Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024

Category of Post: PGT
ENGLISH Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.

- Adolescence Education
- Value Education – Moral Value and Professional Ethics in Education.
- Health and Physical Education
- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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-Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. **Reading Comprehension of an unseen prose text**
2. **Language and Communication**
   - Parts of Speech
   - Articles-Determiners
   - Conjunctions (Linkers/Connectors/ Cohesive devices).
   - Prepositions
   - Adverbs –Types and their order in sentenses.
   - Tense and Time
   - Adjectives including Degrees of Comparison
   - Modals
   - Word Order in Sentences
   - Clauses
   - Types of Sentences
   - Voice
   - Direct and Indirect Speech
   - Non-finites (Infinitives, Gerunds and Participles)
   - Complex and Compound Sentences
   - Phrasal Verbs/Idioms/Prepositional Phrases
   - Punctuation Marks
   - Phonetics -Sounds, Stress and Intonation, Minimal Pairs, Minimal Contrastive Pairs
   - Composition- Letter writing, Message writing, Notice writing, Report writing, Article writing, Paragraph writing and Precis

writing

3. **Literature**

A. Detailed study of English Literature from 1798 to 1900 with special reference to Wordsworth, S.T.Coleridge, John Keats , Shelley, Lord Byron, Charles Lamb, Charles Dickens, William Hazlitt, Alfred Lord Tennyson, Robert Browning, Mathew Arnold, George Eliot, Thomas Carlyle and John Ruskin.

B. Reading Comprehension of a literary Prose and Poem.

C. Poetry

Name of the Poet	Title
William Shakespeare	Let Me Not To The Marriage of True Minds(A sonnet)
John Milton	On Time On Shakespeare
William Wordsworth	The Solitary Reaper Education of Nature A Slumber Did My Spirit Seal The World Is Too Much With Us
William Blake	A Poison Tree The Divine Image The School Boy
John Keats	On The Grasshopper and The Cricket Ode to The Nightingale Ode to Autumn
John Donne	A Literature Upon the Shadow The Sunne Rising
W.B.Yeats	The Wild Swans of Coole Byzantium The Second Coming
S.T.Coleridge	The Rime of The Ancient Mariner
P.B.Shelly	The Cloud
Robert Frost	The Road Not Taken Dust of Snow Stopping By Woods on a Snowy Evening
Rabindranath Tagore	The Last Bargain Where The Mind is Without Fear From Lover's Gift
Sarojini Naidu	The Bangle Sellers

D. Prose (Essay/Short Story/Novel)

Name of the Essayist/Writer/Novelist	Title
Francis Bacon	Of Studies
Charles Lamb	Dream Children-A Reverie
Oscar Wilde	The Nightingale and The Rose
Stephen Leacock	How to Live to be 200 The Conjuror's Revenge
E.V.Lucas	The face on the Wall
O'Henry	After Twenty Years
Isaac Asimov	Robots and People
A.G.Gardiner	On Shaking Hands
R.K. Laxman	The Gold Frame
Ruskin Bond	How Far is the River
George Orwell	Animal Farm (Original version)
R.K.Narayan	Next Sunday The Guide
Jane Austen	Pride and Prejudice
Jawahar Lal Nehru	Chapter III (The Quest) of Discovery of India

E. Drama

Name of the Writer	Title
William Shakespeare	The Tempest Macbeth Julius Caesar Hamlet
Oscar Wilde	The Importance of Being Earnest
Fritz Karinthy	The Refund
Mahaswetha Devi	Mother of 1084

Note: The candidates are expected to have a thorough knowledge of the above mentioned poets, essayists, novelists and dramatists and their respective works mentioned at the level that is expected of a student of literature.

F. Literary Criticism

Mathew Arnold: The Study of Poetry
T. S. Eliot: Function of Criticism

V. Teaching Methodology (Marks: 20)

1. Aspects of English language- History, Nature and Importance of English.
2. Problems and Principles of Teaching English.
3. Objectives of Teaching English.
4. Approaches, Methods and Techniques of Teaching English.

5. Developing Language Skills-Listening, Speaking, Reading and Writing.
6. Teaching – Learning Material – development, preparation and use (including use of ICT).
7. Developing Study and Reference Skills.
8. Remedial Teaching.
9. Evaluation in teaching / learning process.
10. Planning - Lesson planning.
11. Curriculum and Textbooks- Development and Use.

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TELUGU Syllabus

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PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. తెలుగు భాషా పరిణామ చరిత్ర

   తెలుగు - ఇతర ద్రావిడ భాషలు.

   తెలుగుపై అన్యభాషల ప్రభావం

2. గ్రాంథిక వ్యావహారిక భాషావాదాలు - వివిధ భాషారూపాలు (శాసన, గ్రాంథిక, వ్యావహారిక, ఆధునిక ప్రామాణిక, ప్రసార మాధ్యమాల భాష)

3. ఎ) ప్రాచీన కవులు - కావ్యాలు

   ఇతిహాసం, పురాణం, ప్రబంధం, యక్షగానాలు, సంకీర్తనలు, చాటుపద్యాలు

   గద్యకావ్యాలు, ద్విపద కావ్యాలు

   బి) ఆధునిక కవులు - కావ్యాలు

   ఆధునిక కవిత్వ నిర్వచనం - లక్షణాలు, ఆధునిక కవితాధోరణులు. (భావ, అభ్యుదయ, విప్లవ, దిగంబర కవిత్వం మొదలగునవి)

4. శతక ప్రక్రియ - శతక సాహిత్య వికాసం - వివిధ శతకాలు, శతక కర్తలు

5. జానపదసాహిత్యం - వివిధ ప్రక్రియలు - జానపద విజ్ఞానం - వివిధ శాఖలు - జానపదసాహిత్యం - భాషావిశేషాలు - కళాకారులు

6. తెలుగు సాహిత్య ప్రక్రియలు (గద్యం)

   నవల, కథ, కథానిక, నాటకం/ నాటిక/ ఏకాంకిక, వ్యాసం, లేఖ, సంపాదకీయం, ఆత్మకథ, జీవితచరిత్ర, యాత్రాచరిత్ర, దినచర్య, విమర్శ, పీఠిక, గల్పిక

7. వివిధ రాజులు - సాహిత్యపోషణ - సాంస్కృతిక వికాసం

   శాతవాహనులు, పల్లవులు, విజయనగర రాజులు, నాయకరాజులు, రెడ్డిరాజులు, కాకతీయులు, గోల్కొండ నవాబులు.

8. సాహిత్య విమర్శ

   కవి, కావ్యం - నిర్వచనాలు, ప్రయోజనాలు, శైలి, రసం, అలంకారాలు

9. భాషాంశాలు

   వర్ణం, పదాంశం, పదం, వాక్యాంశం, వాక్యం, వాక్య భేదాలు, వాక్య భాగాలు, నిర్మాణం, క్రియలు - భేదాలు, ధ్వని పరిణామం, అర్థవిపరిణామం, వ్యాకరణ పరిభాష, పర్యాయపదాలు, నానార్థాలు, వ్యుత్పత్త్యర్థాలు, జాతీయాలు, సంధులు, సమాసాలు, ఛందస్సు

10. అనువాదం (ఆంగ్లం నుండి తెలుగు).

V. Teaching Methodology (Marks: 20)

1. భాష – వివిధ భావనలు, మాతృభాష – లక్ష్యాలు–స్పష్టీకరణలు, మాతృభాష ఉపాధ్యాయుడు.
2. భాషా నైపుణ్యాలు
3. ప్రణాళిక పతన – పాఠ్యగ్రంథాలు
4. విద్యాసాంకేతిక శాస్త్రం, సహపాఠ్య కార్యక్రమాలు
5. సాహిత్య ప్రక్రియలు, బోధన పద్ధతులు
6. మూల్యాంకనం – పరీక్షలు

Government of Andhra Pradesh
Department of School Education
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HINDI Syllabus

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1. हिंदी साहित्य का इतिहासः काल विभाजन - विभिन्न विद्वानों के विचार आदिकाल, भक्ति काल, रीति काल और आधुनिक काल
2. आधुनिक साहित्यः विभिन्न प्रवृत्तियाँ और प्रमुखवाद (छायावाद, प्रगतिवाद,प्रयोगवाद, रहस्यवाद आदि) साहित्यक विधाएँ (कविता, कहानी, उपन्यास, नाटक आदि)
3. हिंदी भाषा का इतिहासः उद्भव और विकासः हिंदी राष्ट्र भाषा, राजभाषा और विश्व भाषा के रुप में हिंदी देवनागरी लिपि का विकास, देश की एकता और हिंदी।
4. हिंदी भाषा का क्षेत्रः उपभाषाएँ और बोलियाँ
5. भारतीय काव्यशास्त्रः अर्थ, परिभाषा, प्रयोजन और लक्षण, रस, छंद, अलंकार
6. भाषा तत्व और व्याकरणः वर्णमाला : (स्वर, व्यंजन भेद वर्णों का उच्चारण स्थान) शब्दभेदः (रूप परिवर्तन के अधार पर विकारी अविकारी शब्द व्युत्पत्ति के आधार पर शब्द भेद रूढी,यौगिक, योग रूढ) उपसर्ग, प्रत्यय, लिंग वचन, कारक - काल - संधि - समास। पर्यायावाची शब्द, विलोम शब्द, शब्द परिचय तत्सम, तद्भव, देशी, विदेशी, क्रिया - सकर्मक, अकर्मक प्रेरणार्थक क्रियाएँ - मुहावरे, लोकोक्ति, कहावत, विराम चिह्न। वाक्य भेद, वाक्य और प्रयोग, वाक्य संरचना, भेद वाच्य कर्तृ वाच्य, कर्म वाच्य और भाव वाच्य पद-परिचय
7. हिंदी पाठ्य पुस्तकें (द्वितीय भाषा) छठवीं कक्षा से दसवीं कक्षा सहित (उपवाचक और पठनहेतु साहित)

V. Teaching Methodology (Marks: 20)

1. भाषा-अर्थ, परिभाषा, महत्व, प्रकृति और स्वरूप, ध्वनि विज्ञान, शब्द विज्ञान, वाक्य विज्ञान, विवध स्तरों पर हिंदी शिक्षण के लक्ष्य और उद्देश्य, प्रथम भाषा केरूप में हिंदी द्वितीय भाषा के रूप में हिंदी, त्रिभाषा सूत्र, भारतीय संविधान में हिंदी का स्थान।
2. हिंदी भाषा शिक्षण प्राथमिक, माध्यमिक और उच्च माध्यमिक स्तर पर
   (1) हिंदी भाषा - शिक्षण के उद्धेश्य
   (2) अच्छे शिक्षण और अच्छे शिक्षण की विशेषताएँ।
   (3) हिंदी अध्यापक और शिक्षण की विशेषताएँ
   (4) भाषा - शिक्षण के सामान्य सिद्धांत
   (5) भाषा शिक्षण प्रणालियाँ
   (6) भाषा शिक्षण की पद्धतियाँ (प्रत्यक्ष, परोक्ष, खेल माँन्तेसरी, निर्देशित, डाल्टन, आगमन, सूक्ष्म शिक्षण आदि)
   (7) शिक्षण सूत्र
3. शिक्षण में भाषा - कौशलों का महत्व

सुनना - ध्वनि की उत्पत्ति - ध्वनि और श्रवण का पारस्परिक संबंध
बोलना - शब्दोच्चारण, वाक्यंत्र, शुदुधोच्चारण का अभ्यास, मौखिक अभिव्यक्ति, पाठशाला में वार्तालाप का अभ्यास।
पढनाः वाचन की विशेषताएँ, प्रकार दोष और उपचार
लिखनाः महत्व, नियम विधियाँ, प्रकार, अक्षर-विन्यास

4. पाठ्यक्रम और सहगामी क्रियाएँ
   पाठ्यक्रम-पाठ्य पुस्तक, पुस्तकालय - दृश्य - श्रव्य उपकरण (शिक्षण उपकरण)
   पाठ सहागामी क्रियाएँ, भाषा प्रयोगशाला।
5. शिक्षण योजनाः
   (1) पाठ-योजना (गद्य, पद्य, व्याकरण, पत्र लेखन और रचना)
   (2) इकाई पाठ योजना
   (3) सूक्ष्म शिक्षण पाठ योजना
6. मूल्यांकन
   मूल्यांकन की धारणा, निरंतर समग्र मूल्यांकन, उत्तम परीक्षा की विशेषताएँ, प्रश्न पत्र का निर्माण, उपलब्धि परीक्षा, निदानात्मक एंव उपचारात्मक शिक्षण, अभिलेख।
7. आंध्रप्रदेश में हिंदी शिक्षण में आनेवाली समस्याएँ व उनका निराकरण।
8. ध्वनि, वर्ण, शब्द, वाक्य रचना व शुद्धाशुद्ध वर्तनी व वाक्य ज्ञान।

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC - 2024

Category of Post: PGT
SANSKRIT Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education
   - Value Education – Moral Value and Professional Ethics in Education.
   - Health and Physical Education
   - Inclusive Education - Classroom Management in Inclusive Education
   - Role of Education in view of Liberalization, Privatization and Globalization

- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

कवयः - काव्यम् - रचयितारः - रचनाः स्तोत्राणि शास्त्रग्रन्थाः - कर्तारः (आलङ्कारिक - न्याय व्याकरणेत्यादि ग्रन्थाः।) इत्यादयः।

रचनाप्रक्रियाः	इतिहास - पुराण - काव्य - नाटक - कथा - आत्मकथा - गीतम् - इत्यादि प्रक्रियास्वरूपविवरणम् - ।
वेदवाङ्मयम् -	वेदाः - वेदाङ्गानि - उपनिषदः।
भाषास्वरूपम् -	भाषोत्पत्ति विषयकवादाः - भाषाकुटुंबम् - वैदिकलौकिक संस्कृतयोः साम्यं वैषम्यं च।
साहित्यविमर्शः -	काव्यप्रयोजनं - काव्यलक्षण - काव्यभेदाः - शैली - अलङ्कारससंप्रदायाः - रसवादाः च।
संस्कृतव्याकरणम् -	संज्ञाप्रकरणम् संधिप्रकरणम् समासप्रकरणम् स्त्रीप्रत्ययप्रकरणम् विभक्त्यर्थप्रकरणम्
भाषांशाः	समानार्थकाः विरुद्धार्थकाः छन्दः अलङ्कारः प्रत्ययाः विभक्तिः क्रियापदः व्युत्पत्यर्थाः संख्यावाचकाः प्रयोगविपरिणामः इत्यादयः
पठनावगमनम्	परिचित/अपरिचत पद्य/गद्यांशाः - तदाधारितप्रश्नाः।

V. Methodology (20 Marks)

पाठ्यक्रमे संस्कृतस्य महत्वम् - स्थानम्।
संस्कृतशिक्षणस्य उद्देश्यानि - सामान्यसिद्धान्ताः - शिक्षणापद्धतीः।
पाठ्यक्रमयोजना - पाठ्यग्रन्थः।
विद्यासांकेतिक - सहपाठ्यकार्यक्रमाः।
विद्यालयव्यवस्था।
साहित्यप्रक्रियाः बोधनापद्धतीः।
शिक्षणाकौशलानि।
मूल्याङ्कनम् - परीक्षा च।

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024
Category of Post: TGT, PGT & Principals
Paper I – ENGLISH LANGUAGE PROFECIENCY (For Non Languages)
Syllabus

English: (Content) (Marks: 100) (Intermediate level)

Area		Level Of Testing
Parts of Speech		Nouns, Pronouns, Adjectives, Adverbs, Conjunctions, Interjections - Types and functions
Synonyms		Identification of Shades of Meaning
Antonyms		Identifying Antonyms in a Context
Homophones		Identification & Usage
Homonyms		Identification & Usage
Hypernyms& Hyponyms		Identification & Usage
Spelling		Spelling
One-word Substitutes		Referring to Persons / Professions, Places, Collections
Phrasal Verbs		Identification of Meaning and usage
Idiomatic Expressions		Identification, Usage
Proverbs		Proverbs
Word Formation		Suffixes, Prefixes and other forms
Short Forms - Full Forms		Common Short Forms - Full Forms
Abbreviations - Full Forms		Common Abbreviations - Full Forms
Word Collocations		Word Collocations
Foreign Phrases Used in English		Standard and common Foreign Phrases Used in English
Helping Verbs		Form, Function & Contractions
Modal Auxiliaries		Form, Function & Contractions
Ordinary Verbs		Form, Function & Contractions
Articles		Use of Articles Including Omissions
Prepositions		Simple, Compound Prepositions Including Prepositions following Certain Words and Prepositional Phrases

Clauses		Main Clauses, sub-ordinate Clauses, Adjectival Clauses, Noun Clauses, Adverbial Clauses, Relative Clauses, Finite and Non-finite Clauses
Sentence Structures		Sentence Structures
Degrees of Comparison		Form, Function, Construction, Transformation
Language Functions		Language Functions with social norms (formal and informal)
Question Tags		Imperatives and Statements with semi negatives and indefinites subjects
Types of Sentences		Types of Sentences
Sentence Improvement		Sentence Improvement
Direct Speech & Indirect Speech		Statements, Questions, Imperatives and Exclamatory Sentences
Active Voice & Passive Voice		Active Voice & Passive Voice
Tenses		Use of tenses and framing including 'IF' conditionals Type 1, 2 &3
Agreement between subject & Verb		Agreement between subject & Verb
Word Order		Word Order In a phrase or a sentence
Linkers		Linkers
Transformation of Sentences		Simple. Compound and Complex Sentences
Common Errors		Based on all Vocabulary and Grammar Topics
Punctuation and Capitalization		Use of capital letters, comma, full stop, question mark, exclamation mark and inverted commas
Writing of Discourses		Letter Writing, News Report, Diary Entry, Conversation, Description, Diary Entry, Biographical Sketch, Story, Script for a speech
Dictionary Skills		Dictionary Skills
Reading comprehension		Prose (GENERAL)

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024

Category of Post: PGT
Paper II – MATHEMATICS Syllabus

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2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
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6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

1. Development Of Child

- Development, Growth & Maturation - Concept & Nature
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PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. **Sets:** Sets and their representations. Union and Intersection of sets, Difference of sets, Complement of a set.
2. **Relations & Functions:** Definition of relation, domain, co-domain and range of a relation. Function as a special kind of relation from one set to another. Domain, co-domain & range of a function, Real valued function of the real variable, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum and greatest integer functions. Sum, difference, product and quotients of functions. Union, intersection and complements of sets, and their algebraic properties, Relations, equivalence relations, mappings, one-one, into and onto mappings, composition of mappings.
3. **Principle of Mathematical Induction:** Processes of the proof by induction.
4. **Permutations & Combinations:** Fundamental principle of counting. Factorial n, Permutations and combinations, derivation of formulae and their connections, simple applications.
5. **Complex Numbers:** Algebraic properties of complex numbers, Argand plane and polar representation of complex numbers, Statement of Fundamental Theorem of Algebra, solution of quadratic equations in the complex number system. Modulus and Argument of a complex number, square root of a complex number, Cube roots of unity, triangle inequality.
6. **Linear Inequalities**: Algebraic solutions of linear inequalities in one variable and their representation on the number line. Graphical solution of linear inequalities in two variables, Solution of system of linear inequalities in two variables – graphically, Absolute value, Inequality of means, Cauchy-Schwarz Inequality, Tchebychef's Inequality
7. **Binomial Theorem:** Statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, general and middle term in binomial expansion, simple applications. Binomial Theorem for any index, Properties of Binomial Co-efficients, Simple applications for approximations.
8. **Sequence and Series:** Arithmetic, Geometric and Harmonic progressions, General terms and sum to n terms of A.P., G.P. and H.P. Arithmetic Mean (A.M.), Geometric Mean (G.M.), and Harmonic Mean (H.M.), Relation between A.M., G.M. and H.M. Insertion of Arithmetic, Geometric and Harmonic means between two given numbers. Special series, Sum to n terms of the special series. Arithmetico-Geometric Series, Exponential and Logarithmic series.
9. **Elementary Number Theory:** Peano's Aximms, Principle of Induction; First Principal, Second Principle, Third Principle, Basic Representation Theorem, Greatest Integer Function Test of Divisibility, Euclid's algorithm, The Unique Factorisation Theorem, Congruence, Sum of divisors of a number. Euler's totient function, Theorems of Fermat and Wilson
10. **Quadratic Equations:** Quadratic equations in real and complex number system and their solutions. Relation between roots and co-efficients, nature of roots,

formation of quadratic equations with given roots; Symmetric functions of roots, equations reducible to quadratic equations – application to practical problems. Polynomial functions, Remainder & Factor Theorems and their converse, Relation between roots and coefficients, Symmetric functions of the roots of an equation. Common roots.

11. **Matrices and Determinants:** Determinants and matrices of order two and three, properties of determinants, Evaluation of determinants. Area of triangles using determinants, Addition and multiplication of matrices, adjoint and inverse of matrix. Test of consistency and solution of simultaneous linear equations using determinants and matrices.
12. **Two dimensional Geometry:** Distance formula, section formula, area of a triangle, condition for the collinearity of three points, centroid and in-centre of a triangle, locus and its equation, translation of axes, slope of a line, parallel and perpendicular lines, intercepts of a line on the coordinate axes. Various forms of equations of a line, intersection of lines, angle between two lines, conditions for concurrence of three lines, distance of a point from a line, Equations of internal and external bisectors of angles between two lines, coordinates of centroid, orthocentre and circumcentre of a triangle, equation of family of lines passing through the point of intersection of two lines, homogeneous equation of second degree in x and y, angle between pair of lines through the origin, combined equation of the bisectors of the bisectors of the angles between a pair of lines, condition for the general second degree equation to represent a pair of lines, point of intersection and angle between pair of lines. Standard form of equation of a circle, general form of the equation of a circle, its radius and centre, equation of a circle in the parametric form, equation of a circle when the end points of a diameter are given, points of intersection of a line and a circle with the centre at the origin and condition for a line to be tangent to the circle, length of the tangent, equation of the tangent, equation of a family of circles through the intersection of two circles, condition for two intersecting circles to be orthogonal.

Sections of cones, equations of conic sections (parabola, ellipse and hyperbola) in standard forms, condition for $y = mx + c$ to be a tangent and points(s) of tangency.

13. **Trigonometric Functions:** Positive and negative angles, Measuring angles in radians & in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Expressing sin (x+y) and cos (x+y) in terms of sin x , sing y, cos x & cos y. Identities related to sin 2x, tan 2x, sin 3x and tan3x. Solution of trigonometric equations, proofs and simple applications of sine and cosine formulae. Solution of triangle. Heights and Distances.

    Inverse Trigonometric Functions: Definition, range, domain, principal value branches. Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric functions.

14. **Differential Calculus:** Polynomials, rational, trigonometric, logarithmic and exponential functions, Inverse functions. Graphs of simple functions, Limits, Continuity and differentiability; Derivative, Geometrical interpretation of the derivative, Derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions, Derivatives of composite

functions; chain rule, derivatives of inverse trigonometric functions, derivative of implicit function, Exponential and logarithmic functions and their derivatives, Logarithmic differentiation, Derivative of functions expressed in parametric forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems and their geometric interpretations.

Applications Of Derivatives: Applications of derivatives: rate of change, increasing / decreasing functions, tangents & normals, approximation, maxima and minima.

Integral Calculus: Integral as an anti-derivative. Fundamental integrals involving algebraic, trigonometric, exponential and logarithmic functions, Integration by substitution, by parts and by partial fractions, Integration using trigonometric identities, Definite integrals as a limit of a sum, Fundamental Theorem of Calculus. Basic Properties of definite integrals and evaluation of definite integrals; Applications of definite integrals in finding the area under simple curves, especially lines, areas of circles / Parabolas / ellipses, area between the two curves.

15. **Differential Equations:** Definition, order and degree, general and particular solutions of 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.

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

17. **Solid Geometry:** Coordinates of a point in space, distance between two points Section formula, Direction cosines / ratios of a line joining two points -

    The Plane: Equation of Plane in terms of its intercepts on the axis through the given points, Length of the perpendicular from a given point to a given plane, Bisectors of angles between two Planes, Combined Equation of Two Planes, orthogonal projection on a plane.

    The Line: Equations of a Line, angle between a line and a Plane, the Condition that a given line may lie in a given plane, the condition that two given lines are coplanar, Number of arbitrary constants in the Equations of a Straight Line. Sets of Conditions which determine a line, the Shortest distance between two lines. The length and Equations of the line of Shortest distance between two straight lines, Length of the perpendicular from a given point to a given line, Intersection of three planes, Triangular Prism, skew lines.

    The Sphere: Definition and equation of the Sphere, Equation of the sphere through four given points, Plane section of the sphere, Intersection of Two Spheres; Equation of a Sphere through a given circle : Intersection of a sphere and a line. Power of a point; Tangent Plane; Plane of Contact, Polar Plane, Conjugate points, Conjugate planes: Angle of intersection of Two Spheres. Conditions for two spheres to be orthogonal: Radical Plane, Coaxial System of Spheres; Simplified form of the equation of Two Spheres.

Cones, cylinders and Conicoids: Definitions of a cone, vertex, guiding curve, generators, Equation of the cone with a given vertex and guiding curve, Enveloping cone of a sphere, Quadratic of cones with vertex at origin, Condition that the general equation of the second degree should represent a cone, Condition that a cone may have three mutually perpendicular generators, Intersection of a line and a quadric cone. Tangent lines and tangent plane at apoint. Condition that a plane may touch a cone. Reciprocal cones. Intersection of two cones with a common vertex. Right circular cone. Equation of the right circular cone with a given vertex, axis and semi-vertical angle.

Definition of a cylinder, Equation to the cylinder whose generators intersect a given conic and are parallel to a given line, enveloping cylinder of a sphere. The right circular cylinder, Equation of the right circular cylinder with a given axis and radius.

The general equation of the second degree shapes of some surfaces, Nature of Ellipsoid, Nature of Hyperboloid of one sheet.

18. **Statistics:** Measures of central tendency for grouped and ungrouped data. Measures of dispersion; for ungrouped / grouped data. Analysis of frequency distributions with equal means but different variances.
19. **Probability:** Random experiments: outcome, sample spaces. Events: occurrence of events, exhaustive events, mutually exclusive events, Probability of an event, probability of 'not', 'and' & 'or' events., Multiplication theorem on probability. Conditional probability, independent events, Baye's theorem, Random variable and its probability distribution, Binomial and Poisson distributions and their properties.
20. **Linear Algebra:** Examples of vector spaces, vector spaces and subspace, independence in vector spaces, existence of a Basis, the row and column spaces of a matrix, sum and intersection of subspaces. Linear Transformations and Matrices, Kernel, Image, and Isomorphism, change of bases, Similarity, Rank and Nullity. Inner Product spaces, orthonormal sets and the Gram-Schmidt Process, the Method of Least Squares. Basic theory of Eigenvectors and Eigenvalues, algebraic and geometric multiplicity of eigen value, diagonalization of matrices, application to system of linear differential equations. Generalized Inverses of matrices, Moore-Penrose generalized inverse. Real quadratic forms, reduction and classification of quadratic forms, index and signature, triangular reduction of a pair of forms, singular value decomposition, extrema of quadratic forms. Jordan canonical form, vector and matrix decomposition.
    Field extensions, fundamental theorem of Galois theory, splitting fields, algebraic closure and normality, Galois group of a polynomial, finite fields, separability, cyclic extensions, solvability by radicals.
21. **Analysis:** Monotone functions and functions of bounded variation, Real valued functions, continuous functions, Absolute continuity of functions, standard properties. Uniform continuity, sequence of functions, uniform convergence, power series and radius of convergence, Riemann-Stieltjes integration, standard properties, multiple integrals and their evaluation by repeated integration, change of variable in multiple integration . Uniform convergence in improper integrals, differentiation under the sign of integral – Leibnitz rule, Dirichlet integral, Liouville's extension, Introduction to n-dimensional Euclidean space, open and closed intervals (rectangles), compact sets, Bolzano-Weierstrass theorem, Heine-

Borel theorem. Maxima-minima of functions of several variables, constrained maxima-minima of functions, Analytic function, Cauchy-Riemann equations, singularities, Statement of Cauchy theorem and of Cauchy integral formula with applications, Residue Statement of Cauchy theorem and of Cauchy integral formula with applications, Residue and contour integration, Fourier and Laplace transforms, Mellin's inversion theorem.

Conformal Mapping, Elliptic Function. Elementary Functions (Exponential, Logarithm, Complex Exponents, Trigs, Hyperbolic Functions) Integrals (Definite Integrals, Antiderivatives, Cauchy Goursat Theorem, Cauchy Integral Formula, Liouville's Theorem, Fundamental Theorem of Algebra, Maximum Modulus Principle) Series (Sequences, Convergence of Series, Taylor Series, Laurent Series, Absolute and Uniform Convergence, Power Series techniques) Residues and Poles (Residues, Cauchy's Residue Theorem, Residue at Infinity, Zeros of Analytic Functions.

22. **Abstract algebra and real analysis:**

Groups: Binary operations – Definition and properties, of Groups –Finite groups and group composition tables, sub groups and cyclic sub-groups, cyclic groups, Elementary properties of cyclic groups, subgroups of finite cyclic groups.

Rings: definitions and basic properties, homomorphism and isomorphism, fields, divisors of zero and cancellation laws, Integral Domain, the characteristic of a ring. Rings of polynomials. Polynomials in an indeterminate, Ideals and factor rings, Homomorphism and factor rings, Fundamental homomorphism theorem, Maximal and prime ideals.

V. Teaching Methodology (Marks: 20)

1. Meaning and Nature of Mathematics, History of Mathematics.
2. Contributions of Great Mathematicians – Aryabhatta, Bhaskaracharya, Srinivasa Ramanujan, Euclid, Pythagoras, George cantor.
3. Aims and Values of teaching Mathematics, Instructional objectives (Blooms taxonomy).
4. Mathematics curriculum: Principles, approaches of curriculum construction, Logical and Psychological, Topical and Concentric, Spiral approaches. Qualities of a good Mathematics text book.
5. Methods of teaching mathematics- Heuristic method, Laboratory method, Inductive and Deductive methods, Analytic and Synthetic methods, Project method and Problem Solving method.
6. Unit Plan, Year Plan, Lesson Planning in Mathematics.
7. Instructional materials, Edgar Dale's Cone of Experience.
8. Evolving strategies for the gifted students and slow learners.
9. Techniques of teaching mathematics like Oral work, Written work, Drilling, Assignment, Project, Speed and Accuracy.
10. Mathematics club, Mathematics structure, Mathematics order and pattern sequence.
11. Evaluation – Types, Tools and Techniques of Evaluation, Preparation of SAT Analysis, Characteristics of a good test.

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC - 2024
Category of Post: PGT
Paper II – Physical Science Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education

- Value Education – Moral Value and Professional Ethics in Education.
- Health and Physical Education
- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Aveshekar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. MEASUREMENT

Story of transport, Non- standard units of Measurements, Measuring the length of a Curved line, Measurement of length, area, volume and time. CGS and SI units of length, area, volume and time, Conversion of units from CGS to S.I and Vice versa.

2. MOTION

Describing Motion, Motion and Rest, Motion Along a Straight Line, Types of motion (Translatory, Rotatory and oscillatory), Scalars and vectors, Distance, Displacement, Speed, Velocity, Average speed, Average velocity, Acceleration, Graphical Representation of Motion, Distance-Time Graphs, Velocity-Time Graphs, Uniform Motion and Non- Uniform Motion, Equations of Motion, Uniform Circular Motion, Laws of Motion, Balanced and Unbalance Forces, First Law of Motion, Inertia and Mass, Momentum, Second Law of Motion, Third law of motion.

3. FORCE, FRICTION AND PRESSURE

Force – A Push or a Pull, Exploring Forces, Effect of Force on Objects, Types of forces (field force and contact force), Net force, Types of friction (static, Sliding and Rolling), Factors effecting Friction, Friction: A Necessary Evil, Increasing and Reducing Friction, Fluid friction, Pressure, Pressure Exerted by Liquids and Gases, Pressure of liquids at different depths, Atmospheric Pressure.

4. GRAVITATION

Uniform circular motion, Universal law of gravitation, Free Fall, Acceleration due to Gravity, Motion of Objects Under the Influence of Gravitational Force of the Earth, Mass and Weight, Thrust and Pressure, Pressure in Fluids, Buoyancy, Floating and Sinking Objects, Archimedes' Principle.

5. WORK, ENERGY

Scientific Conception of Work, Work Done by a Constant Force, Energy, Forms of Energy, Kinetic Energy, Potential Energy, Mechanical Energy. Law of Conservation of Energy, Conversion of Energy from one form to another, Power and its units.

6. SOUND

Sound - a form of energy, Production of sound, Some musical instruments, Sound Needs a Medium for Propagation, Human ear, Hearing Impairment, Noise and Music, Propagation of Sound, Types of waves (longitudinal and transverse), Characteristics of sound waves (Wavelength, Frequency, Time period, Speed of the wave), Relation between frequency and time period, Pitch, Loudness and Quality, Intensity of Sound, Speed Of Sound in Different Media, Reflection of Sound, Echo, Reverberation, Uses of Multiple Reflection of Sound, Range of Hearing, Infrasonic and Ultrasonics, Applications of Ultrasound, Sound pollution.

7. HEAT

Heat and temperature, Transfer of Heat (Conduction, convection, radiation), Kinds of clothes we wear in summer and winter, Units of temperature (centigrade, Fahrenheit and Kelvin; Conversions), Expansion of liquids due to heat, Types of thermometers, Thermal equilibrium, Temperature and Kinetic energy, Specific Heat, Applications of Specific heat capacity, Principle of method of mixtures, Determination of Specific heat of a solid, Evaporation, Condensation, Humidity, Dew and Fog, Boiling, Latent heat of vapourisation, Melting, Latent heat of fusion, Freezing, Temperature- time graph.

8. LIGHT

Light, Transparent, Opaque and Translucent Objects, Shadows and Images, Rectilinear Propagation of Light, A Pinhole Camera, Regular and Diffused Reflection, Reflection of light by plane surfaces (laws of reflection, periscope, multiple images, kaleidoscope, Characteristics of image formed by plane mirrors), Spherical Mirrors and Images, Spectrum, Wave nature of light, Fermat principle, Sign convention, Refraction, Refraction of Light at Plane Surfaces, Refractive index, Absolute refractive index, Relative refractive index, Snell's law, Critical angle, Total Internal Reflection, Applications of total internal reflection, Mirages, Optical fibres, Refraction Through a Glass Slab, Lateral shift, Vertical shift, Refraction of Light at Curved Surfaces, Lenses, Terminology used in the case of lenses -Focal length, Focus, Optic Centre, Principal axis, Radius of curvature, Centre of curvature, Focal plane, Behaviour of certain light rays when they are incident on a lens, Images formed by lenses for various distances of objects, UV method, Lens formula, Lens maker's formula, Human Eye, Least distance of distinct vision, Angle of vision, Myopia, Hypermetropia, Presbyopia, Care of the Eyes, Braille System, Visually Impaired Persons, Power of lens, Refractive index of a Prism, Dispersion of light through prism, Sunlight-Dispersion, Rainbow, Scattering of light.

9. ELECTRICITY

Simple Electric circuit and its components, Conductors, Insulators, Type of cells (Dry and liquid), Electric symbols and uses, Series and parallel connection of cells and bulbs, Heating effects of Electricity, Understanding of CFL, Fuse and MCBs, Chemical Effects Of Electric Current, Good/Poor Conducting Liquids, Electroplating, Magnetic Effects of Electric Current, Electromagnet, Electric bell, Electric current, Drude and Lorentz theory, Potential difference and EMF, Drift velocity and working of a cell, Ohm's law, Electric shock, Factors affecting the resistance, Series connection of resistors, Parallel Connection of resistors, Multi-meter, Kirchhoff's laws, Sign convention in a circuit, Electric power, Power consumption, Electric energy, Overload.

10. MAGNETISM AND ELECTROMAGNETISM

How Magnets were discovered, Magnetic and Non-Magnetic Materials, Types of Magnets, Poles of Magnet, Properties of Magnets, Storing magnets safely, Magnetic compass, Earth as a Magnet, Magnetic Induction, Oersted's experiment, Magnetic Field, Magnetic flux – Magnetic flux density, Magnetic field due to straight wire /circular coil/solenoid carrying current, Magnetic Force, Electric Motor, Electromagnetic induction, Faraday's Law, Lenz Law, Applications of Faraday's law of electromagnetic induction, Induced current, Induced EMF, Electric generator, DC and AC currents, rms values.

11. PRINCIPLES OF METALLURGY

Metallurgy, Occurrence of the metals in nature, Ores and Minerals, Extraction of metals, Activity series, Concentration or Dressing of the ore, Hand picking, Washing, Froth flotation, Magnetic Separation, Extraction of crude metal from the ore, Reduction of purified ore to the metal, Purification of the crude metal, Distillation, Poling, Liquation, Electrolytic refining, Corrosion, Prevention of corrosion, Thermite process, Smelting, Roasting, Calcination, Flux, Gangue, Blast furnace, Reverberatory furnace.

12. CARBON AND ITS COMPOUNDS

Allotropes of Carbon, Amorphous forms, Crystalline forms, Diamond, Graphite, Buckminsterfullerene, Nanotubes, Versatile nature of Carbon, Catenation, Tetravalency, Hydrocarbons, Saturated and unsaturated hydrocarbons, Homologous series, Isomerism, Functional groups, Nomenclature of Aliphatic Hydrocarbons, IUPAC names, Chemical properties of carbon compounds- Combustion, Oxidation reactions, Addition reactions, Substitution reactions, Ethanol, Ethanoic acid, Esters, Esterification Reactions, Soaps – Saponification and Micelles, Cleansing action of soap, Detergents.

13. SOME NATURAL PHENOMENON

The Story of Lightning, charging by Rubbing, Electric charge and properties of electric charge, Types of charges and their interactions, Transfer of charge, lightning, lightning safety, lightning conductors, Earthquake, Tsunami, Causes and effects, Protective measures.

14. STARS AND SOLAR SYSTEM

The Moon, The Moon's Surface, Phases of Moon, Eclipses (Solar and lunar eclipses), The Stars, Movement of Stars (Constellation, pole star), Movement of the sun, Solar System, Planets and Some Other Members of the Solar System, Artificial Satellites.

15. CHANGES AROUND US

Slow/fast changes, Temporary/permanent changes, Natural/man made changes, Physical/ chemical changes, Rusting of iron, Crystallisation, Galvanization, Corrosion, Rancidity, Oxidation / reduction

16. MATTER

Objects Around Us, Properties of Materials, Physical Nature of Matter, Characteristics of Particles of Matter, States of matter, Properties of solids, liquids and gases, Change of state of Matter –effect of change of temperature and pressure, Evaporation, Factors Affecting Evaporation, Sublimation, Deposition, Boiling, Latent heat of vaporisation, Latent heat of fusion, Mixture, Types of Mixtures, Solutions., Properties of a Solution, Types of Solutions, Concentration of solution, Expressing Concentration of Solutions, Suspension, Properties of

a Suspension, Colloidal Solution, Properties of a Colloid, Common examples of colloids, Mixtures, Methods of separation–handpicking, Threshing, Winnowing, Sedimentation, Decantation, Sieving, Filtration, Sublimation, Chromatography, Distillation and fractional distillation, Evaporation, Condensation, Use of more than one method of separation, Saturated and unsaturated solutions, Separation of immiscible liquids, Types of Pure Substances – Elements and Compounds.

17. ATOMS AND MOLECULES

Laws of Chemical Combination - Law of Conservation Of Mass, Law of Constant Proportions, Atom, Symbols of Atoms of Different Elements, Atomic Mass, Atomicity, Valency, Molecule, Molecules Of Elements, Molecules Of Compounds, Ion – Cation & Anion, Polyatomic ions, Names and symbols of ions, Formation of ions, Writing Chemical Formulae, Molecular Mass, Molar mass, Formula Unit Mass, Structure of The Atom, Subatomic particles, Charged Particles in Matter, Thomson's Model of an Atom, Rutherford's Model of an Atom, Bohr's Model of an Atom, Bohr-Sommerfeld model of an atom, Neutrons, Distribution of electrons into different Orbits, Atomic Number and Mass Number, Isotopes, Isobars, Atomic line spectra, Planck's quantum theory, Quantum numbers, Shapes of orbitals, Electronic Configuration, Pauli Exclusion Principle, Aufbau principle, Hund's Rule.

18. CLASSIFICATION OF ELEMENTS-THE PERIODIC TABLE

Dobereiner's law of Triads, Newlands' law of Octaves, Mendeleev's Periodic Table, Modern Periodic Table, Periodic properties of the elements and their gradation in the modern periodic table.

19. CHEMICAL BONDING

Lewis dot structures, Covalency, Electronic theory of valence by Lewis and Kossel, Octet rule, Ionic and Covalent bonds, Ionic and Covalent compounds, Bond lengths and Bond energies of covalent bonds, Valence shell electron pair repulsion theory, Valence bond theory, Hybridisation.

20. METALS AND NON METALS

Physical Properties of Metals and Non-metals, Chemical Properties of Metals and Non-metals, Uses of Metals and Non-metals, Examples of metals and non-metals, Reactivity order of metals.

21. SYNTHETIC FIBRES AND PLASTICS

Natural and Synthetic fibres, Preparation and uses, Types of Synthetic Fibres, Characteristics of Synthetic Fibres, Plastics as Materials of Choice, Types of plastics, Plastics and environment, Biodegradable – Non biodegradable materials.

22. COAL AND PETROLEUM

Exhaustible and inexhaustible Resources, Fuels – Types, Coal, Story of Coal, Uses of Coal and Coal products, Refining of petroleum, Petrochemical products in various sectors, Various Constituents of Petroleum and their Uses, Formation of coal and petroleum, Natural Gas, Misuse of Energy resources and Consequences.

23. COMBUSTION FUELS AND FLAME

Combustion, Types of Combustion, Ignition temperature, Inflammable substances, Flame, Fuel Efficiency, Burning of Fuels Leads to Harmful Products, Fire control, Structure of flame – colors zones – Intensities.

24. AIR

Atmosphere, Components of air, Availability of oxygen to plants and animals, Replacement of Oxygen in the Atmosphere.

25. ACIDS, BASES AND SALTS

Natural acid-base indicators, Synthetic acid-base Indicators, Olfactory indicators, Universal Indicator, Chemical properties of Acids and Bases, Reaction of Acids and bases with Metals, Reaction of Acids with carbonates and metal hydrogen Carbonates, Neutralization reaction, Reaction of Acids with metal oxides, Reaction of base with non-metal oxide, Production of H^+ions and OH- ions, Electrical conductivity of Acids and Bases, Properties of Bases, Dilution, Strength of acid or base, pH scale, Importance of pH in everyday life, Self-defense by animals and plants through chemical warfare, Family of salts, pH of Salts, Chemicals from common salt, Important product from chlor-alkali process and their uses, Water of crystallization, Common salt, Bleaching Powder, Baking soda, Washing soda, Plaster of paris, Gypsum, and their uses.

PHYSICS

- Physical World
- Units and Measurements
- Motion in a Straight Line
- Motion in a Plane
- Laws of Motion
- Work, Energy and Power
- System of Particles and Rotational Motion
- Oscillations
- Gravitation
- Mechanical Properties of Solids
- Mechanical Properties of Fluids
- Thermal Properties of Matter
- Thermodynamics
- Kinetic Theory
- Waves
- Ray Optics and Optical Instruments
- Wave Optics
- Electric Charges and Fields
- Electrostatic Potential and Capacitance
- Current Electricity

- Moving Charges and Magnetism
- Magnetism and Matter
- Electromagnetic Induction
- Alternating Current
- Electromagnetic Waves
- Dual Nature Of Radiation And Matter
- Atoms

CHEMISTRY

- Atomic Structure
- Classification of Elements & Periodicity in Properties
- Chemical Bonding & Molecular Structure
- States of Matter: Gases and Liquids
- Stoichiometry
- Thermodynamics
- Chemical Equilibrium & Acids-Bases
- Hydrogen & it's compounds
- s-Block elements (Alkali & Alkaline Earth Metals)
- p-Block Elements Group 13 (Boron family)
- p-Block Elements Group 14 (Carbon family)
- Environmental Chemistry
- Organic Chemistry-Some Basic Principles & Techniques & Hydrocarbons
- Solid State
- Solutions
- Electrochemistry & Chemical Kinetics
- Surface Chemistry
- General Principles of Metalillurgy
- p-Block elements (Group-15,16,17,18 Elements)
- d & f Block Elements & Coordination Compoounds
- Polymers
- Biomolecules
- Chemistry in Everyday life
- Halo Alkanes & Haloarenes
- Organic Compounds containing C, H & O (Alcohols, Phenols, Ethers, Aldehydes, Ketones & Carboxylic acids)
- Organic Compounds Containing Nitrogen

V. Methodology (Marks: 20)

1. The Nature of Science: Nature and scope of science, Science, ideology and Society, Structure of Science (a) Substantive structure - Empirical knowledge, Theoretical Knowledge - (Facts, Concepts, hypothesis, theory, Principle Law), (b)Syntactic Structure of Science - Scientific inquiry, Processes of Science, Attitudes of inquiry

2. The History and Development of Science: A brief introduction to oriental and western science, Contribution of the following Scientists in the Development of Science: Aryabhatta, BhaskaraCharya, Aristotle, Copernicus, Newton, Einstein, C.V.Raman, Various organizations working for the development of science in India
3. Aims and Values of teaching Physical Sciences: Aims of teaching Physical Sciences, Values of teaching Physical Science, Correlation of Physics and Chemistry with other subjects
4. Objectives of teaching Physical Sciences: Meaning and importance of objectives, Bloom's Taxonomy of Educational objectives, Specific / Behavioral objectives / (Instructional objectives), Critique on Bloom's Taxonomy
5. Approaches and Methods of teaching Physical Sciences: Inductive and Deductive Approaches, Micro Teaching, Team Teaching, Lecture Method, Lecture cum Demonstration Method, Historical Method, Heuristic Method, Project Method, Laboratory method, Problem Solving Method, Scientific Method, Multimedia Approach in Teaching Learning process, Programmed Learning, CAI and CAL
6. Planning for effective instruction in Science: Year Plan, Unit Plan, Lesson Plan, Learning experience, characteristics, classification, source and relevance.
7. Teaching Learning Material (TLM): Characteristics and Importance of TLM, Classification and Types of TLM, Hardware and Software in TLM, TLM-Principles to be followed, Edgar Dale's cone of learning experience.
8. Science laboratories: Importance of Practical work in science, Planning of Science laboratories, Procurement, care and maintenance of laboratory equipment, Registers, Management of safety and science kits, Development of improvised Apparatus.
9. Physical Science Curriculum: Principles of Curriculum Construction, Defects in the existing school science curriculum, Qualities of a good Science Text Book.
10. Non-formal Science Education: Science Clubs, Science Fairs - purposes, levels, organization, advantages, Science Library, Role of NGOs and State in popularizing Science
11. Evaluation: Concept and Process of Evaluation, Tools of Evaluation, Preparation of Scholastic Achievement Test (SAT), Analysis and interpretation of Scores.

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC - 2024

Category of Post: PGT
Paper II – BIOLOGICAL Science Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education
   - Value Education – Moral Value and Professional Ethics in Education.
   - Health and Physical Education

- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**
   - Right of Children to Free and Compulsory Education Act - 2009
   - Right to Information Act - 2005
   - Child Rights
   - Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
   - 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. **Biological Sciences:** Importance and Human Welfare, Branches of Biology, Biologists.
2. **Living World:** Life and its Characteristics, Classification of Living Organisms, Nomenclature, different types of classification. Need for classification, Biological classification levels and Hierarchy of classification, species concept. Animal diversity, invertebrates, Chordates.
3. **Microbial World:** Virus, Bacteria, Algae, Fungi and Protozoan, Useful and Harmful Micro-organisms. Immunity, vaccination, Immunological disorders. Infections,
   life style diseases.
4. **Cell & Tissues:** Cell – Structure cell theory , cell organelles and their functions, differences between prokaryotic and Eukaryotic cells, plant cell and animal cell, cell cycle, cell division , Mitosis and Meiosis, tissues, structure, functions and types of plant and Animal tissues, Cancer biology, stem cells. Transportation of materials through the cells. Internal organization of plants, histology - anatomy of flowering plants.
5. **Plant World :** Morphology of a Typical Plant - Root, Stem, Leaf, Flower, Inflorescence, Fruit - their Structure, Types and Functions, Parts of a Flower, Seed dispersal Modifications of Root, Stem and Leaf, Photosynthesis, Transpiration, Transportation in plants (Ascent of Sap), Respiration, Excretion and Reproduction in Plants, Plant Hormones, food from the plants. Economic importance of Plants, Wild and Cultivated Plants, Agricultural Operations, Crop diseases and Control measures, Improvement in Crop yield, Storage, Preservation and Protection of Food and Plant Products. Single cell proteins (SCP), plant enzymes, mineral nutrition, plant growth and development.
6. **Animal World:** Organs and Organ Systems including man - Their Structure and Functions Digestive, Respiratory in human, type studies of the animals. Circulatory, . Immunology, Excretory, Locomotion in protozoa and humans - Muscular, Skeletal Systems, Nervous, Control and Coordination and Reproductive: Sexual, a sexual fission, syngamy, conjugation. Reproductive

health – Birth control methods, Sense Organs: Structure and Functions of Eye, Ear, Nose, Tongue and Skin. Nutrition in man - Nutrients and their functions, Balanced Diet, Deficiency diseases, Health - Tropical diseases (Viral, Bacterial, Protozoan, Helminth, Arthropod), Skin diseases (Fungal), Blindness in man: Causes, Prevention and Control, Health agencies, First Aid - Bites: Insect, Scorpion and Snakes, Fractures, Accidents, Life skills, Wild and Domesticated animals, Economic Importance of Animals, Animal Husbandry - Pisciculture, Sericulture, Poultry, Breeding of Cows and Buffaloes, animal behavior.

7. **Heredity and Evolution**: Terms, Mendel laws, Sex determination in humans, In heritance of Blood Groups, Erythroblastosis foetalis, Theories of Evolution, Speciation, Evidences of Evolution, Human Evolution, sex linkage, genetic disorders, syndromes, human genome project, evolutionary forces, DNA and finger printing.
8. **Our Environment – Ecology:** Abiotic and Biotic factors of Ecosystems, Ecosystem - Types, components, adaptations, Food chains, Food web and Ecological pyramids, Natural Resources
   - Type of water managements, soil waste land management, forests, sustainable development, fossil fuels and bio fuels, 4Rs, bio-geo-chemical cycles, pollution, air, water, soil, global environmental issues – global warming – (Green House Effect), acid rains and depletion of Ozone layer; Population - interaction in Eco-system, plant ecology.
9. **Recent Trends in Biology:** Hybridization, Gene - Genetic material, DNA , RNA, Genetic Engineering, Gene Bank, Gene Therapy, Tissue Culture and Bio-Technology – applications. Transgenic animals and plants, cloning, molecular diagnosis, bio medical technology, bio molecules, molecular biology.
10. **Biodiversity – Conservation:** Biodiversity – levels of bio diversity, conservation, wild life, sanctuaries, national parks in India, importance of species, diversity to the Ecosystem.

V. Teaching Methodology (Marks: 20)

1. The Nature & Scope of Science: A brief introduction of Oriental and Western Science, Nature of Science, Scope of Science, Substantive and Syntactic Structure of Science.
2. Aims and Values of Teaching Biological Sciences: Aims of teaching Biological Sciences, Values of teaching Biological Sciences.
3. Objectives of Teaching Biological Sciences: Importance of Objectives of Teaching Biological Sciences, Bloom's Taxonomy of Educational Objectives and limitations, Writing Instructional Objectives and Specifications.
4. Academic Standards in Biological Science.
5. Approaches and Methods of Teaching Biological Sciences: Inductive Approach and Deductive Approach, Methods of Teaching 1. Lecture Method, 2. Lecture cum Demonstration Method, 3. Heuristic Method, 4. Project Method, 5. Experimental Method, 6. Laboratory Method.

6. Planning for effective Instruction: Year Plan, Unit Plan, Lesson Plan - Herbartian and Bloom's Approach, Criteria for Evaluation of Lesson Plan. Self Evaluation and Peer Evaluation, Learning experiences - Characteristics, Classification, Sources and Relevance, Teaching - Learning Material and Resources in Biological Sciences.
7. Science Laboratories: Importance of Practical work in Biological Sciences, Planning Science Laboratory, Procurement, Care and Maintenance of Laboratory Equipment, Maintenance of different Registers, Safety and First aid, Development of Improvised Apparatus
8. Science Curriculum: Principles of Curriculum Construction, Defects in the existing School Science Curriculum, Correlation of Biological Sciences with other School Subjects, Qualities of a good Biological Science Text-book.
9. Biological Science Teacher: Qualities of a good Biological Sciences Teacher, Roles and Responsibilities
10. Non-formal Science Education: Science club, Eco-club, Blue-club, Red ribbon club, Science fairs - Objectives, levels of organizations, importance, Science Laboratories, Role of NGOS and State in popularizing science.
11. Evaluation: Concept and process of Measurement and Evaluation, Continuous Comprehensive Evaluation, Tools of Evaluation, Preparation of Scholastic Achievement Test(SAT), Analysis and interpretation of scores.

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024
Category of Post: PGT
Paper II – BOTANY Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education
   - Value Education – Moral Value and Professional Ethics in Education.
   - Health and Physical Education

- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. Classification of Plant Kingdom
2. Branches of Botany
3. Bacteria and Viruses: General account of Viruses: Characteristics, Chemistry, Ultra structure, Composition, Replication, Bacteriophage, Transmission of plant viruses. General account of Bacteria: Characteristics, Shape, Ultra structure of the cell, Nutrition, Reproduction, Classification and Importance.
4. Algae: Introduction and general classification of algae, criteria for the classification, thallus organisation of algae, economic importance of algae, general characteristics structure, reproduction, pigments, phylogeny, life cycles of Chlamedomonas, Volvox, Oedogonium, Chara, Vauchaeria, Ecocarpus, Polysiphonia.
5. Fungi: General characteristics of fungi, occurrence, thallus structure of fungi, modes of nutrition, reproduction, phylogeny of these types: Albugo, Mucor, Penicillium, Puccinia, Peziza, Alternaria. General account of Lichens, Economic importance of Fungi.
6. Bryophyta: General characteristics of Bryophyta, sporophyte, evolution in Bryophyta, classification of Bryophyta, structure, reproduction in Marchantia, Anthoceros, Polytrichum.
7. Pteridophyta: General characteristics of Pteridophyta, classification of Pteridophyta, structure, reproduction in Rhynia, Lycopodium, Equisetum and Marsilea.
8. Palaeobotany: Origin & evolution of land plants, Homospory, Heterospory, origin of seed, Telome theory and Origin of Sporophyte.
9. Gymnosperms: Characteristics and classification of Gymnosperms, Morphology, Life History & affinities of Cycas, Pinus & Gnetum.
10. Angiosperms: Taxonomy of Angiosperms, Systems of Classification: Hutchinson, Takhtajan, Pressey, Engler & Prantl, Bentham & Hooker.

Principles of taxonomy: Criteria of classification, categories of classification, International code of Botanical Nomenclature, principles, typification, citation & authority. Study of the following families with reference to their characteristics, economic importance and attributes etc. a) Annonaceae b) Malvaceae c) Fabaceae d) Caesalpinaceae e) Mimosaceae f) Cucurbitaceae g) Asclepiadaceae h) Euphorbiaceae i) Orchidaceae j) Rubiaceae k) Poaceae

11. Cell Biology and Anatomy: Ultra structure of cell and cell organelles, cell wall structure, tissue and tissue systems, meristems, shoot & root apices, normal & anomalous secondary growth.

12. Cytology, genetics and Evolution: Mitosis and Meiosis; Chromosome (Morphology, Structure, importance); concept of gene laws of inheritance; gene action; genetic code; linkage and crossing over; general account of mutations; polyploidy and its role in crop improvement, Concept of Primitive flower; development of anther and ovule; general account of embryosac and types of embryo; fertilization; endosperm morphology and types; polyembryony and apomixes.

13. Ecology: Ecosystem: Concept, biotic & abiotic components, ecological pyramids, productivity. Biogeochemical cycles (Carbon, Nitrogen, Sulphur, Phosphorous cycles), Plant succession – Xerosere and Hydrosere Bio-diversity and conservation.

14. Physiology Absorption and translocation of water; Transpiration and stomatal behaviour; Absorption and uptake of Ions, Donnan's equilibrium; Role of micronutrients in plant growth; Translocation of solutes; Photosynthesis (Light and dark reaction, Red drop, Emerson effect, Two pigment systems, Mechanism of Hydrogen transfer, Calvin cycle, Enzymes of CO_2 reduction, Hatch and slack cycle, C4 cycle, CAM Pathway, Factors affecting photosynthesis, Pigments.); Respiration (Glycolysis, Pentose phosphate shunt, structure and role of mitochondria, Kreb's cycle, Oxidative Phosphorylation, Photorespiration, respiratory quotient, fermentation, Pasteur effect, factors affecting.); The enzymes (Nomenclature and classification, structure and composition, Mode of enzyme action , Factors affecting.); Nitrogen metabolism and bio synthesis of proteins, Nitrogen fixation, Nitrogen cycle, (Physical and Biological); Nitrogen assimilation, Amino acid metabolism, Plant Hormones(Auxins, Gibberellins, Cytokinins, Abscissic acid – general account.)

15. Economic Botany: Utilisation of plants, food plants, fibres, vegetable oils, wood yielding plants, spices, medicinal plants, beverages and rubber.

16. Recent aspects of Botany: Genetic Engineering; Plant tissue culture; Social forestry; Environmental Pollution (Water, Soil, Air) Health hazards and control, Biotechnology.

V. Teaching Methodology (Marks: 20)

1. The Nature & Scope of Science: A brief introduction of Oriental and Western Science, Nature of Science, Scope of Science, Substantive and Syntactic Structure of Science.
2. Aims and Values of Teaching Biological Sciences: Aims of teaching Biological Sciences, Values of teaching Biological Sciences.

3. Objectives of Teaching Biological Sciences: Importance of Objectives of Teaching Biological Sciences, Bloom's Taxonomy of Educational Objectives and limitations, Writing Instructional Objectives and Specifications.

4. Approaches and Methods of Teaching Biological Sciences: Inductive Approach and Deductive Approach, Methods of Teaching 1. Lecture Method, 2. Lecture cum Demonstration Method, 3. Heuristic Method, 4. Project Method, 5. Experimental Method, 6. Laboratory Method.

5. Planning for effective Instruction: Year Plan, Unit Plan, Lesson Plan – Herbartian and Bloom's Approach, Criteria for Evaluation of Lesson Plan. Self Evaluation and Peer Evaluation, Learning experiences – Characteristics, Classification, Sources and Relevance, Teaching – Learning Material and Resources in Biological Sciences.
6. Science Laboratories: Importance of Practical work in Biological Sciences, Planning Science Laboratory, Procurement, Care and Maintenance of Laboratory Equipment, Maintenance of different Registers, Safety and First aid, Development of Improvised Apparatus.
7. Science Curriculum: Principles of Curriculum Construction, Defects in the existing School Science Curriculum, Correlation of Biological Sciences with other School Subjects, Qualities of a good Biological Science Text-book.
8. Biological Science Teacher: Qualities of a good Biological Sciences Teacher, Roles and Responsibilities.

9. Non-formal Science Education: Science club, Eco-club, Blue-club, Red ribbon club, Science fairs – Objectives, levels of organizations, importance, Science Laboratories, Role of NGO`S and State in popularizing science.

10. Evaluation: Concept and process of Measurement and Evaluation, Continuous Comprehensive Evaluation, Tools of Evaluation, Preparation of Scholastic Achievement Test (SAT), Analysis and interpretation of scores.

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024

Category of Post: PGT
Paper II – ZOOLOGY Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.

- Adolescence Education
- Value Education – Moral Value and Professional Ethics in Education.
- Health and Physical Education
- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (Skinner, Pavlov, Thorndike) Constructivism (Piaget, Vygotsky), Gestalt(Kohler, Koffka) and Observational (Bandura)
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- 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
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- 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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. **Classification of Animal Kingdom**
2. **Non Chordata**

   Classification of Non Chordata

   General characteristics and features of

Protozoa	:	Polystomella, Trypanozoma type study.
Porifera	:	Canal system, histology & Spicules.
Cnideria	:	Obelia type study,
Platihelmenthes	:	Fasciola type study,
Nematodes	:	Ascaris
Annelida	:	Earth worm, Leech type study
Arthropoda	:	Palaemon type study
Mollusca	:	Snail type study
Echinodermata	:	Star fish type study

3. **Chordata**

   Classification of Chordata

   General characteristics and type study of the following with reference to skeletal system, respiratory system, circulatory system and nervous system.

Pisces	:	Scoliodon
Amphibia	:	Frog
Reptilia	:	Calotes
Aves	:	Pigeon
Mammalia	:	Rabbit

4. **Cell Biology:** Ultra structure of the cell: Plasma membrane, mitochondria, Golgi bodies, Nucleus, Endoplasmic Reticulam, Ribosomes, Chromosomes and their fine structure, Mitosis and Meiosis, DNA & RNA and Genetic Code, Protein Synthesis, tissues.
5. **Genetics:** Mendel's Law of inheritance – critical view, Linkage, crossing-over, sex-linked inheritance, mutations, inborn errors of Metabolism, human Genetics and genetic engineering.

6. **Physiology:** Vitamins, Enzymes, Carbohydrates, Proteins and Lipids metabolism, Osmoregulation, Thermo-regulation, Excretion in vertebrates, muscle contraction, Nerve Impulse, vertebrate hormones and Mammalian reproduction.
7. **Animal Behaviour:** Taxis, reflexes, instinctive behaviour, motivatived behaviour, learning imprinting, habituation, classical conditioning, instrumental conditioning, trial and error learning, physiology and phylogeny of leaning, biological rhythms – circadian, lunar and circannual rhythms.

8. **Developmental Biology:** Gastrulation in Frog and Chick, Development of Chick upto 24 hrs, Foetal membranes of chick, Placenta in Mammals (Formation and types)

9. **Evolution:** Origin of Life – Modern concepts, theories of Evolution, Isolation, Speciation, Natural Selection, Hardy Weinberg's Law, population genetics and evolution, adaptations, evolution of Man.Zoogeographical realms of the world.

10. **Ecology:** Concept of Ecosystem, Biogeochemical cycles, influence of environmental factors on animals , energy flow in Ecosystem, food chains & tropic levels, community ecology. Ecological Succession, Environmental Pollution – Air, water, land, noise, radioactive, thermal and visual; Effects of pollution on ecosystem, prevention of pollution.

11. Wild Life in India and Conservation of Wild Life.

V. Teaching Methodology (Marks: 20)

1. The Nature & Scope of Science: A brief introduction of Oriental and Western Science, Nature of Science, Scope of Science, Substantive and Syntactic Structure of Science.
2. Aims and Values of Teaching Biological Sciences: Aims of teaching Biological Sciences, Values of teaching Biological Sciences.
3. Objectives of Teaching Biological Sciences: Importance of Objectives of Teaching Biological Sciences, Bloom's Taxonomy of Educational Objectives and limitations, Writing Instructional Objectives and Specifications.
4. Approaches and Methods of Teaching Biological Sciences: Inductive Approach and Deductive Approach, Methods of Teaching 1. Lecture Method, 2. Lecture cum Demonstration Method, 3. Heuristic Method, 4. Project Method, 5. Experimental Method, 6. Laboratory Method.
5. Planning for effective Instruction: Year Plan, Unit Plan, Lesson Plan – Herbartian and Bloom's Approach, Criteria for Evaluation of Lesson Plan. Self Evaluation and Peer Evaluation, Learning experiences – Characteristics, Classification, Sources and Relevance, Teaching – Learning Material and Resources in Biological Sciences.
6. Science Laboratories: Importance of Practical work in Biological Sciences, Planning Science Laboratory, Procurement, Care and Maintenance of Laboratory Equipment, Maintenance of different Registers, Safety and First aid, Development of Improvised Apparatus.
7. Science Curriculum: Principles of Curriculum Construction, Defects in the existing School Science Curriculum, Correlation of Biological Sciences with other School Subjects, Qualities of a good Biological Science Text-book.
8. Biological Science Teacher: Qualities of a good Biological Sciences Teacher, Roles and Responsibilities.
9. Non-formal Science Education: Science club, Eco-club, Blue-club, Red ribbon club, Science fairs – Objectives, levels of organizations, importance, Science Laboratories, Role of NGO`S and State in popularizing science.
10. Evaluation: Concept and process of Measurement and Evaluation, Continuous Comprehensive Evaluation, Tools of Evaluation, Preparation of Scholastic Achievement Test(SAT), Analysis and interpretation of scores.

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024
Category of Posts: PGT
Paper – II - Social Studies - Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education
   - Value Education – Moral Value and Professional Ethics in Education.
   - Health and Physical Education
   - Inclusive Education - Classroom Management in Inclusive Education

- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**
   - Right of Children to Free and Compulsory Education Act - 2009
   - Right to Information Act - 2005
   - Child Rights
   - Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
   - 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

Theme - I: Diversity on the Earth

Universe- origin, Galaxy, Celestial bodies, Constellations, The Solar System, Our Earth ; Globe, Axis, Latitudes, Longitudes, Movements of the Earth, Equinox, Eclipses, Components of the Environment, Maps- Types, Components, Conventional Symbols, uses; Forests - Climatic regions, Types of forests, Uses, Forests in AP, Deforestation, Social Forestry and Conservation; Landforms - Major Landforms of AP, Podu Cultivation, Diversity in Lifestyles; Resources-Types, Conservation; Land, Soil, Water, Natural Vegetation and Wildlife Resources, Landslides, Factors of Soil formation, Degradation of soil and conservation measures, Water problems of water availability; India Size and Location, India's Neighbours, India Relief Features-Major Relief Divisions, Climate of India-Monsoon, Climogrphs, Climatic Controls, Drainage-The Himalayan Rivers and Peninsular rivers and river pollution, Indian Rivers and Water Resources.

Theme - II: Production Exchange and Livelihoods

Markets around us-Types of Markets, Consumer Protection; Road Safety-Traffic Signs, Road marking signs-using methods, Road safety measures, pedestrian safety, safe cycling, safety travelling; Mineral and Power Resources- Types of Minerals, Distribution, Conservation, Power Resources -Conventional, Non-Conventional; Agriculture- Types of farming, major crops; Industries-Classification, Distribution ; Human Resources-Population Density, Population size and distribution, Population Change Population growth, National population policy; Population composition; Weavers, Iron Smelters and Factory Owners- Indian Textiles and the World Market, The Sword of Tippu Sultan and Woods Steel; Public Facilities-Water as part of the Fundamental Right to life, Govt. role, The story of village Palampur, Ideas of Development-HDI, Production and Employment-GDP, organised, Unorganised Sectors, The People-Census, Changing Population Size, People as a Resource-Economic activities by men and women Quality of population, Unemployment, Poverty as a Challenge-Poverty line, Global poverty Scenario, anti-poverty measures, People and Settlement-Urbanisation, People and Migration-Rural, Urban and Seasonal, Temporary, International migrations, Rampur: A Village Economy, Globalisation-MNC,WTO, Food Security-Food Security in India, Access to Food, Nutritional status, MSP, PDS; Role of Cooperatives in Food Security, Sustainable Development with Equity.

Theme -III: Political Systems and Governance

Early life to Settled life - Belum Caves, Rock Paintings; Emergence of Kingdoms and Republics-Janapadas, Mahajanapadas; kingdoms and Empires- Mauryan, Gupta, Satavahana, Pallava, Chalukya; Delhi Sultanate; Kakatiya Kingdom, Vijayanagara Empire, Mughal Empire,How When and Where,From Trade to Territory- The company establishes Power -

East India Company, The Battle of Plassey, Tipu sultan, The Doctrine of Lapse; Ruling the Countryside - The company becomes the Diwan, The need to improve Agriculture, Munro System, Crops for Europe, Why the demand for indian Indigo?, The Blue Rebellion and After; Tribals, Dikus and the Vision of a Golden Age-How did Tribal groups live?, How did colonial rule affect tribal lives?; Forest Loss and their Impact, Birsa Munda; When people rebel 1857 and after-Policies and the people, Through the Eyes of the people, A Mutiny becomes a popular Rebellion, The Company fights back; Civilizing the "Native" Educating the nation-How the British saw Education, The agenda for a National education of British; The making of the National Movement-1870's - 1947,The Emergence of Nationalism, The growth of mass Nationalists, Dandi March, Quit India and Later; India after Independence-A new and Divided Nation, A Constitution is written, How were States to be formed, Planning for development, A Nation sixty years on; The French Revolution, Socialism in Europe and the Russian Revolution, Nazism and the rise of the Hilter, Forest society and Colonialism, Pastoralists in the Modern World, The World Between Wars Part-1,2, National Liberation Movement in the Colonies-China, Vietnam, Nigeria, National Movement in India and Partition and Independence:1939-1947, Independent India[The First 30 years-1947-77],Emerging Political Trends 1977-2000,Post-War World and India-UNO, Cold War, Military Alliances, India and its Neighbours.

Theme -IV: Social Organisation and Inequities

Towards Equality- Diversity, discrimination, Types, Constitutional Provisions; Women Change the World- Women's movement, Inspirational Women; Women, Caste and Reform-Working towards Change-Changing the lives of widows, Girls begin to going to School, Women write about Women, Caste and Social Reform-Gulamgiri who could enter, The Non Brahman movement; Indian Constitution - Introduction, Key features, Fundamental Rights and Duties ;Government- Types, Levels, Local self-Government, State Government-Legislative, Executive, Judiciary; Working of Institutions, Understanding Secularism; Why do we need Parliament, The role of the Parliament, Houses of Parliament, Who are the people in parliament?; Understanding Laws-How do new laws come out?, Unpopular and Controversial Laws, Judiciary-Independent Judiciary, Structure of Courts in India, Different Branches of the Legal System, Understanding Our Criminal Justice System-Role of the police, Public prosecutor, Judge, What is a Trial Crime?; Understanding Marginalisation-Who are Adivasis?, Adivasis and development, Minorities and Marginalisation; Confronting Marginalisation-Invoking Fundamental Rights, Laws for the Marginalised, Protecting the Rights of Dalits and Adivasis, Adivasi demands and 1989 Act; Law and Social Justice-Bhopal Gas tragedy, Enforcement of safety Laws, New Laws to protect the Environment, What is Democracy? why Democracy?, Constitutional Design-Democratic Constitution in South Africa, Struggle against Apartheid, Electoral politics, Democratic Rights, The Making of Independent India's Constitution, Social Movements in Our Times, Citizens and the Governments-RTI, Legal Service Authority.

Theme - V: Religion and Society

Religions-Hinduism, Jainism, Buddhism, Islam, Sikhism, Unity in Diversity; Bhakti Movement - Sufi Movement;

Theme -VI: Culture and Communication

Early Civilisations-Indus, Vedic period, Vedic Literature, Indian Culture, Languages.

Geography:

General Geography-Definition and scope of Geography – Branches of Geography-Geography as an integrating Discipline and as Spacial Science with physical, biological and social sciences.
Solar System-Origin and Evolution of solar system-Rotation and Revolution of the Earth and their effects-Latitudes and Longitudes-Standard Time and International Date line.
The Earth - Interior of the Earth-Wegner's theory of continental drift -Major Rock types and their characteristics.
Geomorphology -Major landforms: Mountains, Plateaus and Plains-Geomorphic Process: Weathering - Physical and Chemical Weathering-Landforms associated with wind and river – Erosional and depositional.
Climatology -Climate: Elements of weather and climate-Atmosphere: Composition and structure of atmosphere -Insolation: Insolation and Heat Budget of the Planet Earth-Temperature: Factors influencing Temperature, Vertical and horizontal distribution of temperature Pressure- Global pressure belts Winds Planetary winds, Seasonal and Local winds-Precipitation: Forms and types of rain fall (Convectional, Orographic and Cyclonic rain fall).
Bio geography -Biomes of the world- Equatorial, Tropical and Temporate -Biodiversity and Conservation -Concept of Ecosystem and Ecological Balance- Oceanography, Hydrology and Natural hazards
Oceanography-Divisions of the Ocean floor- Continental shelf, Continental slope, Deep Sea plains and Ocean deeps-Ocean Temperatures- Vertical and horizontal distribution-Ocean Salinity Definition, vertical and horizontal distribution-Oceanic Movements: Waves, Tides and Currents, (Currents of Atlantic, Pacific and Indian Ocean)
Hydrology-Elements of Hydrological cycle: Precipitation, evaporation, evapo-transpiration, run off, infiltration and recharge -Hydrological Cycle.
Natural Hazards-Causes and Spatial distribution of floods, droughts, cyclones, Tsunamis, Earthquakes and landslidesGlobal Warming and its consequences-Disaster Management in India-Human Geography : Definition, Content and scope- Man and Environment: Definition, Content, Classification of environment-Environmental impact World Population : Growth, Factors influencing, density and distribution
Human activities - Primary, Secondary and tertiary activities-Resources - Definition, Classification and Conservation-Agriculture -Definition, Types, food crops (Rice and wheat) Nonfood crops (Cotton, Sugarcane) and Plantation crops-(Rubber, tea and coffee) their Significance, Conditions - for cultivation, production and distribution.
Definition and Classification (Metallic - Iron), non Metallic – bauxite and (fuel minerals - coal andpetroleum) Industries - Location factors, types of industries -Agro – based (Cotton textiles) Forest based (Paper mills) -Mineral based (Iron and steel) - Chemical based (Fertilizers)- Transportation -Road ways, Railways, Water ways and Air ways - Rail ways-Intensive net work rail way, Regional rail-ways and Trans continental railways - Water ways-

Mjor sea ports: London, San Francisco-Reo De Janeiro, Cape Town, Kolkata and Sydney-Major Air ports- Tokyo, Paris, Chicago, Bogota and -Wellington
Physical features of India - Major features - Northern mountains, Indo – Gangetic-plains, Peninsular plateau of India and coastal plains- Major rivers of India - Perennial rivers- Indus, Ganges and Brahmaputra-Non Perennial rivers- Narmada, Tapati, Mahanadi, -Godavari, Krishna, Pennar and Cauvery - Climate of India - Cold weather season: Temperature Rainfall &Pressure distribution Hot weather season- Temperature, Rainfall &Pressure distribution South west monsoon season- Temperature, Rainfall &Pressure distributionNorth east monsoon season: Temperature, Rainfall &Pressure distribution-Natural vegetation of India-Types of vegetation based on rainfall and their-distribution. Evergreen forest, deciduous forest, scrub -forest,& Thorny forest -Soils - Definition, factors for formation, types and -their distribution.
Population- Growth trends from 1901 to 2001, Distribution based-on density, problems of high population- Irrigation-Types of irrigation: canals, wells and tanks. Major -multipurpose projects. Bakranangal, Hirakud, -Damodarvalley corporation and Nagarjuna Sagar-Agriculture: Cropped area, production and distribution of -selected crops: Rice, Wheat, Millets, Coffee, Tea,Sugarcane, Cotton, Jute and tobacco; Problems ofIndian agriculture.
Minerals- Production and distribution of coal, petroleum, iron,mica and manganese, bauxite. Industries- Location factors growth and distribution of iron andsteel, cotton textile and ship building industries- Transportation-Means of Transport – Road ways, Rail ways, Water -ways and Air ways; Major ports of India – Mumbai, -Cochin, Kandla, Kolkata, Visakhapatnam and Chennai.
Geography of Andhra Pradesh: Location, Physiography and Climate, Population.

History:

What is History: Definition - Scope – Sources – Historiography – Relationship with other Social Sciences – Impact of Geography on history - Relevance of History.
Ancient Civilizations and Culture : Pre Harappan Cultures - Harappan Civilization – Script, town planning, society, economy and culture - Vedic age and Post Vedic Culture.
Early States, Empires and Economy : Early States – 16 Mahajanapadas - Rise of Magadha – Economy and Agriculture – urbanization.
Early Societies, and religious movements: Early Societies – Social differences – Religious movements – Jainism – Buddhism and other sects Ajjivikas and Lokayats.
Polity, Economy, Society and Culture between 3rd to 7th Century A.D. :Mauryas - Kushanas – Guptas – Pushyabhuties – Origin of feudalism – Polity, Society, Economy and Culture.
Deccan and South India up to 8th A.D: Sangam age – Satavahanas – Pallavas – Chalukyas – Rastrakutas – Cholas – Polity, Society, Economy and culture.
Age of Delhi Sultanate: Sources/Travellors Accounts - Arab Invasions – Turkish invasions – Delhi Sultanate – Polity, Economy, Society and Culture.
Age of Mughals: Chronicles/Sources – Mughal rule – Babur, Humayun, Shershah, Akbar, Jahangir, ShahJahan and Aurangazeb - Polity, Economy, Society and culture - Disintegration - Maratas, Sikhs.
Bhakti and Sufi Traditions 8 A.D. 16 Century A.D: Prevailing Religious Traditions and beliefs in the Society – Bhakti Saints and their Preachings – Sufism – Main features and their impact.
Deccan and South India 8th A.D – 16 the A.D : Sources - Kakatiyas – Vijyanagara – Bahamanis – Qutbshahis and Asafjahis – a brief survey.
India under the Colonial Rule : Sources - Portuguese – Dutch – French – English East India Company – Era of Governor Generals and their Polices – Reforms of Viceroys – 1857 Mutiny.

Indian National Movement: Background to National Movement, Socio-religious movement – rise of Nationalism – Vandemataram movement – Home rule movement – Emergence of Mahatma Gandhi and leadership – Revolutionary movement, Subhash Chandra Bose – Poona Pact Quit India movement – Partition of India – Emergence of Independent India.
The Modern World- Beginning of Modern Age, Renaissance, Development in Science, The Reformation Movement, Rise of Nation States, Struggle against Absolute Monarchies - Capitalism and Industrial Revolution -The Revolutionary Movements -The Glorious Revolution, The American war of Independence, The French Revolution of 1789 - .Nationalist Movements: Rise and fall of Napoleon, French Revolution of 1830 and the 1848 Revolt, Unification of Germany and Italy, Socialist Movements – Rise of Working class, Paris Commune of 1871
Imperialism: Factors in the rise of Imperialism, Forms and Methods of Imperialism, Scramble for Africa and Asia
Contemporary World: The First World war, League of Nations, The Russian Revolution of 1905 and 1917 -The World upto World War II: Rise of Fascism and Nazism, Militarism in Japan, U.S.A. and U.S.S.R. after World War I, Turkey after World War I, Failure of League of Nations, Spanish Civil war, World war II, The Nationalist Movements in Asia and Africa, Emergence of Latin America
The World after World War II: Formation of Military Blocks, Role of independent Nations of Asia and Africa in the World Affairs, Non-Alignment Movement, Role of UNO in preserving World Peace, Problems of Disarmament and Nuclear Weapons, Prominent Personalities of the World.

Civics:

Scope and Significance of political Science - Introduction to Civics and Political Science, Origin and Evolution, Meaning, Definitions, What do we study? Why do we study?
State - State – Meaning, Definitions, Elements, Relation of state with other Institutions – Society, Association, Government.
Nationalism - Nation, Nationality, Nationalism, Factors contributing for Nationality, Is India a Nation? Meaning, Forms (Traditional and modern)
law -Meaning, Definitions, Classification, Law and morality, Rule of Law. Liberty and Equality – Meaning, Definitions, Types, Safeguards, Liberty – Equality.
Rights and Responsibilities– Meaning, Definitions, functions Forms, Relationship between Rights and Responsibilities, Human Rights
Justice - Justice – Meaning, Forms of Justice, Social Justice.
Citizenship - Meaning, Definitions, Methods of Acquiring, Citizen – Alien , Loss of Citizenship, Hindrances to Good Citizenship, Universal Citizenship
Democracy- Meaning, Definitions, features, types, merits, devices, future
Secularism -Meaning, Secular State, Western Model, Indian Model, Why India was made a Secular State? Criticism of Indian Secularism
Constitution– Meaning, Definitions, features, Classification
Government - Unitary, Federal, Parliamentary, Presidential, Theory of Separation of Powers, Organs of Government
Indian Constitution: Indian National Movement- Government of India Acts – 1909, 1919 & 1935-
Salient features of Indian Constitution
Fundamental Rights &Directive Principles of State Policy- Fundamental Rights- Directive Principles of state Policy- Fundamental Duties
Union Government- Union Executive – President of India - Vice – President of India - Prime Minister & Council of Ministers

Indian Parliament - LokSabha-Composition – Powers and functions- Rajya Sabha: Composition – Powers and functions
Parliamentary Committees- Public Accounts Committee – Estimates -Committee – Committee on Public Undertakings
Union Judiciary - Supreme Court of India – Composition- Powers and Functions of Supreme Court -of India - Judicial Review
State Government- State Executive – Governor- Powers and Functions-Chief Minister - Powers and Functions- Council of Ministers
State Legislature-Legislative Assembly- Composition – Powers and Functions- Legislative Council-Composition – Powers and Functions - Legislative Committees: Public Accounts Committee – Estimates-Committee and Ethics Committee
State Judiciary-High Court – Composition- Powers and Functions of High Court- District Courts: Composition – Powers and Functions.
Union – State Relations - Legislative Relations-Administrative Relations - Financial Relations.
Local Government - Rural Local Government-Panchayati Raj Institutions – 73rd Constitution Amendment Act- Urban Local Government: Municipalities - Municipal Corporation – 74th Constitution Amendment Act- District Collector: Role in Local Governments
India's Foreign Policy - Determinants of Foreign Policy- Basic features of India's Foreign Policy-
South Asian Association for Regional Cooperation (SAARC)
United Nation Organization (UNO)-Origin of UNO-Principal Organs of UNO- Achievements and failures of UNO
Contemporary Trends and Issues- Globalization- Terrorism-Corruption.

Economics:

Origin and meaning of Economics - Definitions of Economics; Adam Smith, Alfred Marshall, Lionel Robbins, Paul Samuelson, & Jocob Viner- Concept of Economics – Micro & Macro Economics Deductive and Inductive Method, Static and Dynamic Analysis, Positive and Normative Economics. Goods: (Free, Economic, Consumer, Producer, and Intermediary), Wealth, Income, Utility, Value, Price, wants and welfare.
Theory of Consumption - Cardinal and Ordinal Utility, the law of Diminishing Marginal Utility – Limitations – Importance; law of Equi-Marginal Utility Limitations and – Importance of the Law, Indifference Curve Analysis – Properties and Consumer's Equilibrium.
Theory of Demand - Meaning – Demand Function – Determinants of Demand, Demand Schedule – Demand Curve, Law of Demand, Exceptions to Law of Demand - Causes for the downward slope of the demand curve, Types of Demand – Price Demand, Income Demand, and Cross Demand- Elasticity of Demand – Meaning and Types – Price Elasticity, and Income Elasticity and Cross Elasticity – Price Elasticity-Types; Measurement of Price Elasticity of Demand- Point Method. Arc Method, Total Outlay Method. Determinants of Elasticity of Demand; Importance of Elasticity of Demand.
Theory of Production - Meaning - Production Function – Factors of Production; Short-run and Long-run Production Function; Law of variable proportions - Law of returns to scale; Economies of Scale - Internal and External- Supply – Supply Function - Determinants of Supply — Law of Supply- Cost Analysis – Basic Concepts of Costs- (Money, Real, Opportunity, Fixed and Variable, Total, Average and Marginal costs)- Revenue Analysis – Revenue under perfect and imperfect competition.

Theory of Value - Meaning and Classification of Markets – Perfect competition – features – price determination- Short-run and Long-run equilibrium of a firm and Industry- Imperfect Competition – Monopoly – Price Determination – Price-Discrimination-Monopolistic Competition- Features- Meaning of Oligopoly – Duopoly.

Theory of Distribution - Determination of Factor Prices – Marginal Productivity Theory - Rent – Ricardian theory of Rent – Modern theory - Quasi Rent – Transfer earnings - Wages – Meaning and types of wages – Money and Real wages - Interest- Meaning – Gross and Net interests - Profits – Meaning – Gross and Net profits.

National Income : Definitions of National Income and Concepts- Measurement of National Income – Census of Product Method – Census of Income Method – Census of Expenditure Method- Methods of Measuring National Income in India; Problems and importance

Macro Economic Aspects - Classical theory of Employment –J.B. Say Law of Markets- Limitations – J.M. Keynes Effective Demand- Public Economics - Public Revenue – Public Expenditure – Public debt – Components of Budget.

Money, Banking and Inflation - Money – Definitions and Functions of money – Types of Money - Banking – Commercial Banks – Functions; Central Bank – Functions – Reserve Bank of India – Net Banking- Inflation – Definitions – Types – Causes and Effects of inflation – Remedial Measures.

Statistics for Economics - Meaning, Scope and Importance of Statistics in Economics with Diagrams (Bar diagrams and Pie diagrams)-Measures of central tendency – Mean, Median, Mode.

Economic Growth And Development - Differences Between Economic Growth and Development classification of the world countries - Indicators of Economic development - Determinants of Economic Development - Characteristic features of Developed Countries - Characteristic features of Developing countries with special reference to India

Population and Human Resources Development - Theory of Demographic Transition - World Population - Causes of rapid Growth of population in India - Occupational distribution of population of India - Meaning of Human Resources Development - Role of Education and Health in Economic Development- Human Development Index (HDI)

National Income - Trends in the growth of India's National Income - Trends in distribution of national income by industry Origin - Share of Public Sector and Private Sector in Gross Domestic Product - Share of Organised and Un-organised Sector in Net Domestic Product - Income Inequalities - Causes of Income Inequalities - Measures to control income inequalities -Unemployment in India – Poverty - Micro Finace-Eradication of Poverty

Agriculture Sector-Importance of agriculture in India - Features of Indian agriculture - Agriculture Labour in India - Land utilization pattern in India - Cropping pattern in India - Organic Farming -Irrigation facilities in India - Productivity of agriculture - Land holdings in India - Land reforms in India - Green Revolution in India - Rural credit in India - Rural Indebtedness in India - Agricultural

Marketing - Industrial Sector - Significance of the Indian Industrial Sector in Post –Reform Period -Industrial Policy Resolution 1948 - Industrial Policy Resolution 1956 - Industrial Policy Resolution 1991 - National Manufacturing Policy- Disinvestment - National Investment Fund (NIF) -Foreign Direct Investment -Special Economic Zones (SEZs) - Causes of industrial backwardness in India -Small Scale Enterprises (MSMEs) - Industrial Estates - Industrial Finance in India - The Industrial Development under the Five Year Plans in India.

Tertiary Sector - Importance of Services Sector -India's Services Sector - State-Wise Comparison of Services - Infrastructure Development - Tourism - Banking and Insurance - Communication -Science and Technology - Software Industry in India

Planning And Economic Reforms - Meaning of Planning -NITI Ayog -Five Year Plans in India - XII Five Year Plan - Regional Imbalances - Role of Trade in Economic Development - Economic Reforms in India - GATT – WTO

Environment and Sustainable Economic Development - Environment - Economic Development -Environment and Economic Linkages. - Harmony between Environment & Economy

Economy Of Andhra Pradesh - History of Andhra Pradesh - Characteristic features of A.P. Economy -Demographic features - Occupational distribution of labour - Health Sector - Education -Environment - Agricultural sector - Industrial sector - Service and Infrastructure sector - Information and Technology - Tourism -Andhra Pradesh and Welfare Programmes/ Schemes

Economic Statistics - Measures of Dispersion - Definitions of Dispersion - Importance of Measuring Variation -Properties of a good measure of variation -Methods of Studying Variation - Measures of Dispersion for average - Lorenz Curve - Correlation -Index Numbers - Weighted Aggregation Method.

V. Methodology (Marks: 20)

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 on 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 specialneed

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024

Category of Post: PGT
Paper II – CIVICS Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
   - Adolescence Education
   - Value Education – Moral Value and Professional Ethics in Education.

- Health and Physical Education
- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

I.

1. Concepts, Theories and Institutions:
   a. Introduction: Definition, Scope and importance of political Science
   b. State: Nation formation and its functions
   c. Law: Sources of Law
   d. Liberty and Equality: Their relationship
   e. Kinds of rights
2. Ideologies; Individualism, Anarchism, Fascism and Socialism
3. Forms of Government
   a. Democracy: Direct and Indirect
   b. Unitary and Federal
   c. Parliamentary and Presidential

   Organs of Government

   a. Legislature
   b. Executive
   c. Judiciary

II. Indian Government and policies

1. Evolution of Indian Constitution
2. Indian Federation: Centre State relations
3. Fundamental rights, duties, Constitutional remedies.
4. President: Election, Powers functions, Prime Minister and Council of Minister.
5. Parliament Composition Powers, Judicial review
6. Judiciary: Supreme Court, Powers, Judicial review.

7. Election commission: Electoral reforms, Voting Behaviour.
8. Local Government: 73rd and 74th Amendments.

III. Political Thought

1. Indian Political Thought
   a. Manu
   b. Koutilya
   c. Gandhi
   d. Ambedkar

IV. Control over Administration

1. Legislative control
2. Executive control
3. Judicial Control
4. Lok Pal
5. Lokayukta

V. Government and Politics in Andhra Pradesh

1. Historical Background of the A.P.: Socio – Political Struggle in Hyderabad State
2. States Reorganization and Formation of Andhra Pradesh Party System: National and Regional Parties pressure Groups.

V. Teaching Methodology (Marks: 20)

1. Social Studies – Meaning, Nature and Scope: Defining Social Studies, Main features of Social Studies, Social Studies and Social Sciences differentiated, Scope of Social Studies – Types of Subject material and learning experiences included in the study of Social Studies, Need and importance of Social Studies.
2. Values, Aims and Objectives of Teaching Social Studies: Values of teaching Social Studies, Aims of teaching Social Studies at Secondary Level, Instructional Objectives of teaching Social Studies, Relationship of instructional objectives with general aims and objectives of Social Studies, Taxonomy of Educational and instructional objectives, Writing objectives in behavioural terms.
3. Social Studies Curriculum: Social Studies as a Core subject, Principles of Curriculum Construction in Social Studies, Organization of subject matter – different approaches correlated, integrated, topical, concentric, unit and chronological.
4. Instructional Strategies in Social Studies: Techniques, devices and maxims, Different methods of teaching Social Studies - Story telling, lecture, source, discussion, project, problem, inductive, deductive, observation, assignment – socialized recitation, Team teaching, Supervised study.
5. Planning for Instruction: Developing teaching skills through Micro-teaching, Year Planning, Unit Planning, Lesson Planning
6. Instructional Material and Resources: Text books, work books, supplementary material syllabus, curriculum guides, hand books, Audio visual, Social Studies

laboratory, library, clubs and museum, Utilizing community resources.

7. Social Studies Teacher: Qualities of a good Social Studies teacher, Roles and responsibilities.
8. Evaluation in Social Studies: Concept and purpose, Types of Evaluation, Evaluation as a continuous and comprehensive process, Different techniques of Evaluation, Preparation for Scholastic Achievement test

Government of Andhra Pradesh
Department of School Education
State Council of Educational Research & Training
DSC-2024

Category of Post: PGT
Paper II – ECONOMICS Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
5.	**Methodology**	-	**20M**
	Total	-	**100 M**

PART – I

I. General Knowledge And Current Affairs (Marks: 10)

PART - II

II. Perspectives in Education (Marks: 10)

1. **History of Education :**
   - The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
   - Education in Pre Independent era - Woods Despatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
   - Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992
2. **Teacher Empowerment:**
   - Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.
3. **Educational Concerns in Contemporary India:**
   - Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
   - Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
   - Population Education, Gender - Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.

- Adolescence Education
- Value Education – Moral Value and Professional Ethics in Education.
- Health and Physical Education
- Inclusive Education - Classroom Management in Inclusive Education
- Role of Education in view of Liberalization, Privatization and Globalization
- Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan (RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
- Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
- Current Trends in Education

4. **Acts / Rights:**

- Right of Children to Free and Compulsory Education Act - 2009
- Right to Information Act - 2005
- Child Rights
- Human Rights.

5. **National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.

6. **National Education Policy-2020**

PART - III

III. Educational Psychology – 10 Marks

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, adolescence.
- 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—Behaviorism (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.
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- 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.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. Consumer Behaviour and Demand: Consumer`s Equilibrium – Meaning and attainment of equilibrium through utility approach and Indifference approach, Demand, Market Demand, Determinants of Demand, Demand Curve, Movement along and Shifts in Demand Curve, Law of Demand, and its exceptions, Price, Elasticity of Demand, Measurement of Price Elasticity of Demand, Methods.

2. Producer Behaviour and Supply: Agents of Production, Production Function, Cost of Revenue – Meaning and Various types of Costs and revenue. Isoquants – Supply, Market Supply, Determinants of Supply, Supply Curve, Movement along shifts in Supply Curve. Price elasticity of Supply and its Measurement, Components and theories of Distribution. Welfare Economics – Pare to optimality, Private and Social Products, Consumer Surplus, Production Possibility Curve and Opportunity Cost.
3. Forms of Market and Price Determination: Forms of Market – Meaning and features – Price determination under Perfect Competition, and Imperfect Competition – Monopoly, Duopoly, Monopolistic Competition, Oligopoly.
4. National Income and Related Aggregates: Macro Economics : Meaning, Circular flow of income, Concepts of GDP, GNP, NDP, NNP (at Market price and factor cost), National Disposable and Personal Disposable income – Measurement of National income.
5. Determination of income and Employment: Aggregate demand, Aggregate Supply and their Components. Propensity to consume and propensity to save. Involuntary Unemployment and full Employment. Determination of income and employment. Concept of Investment Multiplier and it's working. Inflation: Meaning, Causes and remedies.
6. Money and Banking: Money – Meaning, evolution and functions – Classification of money – M_1, M_2, M_3 & M_4. Central Bank – meaning and functions methods of

credit control. Commercial Banks – Meaning and functions. Recent Significant reforms and issues in Indian Banking system.

7. Indian Public Finance; Salient Features of Indian Tax System – Direct and Indirect Taxes. Sources of Public revenue, GST, VAT – Tax and Expenditure Reforms. Government budget – Meaning and its components. Objectives of Government budget. Classification of receipts; Classification of expenditure. Types of budget – meaning and implications; Measures to control different deficits. Downsizing the role of Government.
8. International Economics: Theories if International trade, the basis of International Trade – Classical theories of Trade – Adam Smith, Ricardo; Neo – Classical Theories – Herberler's opportunity Cost approaches; modern Theories of Trade – Hecksher and Ohlin Model; Factor Price Equalization Theorem; Rybezynski Theorem; Leontief's Paradox. Balance of Payments – Meaning and Components – Foreign Exchange rate – Meaning (Fixed and Flexible), Merits and demerits. IMF – the World Bank & its associates. WTO.
9. Concepts of Shares, debentures, SEBI, NSEW, BSE and various indices.
10. A.P.Economy: State income: Sectoral Contribution, Population, Programmes initiated by the State Government towards Rural Development Programmes, Special Economic Zones, APIIC in the process of industrial development of Andhra Pradesh.
11. Introduction and Collection, Organization of data: Meaning, Scope and importance of Statistics in Economics. Collection and Organization of data. Census of India and national Sample Survey Organization. Statistical Tools and Interpretation: Measures of Central Tendency, Measures of Dispersion, Measures of Correlation – Karl Pearson's Method, Spearman's rank correlation.
12. Economic Growth and Development – Concepts – Factors affecting economic growth – A brief introduction of the State of Indian Economy on the eve of independence. Common goals of Five Year plans, Major Controversies on Planning in India. Main Features, Problems and Policies of Agriculture, industry and Foreign Trade.
13. Economic activities from 1950 to 1990, Economic Reforms since 1991: Need and Main features, liberalization, Globalization and Privatization; an appraisal of LPG Policies.
14. Current Challenges facing Indian Economy: Poverty and Unemployment – Meaning and Types programmes for alleviation of poverty and Unemployment – Rural development; Key issues – Credit and Marketing – Role of Cooperatives; Agricultural Diversification; Alternative Farming – Organic Farming, Human Capital Formation. Growth of Education Sector in India.

    Employment: Opportunities and other related issues. Infrastructural Problems and Policies. Sustainable Economic Development: Meaning; Effects of Economic Development on Resources and Environment.
15. Sectors of Indian Economy, consumer rights, Infrastructure, Rural Development.

V. Teaching Methodology (Marks: 20)

1. Social Studies – Meaning, Nature and Scope: Defining Social Studies, Main features of Social Studies, Social Studies and Social Sciences differentiated, Scope of Social Studies – Types of Subject material and learning experiences included in the study of Social Studies, Need and importance of Social Studies.
2. Values, Aims and Objectives of Teaching Social Studies: Values of teaching Social Studies, Aims of teaching Social Studies at Secondary Level, Instructional Objectives of teaching Social Studies, Relationship of instructional objectives with general aims and objectives of Social Studies, Taxonomy of Educational and instructional objectives, Writing objectives in behavioural terms.
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5. Planning for Instruction: Developing teaching skills through Micro-teaching, Year Planning, Unit Planning, Lesson Planning.
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Government of Andhra Pradesh
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Category of Post: PGT
Paper II – COMMERCE Syllabus

1.	**G.K & Current Affairs**	-	**10M**
2.	**Perspectives in Education**	-	**10M**
3.	**Educational Psychology**	-	**10M**
4.	**Content**	-	**50M**
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PART – I

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PART - II

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PART - III

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- Understanding teaching & learning in the context of NCF, 2005 & Right to Education Act, 2009.

PART - IV

IV. Content: (50 Marks)

Classes VI to 3 years Bachelor Degree course in A.P. State

1. Business Studies And Management

- Introduction to Business– Concepts, characteristics, objectives. Classification of business as industry and commerce. Distinctive features of business - Business, profession and employment. Choice of Form of Organization .Large Scale and Small Scale Business-.Assistance by Government to Small Scale Sector and Micro enterprises.
- Form of Business Organizations – Sole Proprietors, Joint Hindu Family, Partnership, Joint Stock Company and its formation, Cooperative organization.
- Business ownership– Private, public and Joint sector. Public Enterprises, Role-dynamics of Public Sector, Global Enterprises (Multinational Companies), Joint Ventures.
- Business Services – banking, insurance, transportation, warehousing, communication, Impact of Technology on Business Services.
- Trade: Internal Trade - Retail and Wholesale trade, Emerging modes of business-franchising, E-business and Outsourcing. International Business– Export-Import – Procedure and documentation, EPZ/SEZ. International Trade Institutions and Agreements – WTO, UNCTAD, World-Bank, IMF, GATS (General Agreement of Trade in Services).
- Business Finance: Sources – owners and borrowed fund, Sources of raising finance, Equity and preference Shares, GDR(Global Deposit Receipts), ADR (American Deposit Receipts), Debentures, Bonds – Retained Profit, Public Deposits, Loan from Financial Institutions and commercial banks, Credit-rating and rating agencies, Trade credit, Micro-credit.

- Social Responsibility of Business, Business Ethics, Corporate Governance, Environment protection.
- Management – concept, objectives, nature of management as Science, Art and Profession, levels, Principles of Management general and scientific.
- Business Environment – meaning, importance, dimensions, changing business environment–special reference to liberalization, privatization and globalization, Business - a Futuristic vision.
- Management Functions – Planning, organizing, staffing, directing, controlling and coordination
- Business Finance: Financial Management – meaning, scope, role and objectives, financial planning, Capital structure, leverage, Fixed and working capital – meaning and factors affecting its requirements.
- Financial Markets – Money Market-nature, instruments, Capital Market-Primary and secondary, Stock exchange, NSEI, OTCEI, Procedures, SEBI.
- Human Resource Management– meaning , importance, man-power estimation , Recruitment and selection, Training and development , Compensation, Performance Evaluation
- Marketing – meaning, functions and role, Levels of Marketing, Changing facets of marketing, Product-mix, Models of Marketing.
- Organizational Behaviors: Individual behaviors, Motivation–concepts and applications, Personality perception, Learning and attitude, Leadership and its approaches, Communication, Group dynamics.
- Emerging Trends in Management – Business Process Reengineering, Total Quality Management, Quality Circles, Benchmarking, Strategic Management, Knowledge Management.
- Consumer Protection – Meaning, importance, consumers' rights, Consumers' responsibilities, Consumer awareness and Legal redressal with special reference to consumer Protection Act, Role of consumer organization and NGOs.

2. Financial Accounting And Financial Statement Analysis

- Accounting: Meaning, objectives, qualitative characteristics of Accounting information, Accounting Principles, Accounting concepts, Accounting standards, Cash and Accrual Basis of Accounting.
- Accounting Standards – growing importance in global accounting environment – International Accounting Standards (IAS) – International Financial Reporting Standards (IFRS) – US Generally Accepted Accounting Principles (GAAP).
- Process of Accounting :Voucher, transaction ,Accounting Equation, Rules of Debit and Credit, Book of original entry-Journal and Special Purpose Books, Ledger ,posting from Journal and subsidiary books, Balancing of Accounts, Trial Balance and Rectification of Errors .Bank Reconciliation Statement.
- Accounting for depreciation, Provisions and Reserves ,Bills of Exchange, Non-Profit Organization , Partnership Firms - Reconstitution of Partnership (Admission, Retirement ,Death and Dissolution), Account of Incomplete

Records (Single entry, Hire Purchase & Instalment), Consignment and Joint ventures.

- Accounting of Joint stock Companies: Share capital types of shares, accounting for issue, allotment forfeiture and re-issue of shares. Debentures – types, issue and method of redemption. Final Accounts of Sole proprietor and Joint Stock Companies. Emerging trends of presentation of Final Accounts.

  Valuation of Good will, Liquidation, Amalgamation & Reconstruction. Bank Accounts and Accounts of Insurance Companies.

  Accounts of Government Companies.
- Accounting for liquidation.
- Financial Statement Analysis: Meaning, significance, limitation .Tools for Financial Statement Analysis-comparative statements, common size statements, Trend analysis, accounting ratios.
- Funds Flow Statement and Cash Flow Statement: Meaning, objectives, preparation as per revised standard issued by ICAI.
- Computers In Accounting: Introduction to Computers and Accounting Information System, Application of Computers in Accounting, Automation of Accounting process, designing accounting reports, MIS reporting, data exchange with other information system. Readymade, customized and tailor made Accounting Systems.
- Accounting and Database Management System –Meaning, concept of entity and relationship in an accounting system, Data Base Management System (DBMS) in accounting.
- Inflation accounting and Accounting for Human Resource of an Organization and Social Responsibility.

V. Teaching Methodology (Marks: 20)

1. Social Studies – Meaning, Nature and Scope: Defining Social Studies, Main features of Social Studies, Social Studies and Social Sciences differentiated, Scope of Social Studies – Types of Subject material and learning experiences included in the study of Social Studies, Need and importance of Social Studies.
2. Values, Aims and Objectives of Teaching Social Studies: Values of teaching Social Studies, Aims of teaching Social Studies at Secondary Level, Instructional Objectives of teaching Social Studies, Relationship of instructional objectives with general aims and objectives of Social Studies, Taxonomy of Educational and instructional objectives, Writing objectives in behavioural terms.
3. Social Studies Curriculum: Social Studies as a Core subject, Principles of Curriculum Construction in Social Studies, Organization of subject matter – different approaches correlated, integrated, topical, concentric, unit and chronological.
4. Instructional Strategies in Social Studies: Techniques, devices and maxims,

Different methods of teaching Social Studies - Story telling, lecture, source, discussion, project, problem, inductive, deductive, observation, assignment – socialized recitation, Team teaching, Supervised study.

5. Planning for Instruction: Developing teaching skills through Micro-teaching, Year Planning, Unit Planning, Lesson Planning.
6. Instructional Material and Resources: Text books, work books, supplementary material syllabus, curriculum guides, hand books, Audio visual, Social Studies laboratory, library, clubs and museum, Utilizing community resources.
7. Social Studies Teacher: Qualities of a good Social Studies teacher, Roles and responsibilities.
8. Evaluation in Social Studies: Concept and purpose, Types of Evaluation, Evaluation as a continuous and comprehensive process, Different techniques of Evaluation, Preparation for Scholastic Achievement test