

SYLLABUS OF COMPULSORY PAPER FOR THE RECRUITMENT OF LECTURERS IN DIETs OF ARUNACHAL PRADESH

This paper is a compulsory paper and it consists of 02 (two) parts:

A. FOUNDATION COURSE	-	60 marks
B. GENERAL ENGLISH	-	40 marks
Total Marks of the Paper	-	100 marks

A. FOUNDATION COURSE

60 marks

1- PSYCHOLOGY-

Childhood and the Development of Children

- Concept of development and its relationship with learning
- Principles of development of children.
- Influence of heredity and environment
- Piaget, Kohlberg and Vygotsky: - Construct and critical perspectives
- Concept of child centred education.
- Individual difference among learners. Understanding differences based on diversity of language, caste, gender, community, religion etc.

Physical-Motor Development:

- Growth and maturation
- Gross and fine motor development skills in infancy and pre-school children.
- Role of parents and teachers in providing opportunities for physical-motor development e.g. Play

Learning

- Concept and nature
- Laws of learning
- Factors of learning
- Theories of learning-insight theory and conditioning theory.

Problems of Children with Special Needs 5 Hours

- Gifted
- Differently abled
 - (a) Mentally
 - (b) Physically
- Under achiever

2. Teacher Education

- Meaning and nature and need of teacher education.
- Objective of Teacher Education at elementary and secondary level
- Pre-service teacher education
- In-service teacher education.
- Organizational structure of teacher education in India and their function.
 - a) Ministry of Education/CAB of Education. Govt of India
 - b) NCTE
 - c) NCERT
 - d) NUEPA/NIEPA
 - e) RIEs/NERIE
 - f) SCERT
 - g) IASE
 - h) DIETs
 - i) BITE
 - j) BRC
 - k) CRC

3- Education, Society and Learners

Philosophical Understanding of Education

- Exploring and inquiring into nature and need of education.
- Various education processes in human society.
- Relationship between schooling and education
- Schooling and education as visualized by different western and Indian thinkers - Rousseau, Dewey, Montessori, Gandhi, Tagore, Aurobindo

Learning, Learners and Teaching

- Concept and nature of learning.
- Different ways of learning.
- Levels of learning-knowledge, understanding, application and skill.
- Meaning of teaching and its relationship with learning and learner.
- Socialization and learning-factors that shape learner's identity

4. Elementary Education: Status, Problems and Issues with special reference to -Arunachal Pradesh

Elementary Education in Arunachal Pradesh

- Brief history of elementary education in Arunachal Pradesh
- Role of Government
- Role of NGO

Structure and function of Elementary school system

- Structure
- Types of schools under different bodies of administration.
- Roles and Responsibilities of educational functionaries at elementary level.

Right of Children to Free and Compulsory Education (RTE) Act-2009

- Elementary education as Fundamental right of all children of 6-14 years age
- Child entitlements under RTE Act and Education of disadvantaged children
- Composition and function of School Management Committee
- Preparation of School Development Plan
- **National Education policy 2020**

5- Inclusive Education

Inclusive Education

- a) Concept and Meaning of Inclusive Education
- b) Forms of Inclusion and Exclusion in Indian Education (Marginalized section of society, gender and children with special needs)
- c) Address inequity and diversity in Indian classroom: Pedagogical and curriculum concerns
- d) Barriers to inclusion
 - Lack of acceptance and respect
 - Labeling
 - Lack of responsibility, partnership, parental support and inadequate training to teacher

Children with Special Needs.

- a) Special Need Education: Meaning and concept.
- b) Historical and Contemporary perspective to disability and inclusion.
- c) Persons with disability (PWD) Act-1995
- d) Range of learning difficulties
- e) Disability identification, assessment and interaction

6-Information and Communication

Concept of Information and Communication Technology (ICT)

1. Meaning need and scope of ICT in education.
2. Difference between: technology of education and technology in education.

: Teaching and Learning:

1. Concept of teaching and learning
2. Relationship between teaching, learning and ICT
3. Variables of teaching
4. Principles of teaching and learning
5. Cooperative learning in groups.

Techniques of Teaching:

1. Micro-teaching
2. Programmed learning
3. Simulated teaching
4. Team teaching
5. Skills of teaching
 - (a) Skill of introducing the lesson
 - (b) Skill of probing questions
 - (c) Skill of stimulus variation
 - (d) Skill of promoting pupil's participation
 - (e) Integration of teaching skills

Information and Communication Technology Resources:

1. Audio aids.
2. Visuals aids.
3. Audio-visual aids.
4. Edger Dale's cone of experience

Communication:

1. Concept of communication
2. Form of communication: Verbal and Non-verbal
3. Principles of effective communication.

7- Research Methodology**1. Basic concept of research problem**

• Rationale of research • Identification of research problem • Research objective • Types of research- fundamental/ applied/ action/ quantitative/ qualitative

2. Review of literatures

• Primary source • Secondary source • Searching e- resources, using search engines • Searching data base • Writing literature review

3. Methods of research

• Concept and formulation of hypothesis • Survey method • Experimental method (variable, designs) • Historical methods • Content analysis

4. Sampling of data

• Concept of sampling • Probability sampling techniques • Non probability sampling techniques • Sampling error

5. Collection of data

• Primary data generation • Secondary data collection • Methods of data generation/ collection – by experiments, questionnaire, interview schedule, focus groups etc

6. Analysis of data

• Statistical analysis techniques • Qualitative analysis techniques • Application of computer in research data analysis

7. Report preparation

• Structure and component of research report • Organization of data • Indexing of journal and research output • Citation, references, bibliography • Copyright, plagiarism, originality of research work

8. Research ethics

• Ethics in research • National and International regulations/ laws/ ethics related to research on Human, Animals and Environments

A. GENERAL ENGLISH

40 marks

1. Unseen reading comprehension
2. Determiners – Articles, demonstrative, distributive
3. Nouns: Kinds, number, case, gender.
4. Verbs- Modal verbs, auxiliaries, transitive, intransitive, finite, infinite verb forms.
5. Adverbs- Adverbs of degree, adverb of time, adverb of manner, adverb of place.
6. Adjectives: - Kinds, formation, degree of comparison.
7. Pronouns: - Kinds and its uses.
8. Preposition: - Kinds, preposition of time, place, position, direction.
9. Conjunctions- Co-ordinating, subordinating, Co-relative conjunctions, sentence connectors, word substitution.
10. Clauses: - Adjective, adverb and noun clause, relative clauses.
11. Punctuations
12. Synonyms, antonyms, idiomatic expression and miscellaneous expression.
13. Time and tenses.
14. Change of voice
15. Direct-indirect speech
16. Transformation of sentences.
17. Essay writing: descriptive, narrative, reflective and argumentative.
18. Paragraph writing
19. Letters: - Letters to the Editor, letters of application, business letters, official letters.
20. Article or speech writing.
21. Miscellaneous topics: - Note making, summarizing/ abstracting, advertisement, notices, circulars

**SYLLABUS OF ENGLISH FOR THE RECRUITMENT OF LECTURER (English) IN DIETs
OF ARUNACHAL PRADESH
SECTION –A (CONTENTS)**

1. Language: -Meaning, nature, importance, definition, function and characteristics, place of English language, language learning and acquisition, different forms of language (3 language formula) problems of language and its solution.
2. Aims and objectives of teaching English language: - Objectives of teaching English at Primary, Upper Primary, Secondary and Hr. Secondary level.
3. Classification of objectives of teaching English: - Bloom's Taxonomy, General and specific objectives of teaching English, creating environment for oral language.
4. Demonstration and illustration, drill and practice: Teaching English, language skills, listening, speaking, reading and writing.

Developing listening skill, benefits of listening skill, types of listening, function of listening, role of listening in oral expression, activities to develop the listening skill, listening with comprehension in different situations, verbal directions and responses. Developing speaking skill, aims/objectives of teaching speaking skill. Types of speaking, features of English pronunciations, phonetics, speech mechanism, organs of speech. Assessment of listening and speaking skills.

Sound system of language: - Phonology and Prosody

Stress- Word stress i.e. vowels and consonants, sentence stress in connected speech.

Intonation- Meaning and function

5. Reading and writing – Meaning of reading, aims and objectives of reading, teaching mechanism of reading. Methods of teaching reading, teaching reading with comprehension. Types of reading skills, alphabet and word recognition, supervision of reading class at Primary stage, reading of different types of texts, levels of comprehension, reading with global and local understanding, reading strategies, ways/ stages of reading, inferences, analysis and extrapolation, using dictionary as a tool for reference books. Skimming and scanning reading assessment of reading skills at different stages.

Writing skills definitions: - Developing writing skill, mechanism of writing, strokes, curves and scripts of language, writing words, simple sentences and short paragraphs, substitution table. What is handwriting, process of writing, types of writing –i) What is handwriting, process of writing, types of writing: -i) Traditional (essays, letters, applications, notice invitations, para's composition etc). ii) Non traditional writing (diaries, filling of forms, transformation of information etc). Dictation, cloze exercise/ controlled writing practice, writing paragraph on familiar topics, writing words and sentences with picture clues, tracing and colouring alphabets and words. Aspects of writing (content, fluency coherence, accuracy).

Stimulus for writing (verbal and visuals), different forms of writing letters (applications, complaint, permission invitation etc) essay, message notice, telegram and poster. Guided and free composition of writing.

Assessment of writing skills.

Concept and use of HOTS & LOTS (Higher order thinking skill and lower order thinking skill)

6. Teaching of English language: -

- i) Teaching –prose: -Aim and objective of teaching prose at primary, upper primary, secondary and hr. secondary level, components of prose texts, procedures of teaching prose lesson. The three stages of teaching prose lesson.
- ii) Teaching of poetry: - Aim and objective of teaching poetry at different stages, procedures of teaching poetry at different stages. Difference in aims and objectives of teaching prose and poetry, recitation with rhyme and rhythm, types of poems, vocabulary drills.
- iii) Teaching of Grammar: - Parts of speech, number and person, phrases, types of verbs, modals, tenses, concord, clause, connectors, non finites, voices, narration, kinds of sentence, phrase construction practices, transformation of sentences, punctuation, literary devices (figure of speech).

Methods, approaches and techniques of teaching English:

Concept of method, types of method – (GT Method, direct method, Bilingual method, audio lingual method, text book method), play way method, questioning method, language laboratory method, project method, imitation method, Grammar translation method, inductive and deductive method.

Approaches: - Meaning of approach, whole language approach, Herbartian approach, Morison approach, Bloom's approach, Devi's approach, Multimedia approach, total physical response approach, task-based language approach, contemporary approaches of teaching of English Linguistic communicative approach, aural-oral-approach.

Contemporary approaches

- Structural approach
- Functional approach
- Communicative approach

S-O-S (Structural oral and situational) approach

Technique: - language games, dramatization, readings, substitution tables and drill.

7.

- i. Micro teaching: - Meaning, definitions, needs and importance, process and stages of micro teaching, construction of microteaching, lesson plan for development of teaching skills of English language.
- ii. Macro teaching: - Meaning definition and importance of lesson plan, different approach of lesson plan, layout of lesson plan i.e. Herbartian lesson plan, B.S. Bloom's lesson plan. 5E's lesson plan, silent features of lesson plan, steps in developing a lesson plan, developing a English language lesson plan, prose lesson plan, poetry lesson plan and grammar lesson plan.

Remedial teaching: - Meaning and significances, objectives of remedial teaching

8. Evaluation: - Concept of evaluation, tools and techniques of language evaluation, CCE, competence based evaluation, SBA (School Based Assessment), Types of evaluation, Summative and formative, difference between assessment and evaluation. Types of assessment, assessment of learners, assessment for learning, assessment of learning. Tools and techniques, principles of

डाइट प्रवक्ता – भर्ती हेतु हिन्दी भाषा-शिक्षण की पाठ्यवस्तु
(Syllabus of Hindi Language Teaching for recruitment of Lecturer in DIET)

1. भाषा (Language):

अर्थ, परिभाषा, प्रकृति एवं विशेषता, महत्त्व एवं प्रकार्य, सीखने की प्रक्रिया, भाषा संप्राप्ति एवं भाषा सीखने की तैयारी, भाषा के आधार, भाषा के विविध रूप, विद्यालयी पाठचर्या में हिन्दी का स्थान, भाषा के संबंध में विभिन्न शिक्षा आयोगों एवं समितियों की संस्तुतियाँ, त्रिभाषा सूत्र, भाषा समस्या का समाधान एवं निष्कर्ष।

भाषा शिक्षक – गुण, दायित्व एवं योगदान।

2. हिन्दी भाषा के विभिन्न रूप (Different forms of Hindi Language):

मातृभाषा, द्वितीय भाषा, मूलभाषा, सांस्कृतिक भाषा, प्रादेशिक भाषा, राजभाषा, संपर्क भाषा, राष्ट्रभाषा, अन्तर्राष्ट्रीय भाषा, शास्त्रीय भाषा, मानक भाषा।

3. हिन्दी भाषा शिक्षण के उद्देश्य (Objectives of Hindi Language Teaching):

मातृभाषा शिक्षण के उद्देश्य (ज्ञानात्मक, कौशलात्मक, सृजनात्मक, अभिवृत्त्यात्मक)
प्राथमिक स्तर पर हिन्दी शिक्षण के उद्देश्य, उच्च प्राथमिक स्तर पर हिन्दी शिक्षण के उद्देश्य, माध्यमिक स्तर पर हिन्दी शिक्षण के उद्देश्य, उच्चतर माध्यमिक स्तर पर हिन्दी शिक्षण के उद्देश्य। ब्लूम का वर्गीकरण तथा व्यावहारिक रूप में लिखने की विधियाँ – मेंगर विधि, एन0 सी0 ई0 आर0 टी0 विधि।

4. भाषा एक कौशल (Language as a Skill):

कौशल का अर्थ एवं परिभाषा, प्रकार/रूप एवं विशेषताएँ और महत्त्व,

- i) श्रवण कौशल शिक्षण – महत्त्व, उद्देश्य, प्रकार, शिक्षण विधियाँ, श्रवण कौशल के विकास के साधन, श्रवणदोष, कारण एवं सुधार के उपाय, श्रवण कौशल का मूल्यांकन।
- ii) मौखिक अभिव्यक्ति – अर्थ एवं महत्त्व, मौखिक अभिव्यक्ति के उद्देश्य, मौखिक अभिव्यक्ति की शिक्षण विधियाँ, मौखिक अभिव्यक्ति का विकास एवं मौखिक अभिव्यक्ति के दोष, कारण तथा निदान।
- iii) पठन कौशल – अर्थ एवं महत्त्व, पठन कौशल के उद्देश्य, पठन के प्रकार, सस्वर वाचन की विशेषताएँ एवं उद्देश्य, मौन वाचन का अर्थ एवं उद्देश्य, पठन के दोष/त्रुटियाँ, कारण एवं निदान, पठन कौशल-शिक्षण की विधियाँ, पठन कौशल का मूल्यांकन तथा शब्दकोष देखना व पढ़ना।
- iv) लेखन कौशल – अर्थ एवं महत्त्व, लेखन कौशल के उद्देश्य, लेखन कौशल को विकसित करने के उपाय, शिक्षण विधियाँ, लेखन अशुद्धियों के कारण एवं निवारण, मूल्यांकन। कौशल विकास हेतु गतिविधियाँ एवं क्रिया-कलाप।

5. हिन्दी भाषा की संरचना (Structure of Hindi Language):

- i) ध्वनिविज्ञान – वर्णमाला, स्वर एवं उसका वर्गीकरण, व्यंजन घनियों एवं वर्गीकरण, संयुक्त और द्वित्व व्यंजन, 'र' के विभिन्न रूप, अनुनासिक और अनुस्वार, बिन्दु और चंद्रबिन्दु, नुक्ता, वर्ण-विच्छेद, वर्णों का उच्चारण-स्थान एवं प्रयत्न, उच्चारण और वर्तनी संबंधी अशुद्धियाँ और उनका निराकरण, विसर्ग, बलाघात और अनुतान, संधि एवं उसके प्रकार।
- ii) अक्षर विन्यास – अर्थ एवं स्वरूप, अक्षर विन्यास के नियम, शब्दभेद – रचना के आधार पर, उत्पत्ति के आधार पर, प्रयोग/अर्थ के आधार पर, शब्द रचना (उपसर्ग, प्रत्यय, संधि एवं समास के द्वारा), शब्दावली शिक्षण, पद एवं उनके भेद (संज्ञा, सर्वनाम, क्रिया, क्रिया-विशेष, विशेषण, अव्यय), लिंग, वचन, कारक।
- iii) वाक्य संरचना – अर्थ एवं विशेषताएँ, वाक्य की आवश्यकताएँ, वाक्य के प्रकार, वाक्य के अंग, वाक्य रचना के नियम, वाक्य संरचना में अशुद्धियाँ, पदक्रम, अन्वय का अर्थ एवं प्रकार, अध्याहार का अर्थ एवं प्रकार, विराम चिह्न।

6. सूक्ष्म – शिक्षण (Micro Teaching): अर्थ, परिभाषा, आवश्यकता एवं उपयोग, सूक्ष्म – शिक्षण की प्रक्रिया, सोपान एवं सावधानियाँ, विभिन्न शिक्षण कौशलों के विकास हेतु सूक्ष्म – शिक्षण पाठ-योजना।

7. हिन्दी शिक्षण कौशलों का विकास (Development of Hindi Teaching Skills): कौशल का अर्थ एवं परिभाषा, कौशल के प्रकार, शिक्षण कौशलों के अर्थ, शिक्षण कौशलों के मूल्यांकन के लिए अनुसूची। प्रश्न कौशल, व्याख्या कौशल, उदाहरण कौशल, पुनर्बलन कौशल, तथा उद्दीपन परिवर्तन कौशल के विकास हेतु सूक्ष्म पाठ-योजना एवं मूल्यांकन अनुसूची।

8. पाठ-योजना (Lesson Plan): – पाठ-योजना का अर्थ, परिभाषा एवं महत्त्व, पाठ-योजना के विविध आयाम, पाठ-योजना की रूप-रेखा, हरबर्ट पाठ-योजना का प्रारूप, मूल्यांकन आयाम की पाठ-योजना (बी० एस० ब्लूम) का प्रारूप, एन० सी० ई० आर० टी० पाठ-योजना का प्रारूप, रचनावादी उपागम (5E) पर आधारित पाठ-योजना का प्रारूप।

9. हिन्दी गद्य शिक्षण (Hindi Prose Teaching): गद्य शिक्षण के उद्देश्य, गद्य शिक्षण के अंग, गद्य शिक्षण की विधियाँ एवं प्रविधियाँ, प्रक्रिया शिक्षण कौशल, कहानी शिक्षण, कहानी की परिभाषा, महत्त्व एवं उद्देश्य, विधियाँ, नाटक एवं संवाद शिक्षण, नाटक शिक्षा का महत्त्व, नाटक शिक्षण के उद्देश्य, नाटक एवं संवाद शिक्षण की विधियाँ, नाटक शिक्षण के सोपान, प्रस्तुतीकरण एवं सावधानियाँ, पाठयोजना।

10. **पद्य शिक्षण (Poetry Teaching):** कविता का अर्थ, स्वरूप एवं विशेषताएँ, कविता शिक्षण का महत्त्व, गद्य शिक्षण और काव्य शिक्षण में अन्तर, कविता शिक्षण के उद्देश्य, लक्ष्य तथा विधियाँ, शिक्षण प्रक्रिया तथा सोपान, कविता शिक्षण में रुचि उत्पन्न करने के साधन तथा प्रविधियाँ, प्रभावी कविता शिक्षण हेतु शिक्षण कौशल, पाठ योजना।
11. **हिन्दी व्याकरण शिक्षण (Hindi Grammar Teaching):** व्याकरण का अर्थ, एवं परिभाषाएँ, व्याकरण की विशेषताएँ, उद्देश्य, व्याकरण के प्रकार, व्याकरण शिक्षण की विधियाँ, व्याकरण शिक्षण पाठयोजना, व्याकरण शिक्षण का महत्त्व, व्याकरण शिक्षण के विषय में प्रचीन तथा आधुनिक विचारधाराएँ, उच्च प्राथमिक कक्षाओं के लिए व्याकरण का पाठ्यक्रम, व्याकरण का व्यावहारिक ज्ञान।
12. **रचना-शिक्षण तथा निबंध शिक्षण (Composition and Essay Teaching):** रचना का अर्थ, एवं परिभाषा, मौखिक रचना, मौखिक रचना शिक्षण के लाभ, उद्देश्य, एवं रूप, मौखिक शिक्षण के सोपान, मौखिक रचना शिक्षण में सावधानियाँ, लिखित रचना, आवश्यकता, महत्त्व एवं उद्देश्य। निबंध रचना शिक्षण, निबंध का अर्थ, प्रकार एवं निबंध शिक्षण के उद्देश्य, निबंध-शिक्षण विधियाँ, पत्र-लेखन, भेद तथा महत्त्व, रचना शिक्षण की पाठयोजना, रचना शिक्षण में होने वाली अशुद्धियाँ।
13. **हिन्दी में पाठ्य-सहगामी क्रियाएँ :-** पाठ्य-सहगामी क्रिया का अर्थ एवं प्रकार, भाषा शिक्षण में योगदान, शिक्षण सहायक क्रियाओं के उद्देश्य, उपयोगिता, भाषा शिक्षण से संबंधित पाठ्य-सहगामी क्रियाएँ, साहित्यिक क्लब, विद्यालय-पत्रिका, वाद-विवाद, नाटक, क्विज कार्यक्रम, सांस्कृतिक कार्यक्रम, साहित्यिक कार्यक्रम, विद्यालय प्रकाशन, विद्यालय सभा, पाठ्य-सहगामी क्रियाओं का महत्त्व, कम लागत की शिक्षण सहायक सामग्री, दृश्य-श्रव्य सहायक सामग्री, अर्थ, कार्य एवं वर्गीकरण, श्रव्य सहायक शिक्षण सामग्री, दृश्य सहायक शिक्षण सामग्री, विशेषताएँ, उपयोग तथा प्रयोग करने की विधि, भाषा-प्रयोगशाला।
14. **द्वितीय भाषा के रूप में हिन्दी-शिक्षण (Hindi Teaching as 2nd Language):** द्वितीय भाषा शिक्षण की आवश्यकता, द्वितीय भाषा के रूप में हिन्दी-शिक्षण के उद्देश्य, हिन्दी भाषा शिक्षण के नियम, अहिन्दी भाषी प्रदेशों में हिन्दी का पाठ्यक्रम, उद्देश्य एवं हिन्दी-शिक्षण की व्यवस्था, द्वितीय भाषा शिक्षण की विधियाँ, द्वितीय भाषा शिक्षण की समस्याएँ तथा भाषा की अन्य व्यावहारिक समस्याएँ जैसे - पाठ्यक्रम संबंधी समस्याएँ, पाठ्यपुस्तकों की समस्या, अहिन्दी भाषी क्षेत्रों में हिन्दी अध्यापक की समस्या, हिन्दी के प्रति नकारात्मक अभिवृत्ति का निर्माण आदि।

15. हिन्दी शिक्षण विधियाँ (Hindi Teaching methods):

- शिक्षण आयाम — (हरबर्ट शिक्षण आयाम, मैरिसन शिक्षण आयाम, ब्लूम शिक्षण आयाम, डेविज शिक्षण आयाम, बहुमाध्यम शिक्षण आयाम)।
- हिन्दी शिक्षण की आधुनिक विधियाँ — (अनुकरण विधि, आगमन-निगमन विधि, सामूहिक अभ्यास विधि, खेल विधि, संरचनात्मक शिक्षा, प्रयोगात्मक विधि, प्रश्नोत्तर विधि, भाषा प्रयोगशाला)।
- हिन्दी साहित्य शिक्षण की विधियाँ — (प्रवचन विधि, प्रश्नोत्तर विधि, कहानी विधि, नाटक विधि, संवाद विधि, समीक्षा विधि)।
- आधुनिक विधियाँ — (योजना विधि, पर्यवेक्षित अध्ययन विधि, बेसिक विधि, खेल विधि, भाषा प्रयोगशाला)।

16. बाल — साहित्य (Child Literature), पाठ्यपुस्तक (Text Books) और पूरक-पुस्तक (Supplimentary Books):

- बाल — साहित्य :- बाल — साहित्य का स्वरूप तथा महत्त्व, बाल — साहित्य के विषय तथा विधाएँ, बाल — साहित्य की भाषा-शैली एवं बाल — साहित्य की प्रस्तुती, हिन्दी बाल — साहित्य की प्रमुख पुस्तकें।
- पाठ्यपुस्तक :- परिचय एवं परिभाषा, भाषा शिक्षण में पाठ्यपुस्तकों की आवश्यकता एवं महत्त्व, पाठ्यपुस्तक के उद्देश्य, पाठ्यपुस्तक के लेखन के सिद्धान्त, पाठ्यपुस्तकों के गुण।
- पूरक — पुस्तक :- भाषागत योग्यताओं के विकास में पूरक पुस्तकों का महत्त्व, पूरक पुस्तकों की विशेषताएँ, शैक्षणिक उद्देश्यों की प्राप्ति में पूरक पुस्तकों का योगदान।

17. भाषा पाठ्यक्रम (Language Curriculum): पाठ्यक्रम का अर्थ एवं परिभाषा, पाठ्यक्रम तथा पाठ्यवस्तु में अन्तर, पाठ्यक्रम का विकास, उद्देश्य तथा आवश्यकता, पाठ्यक्रम को प्रभावित करने वाले कारक, पाठ्यक्रम के प्रकार, पाठ्यक्रम निर्माण के सिद्धान्त, प्राथमिक, उच्च प्राथमिक, माध्यमिक तथा उच्च माध्यमिक स्तर पर पाठ्यक्रम निर्माण हेतु महत्त्वपूर्ण बिन्दु।

18. भाषा में मापन, आकलन तथा मूल्यांकन (Assessment and Evaluation in Language): मापन, आकलन तथा मूल्यांकन का अर्थ एवं परिभाषा, उद्देश्य, मापन, आकलन तथा मूल्यांकन में अन्तर, आकलन के प्रकार, रचनात्मक तथा योगात्मक मूल्यांकन, अधिगम का आकलन, अधिगम के लिए आकलन और आकलन के रूप में अधिगम, सतत् एवं व्यापक मूल्यांकन, विद्यालय आधारित आकलन, मूल्यांकन की प्रविधियाँ — परिमाणात्मक प्रविधि, गुणात्मक प्रविधि।

- परिमाणात्मक प्रविधि — (मौखिक परीक्षा, लिखित परीक्षा, प्रयोगात्मक परीक्षा)
- गुणात्मक प्रविधि — (संचयी आलेख, एनेकडोटल आलेख, निरीक्षण, जाँच सूची, अनुपस्थिति मापनी)
- उपलब्धि परीक्षण — उपलब्धि परीक्षण का अर्थ एवं परिभाषा, उपलब्धि प्रश्न-पत्र, प्रश्न-पत्र के निर्माण के समय ध्यान देने योग्य बातें, प्रश्न-पत्र निर्माण तथा ब्लूप्रिंट।

19. निदान एवं उपचारी शिक्षण (Diagnosis and Remedial Teaching): निदानात्मक शिक्षा :- अर्थ, महत्त्व एवं प्रयोग, निदानात्मक परीक्षण की आवश्यकता, शैक्षणिक निदान की विधियाँ, उपचारात्मक शिक्षण, उपचारात्मक शिक्षण का महत्त्व, उपचारात्मक शिक्षण के उद्देश्य, उपचारात्मक शिक्षण की प्रविधियाँ (व्यक्तिगत, सामूहिक)

20. क्रियात्मक अनुसंधान (Action Research): क्रियात्मक अनुसंधान का अर्थ, परिभाषा, क्रियात्मक अनुसंधान का विकास एवं सोपान, क्रियात्मक अनुसंधान के उद्देश्य, क्रियात्मक अनुसंधान का क्षेत्र, क्रियात्मक अनुसंधान के प्रायोगिक प्रकल्प का प्रारूप – (A Model of Experimental Project of Action Research):

- i) प्रकल्प का शीर्षक अनुसंधानकर्ता पृष्ठभूमि
- ii) प्रकल्प का उद्देश्य
- iii) प्रणाली
- iv) मूल्यांकन
- v) अनुमानित व्यय
- vi) विद्यालय का नाम
- vii) छात्रों की संख्या
- viii) विभाग
- ix) अध्यापकों की संख्या
- x) विद्यालय में योजना के लिए उपलब्ध सुविधाएँ –
 - क) योजना की पृष्ठभूमि
 - ख) विद्यालय के लिए योजना का महत्त्व
 - ग) समस्या को पहचानना
 - घ) समस्या का विशिष्ट रूप
 - ङ) परिकल्पना की परख
 - च) निष्कर्ष
 - छ) अनुसंधानकर्ता की टिप्पणी

क्रियात्मक अनुसंधान योजनाओं के लिए सुझाव :-

21. भाषा संप्राप्ति, अधिगम प्रतिफल एवं अपेक्षाएँ –

- अर्थ, स्वरूप एवं महत्त्व

22. हिन्दी भाषा की लिपि (देवनागरी लिपि)

- उद्भव तथा विकास
- हिन्दी मानक लिपि

23. हिन्दी साहित्य का इतिहास

- वर्गीकरण, प्रवृत्तियाँ एवं प्रमुख साहित्यकार

24. खेल एवं व्यायाम शिक्षा

- खेलों के प्रकार एवं महत्त्व
- योग – आसन एवं प्राणायाम, महत्त्व
- अन्तर्राष्ट्रीय योग – दिवस

25. भारतीय एवं पाश्चात्य काव्यशास्त्र

- काव्य के लक्षण, प्रयोजन एवं काव्य हेतु
- रस निष्पत्ति, शब्द-शक्ति, छन्द एवं अलंकार

**SYLLABUS OF MATHEMATICS FOR THE RECRUITMENT OF LECTURER
(Maths) IN DIETs OF ARUNACHAL PRADESH**

Pedagogical Content Knowledge:

UNIT-I: ALGEBRA

1. **Complex Numbers and Quadratic Equation.**-Need for complex numbers, especially, to be motivated by inability to solve every quadratic equation. Brief description of algebraic properties of complex numbers. Argand plan and polar representation of complex numbers. Statement of Fundamental Theorem of algebra, solution of quadratic equations in the complex number system.
2. **Sequence and Series:**-Sequence and Series. Arithmetic progression (A.P.), arithmetic mean (A.M.) Geometric progression G. P., sum of n terms of a G.P. geometric mean (G.M.) relation between A.M. Sum to n terms of the special series
 $- n, n^2$ and n^3 .
3. **Matrices & Determinants:** Determinant of a square matrix (up to 3×3 metrics), properties of determinants, minors, cofactors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.

UNIT-II: COORDINATE GEOMETRY

1. **Straight Lines:** - Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axes, point- slope-form, slope-intercept form, two-point intercepts form and normal form. General equation of a line, Distance of a point from a line.
2. **Three Dimensional Geometry:**
Coordinate Axes and Coordinate Planes in Three-Dimensional Space, Distance between two points, Section formula

UNIT-III: CALCULUS

- 1 **Functions, Limit and Continuity** :- (Finite and infinite limits). Limits of rational and irrational functions. Limit of trigonometric, exponential and logarithmic functions. Continuity and differentiability, derivative of composite functions, chain rule, derivatives of inverse trigonometric functions and their derivative. Logarithmic differentiation. Derivative of functions expressed in parametric forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric

- interpretations, Successive differentiation, Leibnitz's theorem
- 2 **Applications of derivatives:** -Applications of derivatives: rate of change, increasing/decreasing functions, tangents & normal, approximation, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).
 - 3 **Integrals:** -Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, only simple integrals of the type. Definite integrals as a limit of a sum, Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.
 - 4 **Applications of the integrals:** -Applications in finding the area under simple curves, especially lines, areas of circles/parabolas/ellipses (in standard form only), area between the two above said curves (the region should be clearly identifiable).
 - 5 **Differential Equations:** -Definition, order and degree, general and particular solutions of a differential equation. Formation of differential equation whose general solution is given. Solution of differential equations by method of separation of variables, homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type.

UNIT-IV: VECTOR ALGEBRA AND THREE-DIMENSIONAL GEOMETRY

Vectors and scalars, magnitude and direction of a vector. Direction cosines/ratios of vectors. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Scalar (dot) product of vectors, projection of a vector on a line. Vector (cross) product of vectors.

UNIT-V: METHODOLOGY

1. **Nature of Mathematics:** Human need as a basis of growth in Mathematical Thinking, Intuition & logic in Mathematical thinking, Axiomatic nature of Mathematics, Language of Mathematics
2. **Need and importance of teaching Mathematics at Elementary level:**
 - a) Need and importance of teaching Mathematics at Elementary level
 - b) Objectives of Teaching Mathematics at Elementary level
 - c) Instructional Objectives at elementary level in Mathematics: Knowledge, Understanding, Application and Skill
 - d) Influence of Socio-cultural back ground on Mathematical Knowledge
3. **Methods of teaching Mathematics:**

- a. Inductive-Deductive Method
- b. Play-way method
- c. Project method
- d. Problem solving Method

4. Teaching Aids in Mathematics

- a. Meaning of Teaching Aids
- b. Role and importance of teaching aids
- c. Mathematics Kit and other useful teaching aids- Models, Charts, Geometry box, Geo-board and abacus etc.

5. Lesson Planning:

- a. Meaning and importance of lesson planning
- b. Developing a lesson Plan
- c. Model of 5-e Lesson plan

6. Teaching of Arithmetic and Commercial Mathematics, Algebra and Geometry

7. Evaluation:

- a) Concept of Evaluation
- b) Purpose of evaluation
- c) Tools and Techniques of evaluation
- d) Various kind of test items
- e) Criteria of a good test paper

SYLLABUS OF SCIENCE FOR THE RECRUITMENT OF LECTURER (Science) IN DIETs OF ARUNACHAL PRADESH

This Paper consists of 02 (two) Sections, Section A & B. Section A is the Optional papers (Biology/chemistry/physics), candidates shall opt one of the options. Section B is compulsory paper (Methodology of Teaching Science) for all candidates of Science Lecturer.

Section A (Contents)

BIOLOGY

UNIT 1- STRUCTURAL ORGANIZATION IN PLANTS ANIMALS.

- Biological classification – animal kingdom and plant kingdom
- Structural organization in animals –Animals tissues (Epithelial tissues, connective tissues, muscle tissues, neural tissues), organ and organ system of earthworm, frog, and cockroach

UNIT 2 - HUMAN PHYSIOLOGY

- Digestion and absorption- human digestive system, digestive glands, absorption of digested food, disorder of digestive system.
- Breathing and exchange of gases-human respiratory system, mechanism of breathing, respiratory volumes and capacities, disorder of respiratory system.
- Body Fluids and Circulation-Blood, Blood group, Coagulation of blood Lymph, human circulatory system, cardiac cycle, disorder of circulatory system.
- Excretory products and their elimination-human excretory system, regulation of kidney, kidney function, micturition, disorder of excretory system.
- Locomotion and movement – type of movement, skeletal system, joints, disorder of muscular and skeletal system.
- Neural control and co-ordination –neuron as structural and functional unit of neural system, generation and conduction of nerve impulse, transmission of impulse, central neural system, reflex action and reflex arc, sense organs-eye, and ear etc. Chemical coordination –endocrine glands and hormones.

UNIT 3- PLANT PHYSIOLOGY

- Morphology of flowering plants- modification of root, modification of shoot, modification of leaves, parts of flower, the fruit, structure of dicotyledons seed and monocotyledon seed, semi description of a typical flowering plant. (e.g. Solanaceae, Liliaceae)
- Anatomy of flowering plants – The tissue (Meristematic and permanent tissue), The tissue system (Epidermal tissue system, Ground tissue system, vascular tissue system), Anatomy of Dicotyledonous and monocotyledonous plants, Secondary growth (vascular cambium and cork cambium)
- Transport and mineral nutrition in plants – means of transport –diffusion, facilitated, active transport, osmosis, plasmolysis, imbibition, transpiration, uptake and transport of mineral nutrients.

- Respiration in plants-Glycolysis, fermentation, Anaerobic respiration, tricarboxylic Acid Cycle, Electron Transport system and oxidative phosphorylation.

UNIT 4- CELL STRUCTURE AND FUNCTION

- Cell- the unit of life – structure of prokaryotic cells and Eukaryotic cells, structure and functions of cell organelles – cell membrane, cell Wall, Endoplasmic reticulum, Golgi apparatus, Lysosomes, Vacuoles, mitochondria, plastids, ribosomes, cilia and flagella, centrosome and centrioles, Nucleus.
- Biomolecules- proteins, structure of proteins, nucleic acid, polysaccharides, concept of metabolism, enzymes, co-factors.
- Cell cycle and cell division – phases of cell cycle, signification of mitosis and meiosis.

UNIT 5-ECOLOGY

- Ecosystem- structure and function, energy flow, Nutrient cycling (carbon cycle, phosphorous cycle)
- Biodiversity and conservation – patterns of biodiversity, biodiversity conservations, why should we conserve biodiversity, how do we conserve biodiversity?

UNIT 6- GENETICS AND EVOLUTION

- Principles of inheritance and variation –Mendel's law of inheritance, law of dominance and law of segregation, law of independent assortment, linkage and recombination, Pleiotropy sex determination, genetic disorders, chromosomal disorders,
- Molecular basis of inheritance – the structure of DNA, properties of genetic material (DNA versus RNA), transcription, translation, Genetic code, DNA fingerprinting

CHEMISTRY

UNIT 1- ATOMIC STRUCTURE, PERIODIC CLASSIFICATION AND CHEMICAL BONDING.

- Structure of atom
- Classification of elements and periodicity
- Chemical bonding, types of chemical bonding; Valence bond theory and molecular structure; Bonding in coordination compound; Concept of molecular orbital theory, crystal field theory.

UNIT 2- CHEMICAL REACTION

- Types of chemical reaction and representation of chemical reaction.
- Mole concept.
- Energy changes during the chemical reaction.
- Chemical equilibrium – Rate of reaction and equilibrium, factors affecting the rate of reaction and the equilibrium; Le-Chatelier's principle, strong and weak electrolytes; concept of pH.

UNIT 3- EXTRACTION OF THE METALS AND THE NON- METALS

- Occurrence of metal.
- Metallurgy.
 - Concentration of ore.
 - Reduction of concentrated ore.
 - Purification of metal.
 - Thermodynamics of metallurgy
- Extraction of non- metal

UNIT 4 – STATES OF MATTER

- Three states of matter, intermolecular inheritance, types of bonding, melting and boiling points,
- Gaseous State – Role of gas law in elucidating the concept of the molecule, Charles's law, Gay Lussac's law, Avogadro's law, ideal behavior, empirical derivation of gas equation, Avogadro's number, ideal gas equation, Kinetic energy and liquefaction of gases, critical temperature.
- Liquid state –vapor pressure, viscosity, and surface tension.
- Solid state – Classification of solids based on different binding forces: ionic Covalent and metallic solids, amorphous and crystalline solids, imperfection in solids.

UNIT 5- ORGANIC CHEMISTRY

- Bonding in hydrocarbon; Carbon – carbon sigma and pi Bonds (in Aliphatic and aromatic hydrocarbons), hybridization.
- IUPAC Nomenclature of organic compounds.
- Structure and isomerism, conformational analysis of alkanes.
- Reactions and reaction mechanism in hydrocarbons (Saturated and Unsaturated); Alcohols, Aldehydes, Ketones, Carboxylic acids, and amines.

UNIT 5 – BIOMOLECULES

- Carbohydrates – classification (aldoses and Ketoses), monosaccharide (glucose and fructose), D-L Configuration, oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen), their importance.
- Proteins – elementary idea of amino acid, peptide bond, polypeptide, primary structure, secondary structure, tertiary structure and quaternary structure, denaturation of proteins, enzymes.
- Hormones – elementary idea
- Vitamin – Classification and function
- Nucleic acid - DNA and RNA.

UNIT 6 – THERMODYNAMICS

- Concept of system, types of system, work, heat, energy, extensive and intensive properties, state function.
- First law of thermodynamics – internal energy and enthalpy, heat capacity and specific heat. Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation atomization, sublimation, phase transition, ionization, solution, and dilution.
- Introduction of entropy as a state function, second law of thermodynamics, Gibbs energy change for spontaneous and non- spontaneous process, criteria for equilibrium.
- Third law of thermodynamics.

UNIT 7- ELECTROCHEMISTRY

- Redox reaction, conductance in electrolytic solution, specific and molar conductivity Variation of conductivity with concentration.
- Kohlrausch's law, electrolysis and law of electrolysis, dry cell – electrolysis cells and galvanic cells, lead accumulator, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cell.
- Relation between Gibbs energy change and EMF of a cell, fuel cells, corrosion.

PHYSICS

UNIT 1- FORCE AND MOTION

- Relation of motion and force.
- Newton's laws of motion.
- Conservation of momentum.
- Application of one's laws of motion in daily life.

UNIT 2 – LIGHT – IMAGE FORMATION BY MIRRORS AND LENSES

- Image formation by spherical mirrors and concave mirror.
- Reflection and refraction of light.
- Image formation by spherical lenses.
- Application of refraction of light in daily life.
- Optics.

UNIT 3- ELECTROMAGNETISM

- Magnetic effects of current.
- Need for displacement current.
- Electromagnetic wave and their characteristics, transverse nature of electromagnetic waves.
- Electromagnetic spectrum (radio waves, microwaves, infra-red, ultra violet, X-rays, gamma rays) including elementary facts about their uses.
- Electromagnetic induction.

UNIT 4 – THERMODYNAMICS

- Thermal equilibrium and definition of temperature (Zeroth law of thermodynamics). Heat work and internal energy.
- First law of thermodynamics, isothermal and adiabatic processes.
- Second law of thermodynamics, reversible and irreversible processes.

UNIT 5 – ELECTROSTATICS

- Electric charges and their conservation. Coulomb's law – force between two points' charges, forces between multiple charges, superposition principle and continuous charge distribution.
- Electric field – electric field due to a point charge, electric field lines, electric dipole, torque on a dipole in a uniform electric field.
- Electric flux – statement of Gauss's theorem and its application to find field due to infinitely long straight wire, uniformly charged thin spherical shell (field inside and outside).
- Electric potential due to a point charge, dipole and system of charges,
- Equipotential surfaces, electric potential energy of a system of two charges and of electric dipoles in an electrostatic field.

UNIT 6 – ATOMS AND NUCLEI

- Alpha particle scattering experiment, Rutherford's model of atom, Bohr model, energy levels, hydrogen spectrum. Composition and size of nucleus, atomic masses, isotopes, isobars and isotones.
- Radioactivity – alpha, beta and gamma particles/rays and their properties, radioactive decay law.
- Mass energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission and fusion.

UNIT 7 – ELECTRONIC DEVICES

- Energy bands in solid conductors, insulators and semi – conductors.
- Semiconductors diode – I-V characteristics in forward and reverse bias, diode as a rectifier, I-V characteristics of LED, photodiode, solar cell and Zener regulator.
- Junction transistor, transistor action characteristics of transistor, transistor as an amplifier and oscillator. Logic gates (OR, AND, NAND AND NOR).

Section B

METHODOLOGY OF TEACHING SCIENCE

UNIT 1 – AIMS AND OBJECTIVES OF TEACHING SCIENCE

- Taxonomy of educational objectives – cognitive, affective, psychomotor, specification of each objective in terms of pupil behavior.
- Relationship between the cognition and affective domain.
- Behavioral objectives – stating the condition, stating the criterion, Behavioral terms for stating specific objectives – knowledge, comprehension, application, analysis, synthesis, evaluation, and test items.

UNIT 2 – METHODS OF TEACHING SCIENCE

- Guiding principles for selecting teaching methods, lecture method, demonstration method, lecture cum demonstration method, laboratory method, project method, problem solving method, heuristic method, problem solving method, programmed instruction method, individualized instruction method.
- Constructivist approach of teaching-learning.

UNIT 3 – USE OF AUDIO-VISUAL AIDS IN TEACHING SCIENCE

- Importance of audio-visual aids.
- Different kinds of audio-visual aids – 1) Direct purposeful experience, 2) Contrived experiences – Objects and specimens, 3) Dramatic participation, 4) Demonstration, 5) Field trip or excursion, 6) Exhibits – museum, 7) Motion pictures and television, 8) Radio recordings and still pictures – bulletin boards,

projected pictures, opaque projector or episcopes, slide cum film strip projector,
9) Visual symbols- chalk board, overhead projector, 10) verbal symbols

- Effective use of audio-visual aids
- Development of improvised teaching aids/apparatus – selection, preparation and use teaching aids.

UNIT 4 – MICRO TEACHING

- Concept and definition of micro-teaching
- Identification of teaching skills
- Integration of teaching skills
- Comparison of conventional student teaching and microteaching-based student teaching.

UNIT 5 – LESSON AND UNIT PLANNING

- Objectives, content, methods, evaluation, art of questioning, stimulating learning, steps involved in lesson planning – preparation, introduction, aim, method, application, recapitulation,
- Unit planning- characteristics of unit plan, steps involved in unit plan, Performance of a unit plan.

UNIT 6 – EDUCATIONAL TECHNOLOGY

- Concept of educational technology
- Educational technology and Instruction technology
- Educational technology and Teaching technology
- Types of educational technology – Educational technology I – Hardware approach

Educational technology II – Software approach

Educational technology III – System approach

UNIT 7 – EVALUATION

- Assessment – purpose of assessment, teachers' activities for assessment of pupil's abilities, aptitudes, and interests.
- Criteria of test – tools and techniques of evaluation, steps in test construction.
- Diagnostic testing and remedial teaching in science.

SYLLABUS OF SOCIAL SCIENCE FOR THE RECRUITMENT OF LECTURER (Social Science) IN DIETs OF ARUNACHAL PRADESH

Optional papers: (Economic/Geography/History/Political Science)

Note: candidates shall opt one of the options

ECONOMICS

Unit- I: Conceptual Framework

- (i) Meaning, Definition, Nature and Scope of Economics
- (ii) Importance of Learning Economics
- (iii) Subject Matter of Economics: Micro and Macro Economics
- (iv) Economics and Other Social Sciences Correlation.
- (v) Aims and Objectives of Teaching Economics
- (vi) Precautions in Learning Economics: *Fallacy of composition, False analogies and Post hoc ergo propter hoc*

Unit-II: Economics curriculum

- (i) Designing Curriculum: -What is Curriculum? Importance of the Curriculum, Principles of Curriculum Construction, Economics Curriculum at various stages of school education, Difference between Curriculum and syllabus.
- (ii) Economics Components in the Social Science courses at Elementary Level.
- (iii) Bloom's Taxonomy of Educational Objectives.
- (iv) Text Book Content Analysis
- (v) Writing Specific Instructional Objectives in different domains of Bloom's Taxonomy

Unit- III: Pedagogical Tools and Resources in teaching of Economics

(A) Pedagogical Tools

- (i) Methods of Teaching Economics: Inductive-Deductive, Problem solving, Socialized Recitation method, Source Method, Laboratory method, Unit Method.
- (ii) Strategies of Teaching Economics: Autocratic and Democratic Teaching Strategies (Project, Story Telling, Brain Storming, Role Play, Independent Study, Sensitivity Training, Drill work, Assignments, Simulation Games etc.)
- (iii) General Techniques of Economics Teaching: Explanation, Exposition Technique, Narration, Description, Supervised Study Technique, Illustration.
- (iv) Higher Techniques of Teaching Economics: Symposium, Workshop and Conferences.
- (v) Approaches: Constructivist Approach, Activity Based Approach.

(B) Resource in teaching of Economics (Teaching Learning Materials)

- (i) Teaching Learning Material: Principles of construction and conservation of TLM, Importance of TLM in teaching of Economics, Development of low cost TLM using locally available materials: Identification of no cost TLM from nature and immediate surroundings.
- (ii) Types of TLM: Projected Teaching Aids, Printed Teaching Aids, Audio-Visual Teaching Aids, Graphic Materials, Models etc.
- (iii) Community Resources: Importance of Community Resources, Different Types of Community resources, Method of Utilizing Community Resources (such as Field Trips, Community Survey, School Camping etc.)

Unit- IV: Planning for Effective Teaching in Economics

- (i) Visualizing the curricular goals and Learning outcomes.
- (ii) Mapping the elements of economics in social science textbooks at elementary and higher level of school education in relation to the visualized Learning outcomes.
- (iii) Perspective plan and Unit Plan: Difference between perspective plan and Unit Plan, Various Components of Unit Plan in Economics
- (iv) Lesson Planning in Economics Teaching: Meaning of Lesson Plan, Need and Importance of Lesson Planning, Characteristics of a lesson Plan, Principles of Planning Lessons in Economics.
- (v) Action Research to solve problems associated with teaching of **Economics**.

Unit-V Assessment and Evaluation in Economics

- (i) Difference between Assessment and Evaluation
- (ii) Assessment for Learning and Assessment of Learning
- (iii) Learning outcomes as assessment benchmark in Economics
- (iv) Tools and Techniques of Evaluation in Economics.
- (v) Construction Achievement Test in Economics
 - (a) Preparation of the design of the Achievement Test in Economics
 - (b) Development of Blue Prints
 - (c) Construction of competency-based test items.
 - (d) Different Types of Test Items-Objective Test Items (Oral, MCQ, True/False type, Completion Type), Very Short Answer Type, Short Answer Type, Essay Type.
 - (e) Determining difficulty level of test items
 - (f) Reliability and Validity of Tool/Test Paper
 - (g) Preparation of Scoring Key
- (vi) Some Useful Techniques of Evaluation in Economics
 - (a) Observation
 - (b) Sociogram

GEOGRAPHY

Unit- I: Conceptual Framework of Geographic Education

- Nature and Scope of Geography.
- Geography as a discipline of synthesis.
- Maps; concept, types, elements and importance.
- General objectives of imparting geographic education at elementary
- Importance of Geography in school curriculum.

Unit-II: Curriculum of Geography

- Taxonomy of education objectives.
- Writing instructional objectives in behavioral terms.
- Process of curriculum development in Geography.
- Text book preparation and analysis of good Geography text book.

Unit- III: Pedagogical Approaches, Strategies and Resource in teaching of Geography

- Approaches to teaching: Inductive-deductive, inter-disciplinary and constructivist approaches.
- Strategies: Observation, Project, Regional, Comparative, Problem-solving, Laboratory/ Scientific experimental and Narrative.

-Resources in Teaching of Geography (Teaching Learning Materials)

- Importance and Types of Teaching Learning Materials
- Development of Low cost Teaching Learning Materials;
- Use of local/community resources,
- Maps, Globe, Atlas and diagrams, establishment and maintenance of Geography Room, Computers in Geography teaching.

Unit- IV: Content Planning, Lesson Planning and Evaluation in Geography

- Analysis of contents
- Identification of concepts
- Writing Behavioral Objectives
- Concept of lesson plan: Need and importance.
- Preparation of lesson plan in Geography.

-Evaluation: Concept and Types

- CCE
- Scholastic & Co-scholastic Evaluation
- Tools and Techniques of Evaluation
- Setting of Questions
- Construction of test items- short answer, objectives type question, essay type and their uses.
- Action Research in Geography: meaning and steps.

HISTORY PART I

SECTION- A- ANCIENT INDIA

Unit- 1 **Sources of the Ancient Indian History**

Literary sources

Archeological Sources

- Foreign Accounts

Unit -2 **Indus valley Civilization**

- Date, extent, town planning, scripts, seals, religion and trade
- Decline of the civilization and its causes

Vedic Age:-

- Early Vedic age- Aryan and their original home.
- Social, political, economic and religious condition.
- Later Vedic age, social political, economic and religious condition

Unit 3: - **Jainism and Buddhism:**

- Life and Teachings of Lord Mahavira
- Life and Teachings of Lord Buddha
- Their contribution to Indian culture.
- Similarities and Dissimilarities between Jainism and Buddhism
- Decline of Jainism and Buddhism

Unit 4: - **Political condition of India in the 6th Century BCE.**

- The sixteen Mahajanpadas.
- Rise and expansion of Magadha Empire
- Foreign Invasions.
- Iranian and Macedonian invasions and their impacts.

Unit5: - **The Age of the Mauryas**

- Sources of the Mauryan History
- Chandragupta Maurya, His conquest & Achievements.
- Ashoka —His conquest, Policy of Dhamma, achievements
- Causes of its downfall

Unit 6: - The Gupta empire

- Chandragupta I - His conquest & achievement
- Samudra Gupta - Conquest and achievement
- Administration, Golden period and their downfall.

Unit 7: - Reign of Harshavardhan

- Sources of information
- Harsha's Conquest and Administration
- Religious, Social and Economic condition
- Account of Hiuen Tsang

SECTION —B (MEDIEVAL INDIA)

Unit- 8: - North India between 800 AD-1000 AD

- Emergence of the Pratiharas
- Struggle for Empire between Pratiharas, Palas and Rashtrakutas

Unit 9: - The Chola Empire

- Rise of Chola Empire
- Central Administration and Local Self Government
- Art and Architecture

Unit 10: - Foundation of Delhi Sultanate

- Qutab- ud-di- Aibak
- Iltutmish
- Gias —ud- din -Balban
- **Consolidation and decline of Delhi Sultanate: -**
- Alla- ud- din- Khilji
- Muhamamad-bin- Tughlaq

Unit 11: - The Vijayanagar Empire

- Rise and Growth of Empire
- Art and Architecture
- Achievements of Krishnadeva Raya
- Decline of the Vijayanagar Empire

Unit 12: - The Bhakti and the Sufi Movements: -

- * Origin of Bhakti movements, ideas & practices
- * Bhakti Movements in South India
- * Bhakti Movements in North India
- * Leaders of Bhakti Movements
- * Sufis —Teaching of Sufism, Leaders of Sufi Movement.

Unit 13: - The Mughal Empire —its Zenith and Decline

- Akbar — conquests and consolidation of the Empire
- His religious and Rajput policy
- Mansabdari System
- Achievements of Akbar
- Shah Jahan: Art and Architecture, Age of Magnificence
- Aurangzeb: Conquests, Religious and Deccan policy, Downfall of the Mughal Empire

Unit 14:- The Marathas :

- Shivaji: His Role in the rise of the Marathas
- His Administration
- Anglo- Maratha War

SECTION- C
(MODERN INDIA)

Unit 15: - Rise of British Power in India:-

- Early British Power in Bengal
- Dual System of Govt. in Bengal
- Causes for early success of the British

Unit 16 :- Land Revenue Policy under the British Rule:-

- Permanent settlement
- Ryotwari Settlement
- Mahalwari Settlement
- Economic Impact of the Revenue arrangement

Unit 17 :-Socio-Religious Reform Movements:-

- Raja Ram Mohan Roy and the Brahma Samaj
- Dayanand Saraswati and Arya Samaj
- Swami Vivekananda and the Ramakrishna Mission
- Sir Sayyid Ahmed and the Aligarh Movement.

Unit 18:-Peasants' Movements:-

- Indigo Revolt
- Deccan Riots

- Mopilla Uprising

Unit 19:-The Revolt of 1857

- Causes —Long term and immediate
- Nature and extent of the revolt
- Causes of the failure of the revolt
- Queen's proclamation Act and end of East India Company Rule

Unit 20:-Rise of Nationalism (1885-1905)

- Formation of the Indian National Congress
- Moderate leaders and their ideologies
- Partition of Bengal and Swadeshi movement

Rise of Nationalism (1905- 1919)

- Surat Split
- Home Rule League
- Under ground and Terrorism Movement
- Lucknow Pact

Unit 21:-Mahatma Gandhi and Nationalism Movement (1919-1947)

- Emergence of Gandhi in Indian Politics
- Gandhiji's early movements
- Jallianwalla Bagh Massacre, Khilafat and Non—Cooperation movement.
- Salt Satyagrah and Civil Disobedience movement.
- Round Table Conferences
- Quit India movement —India towards independence

SECTION 'D' (CONTEMPORARY WORLD)

Unit 22 :-Rise of Modern World:

- Renaissance and Reformation.
- The Industrial revolution.
- The glorious revolution
- The French revolution
- The American War of Independence

Unit 23 :-World Wars:-

- First and second World War: Causes and consequences
- The World after second world War-emergence of power blocks

- Emergence of third world and non-alignment movement
- UNO and its role in international affairs

Unit 24: -The Cold War (1945-1991):

- The origin of cold war
- Superpower rivalry from 1945 onwards —the end of cold war
- Disarmament: -Concept and theories
- Obstacles to disarmament

Unit 25: -Development in Asia and Africa:-

- Revolution in China.
- Struggle against Apartheid

SECTION 'E'

(HISTORY OF NORTH EAST AND ARUNACHAL PRADESH)

Unit 26: -History of North East India:

- Early state in Pragjyotishpur: Kamrup
- The Ahom state and their relation with neighbouring tribes.
- Decline of the Ahoms.

Unit 27: - History of North East with special reference to Arunachal Pradesh.

- Pre—colonial society —economy and occupations
- Indigenous faith and practices
- Position of women in society and policy formation
- Concept of Inner line and Outer line
- Mac Mohan line
- The Anglo—Abor War

PART-II

PEDAGOGY OF HISTORY [Teaching of History]

- Meaning, Nature, Scope, Aims, Objectives, Need and Values of Teaching History
- **PLANNING FOR INSTRUCTION – Unit & Lesson Planning**
- **TYPES OF TEST ITEMS IN HISTORY**
Written paper and pencil tests, Essay type tests, Short answers type tests, Objective type tests, Oral test, Practical test

- **TEACHING SKILLS IN HISTORY**

Introducing, Explaining, Questioning, Varying the Stimulus, Non-verbal cues, Reinforcement, Closure and fluency in communication

METHODS OF TEACHING HISTORY

1. Teacher-Centered Methods

Lecture Method, Demonstration Method, Team Teaching

a. Source Method

b. Classification of sources

i. Literary sources

The Vedas, Epics, The Dharmasastras, The Puranas, The Buddhist Literature
The Jain Literature, The Arthashastra of Kautilya, Patanjali Mahabhashya

ii. The Secular Literature

The Private Literature, The Official Literature

iii. Archaeology Sources

2. Learner-Centered Methods

Project Method, Peer Tutoring, Field visit, Survey method, Observation,
Discussion methods

RESOURCES FOR TEACHING HISTORY

1. PRINT RESOURCES

Newspapers, Journals, Magazines, Reference Books, History /Humanities,
Encyclopedias

2. AUDIO RESOURCES

Radio Talk, Audio Tapes

3. VISUAL RESOURCES

Cartoons, Charts, Comics, Flashcards, Graphs, Maps, Pictures, Posters, Diagrams,
Models, Specimens

4. ICT RESOURCE

Radio, Television

5. COMMUNITY RESOURCES

Fieldtrips, Museum, Library, Excavated Archeological Sites, Monuments, History
Club

QUALITIES OF A HISTORY TEACHER

In order to be successful and to realize the objectives of history teaching and to discharge his functions properly and adequately, he should be a person of wide reading and culture and possess certain qualifications which are mentioned as under:

1. Academic preparation
2. Knowledge of various methods of teaching
3. Mastery of the subject and techniques
4. Knowledge of child psychology

5. Power to excite the imagination
6. Keen power of observation and imagination
7. Knowledge of child psychology
8. Personality
 - I. Professional training
 - II. He should have a love for excursions and tours
 - III. He should take interest in the collection of things of historical importance
 - IV. Knowledge of current affairs

POLITICAL SCIENCE

1. Political Theory and Thought:

Ancient Indian Political Thought: Kautilya and Manu.

Greek Political Thought: Plato and Aristotle.

Modern Indian Thought: Gandhi, Aurobindo Ghosh.

2. The Constituent Assembly and the Constitution:

i) Formation and working of the Constituent Assembly

ii) The Philosophy of the constitution: The Preamble and its Features.

iii) Fundamental Rights, Directive Principles of State Policy, Fundamental Duties.

3. Federalism

i) Federalism: Centre-State relations

ii) Recent trends in federalism

4. Organs of Government:

Executive, Legislature, Judiciary.

5. Indian party system

(i) **Party System in India:** Features and Trends

(ii) **Voting Behaviour and Its determinants:** Caste, Class, Gender and Religion.

(iii) **Election Commission:** Constitution and Functions, Electoral Reforms.

6. Indian Government and Politics:

Preamble, Fundamental Rights and Duties and Directive Principles, Constitution as Instrument of Socio-Economic Change, Constitutional Amendments and Review.

7. Regionalism, Religion and Politics

(i) Regionalism: Causes and its trends,

(ii) Secularism and Communalism: Debates

8. Public Administration as a Discipline

(i) Meaning, Scope and Significance of the Discipline, Public and Private Administration

(ii) Evolution of Public Administration

9. Decentralization:

i) **Panchayati Raj Institutions:** Composition, Powers and functions of Gram Panchayat, Panchayat Samiti and Zilla Parishad.

ii) **Municipalities:** Composition Powers and function of Municipal Corporation, Municipal Council and Notified Area Council.

10. **International Relations:** - Cold war, Alliance, Non-alignment, End of Cold war, Globalisation, Rights and Duties of states in international law, intervention, Treaty-law, prevention and abolition of war.

11. **India's Nuclear Policy:** India's Relations with Neighbours and USA, India's Role in the UN, India and Regional Organizations (SAARC, ASEAN) and Indian Ocean.) and relation between India and Pakistan, Bhutan and Nepal.

12. **Pedagogical Approaches, Strategies and Resource in teaching of Political Science**

- Approaches to teaching: Inductive-deductive, inter-disciplinary and constructivist approaches.
- Strategies: Observation, Project, Regional, Comparative, Problem-solving, Laboratory/ Scientific experimental and Narrative.

-Resources in Teaching of Political Science (Teaching Learning Materials)

- Importance and Types of Teaching Learning Materials
- Development of Low cost Teaching Learning Materials;
- Use of local/community resources

13. **Content Planning, Lesson Planning and Evaluation in Political Science**

- Analysis of contents
- Identification of concepts
- Writing Behavioral Objectives
- Concept of lesson plan: Need, Characteristic and importance.

-Evaluation: Concept and Types

- CCE
- Scholastic & Co-scholastic Evaluation
- Tools and Techniques of Evaluation
- Setting of Questions
- Construction of test items- short answer, objectives type question, essay type and their uses.
- Action Research in Political Science: meaning and steps.