

Government of Andhra Pradesh



DEPARTMENT OF SCHOOL
EDUCATION

TEACHER ELIGIBILITY TEST

2018

Syllabus

Paper – I & II

TEACHER ELIGIBILITY TEST – 2018

PAPER-I Syllabus

I. CHILD DEVELOPMENT AND PEDAGOGY (Marks: 30)

1. DEVELOPMENT OF CHILD

- Development, Growth & Maturation — Concept & Nature
- Principles of development and their education implication
- Factors influencing Development — Biological, Psychological, Sociological, emotional
- Dimensions of Development and their interrelationships — Physical & Motor, Cognitive, Emotional, Social, Moral, Language relating to Infancy, early Childhood, late Childhood, Adolescence.
- Understanding Development — Piaget, Kohlberg, Chomsky, Carl Rogers, Erikson
- Individual differences — Intra & Inter Individual differences in the areas of Attitudes, Aptitude, Interest, Habits, Intelligence and their Assessment
- Development of Personality — Concept, Factors effecting development of personality, self concept
- Adjustment, Behavioural problems, Mental Health, Defense mechanism
- Methods and Approaches of Child Development — Introspection, Observation, Interview, Case study, Experimental, Cross sectional and Longitudinal
- Developmental tasks and Hazards

2. UNDERSTANDING LEARNING

- Concept, Nature of Learning — input — process — outcome
- Factors of Learning — Personal and Environmental Approaches to Learning and their applicability—Behaviourism (Skinner, Pavlov, Thorndike), Constructivism (Piaget, Vygotsky), Gestalt (Kohler, Koffka) and Observational (Bandura)
- Dimensions of Learning — Cognitive, Affective and Performance
- Motivation and Sustenance —its role in learning.
- Memory & Forgetting
- Transfer of Learning

3. PEDAGOGICAL CONCERNS

- Teaching and its relationship with learning and learner Learners in Contexts: Situating learner in the socio-political and cultural context - Children from diverse contexts—Children With Special Needs (CWSN), Inclusive Education
- Understanding of pedagogic methods — Enquiry based learning, Project based learning, Survey, Observation and Activity based learning, Cooperative and collaborative learning
- Individual and Group learning: Issues and concerns with respect to organizing learning in class room like Study habits, Self learning and Learning to learn skills
- Organizing learning in heterogeneous class room groups — Socio-economic background, Abilities and Interest
- Paradigms of organizing Learning-Teacher centric, Subject centric and Learner centric Theory of instruction - Bruner
- Teaching as Planned activity — Elements of Planning
- Phases of Teaching — Pre active, Interactive and Post active
- General and Subject related skills, competencies required in teaching and attributes of good facilitator
- Learning resources — Self, Home, School, Community, Technology

- Class room Management: Role of student, teacher, Leadership style of teacher, Creation of nonthreatening learning environment, Managing behaviour problems, Guidance & Counselling, Punishment and its legal implications, Rights of a child, Time Management.
- Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice
- Understanding teaching & learning in the context of NCF, 2005 & Right To Education Act, 2009.

II (a) Language - I Telugu (Content and Methodology) (Marks: 30)

ఎ) విషయం Marks: 24

1. పఠనావగాహన (పద్యం, గద్యం రూపాలు)
2. తెలుగు సాహిత్యం, సంస్కృతి (ప్రాచీన, ఆధునికం, జానపదం)
 - నూతన పాఠ్యపుస్తకాలలోని ఇతర తెలుగుకవులు, రచయితలు, పాత్రలు - నేపథ్యం - ఇతివృత్తాలు - విశేషాంశాలు
 - ప్రక్రియలు - లక్షణాలు-వివరణలు
 - శతకాలు
 - కళలు, కళాకారులు
 - వేడుకలు
 - గేయాలు/పాటలు
3. పదజాలం
 - సామెతలు
 - జాతీయాలు
 - పొడుపు కథలు
 - వ్యవహార రూపాలు
 - అర్థాలు
 - నానార్థాలు
 - పర్యాయ పదాలు
 - వుత్పత్త్యర్థాలు
 - ప్రకృతి వికృతులు
4. భాషాంశాలు :

ద్విత్వ, సంయుక్త సంశ్లేష అక్షరాలు, వాక్యాలు, వర్గయుక్తులు, పరుషాలు, సరళాలు, భాషా భాగాలు, లింగాలు, వచనాలు, కాలాలు, విభక్తులు, అవ్యయాలు, విరామ చిహ్నాలు, తెలుగు సంస్కృత సంధులు, సమాసాలు, క్రియలు (సమాపక, అసమాపక), వాక్యాలు రకాలు - ఆశ్చర్యార్థక, విధ్యర్థక, ప్రశ్నార్థక సందేహార్థక, అనుమత్యర్థక, నిషేధార్థక, ప్రత్యక్ష పరోక్ష, కర్తరి - కర్మణి - చందస్సు, అలంకారాలు, అర్థవిపరిణామం.

Part III

Language – I Hindi (Content and Methodology) (Marks: 30)

Content 24 marks

1. रचनाकार /रचनाएँ विषयवस्तु , चित्र-चित्रण, भाषा शैली आदि।
2. साहित्यिक विधाएँ और उनकी विशेषताएँ
3. भाषा तत्व और व्याकरण
 - शब्द विचार : अपसर्ग –प्रत्यय
 - शब्द भेद
 - लिंग , बचन कारक ,काल
 - शब्द रूपान्तर
 - शब्द – अर्थ , भिन्न – भिन्न अर्थ , पर्यावाची शब्द और विलोम शब्द
 - शब्द परिचय – तत्सम , तदभव, देशज और विदेशी

 - वाक्य संरचना, भेद
 - वाच्य – समास
 - मुहावरे – लोकपक्तियाँ ,कहावतें.

Methodology 6 marks

- I.
 1. भाषा – अर्थ और स्वरूप
 2. माध्यमिक स्तर पर हिन्दी शिक्षण के उद्देश्य
 3. भाषा की समस्या – त्रिभाषा – सूत्र
- II.
 - 1 आदर्श हिन्दी – अध्यापक के गुण
 - 2 अच्छे शिक्षण की विशेषताएँ
 - 3 भाषा – शिक्षण की सामान्य सिद्धान्त
 - 4 भाषा – शिक्षण के सूत्र
 - 5 भाषा – शिक्षण की प्रणालियाँ
 - 6 भाषा – शिक्षण की विधियाँ
- III.
 - 1 शिक्षण में भाषा – कौशलों का महत्व
 - 2 भाषा कौशलों का विकास
 - सुनना : ध्वनी की उत्पत्ति, ध्वनी – श्रवण और पारस्परिक संबंध
 - बोलना: शब्दोच्चारण, वक्यत्र, शुद्धोच्चारण का अभ्यास , मौखिक अभिव्यक्ति, पाठशाला में वार्तालाप का अभ्यास
 - पढ़ना: विशेषताएँ, वाचन के प्रकार, वाचन संबंधी दोष और उपचार
 - लिखना: महत्व , नियम , विधियाँ, प्रकार, अक्षरक्रियास
 3. भाषा - कौशलों का समन्वय
- IV.
 1. शिक्षण उद्देश्यों का वर्गीकरण
 2. न्यूनतम अधिगम - स्तर
 3. पाठ – योजना (गद्य, पद्य, व्याकरण, रचना, पत्र-लेखन)
 4. इकाई – योजना
 5. शिक्षण – उपकरण

V

1. पाठ्यक्रम
2. पाठ्यपुस्तक
3. पुस्तकालय
4. भाषा सहगामी कियारँ

VI

1. मूल्यांकन की धारणा
2. उत्तम परीक्षा की विशेषताएँ
3. उपलब्ध परीक्षा
4. निरंतर सामग्र मूल्यांकन
5. उद्देश्य आधारित मूल्यांकन
6. उपचारत्मक और निदानत्मक शिक्षण

Part III

Language - I Tamil (Content and Methodology) (Marks: 30)

Content 24 marks

1. எழுத்தாளர்கள், கவிஞர்கள், கவிதை, உரைநடை
2. செய்யுள்கரு, தலைப்பு, இதிகாசம், புராணம், காப்பியம், சிற்றிலக்கியங்கள், கதை, கட்டுரை, கடிதம், விமர்சனம், வாழ்க்கை வரலாறு, சுயசரிதை.
3. மொழியின் வகைகள் - பேச்சுவழக்கு, எழுத்து வழக்கு, வட்டார வழக்கு.
4. மொழியின் மூலகம் (எழுத்து, சொல், வாக்கியம்), வாக்கிய வகைகள், ஒரு பொருள் குறித்த ஒரு பொருள் குறித்த பல சொல், பல பொருள் குறித்த ஒரு சொல், நேர்க் கூற்று - அயர்க்கூற்று, செய்வினை-செய்ப்பாட்டுவினை, புணர்ச்சி, பருபதம், எண்ணும்மை

Methodology 6 marks

1. மொழி, தாய்மொழி, குறிக்கோள்
2. மொழித்திறன்
3. கற்பித்தலின் வகைகள்
4. திட்டமிடுதல், ஆதாரங்களின் பயன்கள், பாடத்திட்டத்துடன் தொடர்புடைய செயல்வகைகள்.
5. கற்க- கற்பிக்க உதவும் மூலங்கள், கற்பித்தலில் கையாளப்படும் நுட்பங்கள்.
6. மதிப்பீடு.

Part III

Language – I Kannada(Content and Methodology) (Marks: 30)

Content 24 marks

1. ಕವಿ ಕಾವ್ಯಗಳು, ಲೇಖಕರು, ಕೃತಿಗಳು
2. ಪ್ರಕ್ರಿಯೆಗಳು:
 - ಇತಿಹಾಸ, ಪುರಾಣ, ಕಥೆಗಳು, ನಿಬಂಧ, ಪತ್ರ, ವಿಮರ್ಶೆ, ಆತ್ಮ ಚರಿತ್ರೆ, ವ್ಯಕ್ತಿ ಚರಿತ್ರೆ
3. ಭಾಷಾ ಸ್ವರೂಪ:
 - ಹಳೆ ಗನ್ನಡ, ಹೊಸಗನ್ನಡ, ಪ್ರಾದೇಶಿಕ ಭಾಷೆ, ಪ್ರಾಮಾಣಿಕ ಭಾಷೆ, ಆಧುನಿಕ ಭಾಷೆ.
4. ಭಾಷಾ ಅಂಶಗಳು:
 - ವರ್ಣಮಾಲೆ, ಹುಟ್ಟುವ ಸ್ಥಳಗಳು
 - ಶಬ್ದಗಳು, ಅರ್ಥ, ನಾನಾರ್ಥ, ಉತ್ಪತ್ತಿ, ತತ್ಸಮ , ತದ್ಭವ
 - ವಾಕ್ಯಗಳು, ಕರ್ತರಿ, ಕರ್ಮಣಿ, ಪ್ರತ್ಯಕ್ಷ, ಪರೋಕ್ಷ
 - ಛಂದಸ್ಸು
 - ಅಲಂಕಾರ
 - ಸಂಧಿಗಳು
 - ಸಮಾಸಗಳು

Methodology 6 marks

ಕನ್ನಡ - ಬೋಧನಾ ವಿಧಾನ

1. ಭಾಷೆ, ಮಾತೃಭಾಷೆ, ಉದ್ದೇಶಗಳು
2. ಭಾಷಾ ಕೌಶಲ್ಯಗಳು
3. ಬೋಧನಾ ವಿಧಾನ
4. ಯೋಜನೆಗಳು, ಸಂಪನ್ಮೂಲಗಳು, ಪಠ್ಯೇತರ ಚಟುವಟಿಕೆಗಳು
5. ಬೋಧನೆ, ಕಲಿಕಾ ಸಾಮಗ್ರಿಗಳು- ಶೈಕ್ಷಣಿಕ ತಂತ್ರಜ್ಞಾನ
6. ಮೌಲ್ಯ ಮಾಪನ

Part III

Language – I Oriya (Content and Methodology) (Marks: 30)

Content 24 marks

୧. କବି, ଲେଖକ, କାବ୍ୟ, ରଚନା
୨. ପ୍ରକ୍ରିୟା :
ଇତିହାସ, ପୁରାଣ, ପ୍ରବନ୍ଧ, ଗଳ୍ପ, ନିବନ୍ଧ ରଚନା, ଅନୁକଥା, ଜୀବନ ଗାଥା
୩. ଭାଷା ରୂପ
ଗ୍ରାହ୍ୟ, ବ୍ୟବହାରିକ, ମାଣ୍ଡଳିକ, ଆଧୁନିକ ଭାଷା
୪. ଭାଷା-ଅଂଶ
ଅକ୍ଷର, ମୂଳି-ଉତ୍ପତ୍ତି-ସ୍ଥାନ, ଶବ୍ଦ, ଭାଷା-ଭାଗ ଶବ୍ଦ, ଅର୍ଥ, ନାନାର୍ଥ,
ସମାନାର୍ଥକ ଶବ୍ଦ, ତତ୍-ସମ, ତତ୍-ଭବ, ବାକ୍ୟ, ବକ୍ୟ ଭେଦ, କର୍ତ୍ତୃତା, କର୍ମଣି,
ପ୍ରତ୍ୟୟ, ପରୋଷ
ସହି
ସମାସ
ଛନ୍ଦ
ଅଳଙ୍କାର

Methodology 6 marks

ବୋଧନ – ପଦ୍ଧତି

୧. ଭାଷା
ବିବିଧ ଭାବନା, ମାତୃଭାଷା, ମତୃଭାଷାବୋଧନ ଲକ୍ଷ୍ୟ
୨. ଭାଷା-କୌଶଳ
୩. ବୋଧନ (ଶିକ୍ଷଣ) ପଦ୍ଧତି
୪. ପ୍ରଣାଳୀ, ପଦ୍ଧତି ଇତ୍ୟାଦି
୫. ବୋଧନ ଉପକରଣ
ବିଦ୍ୟା-ପ୍ରାଙ୍ଗଣ- ଶାସ୍ତ୍ର, ଚନ୍ଦ୍ର-ସ୍ଥାନ
୬. ମୂଲ୍ୟାଙ୍କନ ।

III. Language — II English (Content and Methodology) (Marks: 30)

Content (Marks: 24)

- (1) Parts of Speech
- (2) Tenses
- (3) Active voice & Passive voice
- (4) Prepositions and Articles
- (5) Degrees of comparison
- (6) Clauses
- (7) Verbs — Main Verbs — Auxiliary Verbs – Presale Verbs
- (8) Adverbs — Types of Adverbs
- (9) Conjunction — coordinating conjunction — subordinating conjunction.
- (10) Direct and Indirect speech
- (11) Questions and question tags
- (12) Types of sentences — simple, compound and complex — synthesis of sentences
- (13) Phrases — uses of phrases.
- (14) Composition — letter writing —précis writing
- (15) Reading Comprehension
- (16) Vocabulary — Antonyms, Synonyms and Spellings.
- (17) Correction of Sentences.

Methodology(Marks: 06)

1. Aspects of English:- (a) English language — History, nature, importance, principles of English as second language. (b) Problems of teaching / learning English.
2. Objectives of teaching English.
3. Development of Language skills:-
 - (a) Listening, Speaking, Reading & Writing (LSRW).
 - (b) Communicative skills — Imparting values through Communication.
4. Approaches, Methods, Techniques of teaching English:- (a) Introduction, definition & types of Approaches, Methods &Techniques of teaching English (b) Remedial teaching.
5. Teaching learning materials in English.
6. Lesson Planning.
7. Curriculum & Textbooks — Importance and its need.
8. Evaluation in English language.

IV. MATHEMATICS (Marks: 30)

CONTENT (Marks: 24)

- 1. Number system:** Natural Numbers, Whole numbers, Integers, Rational numbers place value, comparison, fundamental mathematical operations ; Addition, Subtraction, Multiplication and Division, Indian Currency, Prime and Composite numbers, Prime factors, Lowest Common Multiple (LCM) and Greatest Common Divisor (GCD), Square, Square root, Cube, Cube roots of numbers, Pythagorean triplets,
- 2. Fractions:** Concept of fractions, proper fractions, improper fractions, mixed fractions, decimal fractions, comparison, addition, subtraction, multiplication, division of fractions and decimal fractions. Use of fractions in daily life. Rational Numbers; definition, four fundamental operations; properties of numbers (N, W, Z and Q), Representation of N,W,Z and Q on number line, Terminating and Non-Terminating Decimals (Recurring and Non – Recurring).
- 3. Arithmetic:** Unitary method, Averages, Ratio & Proportion, Percentages, Profit and Loss, discount, simple interest, compound interest, Direct and Indirect proportion, Time and Work, Time and Distance, Tax (VAT).
- 4. Geometry:** Basic ideas of geometry (2D & 3D shapes), types of angles, construction and measurement of lines and angles, Triangles, types of triangles, Properties of Triangles, Congruence, Criteria of congruencies of triangles (SAS, SSS, ASA, RHS), Quadrilaterals, types of quadrilaterals, construction of triangles and quadrilaterals, Patterns with geometrical shapes, Representing 3D Shapes in 2D Shapes, Euler's relation, Properties of Parallelogram, Trapezium, Rhombus, Rectangle, Square and Kite, Concept of Circles, Symmetry, Reflection and Rotation, Line of symmetry.
- 5. Measurements:** Length, Area, Weight, Capacity, Time and their Standard Units, Surface Area and volume of a cube and a cuboids, Perimeter and area of triangle, quadrilateral, parallelogram, rectangle, Rhombus, Square and Trapezium. Circumference & Area of a circle, Area of Circular path, Polygons Area of sector in a circle.
- 6. Data Applications:** Introduction to Data, Data Presentation, Preparation of Frequency distribution table, Bar Graph, Pictograph, Histogram, Mean, Median and Mode of ungrouped data, Cumulative Frequency Distribution Table, Frequency Polygon, Frequency Curve and Cumulative Frequency Curves.
- 7. Algebra:** Introduction to Algebra, Basic terminology – Constant, Variable, Expression, Polynomial, Identity and equations, solving linear equation in one variable, Exponents and Powers.

Methodology (Marks: 06)

1. Meaning, Nature and Definitions of Mathematics
2. Correlation with other school subjects and daily life.
3. Aims, values and instructional objectives of teaching Mathematics, Academic Standards
4. Child Centered and Activity Based Approaches in Teaching Mathematics
5. Methods of Teaching & Remedial measures in Mathematics
6. Instructional Material, TLM and Resource Utilization in Mathematics
7. Curriculum, Text Book & Instructional Planning

8. Evaluation and tools of evaluation and Continuous Comprehensive Evaluation

V. ENVIRONMENTAL STUDIES (Marks:30)

CONTENT (Marks: 24)

1. **My Family** - My Family - Family tree, migration, changing structures of family - nuclear and joint families, festivals.
2. **Work & Play** - Occupations, Child labor, Games - Local, National and International, Marshal Arts, Effects of games on respiration and breathing, fairs, Circus.
3. **Plants and Animals**-Plants & animals in our surroundings, Plant & Animal products, parts of a plant, photosynthesis, parts of a flower, pollination, fertilization, fruits, seeds. Wild & cultivated plants, wild & domestic animals their food, arrangement of teeth in animals.
4. **Our Food** - Different types of food, storage of grains and vegetables, storage of food, Food -animal husbandry, Nutrients of food, deficiency diseases.
5. **Shelter** - Need, different types of houses, electrical appliances - their use, social life in ants and honey bees, Animals shelter - variation.
6. **Air** - Importance of air, composition of air, atmospheric pressure, diseases spread through air and their prevention, air pollution - causes, its impact, and measures to prevent, Green House effect.
7. **Energy** - Renewable, Non-renewable, Future Energy.
8. **Water** - Importance, water resources, tanks, aquatic flora and fauna, measurement of liquids, Water pollution - causes, impact, measures to prevent, purification of water, drought, floods.
9. **Our Body - Health - Cleanliness** - External, Internal parts of our body, Bones, Muscles, Sense organs, Digestion, Respiration, Nervous system, Excretory system, Circulatory system, First Aid.
10. **Mapping** - Direction, Mandal, District, State, India
11. **History and culture of India** - Evolution of Man, Pre-historic period, Indian culture and Heritage, Civilization, Medieval period culture, Ancient monuments, Religious movements: Jainism, Buddhism, Bhakti movement, Great personalities, Indian freedom movement, Modern India.
12. **Our country (India)** - Location, Area, Physical features, Climate, Natural resources, Continents and Oceans, Historical places in India, Population.
13. **Our State** - Culture, State Government, Gram Panchayat, Mandal Parishad, Municipality, Municipal Corporation, Local Emergency services, our state symbols, Livelihood, Civilization - Impact of rivers.
14. **Indian constitution** - Preamble, Major concepts, Fundamental rights, Fundamental duties, Child Rights
15. **Safety & Security** - Earth Quakes, Floods, Fire, First Aid, 108, 104 Vehicles

PEDAGOGY (Marks: 6)

1. Concept and scope of Environmental Studies (Science & Social Studies)
2. Aims & Objectives of teaching Environmental Studies (Science & Social Studies)
Academic Standards of Teaching EVS
3. Relation to Science and Social Studies
4. Curriculum and its transactional process – Teaching Methodology
5. Teaching Learning Material (TLM)
6. Evaluation procedures – CCE.

TEACHER ELIGIBILITY TEST – 2018

PAPER-II Syllabus

I. CHILD DEVELOPMENT AND PEDAGOGY (Marks: 30)

1. DEVELOPMENT OF CHILD

- Development, Growth & Maturation — Concept & Nature
- Principles of development and their education implication
- Factors influencing Development — Biological, Psychological, Sociological, emotional.
- Dimensions of Development and their interrelationships — Physical & Motor, Cognitive, Emotional, Social, Moral, Language relating to Infancy, early Childhood, late Child hood, dolescence.
- Understanding Development — Piaget, Kohlberg, Chomsky, Carl Rogers, Erikson
- Individual differences — Infra & Inter Individual differences in the areas of Attitudes, Aptitude, Interest, Habits, Intelligence and their Assessment.
- Development of Personality — Concept, Factors effecting development of personality, self concept.
- Adjustment, Behavioural problems, Mental Health, Defense mechanism.
- Methods and Approaches of Child Development — Introspection, Observation, Interview, Case study, Experimental, Cross sectional and Longitudinal
- Developmental tasks and Hazards

2. UNDERSTANDING LEARNING

- Concept, Nature of Learning — input — process — outcome
- Factors of Learning — Personal and Environmental
- Approaches to Learning and their applicability—Behaviourism (Skinner, Pavlov, Thorndike) Constructivism (Piaget, Vygotsky), Gestalt(Kohler, Koffka) and Observational (Bandura)
- Dimensions of Learning — Cognitive, Affective and Performance.
- Motivation and Sustenance —its role in learning.
- Memory & Forgetting
- Transfer of Learning

3. PEDAGOGICAL CONCERNS

- Teaching and its relationship with learning and learner.
- Learners in Contexts: Situating learner in the socio-political and cultural context
- Children from diverse contexts—Children With Special Needs (CWSN), Inclusive Education.
- Understanding of pedagogic methods — Enquiry based learning, Project based learning, Survey, Observation and Activity based learning, Cooperative and collaborative learning.
- Individual and Group learning: Issues and concerns with respect to organizing learning in class room like Study habits, Self learning and Learning to learn skills.
- Organizing learning in heterogeneous class room groups — Socio-economic background, Abilities and Interest.
- Paradigms of organizing Learning-Teacher centric, Subject centric and Learner centric.
- Theory of instruction – Bruner
- Teaching as Planned activity — Elements of Planning
- Phases of Teaching — Pre active, Interactive and Post active

- General and Subject related skills, competencies required in teaching and attributes of good facilitator.
- Learning resources — Self, Home, School, Community, Technology.
- Class room Management: Role of student, teacher, Leadership style of teacher, Creation of non threatening learning environment, Managing behaviour problems, Guidance & Counselling, Punishment and its legal implications, Rights of a child, Time Management.
- Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice.
- Understanding teaching & learning in the context of NCF, 2005 & Right to Education Act, 2009.

II (a) Language - I Telugu (Content and Methodology) (Marks: 30)

ఎ) విషయం **Marks: 24**

1. పఠనావగాహన (పద్యం, గద్యం రూపాలు)
2. తెలుగు సాహిత్యం, సంస్కృతి (ప్రాచీన, ఆధునికం, జానపదం)
 - నూతన పాఠ్యపుస్తకాలలోని ఇతర తెలుగుకవులు, రచయితలు, పాత్రలు - నేపథ్యం - ఇతివృత్తాలు - విశేషాంశాలు
 - ప్రక్రియలు - లక్షణాలు-వివరణలు
 - శతకాలు
 - కళలు, కళాకారులు
 - వేడుకలు
 - గేయాలు/పాటలు
3. పదజాలం
 - సామెతలు
 - జాతీయాలు
 - పొడుపు కథలు
 - వ్యవహార రూపాలు
 - అర్థాలు
 - నానార్థాలు
 - పర్యాయ పదాలు
 - వుత్పత్త్యర్థాలు
 - ప్రకృతి వికృతులు
4. భాషాంశాలు :

ద్విత్య, సంయుక్త సంక్షేప అక్షరాలు, వాక్యాలు, వర్గయుక్తులు, పరుషాలు, సరళాలు, భాషాభాగాలు, లింగాలు, వచనాలు, కాలాలు, విభక్తులు, అవ్యయాలు, విరామ చిహ్నాలు, తెలుగు సంస్కృత సంధులు, సమాసాలు, క్రియలు (సమాపక, అసమాపక), వాక్యాలు రకాలు - ఆశ్చర్య

Methodology 6 Marks

- I - ہندوستان میں اردو۔
a۔ ہندوستانی دستور اور آندھرا پردیش میں اردو کا مقام و موقوف۔
b۔ سرائی فارمولہ کے تحت ثانوی مدارس میں اردو کی تدریس۔
- II - زبان کی مہارتیں۔ سننا۔ بولنا۔ پڑھنا، لکھنا، اور سکھانے کے طریقے۔
- III - اردو کے تدریسی مقاصد۔
a۔ اردو کے تدریسی مقاصد پر حیثیت زبان اول اور زبان زائد۔
b۔ بلوم کی تعلیمی مقاصد کی تقسیم۔
c۔ تدریسی مقاصد اور تصریحات۔
d۔ جزوی (Miscro) تدریسی اور مختلف مہارتیں۔
- IV - معلم اردو اور تدریس۔
a۔ اردو معلم کی خصوصیات اور تدریسی وسائل۔
b۔ اردو زبان کے تدریس کے طریقے۔ (نثر، نظم، قواعد)
- V - تدریس اور اسباق کی منصوبہ بندی۔
a) سالانہ منصوبہ بندی۔ اکائی منصوبہ بندی، سبق کی منصوبہ بندی (نثر، نظم، قواعد، سرسری مطالعہ)
- VI - نصابی اور ہمدانصابی مشاغل۔
a۔ اردو نصاب کے تدوین کے اصول۔
b۔ درسی کتاب اور خصوصیات اور تنقیدی جائزہ۔
c۔ ہمدانصابی و زائد نصابی مشاغل کا انعقاد۔
d۔ تدریسی آلات، اقسام اہمیت و تیاری۔
e۔ اردو زبان کی ایبار میٹری۔

III (c) Language - I Hindi (Content and Methodology)(Marks: 30)

Content : 24 marks

1. अवबोध (Comprehension)
 1. अपठित गद्य
 2. अपठित पद्य
2. कवि, काव्य - रचनाकार (लेखक) रचनाएँ
3. अकर्मक - सकर्मक क्रियाएँ
वाक्य - वाक्य भेद, कर्तृवाच्य, कर्मवाच्य, भाववाच्य, वाक्य और प्रयोग, वाक्य क्रम, घटना क्रम
4. वर्णमाला, शब्द भेद, वचन, लिंग, कारक, काल, विराम चिह्न, संधि, समास, विलोम शब्द, समान अर्थ, भिन्नार्थ, मुहावरे, कहावतें, लोकोक्तियाँ
5. भारतीय काव्य शास्त्र - काव्य लक्षण, रस, छंद, अलंकार

Methodology : 6 marks

(B) भाषा - शिक्षण - विधियाँ

1. भाषा का स्वरूप - भाषा की प्रकृति
अर्थ - परिभाषा ध्वनि विज्ञान, शब्द, वाक्य विज्ञान, विविध स्तरों पर हिन्दी शिक्षण के लक्ष्य और उद्देश्य प्रथम भाषा के रूप में हिन्दी, द्वितीय भाषा के रूप में हिन्दी त्रिभाषा - सूत्र
2. भाषा - कौशलों का विकास
सुनना, बोलना, पठना, लिखना
3. हिन्दी अध्यापक और शिक्षण - विधियाँ
अच्छे शिक्षक और अच्छे शिक्षण की विशेषताएँ
भाषा - शिक्षण के सामान्य सिद्धांत,
भाषा - शिक्षण की प्रणालियाँ
भाषा - शिक्षण की पद्धतियाँ (प्रत्यक्ष, परोक्ष, खेल, मॉन्टेसरी, निर्दिष्ट स्वाध्याय, डाल्टन, प्रायोजना, प्रश्नावली, आगमन, निगमन, क्रियात्मक, सूक्ष्म शिक्षण)
4. पाठ्यक्रम और सहगामी क्रियाएँ
पाठ्यक्रम, पाठ्यपुस्तक, पुस्तकालय, दृश्य-श्रव्य उपकरण (शिक्षण उपकरण), भाषा की दृष्टि से उपयोगी सहगामी क्रियाएँ
5. शिक्षण और योजना
आवश्यकता, उपयोगिता,
इकाई योजना, पाठ्य योजना
6. मूल्यांकन
मूल्यांकन की धारणा, निरंतर समग्र मूल्यांकन, उत्तम परीक्षा की विशेषताएँ, प्रश्न पत्र का निर्माण, उपलब्धि परीक्षा अभिलेख
7. आंध्रप्रदेश में हिंदी शिक्षण में आनेवाली समस्याएँ व उनका निराकरण
8. ध्वनि, वर्ण, शब्द, वाक्य रचना व शुद्धाशुद्ध वर्तनी व वाक्य ज्ञान

III (d) Language – I Tamil (Content and Methodology)(Marks: 30)

Content 24 marks

I. சிளிவிறிஸிணிபிணிழிஷிமிளிழி (புரிந்துகொள்ளுதல்.)

1. கண்டிராத பத்தி.
2. கண்டிராத செய்யுள்.

II. கவிஞர்கள் , காப்பியங்கள் / படைப்பாளிகள் , படைப்புகள்,
(உரைநடை, செய்யுள் , கதை , நாடகம்)

III. வினைச்சொல் , பெயர்ச்சொல் , வாக்கிய வகைகள். தன்வினை , நிறுவினை
செய்வினை. செய்ப்பாட்டுவினை , நேர்க்கூற்று, அயர்கூற்று, வாக்கியம்
அமைத்தல் , வாக்கியங்களை வரிசைப்படுத்துதல்.

IV. அகரவரிசை , மூவிடப்பெயர்கள், ஒருமை - பன்மை , காலங்கள்,
வேற்றுமை , நிறுத்தற்குறிகள், பகுபத உறுப்பிலக்கணம் ,
அருஞ்சொற்பொருள் , எதிர்ச்சொல், புணர்ச்சி , காரணப்பெயர் , மரபுத்தொடர்
கொண்டு வாக்கியம் அமைத்தல்.

Methodology 6 marks

I. மொழி-தாய்மொழி :- , மும்மொழி போதனை , பேச்சுத் தமிழ்.,
இலக்கியத்தமிழ்,

II. தாய்மொழி: - நோக்கம் , குறிக்கோள், மற்றும் சிறப்பு அம்சங்கள்,

III. கற்பிக்கும் முறைகள் :- செய்யுள் , உரைநடை , இலக்கணம்,
துணைப்பாடம், கட்டுரை ,

IV. கற்பித்தலில் நவீன உத்திகள் :- விளையாட்டு வழிக்கல்வி, மாண்டிச்சோரி
கிண்டர்கார்டன், டால்டன், செயல்முறைக்கல்வி, நாடக உத்திமுறை,

V. மிகுதி . திட்டமிடுதல் :- பாடத்திட்டம், வருடாந்திரத்திட்டம், பாட ஏடு ..
இலக்கண ஏடு, துணைப்பாடம், ஆசிரியர் கை ஏடு, கல்வி சார்ந்த தொழில்
நுட்பங்கள்:- பாடத்துடன் தொடர்புடைய இதர செயல்பாடுகள், மொழிசார்ந்த
விளையாட்டுகள் , பேச்சுப்போட்டி, கட்டுரை எழுதுதல், கல்விச் சுற்றுலா,
சொல்லி எழுதுதல், பத்திரிகை , நூலகக் கல்வி.

VI. கூடிமி. மதிப்பீடு செய்தல் :- மதிப்பிடுதலின் இன்றியமையாமை , சிறு
மற்றும் பெரிய தேர்வுகள் , மதிப்பிடுதலில் கையாளப்படும் பல்வேறு
ஆதாரங்கள் , மதிப்பீட்டின் அளவு, மதிப்பீட்டு முறைகள், பிழைகளைத்
திருத்தும்முறையில் கற்பித்தல் , பயிற்ச்சி வேலை கொடுத்தல் , நோக்க
அடிப்படையில் மதிப்பீடு செய்தல்.

III (e) Language – I Kannada (Content and Methodology) (Marks: 30)

Content 24 marks

I. Comprehension (ಅವಗಾಹನ)

1. ಅಪರಿಚಿತ ಗದ್ಯ
2. ಅಪರಿಚಿತ ಪದ್ಯ
- II. ಕವಿಗಳು, ಕಾವ್ಯಗಳು / ಲೇಖಕರು, ಕೃತಿಗಳು
- III. ಘನಕವನ, ಸಹಕವನ, ಸಂವಾದಕವನಗಳು, ವಾಕ್ಯಗಳು, ವಾಕ್ಯಪ್ರಕಾರಗಳು, ಕರ್ತೃ, ಕರ್ತೃವಾಕ್ಯಗಳು, ಪ್ರತ್ಯಕ್ಷ ಪರೋಪದೇಶವಾಕ್ಯಗಳು, ವಾಕ್ಯರಚನೆ.
- IV. ವರ್ಣಮಾಲೆ, ಪ್ರತ್ಯಯಗಳು, ವಚನಗಳು, ಲಿಂಗಗಳು, ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯಗಳು, ಕಾಲಗಳು ವಿರಾಮ ಚಿಹ್ನೆಗಳು, ಸಂಧಿಗಳು, ಸಮಾಸಗಳು, ಅಲಂಕಾರಗಳು, ತತ್ಸಮಗಳು, ವಿರುದ್ಧಪದಗಳು, ಪರ್ಯಾಯಪದಗಳು, ನಾನರ್ಥಗಳು, ಗಾದೆಗಳು, ಲೋಕೋಕ್ತಿಗಳು, ನುಡಿಮುತ್ತುಗಳು, ಸ್ತಂಭವಾಕ್ಯಗಳು, ಒಗಟುಗಳು.

Methodology 6 marks

1. ಭಾಷೆ - ವಿವಿಧ ಭಾವನೆಗಳು : ಭಾಷೆ - ಮಾತೃ ಭಾಷೆ , ತ್ರಿಭಾಷ ಸೂತ್ರ, ವ್ಯವಹಾರಿಕ ಭಾಷೆ, ಪ್ರಾಧೇಶಿಕ ಭಾಷೆ, ಪ್ರಮಾಣಿಕ ಭಾಷೆ,
2. ಕನ್ನಡ ಬೋಧನೋದ್ದೇಶಗಳು - ಉದ್ದೇಶಗಳು - ಸ್ಪಷ್ಟೀಕರಣ - ದ್ವಿತೀಯ ಭಾಷೆಯಾಗಿ ಕನ್ನಡ ಬೋಧನೆ . ಭಾಷಾ ನೈಪುಣ್ಯಗಳು - ಶ್ರವಣ - ಭಾಷಣ - ಪಠನ - ಬರವಣಿಗೆ : ಭಾಷಾ ನೈಪುಣ್ಯಗಳು - ಅಂತರಿಕ ಸಂಭಂದಗಳು.
3. ಬೋಧನಾ ಪದ್ಧತಿಗಳು : ಪದ್ಯ , ಗದ್ಯ , ವ್ಯಾಕರಣ, ಪ್ರಬಂಧ, ಉಪಪದ್ಯ ಕಥೆ, ನಾಟಕ , ಸಂಭಾಷಣೆಯಿಂದ ಬೋಧನೆಗಳು.
ಬೋಧನೆಯ ಹೊಸ ಧೋರಣೆಗಳು : ಕ್ರೀಡೆ , ಮಾಂಟಿಷೊರಿ, ಕಿಂಡರ್ ಗಾರ್ಡನ್, ಪ್ರಾಜೆಕ್ಟು ಡಾಲ್ಫಿನ್, ಚಟುವಟಿಕೆ ಆಧಾರ, ನಾಟಕೀಕರಣ ಪದ್ಧತಿಗಳು,
ಬೋಧನ ನೈಪುಣ್ಯಗಳು : ಪ್ರಯೋಗಾತ್ಮಕ ಬೋಧನೆ, ಸಮೂಹ ಬೋಧನೆ, ಸೂಕ್ಷ್ಮ ಬೋಧನೆ, ಪರಿವೀಕ್ಷಣಾತ್ಮಕ ಅಧ್ಯಯನ.
4. ಶೈಕ್ಷಣಿಕ ಯೋಜನೆ , ವಿಷಯ ಯೋಜನೆ ವಾರ್ಷಿಕ ಯೋಜನೆ, ಭಾಷಾವಿಷಯ ಸಮಗ್ರ ಯೋಜನೆ - ಪಠ್ಯ ಯೋಜನೆ, ಸಾಧ್ಯ ಸೃಷ್ಟಕಗಳು, ಉಪಪದ್ಯಪ್ರಾಪ್ತಕ ತಿಕ್ಕಕದರ್ಶಿ.
5. ಶೈಕ್ಷಣಿಕ ಸಾಂಕೇತಿಕ ಶಾಸ್ತ್ರ : ಬೋಧನೋಪಕರಣಗಳು, ಸಹಪದ್ಯ ಕಾರ್ಯಕ್ರಮಗಳು, ಭಾಷಾಕ್ರೀಡೆಗಳ ರಚನೆ - ಪ್ರಬಂಧ ರಚನೆ ಪತ್ರಕಾ ನಿರ್ವಣೆ . ಭಾಷಾ ಪ್ರವಾಸ , ಭಾಷಾ ಸಂಘಗಳು, ಗ್ರಂತಾಲಯಗಳು, ವಾಚನಾಲಯಗಳು, ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು, ಮೂಲಗ್ರಂಥಗಳು.
6. ಮೌಲ್ಯಮಾಪನದ ಅವಶ್ಯಕತೆ, ಚಿಕ್ಕಪರೀಕ್ಷೆಗಳು, ಪರೀಕ್ಷೆ ಮತ್ತು ಚಿಕ್ಕಪರೀಕ್ಷೆಗಳ ವ್ಯತ್ಯಾಸ ಅಂತರ್ಗತ ಮೌಲ್ಯಮಾಪನ , ಲಕ್ಷಾಧಾರ ಮೌಲ್ಯ ಮಾಪನ, ಮೌಲ್ಯಮಾಪನೋಪಕರಣಗಳು, ಮೌಲ್ಯಮಾಪನ ವಿಧಾನ, ಲಕ್ಷಾಧಾರ ಚಿಕ್ಕಪರೀಕ್ಷೆ ದೋಷಗಳ ವಿಶ್ಲೇಷಣೆ, ದೋಷನಿವಾರಣಾ ಬೋಧನೆ ನಿರ್ದೇಶನಗಳು.

III (f) Language – I Oriya (Content and Methodology) (Marks: 30)

Content 24 marks

୧. କବି, ଲେଖକ, କାବ୍ୟ, ରଚନା
ଚରିତ୍ର, ରଦେଶ୍ୟ, ପୂର୍ବାପର ପ୍ରସଙ୍ଗ
ଇତିବୃତ୍ତ, ସଦର୍ଭ ବାକ୍ୟ, ବିଶେଷାଂଶ
୨. ପ୍ରକ୍ରିୟା, ଲକ୍ଷଣ, ବିଦଗଣ
ଇତିହାସ, ପୁରାଣ, ପ୍ରବନ୍ଧ, କାବ୍ୟ, ରମ୍ୟାପ
ପ୍ରସାଦନା, କଥା, ପାଦକାୟ, ନିବନ୍ଧ, ପତ୍ରଲେଖନ
ଜୀବନ-ଚରିତ୍ର, ଆତ୍ମକଥା, ନାଟକ, ପମାଣା
୩. ଆଧୁନିକ ପାଠିତ୍ୟର ବିଷୟବସ୍ତୁ
ଭାବକବିତା, ଅଜ୍ଞୟଦୟ କବିତା, ପାଠିତ୍ୟ କ୍ଷେତ୍ରରେ କ୍ରାନ୍ତି
ସ୍ତ୍ରୀ ବାଦ, ଦଳିତବାଦ, ସଂଖ୍ୟାଲଗ୍ନଗୋଷ୍ଠୀ
୪. ଓଡ଼ିଆ ଭାଷା ରପରେ ଅନ୍ୟ ଭାଷାର ପ୍ରଭାବ-
ସଂସ୍କୃତ, ଇଂରାଜୀ, ବଂଗାଳୀ, ତେଲୁଗୁ, ହିନ୍ଦୀ
୫. ଭାଷାପୁଂ-ଶିଳାଲେଖ ଭାଷା, ଗ୍ରାହକ, ବ୍ୟବହାରିକ, ପ୍ରାଦେଶିକ, ଆଧୁନିକ, ପ୍ରସାର ମାଧ୍ୟମ ଭାଷା
୬. ପାଠିତ୍ୟ ବିମର୍ଶ
କବି, କାବ୍ୟ, ନିର୍ବାଚନ, ପ୍ରୟୋଜନ, ଶୈଳୀ, ଅଳଙ୍କାର
୭. ଭାଷା-ଅଂଶ
ରଜାରଣ, ଧ୍ୱନି, ଧ୍ୱନି-ରପୂର୍ଣ୍ଣି, ଶବ୍ଦ, ଅର୍ଥ, ନାନାର୍ଥ ପର୍ଯ୍ୟାୟ ପଦ, ବ୍ୟୁତ୍ପତ୍ତି, ଶବ୍ଦ-ପରିଣାମ, ଅର୍ଥ-ପରିଣାମ ବସ୍ତୁମ, ବଭବ,
ପେଶ, ବାକ୍ୟ, ବାକ୍ୟ ଭେଦ, ନିର୍ମାଣ, ପଦ୍ଧି, ପମାପ, ଛଦ, ବ୍ୟାକରଣ-ପରିଭାଷା
୮. ଭାଷା, ପମାତ, ସଂସ୍କୃତି, ପାରଘରିକ ପ୍ରଭାବ
୯. ଅନୁବାଦ (ଇଂରାଜୀ ରୁ ଓଡ଼ିଆ), ଆବଶ୍ୟକତା, ରୀତି
୧୦. ପଠନ-ଅବଗାହନ (Comprehension)

Methodology 6 marks

୧. ଭାଷା-ବିବିଧ ଭାବନା
୨. ଭାଷା କୌଶଳ
୩. ଯୋଜନା ଓ ପାଠ୍ୟକ୍ରମ
୪. ବିଦ୍ୟା ବଡ଼ ଧର୍ମ ପରୁପାଠ୍ୟ କାର୍ଯ୍ୟକ୍ରମ
୫. ପାଠିତ୍ୟ ପ୍ରକ୍ରିୟା : ବୋଧନ ପଦ୍ଧତି
୬. ମୂଲ୍ୟାଙ୍କନ ଓ ପରୀକ୍ଷା

III (g) Language - I Sanskrit (Content and Methodology) (Marks: 30)

Content 24 marks

- १ - कवयः रचयितारः काव्यम रचनाः
- २ - प्रक्रिया - लक्षणः तथा विवरणः इतिहासः पुराणः, खण्डकाव्यम, कथा, निबन्ध रचना, नाटकम, आत्मकथा, जीवन - चरितम.
- ३ - आधुनिक - साहित्य परम्परा , गतिकाव्य आधुनिक कविता, आधुनिक कथा
- ४ - संस्कृत साहित्यस्य उपरि अन्य भाषाणां प्रभावः
वैदिक संस्कृते प्राकृत शब्द , आधुनिक संस्कृत साहित्ये भारतीय भाषाणा प्रभावः
- ५ - भाषा - रूपम्
अभिलेख तथा शिलालेख भाषा , प्राच्यिक भाषा, व्यवहारिक भाषा
- ६ - साहित्यविमर्शः कवि, काव्य, लक्षणम् प्रयोजनम् शैली अलंकारः
- ७ - भाषांशाः
उच्चारण ध्वनिः ध्वन्युत्पत्ति, ध्वनि उत्पत्ती स्थानं, शब्दः प्रातिपदिकम् प्रत्ययः
(कृदन्ताः तद्धिताः) कारक तथा विभाकि, अर्थः, नानार्थीः पर्यायवाचिनः वाक्यम
वाक्यभेदः सुबन्तः तिङन्तः सन्धयः समासाः छन्दः अलंकारः
- ८ - भाषा , समाजः संस्कृतिः एतयोः
पारस्परिकः प्रभावः
- ९- अनुवादः - (आङ्ग भाषातः संस्कृत भाषा)
आवश्यकता, रीतिः
- १० - पठनावमाहनम (Comprehension)

Methodology 6 marks

- १ - भाषा - विविधताः भावनाः
- २ - भाषा - नेपुण्यम्
- ३ - पाठ्यक्रम योजना पाठ्यग्रन्थः
- ४ - विद्या सांकेतिक - शास्त्रम् सहपाठ्य कार्यक्रमः
- ५ - साहित्य - प्रक्रियाः बोधन पद्धतीः
- ६ - मूल्यांकनम् - परिक्षा च ।

III. Language — II English (Content and Methodology) (Marks: 30)

Content (Marks: 24)

- (1) Parts of Speech
- (2) Tenses
- (3) Active voice & Passive voice
- (4) Prepositions and Articles
- (5) Degrees of comparison
- (6) Clauses
- (7) Verbs — Main Verbs — Auxiliary Verbs – Presale Verbs
- (8) Adverbs — Types of Adverbs
- (9) Conjunction — coordinating conjunction — subordinating conjunction.
- (10) Direct and Indirect speech
- (11) Questions and question tags
- (12) Types of sentences — simple, compound and complex — synthesis of sentences
- (13) Phrases — uses of phrases.
- (14) Composition — letter writing —précis writing
- (15) Reading Comprehension
- (16) Vocabulary — Antonyms, Synonyms and Spellings.
- (17) Correction of Sentences.
- (18) Idiomatic Expression.
- (19) Sequencing of the Sentences in paragraph.

Methodology(Marks: 06)

1. Aspects of English:- (a) English language — History, nature, importance, principles of English as second language. (b) Problems of teaching / learning English.
2. Objectives of teaching English.
3. Phonetics / Transcription.
4. Development of Language skills:-
 - (a) Listening, Speaking, Reading & Writing (LSRW).
 - (b) Communicative skills — Imparting values through Communication.
5. Approaches, Methods, Techniques of teaching English:- (a) Introduction, definition & types of Approaches, Methods &Techniques of teaching English
(b) Remedial teaching.
6. Teaching learning materials in English.
7. Lesson Planning.

8. Curriculum & Textbooks — Importance and its need.
9. Evaluation in English language.

IV. MATHEMATICS & SCIENCE (Marks: 60)

a. MATHEMATICS (30 MARKS)

CONTENT (Marks: 24)

1. **Number System** - Prime and Composite Numbers, Tests of divisibility, whole numbers, integers, fractions, decimal fractions, L.C.M. and G.C.D. rational numbers and irrational numbers. Properties of numbers, Real numbers; laws of exponents, squares, square roots, cubes, cube roots, finding missing number represented as alphabets in sums involving array of four operations, number patterns, number puzzles, Euclid division lemma, concept of logarithms.
2. **Arithmetic** - Ratio and proportion, simple interest, compound interest, Time and distance, Discount, tax, time and work, profit and loss
3. **Algebra** -Introduction to Algebra, expressions, exponents and powers, Factorization special products and expansions, linear equations and their graphs, polynomials, Quadratic equations and its applications, concept of progressions, progressions (AP and GP).nth term and sum of the first n terms in AP, nth term of GP.
4. **Sets** - Concept of set, set language, empty set, finite and infinite sets, subset and equality of sets, cardinal number of set, set operations, representation of sets, Venn diagrams and their properties.
5. **Geometry** - History of Geometry, Contribution of India in the Development of Geometry, Euclid Geometry, Lines and Angles, Similar Triangles, Pythagoras theorem, congruency of triangles, Properties of Circles, Triangles, Quadrilaterals and polygons, Parts of Circle : Construction of Circle, Triangles and Quadrilaterals, Circles and concurrent lines in triangles, symmetry.
6. **Co-ordinate Geometry**- Co-ordinates of a point, plotting of points, representing of linear equations in two variables (of the form $ax+by+c=0$,) in the Cartesian coordination system). Linear equations with 2 variables, slope of a line, distance between two points in a plane, section formula, Area of a triangle, collinearity of points in a co-ordinate plane, centroid of a triangle.
7. **Menstruation** - Perimeter and Area of a Square and Rectangle. Area of Triangle, Circle, Ring and Quadrilaterals. Surface area and volume of Cube, Cuboid, Lateral & total Surface area and volume of a cylinder, cone, sphere and hemisphere, conversion of one solid to another shape, surface area and volume of combination of solids.
8. **Data Handling(Statics and Probability)** - Collection and Classification of Data, Frequency distribution table, Tally marks, Bar graph, Pictograph and Pie diagrams, mean, median and mode for un-grouped and grouped data, cumulative frequency table and ogive curves, concept of probability, simple problems (day to day life situation) on single events, concept of complementary events.
9. **Trigonometry** - Introduction of Trigonometry, Relationship between ratios, values of trigonometric ratios, (0° , 30° , 45° , 60° and 90°) Trigonometric identities, trigonometric ratios of complementary angles, applications of trigonometry, Angle of elevation and depression, simple problems.

PEDAGOGY (Marks: 06)

1. Definition and Nature of Mathematics, History of Mathematics.
2. Aims, values , instructional objectives of teaching Mathematics and Academic Standards
3. Methods of Teaching Mathematics

4. Instructional material in Mathematics - TLM in Mathematics, Use of ICT in teaching Mathematics
5. Instructional Planning
6. Continuous Comprehensive Evaluation (CCE) - Formative Assessment, Summative Assessment -Processes and procedures
7. Designing, Administration, Analysis of scholastic Achievement Test (SAT)
8. Diagnostic and Remedial Teaching
9. The Mathematics Teacher
- 10.Resource Utilization
- 11.Curriculum and Text Book

IV(b).SCIENCE

CONTENT

(Marks: 24)

1. **Natural Resources - Air, Water:** Water pollution, Harnessing of water, States of water, Hardness of water, water pressure Air pollution, Atmospheric Pressure, Air pressure, Archimedes' principle, Pascal's law, Bernoulli's Principle, Hydrometer, Barometer. - Laws of floatation, Specific gravity, Surface tension, Fluid Mechanics.
2. **Our Universe: Solar** eclipse - lunar eclipse - Constellation - Zodiac, Space travel; Solar system, Satellites, stars, comets; Earth.
3. **Natural Phenomenon:**
Light: How can we see objects - shadows - Reflection of light - laws of reflection - plane mirrors and images - Virtual image, real image, pinhole camera, periscope, kaleidoscope - spherical mirrors and images -Fermat's Principal - Applications of reflection of light - Refraction of light - laws of refraction - refractive index, Snell's law - total internal reflection and its applications - refraction through glass prisms and slabs -refraction at curved surfaces and through lenses - images formed by lenses and ray diagrams - construction of human eye - least distinct vision - defects of vision-formation of rainbow- dispersion of light.
Sound: Sources of sound, Production and propagation of sound - construction of human ear and its working - Properties of sound - audible range - Sound Pollution, Sound Waves, Kinds of Sound Waves, characteristics of sound waves - reflection of sound - echo - uses of ultrasonic sounds - Musical instruments.
Heat: Concept of heat and temperature - thermal equilibrium - Measurement of Temperature - Types of Thermometers - specific heat and its applications in daily life - methods of mixtures - evaporation -condensation - boiling point - melting point.
4. **Mechanics - Kinematics, Dynamics:** Concept of motion and rest.
 - Types of Motion; Speed, Velocity, Acceleration, Newton's Laws of Motion, force - types of force - resultant force - Friction - types of friction - factors influencing the friction - fluid friction - gravitation - Newton's law of gravitation - centre of gravity and stability. Work and energy - types of energy - conservation of energy.
5. **Magnetism and Electricity:**
Magnetism: Natural Magnets and Artificial Magnets, properties of Magnets, uses magnets - methods of magnetization - Magnetic Induction - magnetic field - Magnetic lines of force.
Electricity: **Electric** Circuit - Primary Cells - conductors and insulators - electric charge - electric field - electric potential - potential difference - EMF - Ohm's law -

resistance - specific resistance - resistances in series and parallel - heating effects of electric current - electric power - magnetic effects of electric current - solenoid - Fleming's left hand rule - electric motor - electromagnetic induction - electric generator - electrical conductivity of liquids - electro plating - Faraday's laws of electrolysis.

6. **Matter around us:** States of matter - properties of matter - substances and mixtures - methods of separation of mixtures - fibers - types of fibers, plastics - types of plastics - use of plastics and environment. Acids, bases and salts - neutralization - metals and non metals - physical and chemical properties of metals and non-metals - Coal and petroleum - combustion and fuels - types of combustion - temperature of combustion - calorific value.
7. **Laws of Chemical Combination and Chemical Calculations:** Physical change, chemical change Laws of chemical combination, chemical reactions and calculations. Types of chemical reactions.
8. **Atomic Structure :** Atoms and molecules - elements - atomicity - Dalton's atomic theory Ions - atomic mass - valency - molecular mass - concept of mole - molar mass Thomson model of atom, Rutherford model of atom - Bohr's model of atom - atomic number - Isotopes - quantum numbers - electronic configuration.
9. **Periodic classification and chemical bonding :** Dobenier triads - Newlands law of octave - Mendaliev's periodic table - long form of periodic table - changes of properties of elements in groups and periods. Chemical Bond - ionic bond - covalent bond - shapes of molecules - electron valency theory -properties of ionic and covalent substances.
10. **Metallurgy :** Extraction of metals and steps - reactivity of metals and its role in extraction of metals -various methods of extraction of metals.
11. **Biology:** Its importance in everyday life theories of Classification, theories of Evaluations.
12. **Living World - Characteristics:** Classification of Plants and Animals and their characteristics.
 - a) **Cell:** Concept, Cell theory, differences between Plant cell and Animal cell, Cell divisions, Cell organelles.
 - b) **Tissues** - Animal tissues, plant tissues.
13. **Plant World - Types of plants:**

Parts of a plant - their functions, seed dispersal, fibers from plants. Reproduction - Asexual, Sexual, Vegetative propagation, Nutrition, Photosynthesis, Excretion, Respiration, Economic importance of plants.

Economic importance of Plants, Agriculture, Crop diseases & pest control measure.
14. **Animal World:** Organ systems and their functions including man, Life processes Digestive system, Respiratory system, Circulatory system, Excretory system, Nervous system, Endocrine system, Skelton system, Reproductive system, Sense organs in man, Nutrition Deficiency diseases in man, First Aid, HIV/ AIDS, animal behaviour Economic importance of Animals, Animal husbandry, Pisciculture, Sericulture, Epiculture, Challenges in Argiculture.
15. **Microbes:** Bacteria, Viruses, Fungi, Protozoan — useful and harmful microbes, microbial diseases in plants & animals.
16. **Our Environment:** Biotic & Abiotic factors, Natural resources, Biodiversity, different eco systems, air pollution, water pollution, soil pollution, carbon cycle, nitrogen cycle, oxygen cycle.
17. **Recent trends in Biology:** -Hybridization, Genetic engineering, Gene banks, Gene therapy, Tissue culture

PEDAGOGY (Marks: 06)

1. Definition, Nature, Structure and History of Science
2. Aims, Values , Instructional Objectives of teaching Science and Academic Standards in Science

3. Methods of Teaching Science
4. Teaching Learning Material in Teaching of Science - TLM in Science – Use of ICT.
5. Instructional Planning
6. Science Laboratory
7. Science Teacher - Changing Roles
8. Science Curriculum and its transaction, NCF-2005, SCF-2011
9. Science Textbooks.
10. Evaluation - CCE - Formative Assessment, Summative Assessment - Designing and Administration- Analysis of Scholastic Achievement Test (SAT)

IV b. SOCIAL STUDIES (Marks: 60)

CONTENT (Marks 48)

I. DIVERSITY ON THE EARTH

1. Reading and understating of Maps - scale - cardinal points - types of maps - evolution of maps - conventional signs - contour lines
2. Globe - oceans and continents - latitudes and longitudes - origin of earth - realms of the earth (lithosphere, atmosphere, hydrosphere, biosphere) - landforms - movements of the earth and its effect -seasons - interior of the earth
3. Solar Energy - insolation - temperature and its measuring - terrestrial radiation - polar regions
4. Elements of climate - types of rainfall.
5. Europe, Africa - location - physical features - climate - forests and wild life - population - agriculture -minerals - industries - transportation - trade, exports and imports.
6. Geography of India and Andhra Pradesh - physical features - rivers and other water sources - seasons -forests - climate and its factors affecting - floods and droughts - forests - soils -electricity - agriculture - mineral wealth - industries - population, literacy rate - density of population -settlements and migration - transportation.
7. Disaster management - types of disasters - drought - accident related - threat of terrorism - human induced disasters.

II. PRODUCTION - EXCHANGE AND LIVELIHOODS

1. Livelihood of earliest people - sites in Andhra Pradesh - domestication - settled life Agriculture - types of farming - crop seasons - problems of agriculture and agricultural labourers and small farmers -contract farming - agriculture in Andhra Pradesh - trade and marketing - Self Help Groups - agricultural markets yards - Minimum Support Price - land holdings - phases in agricultural development - green revolution - organic farming.
2. Production - handicrafts and handlooms - cooperative societies and their role - industrial revolution -sources of energy - trade in industrial products - urbanization and slums - production in a paper factory - process of making paper - transport system in Andhra Pradesh - employment in transport -congestion and pollution.
3. Industries - factors of location - agro based and mineral based industries - automobile industries and IT - phases in industrial development - Industrial policies - growth in production - environmental problems.
4. Service Activities - categories - importance - challenges.
5. Money and Banking - Barter System - exchange with money - evolution of money - emergence of banks - commercial banking - types of deposits - Cheques and Demand Drafts - loans - Internet Banking - credit in the financial system - financial literacy.
6. Prices and Cost of Living - price's effect on people - inflation - consumer price index - regulation of prices - government budget and taxation - VAT.

7. Production and Employment - sectors of the economy - National Income (GDP) - Per capita Income -HDI - employment - organized and unorganized sectors - impact of technology on three sectors of the economy.
8. Public Health and Government - health care services - public and private health insurance.
9. Globalization - flows in economic exchange - MNCs - Foreign trade - factors enabling globalization -WTO, IMF impact.
10. Food Security and Nutritional Status of India - PDS - sustainable development meaning - sustainable development with equity.

III. POLITICAL SYSTEMS AND GOVERNANCE

1. Tribal Panchayat system - present local body system (Gram Panchayat, Mandal Parishad and Zilla Parishad) & Urban Governments - formation and functions.
2. Emergence of kingdoms and republics - first empires - Mouryas - Rajputs - Rastrakutas - Cholas -Deccan kingdoms - Satavahana - Kushants - Guptas.
3. Regional Kingdoms : Kakatiyas - Vijayanagara Empires - Qutubshahis.
4. Moghals - Asafjahis - British Empire - landlords and tenants under the British and Nizams and Moghals.
5. National Movement in India - Muslim League - partition and migration - merging of princely states.
6. Making of laws and implementation of laws - Assembly - Council and Parliament - Election process.
7. Indian Constitution - formation - features and preamble - Justice - Rule of Law - Judicial System - civil and criminal laws - levels of courts.
8. Changing cultural traditions in Europe 1300-1800 - renaissance - reformation - modern science.
9. Democratic and National Movements - England, American and French revolutions - unification of Germany and Italy. Expansion of Democracy in Myanmar and Libya - Civil Liberties.
10. Industrialization and social change - Britain, Germany and France - movements of women, workers (Socialism).
11. Colonialism in Latin America, Asia and Africa - impact on India and other regional movements.
12. World Wars I and II - reasons -Treaty of Versailles - League of Nations Holocaust - Nazism - Facism, consequences - Great depression.
13. National Liberation Movements in China, Vietnam and Nigeria
14. Post War World and India - UNO - NAM - west Asian conflicts - peace movements and collapse of USSR.
15. Independent India - first general elections - SRC - Relation with neighboring countries - regional agitations and formation of parties - coalition governments - Emergency period - Mandal commission -economic liberalism.
16. Traffic Education - traffic signals - signs - necessary documents.

IV. SOCIAL ORGANIZATION AND INEQUITIES

1. Diversity in India - gender inequalities - sex ratio - employment - status of women and their work with wages - women protection acts.
2. Caste discriminations - reformers initiations.
3. Abolition of Zamindari System - Rural poverty at the time of independence - Land ceiling - Bhoodan Movement.
4. Poverty - distress in rural areas - poverty as chronic hunger - food inequality - elimination of poverty - access to affordable food - the right to life
5. Human Rights and Fundamental Rights - Right to Information - Right to Education - Lok Adalat.
6. Social Movements - Civil Rights movement in USA - Green Peace movements - Bhopal gas disaster -NBM - meria paibi - Human Rights Movement in USSR.

V. RELIGION AND SOCIETY

1. Religion and society in early times - Indus Valley Civilization - Vedas - Hinduism, Buddhism, Jainism, Christianity, Islam and sufism, Bhakti movement, new religious developments in India.
2. Folk - religion - communal worship of folk deities. The antiquity of folk traditions - inter mixing of village deities and high religious traditions
3. Social and Religious Reforms Movement - Christian Missionaries and Oriental Scholars - Religious Movements of Bengal and Punjab - Reform and Education among Muslims - Women and Dalits in freedom movements.
4. Understanding Secularism.

VI. CULTURE AND COMMUNICATION

1. Indian Heritage and Culture - Historical sites
2. Language, writing and script - Vedas - epics - jataka stories - sangam literature in Tamil.
3. Culture and Buildings - Harappan cities - Buddhist Stupas and Viharas - rock cutchaityas.
4. Rulers and Buildings - Engineering skills and construction (temples, mosques, tombs, forts and tanks) destruction of temples - imperial style of Vijayanagara period.
5. Performing arts - Film and Print Media - Evolution of cinema - influence of films on the society - role of newspapers in cultural awakening and freedom movement.
6. Influence of sports on Nationalism and Economic Development of the Nation.
7. Role of print Media in Cultural Awakening

PEDAGOGY (Marks: 12)

1. Aims and objectives of learning Social Sciences
- values through Social Sciences - learning objectives and illustrations - learning objectives in constructivist approach - Academic Standards
2. School curriculum and resources in Social Sciences
- NCF-2005, RTE-2009, SCF-2011 - syllabus – Learning Resources.
3. Social Sciences as an integrating area of study: Context and concerns
- Distinguishing between Natural and Social Sciences - Social Studies and various Social Sciences - contributions of some eminent Social Scientists
4. Approaches and strategies for learning Social Sciences
- collaborative learning approach - 5E learning model - problem solving approach - planning - concept mapping
5. Community Resources and Social Sciences Laboratory
6. Tools and techniques of assessment for learning: Social Sciences
7. Evaluation - CCE - assessment framework - assessment learning of students with special need.