Syllabus for Ph.D. Entrance Test
Education Faculty (M.Ed.)

- Total four papers
- Each paper consists of equal weight 25% (25Marks)

Core Paper - 1
Methodology of Educational Research
[Section I]

1.0 Concept of Educational Research
1.1 Concept of educational research: meaning, characteristics and contribution to knowledge
1.2 Types of research: Basic, Applied, and Action research and basic concept of Qualitative and Quantitative research
1.3 Areas of educational research
1.4 Steps of the research process

2.0 Resources for Research
2.1 Purpose of literature review
2.2 Major steps in a literature review
2.3 Types of sources:
2.4 Library skill: Reading skill and Note taking
2.5 Internet search

3.0 Selection of the Research Problem
3.1 Standards of selection: novelty, uniqueness, originality and researcher skill
3.2 Sources of the selection of the problem
3.3 Narrowing the scope of the problem
3.4 Drafting a research proposal
3.5 Defining the related terms of research problem

4.0 Variables and Hypotheses
4.1 Meaning and types of variables
4.2 Meaning and types of hypotheses
4.3 Hypothesis construction: bases, involving variables
4.4 Testing a hypothesis
5.0 Tools of Research

5.1 Psychological Test: (a) types and its uses (b) general information about construction procedure

5.2 Questionnaire: (a) types, format and basic guidelines for constructing questions and questionnaire, (b) advantages and disadvantages of questionnaire

5.3 Interview: (a) types of interview such as individual & group and structured and unstructured, (b) conduction of interview / interview schedule

5.4 Rating Scales: types, format and basic guidelines for constructing scale

5.5 Measurement of Attitude: Thurston and Likert technique

5.6 Concept of some other tools: format and use of (a) Checklist, (b) Opinionnair (c) observation schedule

5.7 Standardization of research tool: Reliability, Validity, and Norms

[Section II]

6.0 Sampling Technique

6.1 Meaning of population and sample

6.2 Importance of sampling

6.3 Characteristics of a good sample

6.4 Sampling technique: (a) Probability sampling: simple random sampling, stratified random sampling, systematic sampling, cluster sampling. (b) No-probability Sampling: incidental sampling, purposive sampling, quota sampling

6.5 Determining sample size.

7.0 Methods of Research-1

7.1 Historical Method: (a) purpose and steps in doing historical studies, (b) primary and secondary sources including external and internal criticism of source materials, and (c) interpretations in historical research.

7.2 Survey: Problems and method of school surveys, job analysis, documentary analysis, public opinion surveys, community surveys

7.3 Inter Relationship Studies: problems and method of case study, causal comparative study, correlation study

7.4 Developmental Studies: Nature of longitudinal and cross sectional studies

8.0 Methods of Research-2
8.1 Experimental Studies: (a) meaning and characteristics of experimental research, (b) method of control, (c) criteria for selecting (evaluating) an experimental design-appropriateness, adequacy of control, internal validity and external validity, and (d) various types of experimental designs: pre, true and quasi-experimental design.

8.2 Concept of qualitative research, Comparison of qualitative and quantitative research, Brief understanding of methods of qualitative research

9.0 Treatment of Data

9.1 Level of measurement of data

9.2 Treatment of data: editing, coding, classification, tabulation, visualization

9.3 Selection of technique for analysis of data: Descriptive statistics and inferential statistics

9.4 Deriving Conclusions, generalization, and educational implications.

10.0 Writing Research Report

10.1 Divisions of a report: (a) Preliminary part, (b) Content part: problem identification, review of related literature, methodology, analysis and interpretation of data and result section, (c) supplementary part: appendices, references, abstract, glossary of terms

10.2 Format, style, typing, quotations, footnotes, bibliography, pagination, tables, figures, and graphics in the report

10.3 Criteria for evaluating research report

REFERENCE BOOKS


Core Paper – 2
Psychology Of Instruction
[Section: I]

1.0 Introduction to Instructional Psychology
1.1 The nature of Instructional psychology
1.2 The component of Instructional psychology
1.3 The Principles of Instructional psychology

2.0 Behaviorists and Cognitive View of Learning
2.1 Skinner’s operant conditioning
2.2 Ausubel’s meaningful learning
2.3 Bandura’s identification with models and observational learning
2.4 Bruner’s discovery learning
2.5 Jean Piaget’s Theory of cognitive Development

(Characteristics and limitations of learning principles of Skinner, Asubel, Bandura, Bruner and Jean Piaget with reference to its adequacy, relevancy, comprehensiveness and utility in classroom teaching and learning)

3.0 Modern Information Processing Theories
3.1 Phases of information processing
3.2 Conditions for effective information processing at every stage
3.3 Meaning and importance of semantic encoding and structuring in information processing
3.4 Neuropsychological based of information processing
3.5 Application of the principle of multi sensory approach in teaching
3.6 Application of information processing to facilitate remembering and reduce forgetting

4.0 Gagne’s Hierarchical learning
4.1 Learning of intelligent skills, learning of cognitive strategies, learning of verbal information, learning motor skills, learning of attitudes
4.2 Classification of Classroom learning in different school subjects into different types of learning
4.3 Merits and limitations of theories of learning of Gagne with reference to its adequacy, relevancy, comprehensiveness and utility in classroom teaching and learning
[Section- II]

5.0 Variables that Effect to Learning
5.1 Effect of Motivation, maturation and perception on learning
5.2 Desirable conditions for effective learning keeping in mind individual differences of gifted and talented learners, slow learners and mentally retarded learners.

6.0 Essential Components of Teaching Learning Situations.
6.1 Pupil characteristics: Cognitive abilities, psychomotor abilities, affective characteristic, age, sex, background of home and readiness for learning (based on research findings)
6.2 Teacher characteristics: Cognitive abilities psychomotor abilities, affective characteristics, professional competences age and sex (based on research findings)

7.0 Theory of Instruction of Gagne
7.1 Gaining attention
7.2 Informing objectives to learners
7.3 Stimulus for pre-learning
7.4 Stimulating the stimulus
7.5 Providing learning guidance
7.6 Eliciting performance
7.7 Providing feedback
7.8 Assessing Performance
7.9 Enhancing retention and transfer

8.0 Bases of Constructivism for Teaching and Learning
8.1 Concept of Constructivism: Characteristics and Effect of constructivist theories on education
8.2 Theoretical background of constructivist theories: J. Lave’s Situation Learning
8.3 Characteristics of Constructivist learning
8.4 Constructivist Teaching and its characteristics
8.5 Characteristics of constructivist teacher
8.6 Concept of constructivist Learning Environment.
REFERENCE BOOKS


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Core Paper 3

Philosophical and Sociological Foundations of Education

[Section I]

1.0 Philosophy and Education

1.1 Nature, Definition, Content and Functions of Philosophy

1.2 Branches of Philosophy: General introduction, content and usefulness to teachers of (i) Metaphysics, (ii) Epistemology, (iii) Axiology - Ethics and Aesthetics

1.3 Relation between Philosophy and Education

1.4 Educational Philosophy: Nature, Functions and usefulness to teacher

2.0 Schools of Philosophy

2.1 Contribution of the five schools of philosophy Idealism, Naturalism, Pragmatism, Realism, and Existentialism to education keeping in view of the following points: belief about the (a) nature of ultimate reality, (b) nature of knowledge and ways of knowing, (c) morality and values

2.2 Critical comparative review of (d) concept of education, (b) aims of education, (c) teaching method and (d) certain specific educational practices with reference to Idealism, Naturalism, Pragmatism and Realism.

3.0 Values in Life and Education

3.1 Concept of Value: Meaning, Characteristics, and types of values

3.2 Individual, Social and Global values and their inter-relationship

3.3 Concept and Approaches of Values Education

3.4 Educational Implications of Values Education

3.5 Failures in values education: reasons and solution

4.0 Indian Philosophies and Education

4.1 Upanishad

4.2 Bhagavad-Gita

4.3 Jainism, and

4.4 Buddhism

Keeping in view the points: (a) Central maxims, (b) nature of knowledge and ways of knowing, (c) practices of their thematic content in life and education

4.5 VIPASHYANA: Concept and implications
5.0 **Contribution of Indian Philosophers**

5.1 Sri Aurobindo and

5.2 Krishnamurthy's philosophical contribution in view of the points: (a) Contribution in the field of Metaphysics, Epistemology and Axiology, (b) Specific contribution in educational practices.

[Section II]

6.0 **Educational Sociology**

6.1 Concept of Educational Sociology and sociology of education

6.2 Educational sociology: Meaning, Content and Functions

6.3 Characteristics of Indian Society in different ages and role of education

6.4 Education and Culture

6.5 Education and Social Participation

7.0 **Education and Eco-Political System**

7.1 Agriculture and Industrial Economic System and Education,

7.2 Economically Developed, Developing and Underdeveloped Society and Education,

7.3 Education in Autocratic, Socialist and democratic Society

7.4 Democracy and Education: Keeping in view aims of education, nature and Programs of education.

8.0 **Religion and Education**

8.1 Concept of Religion: Narrow, Functional and Broad meaning

8.2 Religion and Non-secularism

8.3 Non-secularism and Religious Education

8.4 Role of education in Non-secular nation

8.5 Moral and Spiritual Education as Religious Education

9.0 **Scenario of Education of Future World**

9.1 Concept of Internationalism: Meaning and Need

9.2 Post-modernism: basic concept and their philosophical beliefs

9.3 Feminism: meaning and rational behind the existence

9.4 Education for tomorrows and their philosophy
10.0 Contribution of Indian Sociologist and Social Agency

Socio-Educational Contribution of
10.1 Mahatma Gandhi
10.2 Sri Pandurang Shastri, and
10.3 Ramkrishna Mission in view of the points: (a) Specific Contribution to the Community, (b) Supplementary specific role for social Change and (c) Functions for Values Education

REFERENCES


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Compulsory Paper – 4

Information Technology In Education

[Section – I]

1.0 Introduction To Information Technology

1.1 Information: Definition and scope
1.2 Need: Education, Research, Occupation, and other activities
1.3 Levels: Facts, Information, Knowledge, Wisdom
1.4 Types: According to sources, channels, medias, and needs
1.5 Properties: Scientific, Technical, Technological, Economical
1.6 Resistance to information flow
1.7 Value of information: Form, Time, Organization, Place
1.8 Concept of Information Technology
1.9 Caution against over usage of Information Technology

2.0 Understanding Of Communication Process

2.1 Communication: Meaning, Definition and needs
2.2 Communication process: Shannon model
2.3 Types: Message related, Target related, Process related, Direction related
2.4 Barriers to communication: Physical, Language, Psychological, Background
2.5 Factors affecting effective communication and efficiency of communication
2.6 Classroom communication

3.0 Concept Of Operating Software

3.1 Software: concept and types
3.2 Operating software: Concept, types, functions and booting process
3.3 Disk operating system(DOS): Meaning, DOS commands (1) Internal: CLS, DIR, DELETE, COPY and RENAME (2) External: PRINT, FORMAT and DISKCOPY
3.4 Windows: Concept, Characteristics, Method of working (DESKTOP and Typical windows)

4.0 Introduction To Application Software
4.1 Word processor: MSWORD
4.2 Spread sheet: MSEXCEL
4.3 Presentation package: MS POWERPOINT
4.4 Paint tool: PAINT

5.0 Introduction To Utility Software
5.1 Concept
5.2 Virus: Concept, types and protection against virus
5.3 Scandisk and Defragmenter

[Section II]

6.0 Communication Medias
6.1 Meaning, Characteristics and psychological basis
6.3 Importance of educational animation
6.4 Concept of multimedia, Educational planning of multimedia
6.5 Selection of appropriate media

7.0 Development of Instructional Material
7.1 Programmed Instruction: Concept, Principles, Types, Preparation procedure,
7.2 Over Head Projector Transparency: Importance, Types, Preparation procedure, Advantages and limitations
7.3 Talking book and e-book: Concept and Preparation procedure

8.0 Network Technology
8.1 Computer network: Meaning, Characteristics, Classification and Advantages
8.2 Internet: Meaning, Working method, Usefulness, Protocols, Account, Available services
8.3 E-mail: Meaning, Working method, Protocols, Benefits and limitations

9.0 Use of Computer in Education
9.1 Instructional uses of computer: Computer Assisted Instruction/Learning, Online etc.
9.2 Non Instructional uses of computer: Scoring, Result generation, Declaration of result, Records and data management
9.3 Concept of Institutional Website

10.0 Use of Computer in Research
10.1 Search engine: Searching and locating research gaps and related literature
Coding, Classification and Analysis of data through SPSS
Report writing through Word processor

REFERENCES