks and non-fiction books on concepts

- ii. Classroom processes for Language Across Curriculum (LAC)

#### **4. Language acquisition and language learning**

- a. Perspectives
  - i. Perspectives on the difference between acquisition and learning and the stages of language learning
  - ii. Principles of second language acquisition and their application in pedagogical processes and TLMs: The Natural Approach (Krashen and Terrell); Pedagogy of Comprehensible Input (Krashen); Language Interdependence Hypothesis (Cummins) and Bilingual Approach- Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP)
  - iii. Theories of language acquisition (Chomsky- Language Acquisition Device (LAD) and Bruner- Language Acquisition Support System (LASS) and their application in pedagogical processes
- b. Pedagogy
  - i. Emergent literacy and language learning in school
  - ii. Role of home languages in learning

#### **5. Approaches to language teaching at the primary stage**

- a. Perspectives and pedagogy
  - i. Perspectives and pedagogy of whole language and task-based communicative approaches to language teaching at the primary stage
  - ii. Input-rich communicational environment in the classroom
  - iii. Comprehensible input
  - iv. Meaningful contexts for language learning through integration of skills
  - v. 'Silent period' phase and approaches like Total Physical Response (TPR)
- b. Pedagogical processes
  - i. Lesson planning and assessment under whole language and task-based communicative approaches
  - ii. Promoting role of parents and community in foundational literacy
  - iii. Experiential learning through art, stories, poetry, rhymes, games, toys, songs, or activity-based in home language/mother-tongue focusing on rich local traditions (Integrating art, sport, ICT, storytelling, toys, games, puzzles, etc)
  - iv. Storytelling and children's literature
  - v. Creating a print-rich environment
  - vi. Listening to; telling and writing stories, poems, songs, and rhymes
  - vii. Sharing experiences
  - viii. Drama/theatre and role play
  - ix. Picture reading/talk, shared reading
  - x. Activities based on reading and writing corners
  - xi. Use of classroom wall (word wall)
  - xii. Experience-based writing
- c. Inclusive pedagogy
  - i. Children in different circumstances
  - ii. Gifted and special ability children: Dyslexia, dysgraphia, auditory processing disorder, language processing disorder, visual perceptual deficit etc.

- iii. Learning, TLMs and adaptive assessment

## **6. Curricular materials and planning**

- a. Principles
  - i. Print-rich environment: Types of materials, their need, use for different stages of learning
  - ii. Principles and application of TLM design and use, e.g., flexibility, dynamism, inclusion, gender sensitivity, contextuality, age-appropriateness, attractiveness and language-teaching and assessment potential, and their application
- b. Dynamic nature of TLMs and their interactive use in language learning
  - i. Cultural resources like stories, folk art, and literature
  - ii. Learner-created and learner-chosen texts
  - iii. Collaboratively developed TLMs (both by the teacher and learners)
  - iv. Authentic literature
  - v. Multimedia resources
- c. TLM essentials
  - i. Curriculum, syllabus, textbooks, learning outcomes and lesson plans
  - ii. Print-rich environment: Types of materials, their need, use for different stages of learning
- d. Types of TLMs and their interactive use in language learning
  - i. Local/cultural resources like stories, songs, folk art, literature, indigenous toys, and traditional games
  - ii. Authentic material
  - iii. Learner-created and learner-chosen texts, reading corners and library
  - iv. Collaboratively developed TLMs with low-/no-cost material (both by the teacher, learners, and the community)
  - v. Art, sport, and Information and Communication Technology (ICT) integrated material

## **7. Assessing Language**

- a. Perspectives on assessment
  - i. Assessment as part of the teaching process
  - ii. Assessment 'for' and 'as' learning (formative) and 'of' learning (summative).
- b. Relationship between assessment and the teaching process
  - i. Tailor-made, adaptive assessment
  - ii. Recording, tracking and reporting learner progress
  - iii. Providing qualitative feedback and developing holistic progress reports
  - iv. Testing with reference to cognitive domains
  - v. Cognitive alignment of LOs with assessment
- c. Continuous and comprehensive assessment in language teaching:
  - i. Assessment 'for' and 'as' learning (formative): Assessment of oracy and literacy skills

## **8. Teaching literature at the primary stage**

- a. Teaching poetry, prose, drama or fiction for enjoyment, appreciation, and development of imagination
- b. Elements of literature: Style, format, layout, structure and theme of prose, poem, or non-fiction
- c. Types of text: Descriptive, narrative, expository and argumentative

d. Authentic literature (newspaper reports, posters etc.)

### 9. Critical perspectives on the teaching of grammar at the primary stage

a. Principles

- i. Rules and definitions not 'taught'
- ii. Grammar through active engagement with language
- iii. Inductive method with opportunities for discovery of rules through communicative tasks
- iv. Discovery of rules as reflecting on academic language, an intellectually engaging activity in its own right
- v. Formal grammar introduced after basic linguistic competence is acquired

b. Pedagogy

- i. Strategies of teaching grammar and vocabulary through exposure to spoken and written inputs and discovering their use/function, instead of explicit grammar instruction at the primary stage
- ii. Components of grammar and vocabulary, e.g., nouns, pronouns, adjectives, adverbs, prepositions, singulars and plurals, gender, articles, conjunctions, determiners, possessives, punctuation marks, verbs, and tense forms (simple present and present continuous, simple past and past continuous, expressing future), question words etc.

### 10. Critical perspectives on remedial teaching

a. What is remedial teaching?

- i. What needs to be remedied – learner, teacher or TLMs?
- ii. When where why and how of remedial teaching
- iii. The acquisition-learning continuum versus the remedial teaching approach
- iv. Inclusive and adaptive lesson planning or remedial teaching?

b. Awareness of remediation strategies to support language learning

- i. Inclusive and adaptive lesson planning
- ii. Specific remediation programmes and bridge courses
- iii. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
- iv. Any other classroom/school-level intervention, e.g., action research or a library programme

## LANGUAGE II

(30 Questions)

### I. Content

(15 Questions)

**Unseen passages:** Two unseen prose passages (discursive, literary, narrative, or scientific) of 300-350 words

#### 1. Reading comprehension

a. Skills of reading

- i. Understanding subskills of reading: Skimming and scanning
- ii. Understanding strategies of reading: Prediction, visualisation, summarisation etc.
- iii. Higher Order Thinking Skills: Inferences, conclusions, assumptions, textual evidence, cause-effect, point of view etc.

b. Grammar knowledge

- i. Functional and communicative grammar in everyday contexts

- ii. Adjectives, adverbs, prepositions, determiners, modals, tenses, clauses, subject-verb concord, commands and requests, statements, and questions
- c. Vocabulary
  - i. Vocabulary in unseen texts (prose, poem, non-fiction, and authentic literature like newspaper reports and articles)
  - ii. Synonyms and antonyms, shades of meaning, semantic gradients, e.g., big, huge, gigantic)
  - iii. Figures of speech: Metaphor, symbol, image, rhyme scheme, alliteration, onomatopoeia etc.

## 2. Responding to literature

- a. Interpretation of plot, character, setting and intention
- b. Critical thinking in unseen texts
- c. Gender, inclusion, and stereotypes

## 3. Language policies and languages in school education

- a. Goals of a language curriculum and their relation to pedagogical processes and teaching-learning materials (TLMs)
- b. 'Three language formula' and its effect on languages in school education
- c. Language policy of Sikkim and pedagogical issues related to its implementation
- d. Latest policies related to languages and language education at the state and national level

## II. Pedagogical Processes

(15 Questions)

### 1. Language diversity and multilingual contexts

- a. Perspectives
  - i. Perspectives on multilingual approach and language inclusion
  - ii. Perspectives on Cummins' Theory of Language Interdependence
  - iii. Perspectives and classroom processes of multilingual pedagogy
  - iv. Code-mixing and code-switching
- b. Pedagogy
  - i. Language diversity and multilingualism as a resource for learning school languages
  - ii. Simultaneous translation and creative translation as teaching strategies

### 2. Challenges in the teaching of regional languages as a subject

- a. Social and pedagogical challenges facing the language teacher
  - i. Teaching of regional languages where classes are not homogenous
  - ii. Syllabus requirements and the textbook
  - iii. Mixed-ability groups and large classes
  - iv. Aspirations of parents
  - v. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
  - vi. Understanding the meaning of mistakes in a developmental continuum
- b. Development of the language teacher as a professional
  - i. Language proficiency and competence
  - ii. Knowledge of new pedagogies
  - iii. Connect with professional community
  - iv. Opportunities for professional development

### **3. Language across the curriculum**

- a. Perspectives
  - i. Language as a school subject and as a means of learning and communication
  - ii. Language as an instrument for abstract thought and knowledge acquisition (language abilities that facilitate the learning of other subjects)
- b. Pedagogy
  - i. TLMs and non-fiction or storybooks on concepts
  - ii. Classroom processes for Language Across Curriculum (LAC)

### **4. Language acquisition and language learning**

- a. Perspectives
  - i. Perspectives on the difference between acquisition and learning and the stages of language learning
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  - v. Art, sport, and ICT integrated material

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  - ii. Assessment 'for' and 'as' learning (formative) and 'of' learning (summative).
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  - iv. Any other classroom/school-level intervention, e.g., action research or a library programme

### **MATHEMATICS**

**(30 Questions)**

#### **I. School Mathematics (content and learning)**

**(15 Questions)**

##### **1. Number (numerical aptitude and its teaching)**

- a. Pre-number concept

- b. Operations on whole numbers, integers, fractions, decimals, rational numbers (meaning, representation, algorithm, word problem), BODMAS
- c. Playing with numbers (square, square root, cube, cube root, HCF and LCM, triangular numbers, magic squares/triangles)
- d. Ratio and Proportion (Direct and Inverse Variation)
- e. Percentage, Profit and Loss/Discount
- f. Simple Interest/Compound Interest/Value Added Tax (VAT)/ Goods and Services Tax (GST)
- g. Exponents
- h. Simple word problems related to all the above concepts
- i. Counting principles
- j. Convention and rule of reading and writing numbers

## **2. Geometry (shapes and spatial understanding)**

- a. Understanding and identifying attributes of square, rectangle, circle, triangle, parallelogram, rhombus, cube, cuboid, cylinder, sphere, and cone
- b. Faces, edges, and vertices of 3-D shapes (Euler's Formula), classification of triangles and quadrilaterals
- c. Properties of lines and angles
- d. Visualisation: Nets of solids, map-reading, location with respect to a reference point, perspective
- e. Construction of angles, angle bisector, perpendicular bisector, quadrilaterals, triangles, parallel lines
- f. Symmetry - lines, rotational
- g. Van Hiele's levels of geometric thinking

## **3. Pattern and Algebra**

- a. Terms, factors, and coefficients; monomials, binomials, and trinomials; operations on algebraic expressions; factorisation using identities
- b. Simple linear equations
- c. Patterns in numbers and shapes
- d. Progression from arithmetic to algebra

## **4. Measurement and Mensuration**

- a. Identification of attributes
- b. Use of language appropriate to attributes
- c. Relationship between attributes (length to area, volume to weight)
- d. Concepts – length, weight, capacity/volume, money, time, perimeter, area, and volume.
- e. Process of measuring; use of measuring tools and appropriate units (non-standard and standard)
- f. Applying formula for measurement of perimeter and area
- g. Estimation of measurements
- h. Developmental stages of measurement

## **5. Data handling**

- a. Reading and making inferences from data
- b. Data representation: Pictographs, tables, bar graphs, pie charts
- c. Mean, median, mode
- d. Simple probability problems

## II. Perspectives and pedagogical content knowledge

(15 Questions)

### 1. Nature and understanding of mathematics.

- a. Nature of mathematics: Hierarchy; abstraction; deductive nature; math as patterns in numbers and shapes
- b. Role of intuition and logic in mathematics

### 2. Language of mathematics

- a. Mathematics as language-precise and concise
- b. Mathematics register: Vocabulary
- c. Relationship with spoken language
- d. Symbols in mathematics

### 3. Place of mathematics in school curriculum

- a. Aims and objectives of teaching mathematics at the primary level and its correlation with other subjects
- b. Curriculum of mathematics at different stages of schooling
- c. Social aspect, applications of maths

### 4. Community mathematics

- a. Knowing mathematicians: Appreciating the contribution made by Indian and other mathematicians
- b. Use of mathematics in daily life
- c. Ethnomathematics: Mathematics in one's cultural tradition (attire, home, food items, religious practices, indigenous games)

### 5. Approaches to learning and teaching mathematics

- a. How children learn mathematics: Concept formation, learning trajectories, principles of child development and learning; learning by memorisation, imitation, drill and practice, instrumental and relational understanding
- b. Errors and misconceptions
- c. Theories of mathematics education (Piaget, Vygotsky, Bruner, Skemp)
- d. Strategies and Methods – experiential learning (activity-based learning, play-way method); inductive and deductive method; analytic and synthetic method; heuristic method
- e. Problem-solving in mathematics
- f. Extended learning (connecting classroom learning to the outside world)
- g. Social aspects – applications of mathematics

### 6. Understanding resources for teaching mathematics

- a. Perspectives on use of TLMs and their place in learning math
- b. Role of assignments, - investigations, projects, games, and puzzles
- c. Textbook and worksheets
- d. Mathematics lab, mathematics *mela*
- e. Space and objects around the child

### 7. Assessment

- a. Purpose of Assessment: Diagnostic, effectiveness of pedagogy, assessment for/of/as learning
- b. Readiness of student – assessment of content and skills
- c. Types of Assessment – formative and tools; summative and tools

- d. Open- and close-ended questions and problems
- e. Assessment of conceptual understanding and mathematical reasoning abilities

## **ENVIRONMENTAL STUDIES**

**(30 Questions)**

### **I. Content and Learning**

**(15 Questions)**

#### **1. Family and friends**

- a. Family, relationships, and community
  - i. Family tree: Members to include non-family members; animals
  - ii. Similar/distinct characteristics of family members
  - iii. Changing families: Addition to family due to birth, marriage, adoption
  - iv. Roles played by family members: Sharing the chores at home; work done by family members outside the home; questioning stereotypes and nurturing sensitivity
  - v. Awareness of children towards their own safety from strangers
  - vi. Community and its need: Samaj, khetalas; role of members of a community
  - vii. Local and popular games in Sikkim: Their rules; role of games in a child's life
- b. Plants and animals
  - i. Uses of the parts of plants like leaves, stem, roots, flowers, seeds
  - ii. Organic farming: Challenges faced by farmers, conservation of forest cover
  - iii. Festivals related to trees and plants
  - iv. Animals at home and in the forests; caring for animals; invasion of wild animals in human habitats, their reasons; the presence of wildlife sanctuaries
  - v. Traditional and vanishing livelihoods, like beekeeping, circus, snake charmers etc.

#### **2. Food and Water**

- a. Food
  - i. Importance of food; types of food (vegetables, fruits, pulses, rice, cereals etc); food for young/old people, for animals; food habits (varies in different states); cooking and gender/caste roles in a family
  - ii. Prevention of wastage of food (during festivals, in hotels)
  - iii. Sharing of food (eating in communities, during festivals); cultural diversity in foods associated with special occasions like festivals, family celebrations/ ceremonies etc.
  - iv. Raw and cooked food; ways of preserving food (fermentation, making pickles)
  - v. Storage of food (like seeds); adulteration of food
  - vi. Access to food through markets
  - vii. Transporting the produce to the market; farming as a livelihood; local vegetables and fruits
- b. Water
  - i. Sources of water (dhara); uses of water (for drinking, agriculture); storage of water; shortage of water
  - ii. Government policies (Mid-day meal, Dhara Vikas Initiative)
  - iii. Waterborne diseases; issues of gender, caste and class that determine how water relates to illness

#### **3. Clothing and Shelter**

- a. Artisans and artisanal work
  - i. Clothes and fabric based on work, climate, and culture

- ii. Traditional knowledge of weavers/artisans of Sikkim
- iii. Importance of artisanal work, its preservation and hardships faced by artisans.
- iv. Support to the artisans from the government agencies
- b. Shelter
  - i. Architectural significance and scientific explanation for different types of houses in Sikkim and other parts of our country in terms of raw materials used, structure, climate etc.
  - ii. Need and right for a home
  - iii. Effect of natural calamities (earthquake, floods, landslides etc.) on settlements
  - iv. Shelter during emergencies and role of government during calamities
- c. Migration
  - i. Reasons for migration and their cause and effects
  - ii. Nomadic/mobile communities: Seasonal migration

#### 4. Travel and Places

- a. Travel and transport
  - i. Travel through ages
  - ii. Purpose, time, distance, and cost in light of travel
  - iii. Various means of transport (local to global)
  - iv. Developing children's understanding of maps – a basic two-dimensional representation; aerial views of a certain locality
  - v. Challenges faced by differently-abled people during travel and initiatives undertaken by government and other agencies
- b. Lives and livelihood of people
  - i. Lives in higher altitude-people, plants, and animals of Sikkim
  - ii. Services available: Tourism industry (ecotourism, village tourism, homestay, hotel industry, trekking, tourist guide, etc.), schools, hospital, post office, local hospitality, business, etc.
- c. Festivals and their significance
  - i. Festivals related to the seasons, nature, and phases of the moon
  - ii. Diverse ways of celebrating them and their effects on environment
- d. Heritage, historical and other important places of Sikkim
  - i. Significance of important places of Sikkim
  - ii. Initiatives taken by local citizens and government for upkeep of the environment
  - iii. Rules and regulations of visiting Sikkim

## II. Pedagogical issues/ concepts

(15 Questions)

### 1. Nature and objectives of EVS

- a. Meaning and Nature of EVS
  - i. Developing awareness and sensitivity to the environment
  - ii. Motivating people for active participation in environmental protection and conservation of natural resources
  - iii. Understanding and connecting our environment depending on the various components of environment (biotic, abiotic, and human-made)

- iv. Develop a multidisciplinary perspective for understanding of our environmental issues/problems and appreciate the impacts and integrity of our daily activities
- b. Objectives of teaching EVS
  - i. To train children to locate and comprehend relationships between the natural, social, and cultural environment.
  - ii. To develop understanding-based observation and illustration drawn from lived experiences and physical, biological, social, and cultural aspects of life, rather than abstractions.
  - iii. To nurture the curiosity and creativity of the child, particularly in relation to the natural environment.
  - iv. To engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observations, classification, inference, etc.
  - v. To be able to critically address gender concerns and issues of marginalisation and oppression with values of equality and justice, and respect for human dignity and rights.

## **2. Integrated and thematic approach**

- a. Strategies/Methods of teaching EVS: In order to achieve the LOs at the primary stage the methods of teaching of EVS should be interactive and child-centric by using the following strategies:
  - i. Field visit
  - ii. Project
  - iii. Experimentation
  - iv. Storytelling
  - v. Survey
  - vi. Picture or graphical interpretation
  - vii. Interview
  - viii. Group work
  - ix. Group presentation

## **3. Teaching-learning resources (low cost/no cost / improvised)**

- a. Community (society as a laboratory), e.g., mall, market, post office, hospital, tailor, farmer, bank, agricultural land etc.
- b. Physical objects like chart paper, waste materials etc.
- c. ICT integration/digital resources
- d. Textbooks, storybooks and literature
- e. Culture and heritage, e.g., places of worship, historical places, etc.

## **4. Assessment**

- a. Indicators of assessment in EVS
- b. School-based assessment (focused on competency development rather than content memorisation)
  - i. Picture reading
  - ii. Experimentation
  - iii. Project work
  - iv. Drawing and craftwork

- c. Approaches to assessment of the EVS skills
  - i. Assessment 'of' learning (summative)
  - ii. Assessment 'for' and 'as' learning (formative)
- d. Types of assessment based on organisation or arrangement
  - i. Group assessment
  - ii. Self-assessment
  - iii. Peer assessment
  - iv. Teacher assessment
- e. Assessment tools and technique
  - i. Rubrics
  - ii. Observation
  - iii. Written and oral test
  - iv. Checklist

**Paper II: Elementary Stage (Grades VI to VIII)**

**CHILD DEVELOPMENT AND PEDAGOGY**

**(30 questions)**

**I. Child development (elementary school child)**

**(15 Questions)**

**1. Concept and principles of development and its relationship with learning:**

- a. Principles of growth and development
- b. Factors influencing development: Heredity and environment
- c. Domains of development and milestones in early childhood, middle childhood, and adolescence
  - i. Gross and fine motor skills
  - ii. Cognitive development
  - iii. Social development
  - iv. Emotional development
  - v. Language development

**2. Socialisation processes**

- a. Concept and nature of socialisation
- b. Agencies and processes of socialisation
- c. Socio-economic status and its impact on learner's development
- d. Impact of culture – social class, ethnicity

**3. Piaget, Kohlberg, and Erikson: Constructs, critical perspectives, and educational implications**

- a. Piaget's Cognitive Development theory
- b. Kohlberg's Moral Development theory
- c. Erikson's Psycho-Social Development theory

**4. Intelligence**

- a. Concept, definition, and nature of intelligence
- b. Understanding learners from the perspective of multiple intelligences
- c. Gardner 's theory of multiple intelligences: Construct and critical perspectives
- d. The changing concept of intelligence

- e. Effect of heredity and environment
- f. Measuring intelligence

#### **5. Gender as a social construct: gender roles, gender bias and educational practices**

- a. Social construction of gender
  - i. Differences between gender and sex
  - ii. Gender socialisation and gender roles
  - iii. Gender discrimination at different levels of institutions (institutions related to social, cultural, religious, economic, political, and educational settings)
  - iv. Third gender and transgender: Types of gender identities
- b. Gender issues in curriculum
  - i. Gender concerns related to access, enrolment, retention, participation, and overall achievement
  - ii. Role of curriculum, textbooks, classroom practices and school culture in promoting gender equality

#### **6. Acts and Policies**

- a. National Policy on Education (1968, 1986), National Curriculum Framework 2005, National Education Policy 2020
- b. Right of Children to Free and Compulsory Education Act, 2009

## **II. Concept of inclusive education**

**(5 Questions)**

### **1. Meaning, need, and importance of inclusive education**

- a. Transition from segregation to inclusion
- b. Acts and policies: Rehabilitation Council of India (RCI), Integrated Education for Disabled Children (IEDC), and Rights of Persons with Disability (RPWD) 2016, National Trust Act 1999. NEP, 2020 with regards to inclusive education
- c. Role of teachers working in inclusive settings and resource teacher/ educator in facilitating inclusive education

### **2. Individual differences among learners from diverse backgrounds**

- a. Understanding differences based on diversity of language, caste, gender, community, religion etc.
- b. Understanding challenges of socio-economically disadvantaged groups-regional, linguistic, and ethnic groups
- c. Constitutional provisions, educational schemes, policies and programmes for scheduled tribes, scheduled castes and other backward sections
- d. Inclusive strategies and education for children with diverse needs

### **3. Addressing the needs of children with different abilities-**

- a. Concept of disability, impairment, and handicap
- b. Types of impairment/ disabilities
  - i. Blindness and low vision
  - ii. Hearing Impairment
  - iii. Mental retardation
  - iv. Leprosy cured
  - v. Neurological and motor disabilities

- vi. Autism Spectrum Disorder
- vii. Multiple disabilities
- c. Learning Disabilities (LD)
  - i. Meaning, types, characteristics
  - ii. Identification of children with learning disabilities
  - iii. Approaches and techniques for teaching children with learning disabilities

#### **4. Mental and physical well-being**

- a. Meaning, characteristics and significance of mental health
- b. Factors influencing mental health
- c. Ways to promote positive mental health in schools
- d. Health and physical education: essential qualities, planning, community participation
- e. National Health Policy-2002

### **III. Learning and pedagogy**

**(10 Questions)**

#### **1. How children think and learn**

- a. Learning process
  - i. Learning – concept, characteristics, principles, types, domains
  - ii. Transfer of learning- concept, types, theory of transfer of learning (theory of mental discipline, apperception, identical elements, and generalisation) and its educational implications
  - iii. Constructivism and learning – types and principles of constructivism
- b. Theories of learning and their educational implications
  - i. Behavioural or stimulus-response connection theory – Pavlov’s classical conditioning learning; Thorndike’s trial and error learning, Skinner’s operant conditioning learning)
  - ii. Gestalt theory – (Kohler’s insightful learning, Tolman’s sign learning)
  - iii. Gagne’s hierarchical theory of learning
  - iv. Bandura’s social learning theory
- c. Factors contributing to learning- cognition, emotions, heredity, and environment

#### **2. Basic processes of teaching and learning: Children’s strategies of learning; learning as a social activity; social context of learning; child as a problem solver and a scientific investigator.**

- a. Different types of instruction
  - i. Teacher-controlled instruction – lecture, demonstration, inductive-deductive, discussion, team teaching
  - ii. Learner controlled instruction – programmed instruction, computer-assisted, personalised system, project method, problem-solving method

#### **3. Personality types**

- a. Definition, types, characteristics, and traits
- b. Freud’s psychoanalytic theory

#### **4. Assessment and Learning**

- a. Statistics- data organisation, frequency distribution, graphical representation, central tendency, variation, normal distribution, percentile rank, correlation, and their interpretation
- b. Feedback as an essential component of formative assessment

- c. Principles of constructing objective, short answer, essay, and interpretative type questions
- d. Characteristics of good test: Reliability, validity, objectivity, and usability

## **LANGUAGE I**

**(30 questions)**

### **I. Content**

**(15 Questions)**

**Unseen passages:** Two passages, one prose (literary, scientific, narrative or discursive) or drama of 300-350 words and one poem

#### **1. Reading comprehension**

- a. Skills of reading
  - i. Understanding subskills of reading: Skimming and scanning
  - ii. Understanding strategies of reading: Prediction, visualisation, summarisation etc.
  - iii. Higher order thinking skills: Inferences, conclusions, assumptions, textual evidence, cause-effect, point of view etc.
  - iv. Interpretation of chart, diagram, graph etc.
- b. Grammar knowledge
  - i. Functional and communicative grammar in everyday contexts
  - ii. Adjectives, adverbs, prepositions, determiners, modals, tenses, clauses, reporting, passive voice, subject-verb concord, commands and requests, statements, and questions
- c. Vocabulary
  - i. Vocabulary in unseen texts, e.g., prose, poem, non-fiction and authentic literature like newspaper reports and articles
  - ii. Synonyms and antonyms, word formation, shades of meaning, semantic gradients, e.g., big, huge, gigantic etc.
  - iii. Figures of speech: Metaphor, symbol, image, rhyme scheme, alliteration, onomatopoeia etc.

#### **2. Responding to literature**

- a. Interpretation of plot, character, setting, intention, theme, mood, tone etc.
- b. Critical thinking in unseen texts
- c. Gender, inclusion, stereotypes, bias, symbols and images, voice

#### **3. Language policies and languages in school education**

- a. Goals of a language curriculum and their relation to pedagogical processes and TLMs
- b. 'Three language formula' and its effect on languages in school education
- c. Language policy of Sikkim and pedagogical issues related to its implementation
- d. Latest policies related to languages and language education at the state and national level

## **II. Pedagogical processes**

**(15 Questions)**

### **1. Language diversity and multilingual contexts**

- a. Perspectives
  - i. Perspectives on multilingual approach and language inclusion
  - ii. Perspectives on Cummins' theory of language interdependence
  - iii. Perspectives and classroom processes of multilingual pedagogy
  - iv. Code-mixing and code-switching
- b. Pedagogy

- i. Language diversity and multilingualism as a resource for learning school languages
- ii. Simultaneous translation and creative translation as teaching strategies

## **2. Challenges of teaching English as the medium of instruction**

- a. Social and pedagogical challenges facing the language teacher
  - i. English as a medium where an environment of English is not available
  - ii. Syllabus requirements and the textbook
  - iii. Mixed-ability groups and large classes
  - iv. Aspirations of parents
  - v. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
  - vi. Understanding the meaning of mistakes in a developmental continuum
- b. Development of the language teacher as a professional
  - i. Language proficiency and competence
  - ii. Knowledge of new pedagogies
  - iii. Connect with professional community
  - iv. Opportunities for professional development

## **3. Language across the curriculum**

- a. Perspectives
  - i. Language as a school subject and as a means of learning and communication
  - ii. Language as an instrument for abstract thought and knowledge acquisition (language abilities that facilitate the learning of other subjects)
- b. Pedagogy
  - i. Content from different subjects for development of language skills, vocabulary, and grammar
  - ii. Classroom processes for Language Across Curriculum (LAC)

## **4. Language acquisition and language learning**

- a. Perspectives
  - i. Perspectives on the difference between acquisition and learning and the stages of language learning
  - ii. Principles of second language acquisition and their application in pedagogical processes and TLMs: The Natural Approach (Krashen and Terrell); Pedagogy of Comprehensible Input (Krashen); Language Interdependence Hypothesis (Cummins) and Bilingual Approach- Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP)
  - iii. Theories of language acquisition (Chomsky - Language Acquisition Device [LAD] and Bruner- Language Acquisition Support System [LASS]) and their application in pedagogical processes
- b. Pedagogy
  - i. Principles and pedagogy of different approaches to language teaching at the elementary stage: Communicative approach, task-based language teaching, content-based instruction

## **5. Approaches to language teaching at the elementary stage**

- a. Perspectives and pedagogy

- i. Perspectives and pedagogy of communicative and task-based approaches to language teaching at the elementary stage
- ii. Input-rich communicational environment in the classroom
- iii. Comprehensible input
- iv. Meaningful contexts for language learning through integration of skills
- b. Pedagogical processes
  - i. Lesson planning and assessment under communicative and task-based approaches
  - ii. Promoting role of parents and community in literacy development
  - iii. Experiential learning through literature in the target language, folk art, games, songs etc.
  - iv. Storytelling and children's literature
  - v. Listening to, telling, and writing stories, poems, songs etc.
  - vi. Drama/theatre and role play
  - vii. Activities based on reading and writing corners
  - viii. Use of classroom walls
  - ix. Experience-based writing
- c. Inclusive pedagogy
  - i. Children in different circumstances
  - ii. Gifted and special ability children: Dyslexia, dysgraphia, auditory processing disorder, language processing disorder, visual perceptual deficit etc.
  - iii. Learning, TLMs and adaptive assessment

## **6. Curricular materials and planning**

- a. Principles
  - i. Print-rich environment: Types of materials, their need, use for different stages of learning
  - ii. Principles and application of TLM design and use, e.g., flexibility, dynamism, inclusion, gender sensitivity, contextuality, age-appropriateness, attractiveness and language-teaching and assessment potential, and their application
- b. TLM essentials
  - i. Curriculum, syllabus, textbooks, learning outcomes and lesson plans
  - ii. Print-rich environment: Types of materials, their need, use for different stages of learning
- c. Types of TLMs and their interactive use in language learning
  - i. Local/cultural resources like stories, songs, folk art, literature, indigenous toys and traditional games
  - ii. Authentic material
  - iii. Learner-created and learner-chosen texts, reading corners and library
  - iv. Collaboratively developed TLMs with low-/no-cost material (both by the teacher, learners, and the community)
  - v. Art, sport, and ICT integrated material

## **7. Assessing language**

- a. Perspectives on assessment
  - i. Assessment as part of the teaching process
  - ii. Assessment 'for' and 'as' learning (formative) and 'of' learning (summative).
- b. Relationship between assessment and the teaching process
  - i. Tailor-made, adaptive assessment
  - ii. Recording, tracking and reporting learner progress

- iii. Providing qualitative feedback and developing holistic progress reports
- iv. Testing with reference to cognitive domains
- v. Cognitive alignment of learning outcomes to assessment

#### **8. Teaching literature at the elementary stage**

- a. Teaching poetry, prose, drama or non-fiction for enjoyment, appreciation, and development of imagination
- b. Study of diverse texts and themes, e.g., gender and inclusion, in addition to the prescribed textbook
- c. Types of text: Descriptive, narrative, expository and argumentative
- d. Authentic literature, e.g., newspaper reports, posters etc.
- e. Literary analysis for beginners: Plot, character etc., figures of speech and language in literature
- f. Critical thinking through literature: Listening, speaking, reading, and writing
- g. Elements of literature: Style, format, layout, structure and theme of prose, poem, or non-fiction
- h. The pedagogy and assessment of different genres of literature

#### **9. Critical perspectives on the teaching of grammar at the elementary stage**

- a. Principles
  - i. Rules and definitions not 'taught'
  - ii. Grammar through active engagement with language
  - iii. Inductive method with opportunities for discovery of rules through communicative tasks
  - iv. Discovery of rules as reflecting on academic language, an intellectually engaging activity in its own right
  - v. Formal grammar introduced after basic linguistic competence is acquired
- b. Pedagogy
  - i. Strategies of teaching grammar and vocabulary through exposure to spoken and written inputs and discovering their use/function, instead of explicit grammar instruction at the elementary stage
  - ii. Components of grammar and vocabulary, e.g., nouns, pronouns, adjectives, adverbs, prepositions, singulars and plurals, gender, articles, conjunctions, determiners, possessives, punctuation marks, verbs and tense forms (simple present and present continuous, simple past and past continuous, expressing future), question words etc.

#### **10. Critical perspectives on remedial teaching**

- a. What is remedial teaching?
  - i. What needs to be remedied – learner, teacher or TLMs?
  - ii. When where why and how of remedial teaching
  - iii. The acquisition-learning continuum versus the remedial teaching approach
  - iv. Inclusive and adaptive lesson planning or remedial teaching?
- b. Awareness of remediation strategies to support language learning
  - i. Inclusive and adaptive lesson planning
  - ii. Specific remediation programmes and bridge courses
  - iii. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas

- iv. Any other classroom/school level intervention, e.g., action research or a library programme

## **LANGUAGE II**

**(30 Questions)**

### **I. Content**

**(15 Questions)**

**Unseen passages:** Two unseen prose passages (discursive, literary, narrative or scientific) of 300-350 words

#### **1. Reading comprehension**

- a. Skills of reading
  - i. Understanding subskills of reading: Skimming and scanning
  - ii. Understanding strategies of reading: Prediction, visualisation, summarisation etc.
  - iii. Higher Order Thinking Skills: Inferences, conclusions, assumptions, textual evidence, cause-effect, point of view etc.
  - iv. Interpretation of chart, diagram, graph etc.
- b. Grammar knowledge
  - i. Functional and communicative grammar in everyday contexts
  - ii. Adjectives, adverbs, prepositions, determiners, modals, tenses, clauses, reporting, passive voice, subject-verb concord, commands and requests, statements, and questions
- c. Vocabulary
  - i. Vocabulary in unseen texts (prose, poem, non-fiction and authentic literature like newspaper reports and articles)
  - ii. Synonyms and antonyms, word formation, shades of meaning, semantic gradients, e.g., big, huge, gigantic etc.
  - iii. Figures of speech: Metaphor, symbol, image, rhyme scheme, alliteration, onomatopoeia etc.

#### **2. Responding to literature**

- a. Interpretation of plot, character, setting, intention, theme, mood, tone etc.
- b. Critical thinking in unseen texts
- c. Gender, inclusion, stereotypes, bias, symbols and images, voice

#### **3. Language policies and languages in school education**

- a. Goals of a language curriculum and their relation to pedagogical processes and TLMs
- b. 'Three language formula' and its effect on languages in school education
- c. Language Policy of Sikkim and pedagogical issues related to its implementation
- d. Latest policies related to languages and language education at the State and national level

## **II. Pedagogical Processes**

**(15 Questions)**

### **1. Language diversity and multilingual contexts**

- a. Perspectives
  - i. Perspectives on multilingual approach and language inclusion
  - ii. Perspectives on Cummins' Theory of Language Interdependence

- iii. Perspectives and classroom processes of multilingual pedagogy
- iv. Code-mixing and code-switching
- b. Pedagogy
  - i. Language diversity and multilingualism as a resource for learning school languages
  - ii. Simultaneous translation and creative translation as teaching strategies

## **2. Challenges in the teaching of regional languages as a subject**

- a. Social and pedagogical challenges facing the language teacher
  - i. Teaching of regional languages where classes are not homogenous
  - ii. Syllabus requirements and the textbook
  - iii. Mixed-ability groups and large classes
  - iv. Aspirations of parents
  - v. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
  - vi. Understanding the meaning of mistakes in a developmental continuum
- b. Development of the language teacher as a professional
  - i. Language proficiency and competence
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## **3. Language across the curriculum**

- a. Perspectives
  - i. Language as a school subject and as a means of learning and communication
  - ii. Language as an instrument for abstract thought and knowledge acquisition (language abilities that facilitate the learning of other subjects)
- b. Pedagogy
  - i. Content from different subjects for development of language skills, vocabulary, and grammar
  - ii. Classroom processes for LAC

## **4. Language acquisition and language learning**

- a. Perspectives
  - i. Perspectives on the difference between acquisition and learning and the stages of language learning
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  - iii. Inductive method with opportunities for discovery of rules through communicative tasks
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  - v. Formal grammar introduced after basic linguistic competence is acquired
- b. Pedagogy
  - i. Strategies of teaching grammar and vocabulary through exposure to spoken and written inputs and discovering their use/function, instead of explicit grammar instruction at the elementary stage
  - ii. Components of grammar and vocabulary, e.g., nouns, pronouns, adjectives, adverbs, prepositions, singulars and plurals, gender, articles, conjunctions, determiners, possessives, punctuation marks, verbs and tense forms (simple present and present continuous, simple past and past continuous, expressing future), question words etc.

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  - i. What needs to be remedied – learner, teacher or TLMs?
  - ii. When where why and how of remedial teaching.
  - iii. The acquisition-learning continuum versus the remedial teaching approach.
  - iv. Inclusive and adaptive lesson planning or remedial teaching?

- b. Awareness of remediation strategies to support language learning
  - i. Inclusive and adaptive lesson planning
  - ii. Specific remediation programmes and bridge courses
  - iii. Analysing the oral and written responses of learners (response analysis) to identify what they know and what are the gap areas
  - iv. Any other classroom/school level intervention, e.g., action research or a library programme

**MATHEMATICS and SCIENCE** (60 Questions)

**MATHEMATICS** (30 Questions)

**I. School Mathematics (content and learning )** (20 Questions)

**1. Number (numerical aptitude and its teaching)**

- a. Operations on real numbers – meaning, representation, algorithm, word problems
- b. Arithmetic progressions
- c. BODMAS
- d. Ratio and Proportion (Direct and inverse variation)
- e. Percent – concept and its relation to fractions and decimals, profit and loss/discount
- f. Simple Interest/Compound Interest/Value Added Tax (VAT)/Goods and Services Tax (GST)
- g. Exponents – meaning, laws, simplification using laws of exponents
- h. Unitary method

**2. Geometry (shapes and spatial understanding)**

- a. Basic geometrical ideas: Lines and angles, triangles, quadrilaterals, circles, tangents and secants to a circle and their properties
- b. Congruence and similarity of triangles
- c. Geometrical constructions using ruler and compass
- d. Van Hiele’s levels of geometric thinking

**3. Pattern and Algebra**

- a. Algebraic expressions and identities
- b. Polynomials
- c. Linear equations in one and two variables (graphical and algebraic approach)
- d. Applications of linear and quadratic equations in practical situations

**4. Measurement and Mensuration**

- a. Area and Perimeter of 2D shapes (simple and composite)
- b. Surface area and volumes of 3D (simple and composite) and derivation of related formulae, real-life problems based on these

**5. Data handling and Probability**

- a. Reading and making inferences from data
- b. Data representation of grouped and ungrouped data: Pictographs, tables, bar graphs, pie charts, histogram, line graph, mean, median and mode of grouped and ungrouped data, ogive.
- c. Probability

**II. Perspectives and pedagogical content knowledge** (10 Questions)

**1. Nature and understanding of mathematics.**

- a. Nature of mathematics: Hierarchy, abstraction, deductive nature, math as patterns in numbers and shapes
  - b. Role of intuition and logic in mathematics
  - c. Axiomatic structure of mathematics
  - d. Validation in mathematics- process and types
  - e. Processes and skills of mathematics: problem-solving, visualisation, proof and reasoning, communication, making connections, generalisation
- 2. Language of mathematics**
- a. Mathematics as language- precise and concise
  - b. Mathematics register: Vocabulary
  - c. Relationship with spoken language
  - d. Symbols and notations in mathematics
  - e. Communication in the language of mathematics
- 3. Place of mathematics in school curriculum**
- a. Aims and objectives of teaching mathematics at the elementary level and its correlation with other subjects
  - b. Curriculum of mathematics at different stages of schooling
  - c. Social aspect, applications of maths
- 4. Community mathematics**
- a. Knowing mathematicians: Appreciating the contribution made by Indian and other mathematicians
  - b. Use of mathematics in daily life
  - c. Ethnomathematics: Mathematics in one's cultural tradition (attire, home, food items, religious practices, indigenous games)
- 5. Approaches to learning and teaching mathematics**
- a. How children learn mathematics: Concept formation, learning trajectories, principles of child development and learning, learning by memorisation, imitation, drill and practice, instrumental and relational understanding
  - b. Errors and misconceptions
  - c. Theories of mathematics education (Piaget, Vygotsky, Bruner, Skemp)
  - d. Strategies and methods: Experiential learning (activity-based learning, play-way method) inductive and deductive method, analytic and synthetic method heuristic method
  - e. Problem-solving in mathematics
  - f. Extended learning (connecting classroom learning to the outside world)
- 6. Understanding resources for teaching mathematics**
- a. Perspectives on teaching: Learning materials and their place in learning math
  - b. Role of assignments: Investigations, projects, games, and puzzles
  - c. Textbook and worksheets
  - d. Mathematics lab, mathematics mela
  - e. Space and objects around the child
- 7. Assessment in mathematics**
- a. Purpose of assessment: Diagnostic, effectiveness of pedagogy, assessment for/of/as learning
  - b. Readiness of student: Assessment of content and skills

- c. Types of Assessment: Formative and tools; summative and tools
- d. Open- and close-ended questions and problems
- e. Assessment of conceptual understanding and mathematical reasoning abilities
- f. Assessment of development of mathematical abilities: Reasoning, communication, visualisation, etc.

## **SCIENCE**

**(30 Questions)**

### **I. Content**

**(20 Questions)**

#### **1. Moving things, people, and ideas**

- a. Force and motion
  - i. Force- a push or a pull?
  - ii. Contact forces and non-contact forces: Basic concept with examples
  - iii. Balanced and unbalanced forces.
  - iv. Friction-advantages and disadvantages
  - v. Newton's Laws of Motion (basic concept with examples)
  - vi. Uniform motion and non-uniform motion, uniform circular motion
  - vii. Speed, velocity, and acceleration
  - viii. Graphical representation of motion
- b. Gravitation
  - i. Gravitation; universal law of gravitation
  - ii. Mass and weight
  - iii. Acceleration due to gravity on the earth (no derivation)
- c. Work, energy, and power
  - i. Work-Scientific concept of work; work done by a constant force
  - ii. Forms of energy- kinetic energy and potential energy
  - iii. Law of conservation of energy
  - iv. Rate of doing work

#### **2. How things work**

- a. Electricity and its magnetic effects
  - i. Electric potential and potential difference
  - ii. Ohm's law- ohmic and non-ohmic conductor
  - iii. Series and parallel combination of resistors (no derivation)
  - iv. Domestic electric circuit, electric power
  - v. Heating effect of electric current
  - vi. Magnetic field and field lines
  - vii. Magnetic field due to a current-carrying straight conductor and through circular loop (no derivation)
  - viii. Right-hand thumb rule and Fleming's left-hand rule
  - ix. Electromagnetic induction
- b. Sound and light
  - i. Sound-production of sound
  - ii. Amplitude, time period and frequency of sound
  - iii. Speed of sound in different media
  - iv. Reflection of sound-echo; reverberation, uses of multiple reflection of sound

- v. Reflection of light-regular and diffused reflection
- vi. Laws of reflection
- vii. Ray diagrams of images formed by spherical mirrors
- viii. Sign convention of reflection; mirror formula (no derivation) and magnification
- ix. Uses of spherical mirror

### 3. Materials

- a. Materials from daily life
  - i. Natural fibres-wool; silk; processing fibres into wool
  - ii. Synthetic fibres-polymers; types of synthetic fibres; characteristics of synthetic fibres; plastics as materials of choice; plastics and the environment
  - iii. Metals and non-metals-physical properties of metals and non-metals; chemical properties of metals and non-metals; uses of metals and non-metals
  - iv. Acids, bases, and salts-chemical properties; strength of acids and bases; importance of pH in everyday life
- b. Atoms and molecules
  - i. The structure of an atom – Thomson’s model, Rutherford’s model, Bohr’s model, neutrons; valency; symbols of atoms of different elements; atomic number and mass number; isotopes and isobars; atomic mass
  - ii. Molecules – molecules of elements; molecules of compounds; ion
  - iii. Chemical formula – writing chemical formula; formula of simple compounds
  - iv. Laws of chemical combination: Laws of constant proportions, laws of conservation of mass
  - v. Molecular mass, formula unit mass and mole concept
- c. Matter in our surroundings
  - i. Physical nature of matter
  - ii. Characteristics of particles of matter
  - iii. States of matter; changes in states of matter; effect of change of pressure; temperature
- d. Carbon and its compounds
  - i. Allotropes of carbon, bonding in carbon – the covalent bond
  - ii. Versatile nature of carbon-saturated and unsaturated carbon compounds; chains, branches, and rings; homologous series; nomenclature of carbon compounds
  - iii. Chemical properties of carbon compounds
  - iv. Important carbon compounds-ethanol and ethanoic acid: Properties of ethanol; properties of ethanoic acid
  - v. Soaps and detergents
- e. Basic chemical reactions and equations
  - i. Chemical equations-writing a chemical equation, balanced chemical equations.
  - ii. Types of chemical reactions-combination reaction, decomposition reaction, displacement reaction, double displacement reaction, oxidation, and reduction.
  - iii. Effects of oxidation reaction in daily life-corrosion, rancidity

### 4. The world of the living

- a. Physiological processes in plants and animals

- i. Nutrition-nutrition in plants: Autotrophic and heterotrophic mode of nutrition; parasites; saprotrophs
- ii. Nutrition in animals: Digestion and digestive system in human beings
- iii. Photosynthesis; symbiotic relationship
- iv. Respiration-aerobic and anaerobic respiration; human respiratory system; breathing
- v. Transportation-transportation in plants: Circulatory system in humans
- vi. Excretion: Excretion in plant and humans: excretory system in human beings
- vii. Reproduction in animals; modes of reproduction; sexual reproduction; male and female reproductive organs; fertilisation and development of embryo (humans); oviparous and viviparous animals; metamorphosis; asexual reproduction; adolescence and puberty
- viii. Reproduction in plants; sexual and asexual methods; male and female reproductive organs; cross and self-pollination; seed dispersal

b. Cell, tissue

- i. Structure and functions of cell; cell wall; cell membrane; cytoplasm, nucleus; plastids; vacuoles, mitochondria; ribosomes; prokaryotic and eukaryotic cells; plant and animal cells
- ii. Animal tissues- epithelial; connective; muscular and nervous tissues
- iii. Plant tissue-meristematic and permanent tissues

c. Control and coordination

- i. Growth dependent movements-phototropism; geotropism; chemotropism and hydrotropism
- ii. Growth independent movements-thigmotropism; plant hormones
- iii. The nervous system; nerve cells; human brain and spinal cord; reflex action and reflex arc

d. Forest, environment

- i. Forest and wildlife – importance of forest; endemic species, red data book; causes and consequences of deforestation
- ii. Ecosystem: Its components and their relationships; food chains and food webs; biochemical cycles-nutrient cycles; ozone layer

e. Health and diseases

- i. Significance of health: Personal and community issues
- ii. Disease and its causes: Infectious and non-infectious; means of spread
- iii. Prevention and treatment: Immunisation

## 5. Natural phenomena and natural resources

- a. Lightning: Lightning safety
- b. Earthquakes: Causes of earthquakes; protection against earthquakes
- c. Thunderstorms and cyclones; safety measures
- d. Air: Components of air; air pollution its causes, sources and harmful effects of air pollution
- e. Water: Sources of water; water pollution – its causes, sources, and harmful effects
- f. Soil: Types of soil; soil erosion and soil conservation; soil pollution and its harmful effects

## II. Pedagogical Processes

(10 Questions)

### 1. Nature and structure of science

- Science as a process and science as a body of knowledge
- Development of science as a discipline
- Understanding science as a subject at various levels (primary, secondary, higher)
- Development of scientific temper and ethics of science (validities)

### 2. Science Curriculum

- Criteria for science curriculum and content organisation
- Approaches to curriculum (integrated approach)
- Science curriculum at national level (NCERT)

### 3. Approaches and methods of teaching science

- Experimentation
- Lecture cum demonstration
- Discussion
- Inductive-deductive approach
- Enquiry
- Problem-solving
- Object-based observation (constructive approach)

### 4. Planning and learning resources for effective instruction in science

- Instructional aids
- Computer-aided instruction
- Open Education Resources (OER)
- Improvisations and science kits
- Lesson plan and unit plan

### 5. Evaluation of learner progress

- Tools and techniques (criterion-referenced test and non-criterion referenced test, checklist, rating scale, observation and anecdotal record, interview, rubrics)
- Achievement test in science (planning/blueprint, construction, try-outs, and evaluation)
- Diagnostic test
- Assessment types (formative, summative)
- Types of questions (essay type, objective type, short answer test items, case-based items, assertions, and reason)

## SOCIAL SCIENCE

(60 Questions)

### I. Content

(40 Questions)

#### 1. Social and political life

- Government
  - Key elements of a democratic government: Equality and justice
  - Local government and administration
- Democratic rights
  - Need for democracy

- ii. Rights in a democracy
- c. Electoral politics
  - i. Need for elections
  - ii. System of elections
- d. How the state government works
  - i. Role of the government in health
  - ii. Public and private health care services
- e. The Indian Constitution
  - i. Guiding values of the Indian constitution and secularism
  - ii. Parliament
  - iii. Understanding laws
- f. Judiciary
  - i. Criminal justice system
  - ii. Law and social justice
- g. Understanding marginalisation
  - i. Adivasis
  - ii. Minorities
- h. Diversity and discrimination
  - i. Understanding diversity and discrimination
  - ii. Rural-Urban livelihoods
  - iii. Private and public facilities
- i. Gender: Women change the world
  - i. Women's work and equality
  - ii. Gender and politics

## 2. History

- a. Constructing history ('what, where, how and when', 'tracing changes through a thousand years', 'how, when and where')
- b. The earliest cities
- c. New questions and ideas
- d. Ashoka, the emperor who gave up war
- e. The Delhi sultans
- f. The Mughal empire
- g. From trade to territory
- h. When people rebel
- i. Women, caste, and reform
- j. Nationalism in India

## 3. Geography

- a. Planet: earth in the solar system, movement of the earth – rotation and revolution
- b. Globe and maps: Latitudes and longitudes, components of a map, difference between sketch and maps, types of maps and interpretation of maps
- c. Domains of the earth
  - i. Lithosphere: Interior of the earth, rocks and minerals, earth movements and major landforms

- ii. Atmosphere: Composition, structure of the atmosphere, elements of weather and climate
- iii. Hydrosphere: Fresh and saline, distribution of major water bodies, ocean waters and their circulation, tides
- d. Resources
  - i. Types, distribution, utilisation, and conservation
  - ii. Land and soil, water, minerals, and power resources
  - iii. Agriculture – types, patterns, major crops
  - iv. Industries – classification based on size, raw materials, ownership; major industries; and their locations
- e. Human resources
  - i. Composition, population change, distribution, and density
  - ii. Settlement, transport, and communication
- f. India
  - i. Locational setting
  - ii. India’s neighbours
  - iii. Major physiographic divisions
  - iv. Climate: Factors, major seasons
  - v. Drainage: Major rivers and tributaries, pollution, and its control
  - vi. Natural vegetation: Types and distribution
  - vii. Wildlife: Major species, distribution, and conservation

## II. Pedagogical Issues/ Concepts

(20 Questions)

### 1. Nature and objectives of social science

- a. Meaning and nature of social science
- b. Objectives of teaching social science
- c. Approaches to teaching social science curriculum: discipline-based, interdisciplinary and integrated, constructivism

### 2. Strategies or methods of teaching social science- The methods of teaching of social science should be interactive and child-centric by using the following strategies:

- a. Project
- b. Experimentation
- c. Storytelling
- d. Survey
- e. Picture or graphical interpretation
- f. Interview
- g. Group work
- h. Inductive and deductive
- i. Source method.
- j. Dramatisation

### 3. Teaching-learning resources

- a. Community, e.g., mall, market, post office, hospital, tailor, farmer, bank, agricultural land etc.
- b. Audio-visual aids like chart paper, television, mobile, laptop, radio etc.

- c. ICT integration/digital resources
- d. Storybooks, literature, non-fiction, political cartoons, newspaper clippings, advertisement, maps
- e. Field trips

#### **4. Assessment**

- a. School-based assessment
  - i. Picture reading
  - ii. Experimentation
  - iii. Project work
  - iv. Drawing and craftwork
- b. Approaches of assessment
  - i. Assessment of learning (summative)
  - ii. Assessment for and as learning (formative)
- c. Types of assessment
  - i. Individual assessment
  - ii. Group assessment
  - iii. Self-assessment
  - iv. Peer assessment
  - v. Placement assessment
  - vi. Diagnostic assessment
- d. Assessment tools and techniques
  - i. Continuous comprehensive evaluation
  - ii. Observation
  - iii. Written and oral test
  - iv. Open book examination
  - v. Rubrics, checklist, rating scales



Sikkim Teacher Eligibility  
Test Syllabus

