THEORY AND PRINCIPLES OF EDUCATION

Paper-I

Unit-I Education and Philosophy
i) Nature and meaning of Education
ii) Aims of Education-individual and social
iii) Nature and meaning of Philosophy
iv) Relation between Philosophy and Education
v) Significance of Philosophy of Education

Unit-II Major Philosophies of Education
i) Naturalism
ii) Idealism
iii) Pragmatism
iv) Existentialism

Unit-III Education thinkers and their contribution in developing principles of Education.
i) M.K.Gandhi          Basic Education
ii) Tagore             Shanti Niketan
iii) Swami Vivekananda Man Making Education
iv) John Dewey          Learning by doing
v) Froebel             The Playway method
vi) Montessori          The didactic apparatus

Unit-IV Educational and Social frame of reference
i) Education and Democracy
ii) Education and Socialism
iii) Education and secularism.
iv) Education for national and emotional integration

Unit-V Culture and Social Change
i) Concept and dimensions of culture
ii) Characteristics of Culture
iii) Relation between culture and education with special reference to conservative and creative roles
iv) Concept of Social change
v) Factors of Social Change
vi) Factor of Social Change
vii) Roles of Education vis-à-vis social change

Note:- There will be one question from each unit
Psychology of Learning and Development

Paper -II

Unit-I Psychology and Educational Psychology
i) Nature and meaning of Psychology
ii) Methods and scope of Psychology
iii) Nature and meaning of Education Psychology
iv) Functions of Educational Psychology

Unit-II Understanding Learner
i) Physical, social emotional and cognitive development patterns.
ii) Stage specific characteristics of infancy and childhood and their developmental tasks.
iii) Characteristics and problems of adolescents.
iv) Needs, aspiration, attitude and self concept of adolescents.
v) Guidance and counseling for adolescents.

Unit-III learning and Motivation
i) Concept of learning and its nature.
ii) Factors influencing learning factors.
iii) Motivation
iv) S-R theory of leaning
v) Operanty conditioning theory of learning
vi) Gestalt theory of learning

Unit-IV Intelligence
i) Nature and meaning
ii) Measurement of intelligence
iii) Two factor theory
iv) Multifactor theory
v) Structure of intellect

Unit-V Personality
i) Nature and meaning
ii) Development of personality
iii) Integration of personality
iv) Trait theory of personality
v) Factor theory of personality
vi) Psycho analytical theory of personality
Development of Education system in India

Paper – III

Unit–I Education in Ancient and Medieval India
  i) Vedic Education
  ii) Brahmanic Education
  iii) Buddhist Education
  iv) Muslim Education
  * Detailed description of salient features, objectives, curriculum, methods of teaching, role of teacher of these systems of education.

Unit–II Education in British India Detailed Study of the following Landmark, documents.
  i) Macaulay’s Minutes (1835)
  ii) Wood’s Despatch (1854)
  iii) Indian education commission (1882) Hunter
  iv) Indian Universities Commissin (1902) and Act (1904)
  v) Gokhlee’s Bill (1910-12)
  vii) Govt. of India Act. (1935)
  viii) Sargent Report (1944)

Unit–III Education in post independence Era Detailed study of the following Landmark documents
  i) Radhakrishn Commission (1948)
  ii) University Education Commission (1948-49)
  iii) Secondary Education Commission (1952-53)
  iv) Indian Education Commission (1964-65)
  vi) Reversed National Policy (1992)

Unit–IV Problems and Issues – I
  i) Universalization of Elementary Education
  ii) Women Education
  iii) Distance Learning
  iv) National and Emotional Integration

Unit–V Problems and issues – II
  i) Medium of instruction
  ii) Education of weaker Sections
  iii) Adult Education
  iv) Quality control in Higher Education
Essential of instructional Technology

Paper- IV

Unit-I Teaching and its models
i) Concept of Teaching
ii) Characteristics and functions of teaching
iii) Phases of teaching
iv) Principles and maxims of teaching
v) Concepts attainment model
vi) Synectic model
* Each model is to be discussed along the following.
  Syntax, Social system, principles of reaction, support system, instructional effect application.

Unit II Audio-Visula and Teaching Devices
i) Meaning and advantages of A-V aids
ii) Types of Audio - Visual Aids
a) Projects: Film, Filmstraps, overhead projectors, slides
b) Non-projected graphic, 3-aids, Display Board, Audio Aids
c) Use of Radio, TV and Newspaper as teaching aids.
iii) Teaching devices
a) Meaning and importance
b) Home Assignment, discussion, dramatization
c) Illustration, lecturing, narration
d) Observation, source method, story telling, study habits and supervised study
e) Study habits and supervised study

Unit – III Techniques of Teaching Preparation
i) Micro teaching: Nature meaning main proposition merits and limitation
ii) Simulated teaching: Nature and meaning, Mechanism, role play and T-Group
iii) Programmed learning: Meaning and characteristics, principles and Dev. Of programmed instructions types, merits and demerits.

Unit-IV Taxonomy of Educational objectives and lesson planning
i) Bloom’s Taxonomy of instructional objectives
ii) Cognitive, affective and psychomotor domains
iii) Formulation of Instructional objectives (Mager’s)
iv) Meaning and significance of lesson planning
v) Approaches of lesson planning
   a) The Herbartian steps
   b) Gloverian approach
vi) Skill lesson and appreciation lesson

Unit-V A detailed discussion of the following
i) Play way method
ii) Dalton Plan
iii) The project Method
iv) Heuristic Method
TEACHING OF HISTORY AND CIVICS

PAPER VI

Unit I  Nature and scope of social sciences
i) Social Science and Social Studies: Core subjects of social study History, Civics, Geography, Economics  
inter relationship between them.
ii) Structure and scope of History an devices, History/civics as a basic discipline, its importance in day-to-
day life and its role in international understanding.
iii) Study of regional history and place of regional history in teaching
iv) Instructional objectives of teaching history at secondary level

UNIT II  Curriculum in History and civics
i) Place of history and civics in secondary school curriculum
ii) Approaches to curriculum organization: Chronological topical correlation, curriculum design
iii) Teacher and curriculum planning, hidden curriculum, evolution curriculum analysis of text books, gender bias in secondary science curriculum

UNIT III  Methodology and Teaching aids
i) Source method
II) Project method
iii) Dalton plan
iv) Narration method -(story -telling)
v) Role-Play method
vi) Selecting and using teaching aids: chalkboard, Object and histrionics, models, graphs, charts, maps , picture, slides, filmstrip, audiovisual aids, projected aids, slide projector, overhead projector, epidiascope

UNIT IV  Towards a new world order: (Concepts I)

i) The first world war: Causes and consequences
ii) The world between two wars : fascism in Italy and Germany
iii) Emerge of USA, soviet Union and japan
iv) Nationalist movement in Asia and Africa.
v) The Second World Ware and its consequences: Setting up emergence of independent nations.
vi) The cold war and military bloks, Chinese revolution and alignment movement.
vii) Indian society in the Eighteenth century.
viii) Colonization of the country, impact of colonial rule on Indian economy and culture, social, religious movements.
ix) India’s struggle for independence: From the revolt of 1857 to post independence developments.

Units V Heritage of India
i) The land and people, art and architecture.
ii) The development of painting, language and literature music and dance.
iii) Indian constitution Fundamental rights and duties.
iv) Government at the state and central level.
v) India as a Nation: Indian Democracy at work.
vi) Challenges before the country, India and world peace.
vii) Human rights and Education.
TEACHING OF HINDI

Paper V

Unit I  Position of Hindi Teaching
   i) Origin and development of Hindi language.
   ii) Objectives of teaching Hindi at elementary and secondary levels.
   iii) Role of Hindi as a link language in India.
   iv) Problems of Hindi teaching.

Unit II  Methods
   i) Methods
   ii) Play way method
   iii) Direct method
   iv) Structural approach

Unit III  Reading and Writing
   i) Concept, Meaning and importance of reading
   ii) Types of reading silent/loud, extensive and intensive.
   iii) Reading defects and thir cure.
   iv) Quality f good handwriting.
   v) Defects in writing skills and their improvement
   vi) Summarizing and elaborating
   vii) Essay writing/letter writing

Unit IV  Teaching of prose and poetry
   i) Teaching of prose and lesson planning prose.
   ii) Teaching of poetry and lesson planning poetry.
   iii) Concept and meaning of evaluation.
   iv) Criteria of a good language test.
   v) Error analysis and remedial teaching.

Unit V  Content
   ii) Definition and kinds of nouns and adjectives.
   iii) A detailed description of the life and works contribution of kalidass.
   iv) Study of the following:
      A) Kabir’s Dohe (7th & 9th Grade Texts).
      B) Mekadevi’s Murjaya Phool (7th Grade Text).
      C) Giloo (story) - (8th Grade textbook).
      D) Nilakant - (10th Grade Text).
TEACHING OF English

Paper V

Unit I  Position of English Teaching
i) The character of 1813, Problem of Language study, 3-language formula
ii) The position and role of English in India.
iii) The objectives of teaching English as a 2nd language at secondary level.
iv) Problems in effective teaching of English as a 2nd language
vi) Principles of teaching English—Psychological, linguistic and Pedagogical

Unit II  Methods
i) Translation Methods
ii) Structural-Situational method
iii) Communicative method
iv) Direct method
v) Bilingual approach
iv) Eclectic approach

Unit III  Reading and Writing
i) Concept, Meaning and importance of reading
ii) loud, silent extensive and intensive reading.
iii) Skimming/scanning, reading defects and their cure.
iv) Quality of good handwriting.
v) Defects in writing skills and their improvement
vi) Describing persons, places, objects and events
vii) summarizing and elaborating

Unit IV  Teaching of prose and poetry and Evaluation
i) Teaching of prose and lesson planning prose.
ii) Teaching of poetry and lesson planning poetry.
iii) Concept and meaning of evaluation.
iv) Criteria of a good language test.
v) Error analysis and remedial teaching.
v) Types of language tests

Unit V  Content
i) Determiners, auxillaries and models
ii) phrasal verbs, adverbs prepositions and connectors
iii) Tenses and clauses.
iv) Active and passive voice
v) Direct-Indirect speech
vi) Punctuation
vii) Ryhme and Rhythm
viii) Simile and Metaphor
ix) Alliteration and Pun
TEACHING OF GEOGRAPHY

Paper V

Unit I  Nature and scope of social sciences
i) Social science and social studies: Core subjects of social sciences, History, Civics, Geography and Economic, Inter relation between them.
ii) Structure and scope of Geography, Geography as a basic discipline, its importance in day to day life and its role in international understanding.
iii) Study of home region and place of local Geography in teaching.
iv) Instructional objectives of teaching Geography at Secondary Level.

Unit II  Instructional Planning
i) Methods: Lecture, Project, Discussion, Assignment, Problem solving, Deconstruction, Inductive and Deductive, Regional, case study methods, field trip, observation, illustration, questioning techniques.
ii) Content Analysis, writing objectives in behavioural terms.
iii) Preparation of unit plan and lesson plan.

Unit III  Evaluation
i) Objectives of evaluation in Geography, developing a blue print objective, content, types of item in it.
ii) Essay type, short answer type and objective type, questions in social sciences their advantages and limitations, Framing different types of questions.
iii) Construction of achievement test items.
iv) Continuous Evaluation using feedback for improvement of teaching and learning.

Unit IV  General Geography of World (Content I)
i) Natural environment: The atmosphere-factors determining weather and climate.
The Lithosphere-the changing face of earth, external and internal processes.
The Hydrosphere-relief of the ocean floor. The Biosphere-inter relationship between man with atmosphere, lithosphere and hydrosphere.
ii) Major natural regions of the world.
iii) Resources and their classification: renewable and non-renewable potential and developed resources. Distribution and utilization and resources and, soil, forest, fisheries, power resources and their conservation.

**Unit V  Population and occupation**


ii) Occupation: Primary occupation, food fathering, animals husbandry and mining, Secondary occupation—Industries. Tertiary occupation trade, transport, communication and services.

iii) Man’s intervention: needs and efforts to improve the quality environment.
TEACHING OF Bio SCIENCE

Paper VII

Unit I
i) History and nature of science.
ii) Role and importance in daily life.
iii) Path tracking discoveries and landmarks developments in science.
iv) Eminent world scientists, eminent Indian scientists (Special reference to Natural scientists).
v) Importance and place of Bio Science in school curriculum.
vi) Objectives of teaching Bio science with special reference to the Tara Davi seminar, Kothari Commission and Ishwar Bhai Committee.

Unit II Planning of teaching Bio Science
i) Developing year plan, Unit plan, lesson plan.
ii) Preparation of lesson plans on the basis of standard principles.
iii) Preparation and development of improvised apparatus.
iv) Preparation, selection and use of teaching aids.
v) Importance of field trips, science clubs, science fairs and museums as non formal approaches of science teaching.
v) Maintenance of Aequarium

Unit III Methods of teaching
i) Lecture method
ii) Demonstration method
iii) Demonstration-cum-Discussion method
iv) Heuristic method
v) Inductive deductive method
vi) Project method

Unit IV Content (Botany)
i) Life processes in plants.
iii) Photosynthesis: Process and mechanism, transport of material, diffusion, osmosis and plasmolysis, absorption of water, process of transpiration, Mechanism of stomatal opening and closing.
iv) Reproduction: Asexual and sexual reproduction, growth and development in plants
v) Growth regulators: Auxins, Gibberelins, abscisic acid
vi) Biosphere: Meaning and definition, components of Biosphere
vii) Ecosystem: Bio/Geo Chemical cycles
viii) Natural resources, renewable and non renewable resources

Unit V Content (Zology)
i) Life process in animals
ii) Nutrition: Feeding mechanism, Digestion and absorption of food
iii) Respiration in animals and man
iv) Blood circulation: Blood structure and function; Heart structure and function course of circulation
v) Excretion: structure and functions of kidney urine formation
vi) Nervous system, structure of Brain structure and function of endocrine system
vii) Cell structure, cell organelles, cell division mitosis and meiosis ecosystem and Bio sphere
TEACHING OF PHYSICAL SCIENCE

Paper VII

Unit I
i) History and nature of science.
ii) Role and importance in daily life.
iii) Path tracking discoveries and landmarks developments in science.
iv) Eminent world scientists, eminent Indian scientists (Special reference to Natural scientists).
v) Importance and place of Phy Science in school curriculum.
vi) Objectives of teaching Physcience with special reference to the Tara Davi seminar, Kothari Commission and Ishwar Bhai Committee.

Unit II Planning of teaching Phy Science
i) Developing year plan, Unit plan, lesson plan.
ii) Preparation of lesson plans on the basis of standard principles.
iii) Preparation and development of improvised apparatus.
iv) Preparation, selection and use of teaching aids.
v) Importance of field trips, science clubs, science fairs and museums as non formal approaches of science teaching.

Unit III Methods of teaching
i) Lecture method
ii) Demonstration method
iii) Demonstration-cum-Discussion method
iv) Heuristic method
v) Inductive deductive method
vi) Project method

Unit IV Content (Physics)
i) Motion, force, work and energy displacement motion and its types speed velocity and acceleration, force magnitude and direction.
ii) Heat as energy, temperature, transfer of heat thermal expansion and change of state.
iii) Newton’s law, qualitative concept of relativity, universal laws of gravitation, Kepler’s.
iv) Simple pendulum, restoring force, SHM, displacement, amplitude, frequency time period, expression for time period, wave motion, propagation of through a medium, longitudinal and transverse waves length, relation
between speed, frequency and wave length, transfer of energy and momentum in wave propagation, periodic motion, sound waves and their nature.

v) Light, image formation by spherical mirrors and lenses, telescope microscope, defects of vision and correction perception, perception of colour, colour blindness, composition of white light, wave length and colour of light.

Unit V Content (Chemistry)
i) Introduction to chemical reactions, types of chemical reaction, combination decomposition displacement reactions by performing actual classroom activities related to these reactions (Wherever possible).

ii) Introduction to the electronic concept of oxidation-reduction, oxidation number and redox reaction by demonstrating different redox reactions in the class an discussing their chemical equations.

iii) Endothermic and exothermic reactions by performing the activities of dissolution of any NH4Cl in water, evaporation of water evaporation of water, spirit (endothermic) and adding water to quick lime, dissolution of NaOH in water, H2SO2 in water and neutralizing reaction (exothermic) of aq. NaOH by aw HCL concept of redox reaction, factors affecting the rate-effect of a) Concentration Temperature c) Pressure and catalyst.

iv) Elementary idea of Electro Chemical cell and dry cell.

v) Rusting of iron and preventive measure mole concept of solving of numeric problems related to the mole concept.
TEACHING OF MATHEMATICS

Paper VII

Unit I
i) Meaning of Mathematics
ii) History of Mathematics
iii) Contribution of Indian Mathematics with reference to Bhaskaracharya, Aryabhatta, Leelabathi, Ramaujan
iv) Contribution of Euclid, Pythogorus, Rene- Descarte

Unit II Methodology
i) Inductive and Deductive
ii) Analytical and Synthetic
iii) Heuristic, Project and Laboratory
iv) Various techniques for teaching mathematics viz, oral, written, drill, assignment; supervised study and programmed learning

Unit III Introduction in Mathematics
i) Meaning and importance of a lesson plan
ii) Performa of a lesson plan and its rationality
iii) Meaning and purpose of a unit and unit plan and an yearly plan
iv) Developing low cost improvised teaching aids relevant to lesson ethos
v) Maintaining and using blackboard, models, charts, TV, filmstrips, video tapes and VCR

Unit IV Content (I)
i) Mensuration: Volume and surface area of cube, cone, cylinder and sphere
ii) Linear Equation of one and two variables
iii) Rational Expression and quadratic equation
iv) Ratio and proportion and factors

Unit V Content (II)
i) Circles and Geometrical constructions
ii) Statistics: Mean, Median, Mortality table, Cost of list price index
i) Sets and suds
Elementary Computer Education

Paper VIII

Unit I Introduction
i) Computer and its characteristics
ii) Classification
iii) Parts of a computer-H/S
iv) Computer applications

Unit II Programming Computer
i) Computer Languages
ii) Software type
iii) Steps in Programming
iv) Algorithms and flow charts

Unit III Operating System
i) Types of operating system-Dos, UNIX, Windows
ii) DOS-Internal ad External Commands
iii) Brief introduction of window
iv) Utility and application of software

Unit IV Introduction to Computer System
i) Basic and its simple programming
ii) DBMS and databasic software-Dbase, Fox Pro, Fox Base
iii) MS Word
iv) Word Star

Unit V Computer Application
i) Indoor Content
ii) Logo
iii) Pascal
iv) Lotus
EDUCATIONAL TECHNOLOGY

Paper VIII

Unit I
i) Meaning objectives and scope
ii) Hardware and software aspects of Educational Technology
iii) Evaluation of Educational Technology
   a) Audio Visual Phase
   b) Cybernetic Phase
   c) Psychology based Phase
   d) Computer and Telecommunication Phase

Unit II  Taxamony and Teaching Learning aids
i) Taxonomy of education objectives-Cognitive affective and Psychomotor domains translate of objective
ii) Teaching learning aids
   a) Meaning and Significance
   b) Types - Projected and Non Projected
   c) Radio and T.V Educational Use

Unit III  Innovations
i) Programmed learning
ii) Micro Teaching
iii) Simulated teaching
iv) Flander’s Interaction Model

Unit IV  Communication
i) Concept and functions
ii) Process of communication
iii) Types of communication: Interpersonal communication
iv) Uses of Communication: Reading, Teaching.
Educational Guidance and Counseling

Paper VIII

Unit I
i) Concept, Type – Educational, Vocational, personal
ii) Aims and Basic Principles
iii) History of Guidance Movement in India and UK

Unit II Foundation of Guidance
i) Philosophical and Socio Cultural foundations
ii) Psychological foundation
iii) Importance of intelligence, personality and other psychological tests

Unit III Guidance Service
i) Information service- Educational, Occupational, Personal
ii) Appraised service- interview case study, commutative record card observation.
iii) Placement service – Educational Vocational

Unit IV Organization of Guidance service
i) Purpose of organization
ii) Principle of organization
iii) Guidance services at Elementary Level
iv) Guidance service at Secondary Level

Unit V Counseling
i) Meaning, purpose and steps
ii) steps involved in Counseling
iii) Directive and non directive theories of counseling
iv) Qualities of a Counselor.
POPULATION EDUCATION

Paper VIII

Unit I
i) Concept and meaning
ii) Need and importance
iii) Objectives of Population Education

Unit II Population Dynamics
i) Distribution and density
ii) Population Composition- Age, Sex, Rural/Urban
iii) Factors affecting Population growth- Fertility, Mortality, and Migration (mobility)

Unit III Population and Quality of Life
i) Population in relation to Economic Development
ii) Population in relation to health status.
iii) Effect of unchecked growth of population on natural resources.
iv) Concept of small family and its merits

Unit IV Population Education in Schools
i) Scope of Population Education in School
ii) Methods and approaches: Inquiry approaches, Observation, Self study discussions and assignments
iii) Use of Mass Media - Newspapers, Radio, TV ans AV Aids

Unit V Malthusian Theory
i) Salient features of the theory
ii) Critical analysis of the theory
iii) World population trends and its economic, social and political and educational implications.
SPECIAL EDUCATION

Paper VIII

Unit I  EXCEPTIONALITY
i) Meaning
ii) Society response-exclusion of integration
iii) levels of intervention (Preventive, remedial , compensating)
ii) Special Education (meaning, significance and Scope)

Unit II  Mental Retardation
i) Definition
ii) Levels of severity.
iii) causes of mental retardation
iv) Treatment and services for mentally retarded
v) Management and education of mentally retarded

Unit III  Delinquency
i) Definition
ii) Behavioural characteristics
iii) Causes of delinquency
iv) Identification and assessment
v) Educational strategies

Unit IV  Severe and Multiple handicaps
i) Definition
ii) Characteristics
iii) Causes
iv) Education, treatment and management of severely and multiply handicapped

Unit V  Visual IMPairment
i) definition of visual impairment
ii) causes of visual impairment
iii) education of visually impaired children
iv) definition hearing impairment
v) types and measurement of hearing cases
vi) causes hearing impairment
vii) education approach
viii) environmentaaal Education
ENVIRONMENTAL EDUCATION

Paper IX

Unit I  Environmental Education
i) Meaning, scope and importance of environmental education.
ii) Objectives of Environmental Education
iii) Approaches of Environmental Education, Role of Environmental and Natural Resources in sustainable development.

Unit II  Environmental Hazards
i) Causes and effects of environmental hazard, global and local: environmental pollution and its remedies.
ii) Green house effect - an impending catastrophe.
iii) Ozone layer depletion - environmental threat, acid rain, polar melting, rise of sea level and their implications

Unit III  Environmental Awareness
i) Salient features of environmental awareness through education, programmes of environmental education for secondary school children
ii) Programmes of environmental education for attitude changes among the children

Unit IV  Man and Environment
i) Man as creator and destroyer, effect of human activities on environment values and ethics related to environment
ii) Bio diversity conservation of genetic diversity an important environmental priority learning to live in harmony with nature

Unit V  Sustainable Development
i) Sustainable development, Environmental Education for development conservation of soil water forests wild life movement to save environment eco friendly technology.
ii) National parks sanctuaries and zoos, save dal, Save Hangul Save tiger project and Chipko movement.
Name of Subjects for 1st year ETTC/Outline of 1st year Course ETTC

Part I
Foundation Papers
- Philosophical perspective of Education
- Child Development
- Educational Technology
- Sociology perspective of Education

Part II
- Teaching of Mathematics
- Teaching of Environmental Studies (Science)
- Teaching of Environment studies (Social Studies)
- Teaching of English
- Teaching of Hindi
- Teaching of Punjabi
- Teaching of Urdu

Part III
Co Scholastic Areas
1. Health and Physical Education
2. Work Education
3. Art Education
Outline of 2nd year Course ETTC

Part I
Foundation Papers
- Process of Children’s Learning
- School Organization and Management
- Guidance and Counseling
- Early Childhood care and Education
- Education of Children with disabilities
- Non formal and Adult Education
- Population Education

Part II
Pedagogical courses
- Teaching of Mathematics
- Teaching of Science and Technology
- Teaching of Social Studies
- Teaching of English
- Teaching of Hindi
- Teaching of Punjabi
- Teaching of Urdu

Part III
Teaching Practice

Part IV
Co Scholastic Areas
- Teaching of Health and Physical Education
- Teaching of Work Education
- Teaching of Art Education