



महात्मा ज्योतिबा फुले
रुहेलखण्ड विश्वविद्यालय, बरेली

Syllabus

for

B. Ed. (Specialization in Educational Computing)

Department of B.Ed./M.Ed. (I.A.S.E.)
Faculty of Education and Allied Sciences,
M.J.P. Rohilkhand University, Bareilly

B.Ed.
(Specialization in Educational Computing)
COURSE STRUCTURE

Title of the Paper	Paper Code	Marks		
		Ext.	Int.	Total
Theory:				700
Paper I Education in Contemporary Indian Society	1651	100	Nil	100
Paper II Development of Learner & Teaching-Learning Process	1652	100	Nil	100
Paper III Essentials of Educational Technology & Management	1653	100	Nil	100
Paper IV Methods of Teaching				100
Section A: Teaching of Computer Science	2021	32	Nil	32
Section B: Any two from the following:		34x2	Nil	68
1. Teaching of Hindi	2001			
2. Teaching of English	2002			
3. Teaching of Mathematics	2003			
4. Teaching of Science	2004			
5. Teaching of Biology	2005			
6. Teaching of History	2006			
7. Teaching of Civics	2007			
8. Teaching of Economics	2008			
9. Teaching of Geography	2009			
10. Teaching of Commerce	2010			
11. Teaching of Home Science	2011			
12. Teaching of Sanskrit	2012			
13. Teaching of Social Studies	2013			

Title of the Paper	Paper Code	Marks		
		Ext.	Int.	Total
Paper V Computers & Their Uses in Education	1654	100	Nil	100
Paper VI Computer Aided Teaching/Learning	1655	70	30	100
Paper VII Computer Programming and Word Processing	1656	70	30	100
Practical:				200
Practice Teaching	1671	100	50	150
Continuous Comprehensive Assessment	1672	Nil	50	50
(Incl. Teaching Aid 20; Co-curricular Activities 10; Community Awareness 15; and Behavior & Conduct 05)				

Note:

*Paper I, II, III and Section B of Paper IV
will be common for all the three specializations.*

PAPER – I

EDUCATION IN CONTEMPORARY INDIAN SOCIETY

OBJECTIVES:

1. To enable the student teachers to understand the meaning and scope of education and its sociological and philosophical basis.
2. To enable the student teachers to understand the history of education in India since ancient period to modern period.
3. To acquaint the student teachers with ancient and modern aims and ideals of education.
4. To acquaint the student teachers with the contribution of some modern educational thinkers.
5. To enable the student teachers to understand the role of the teacher in the society.
6. To provide expertise to teacher-trainees in organization of various guiding and connecting activities in their schools.

CONTENTS:

Unit I: Education

- ✿ Education: Meaning and nature; functions of education as human resource development and social development.
- ✿ Agencies of education – Formal, Non-formal and Informal.

Unit II : Education in the Western Context

- ✿ Education in the Western context with reference to Rousseau, Pestalozzi, Russel; their impact on educational thought and classroom practices in terms of progressive trends in education.
- ✿ Indian educational thinkers and their contribution to education with special reference to Gandhi, Tagore, Vivekanand, Gijju Bhai, Aurobindo.

Unit III :Education in the Indian Context

- ✿ Ancient Indian education and its relevance in modern context.
- ✿ Education in medieval period and its impact on Indian society.
- ✿ Education during British rule – Macauley’s minute and Bentick’s resolution, Wood’s Despatch (1854), Lord Curzon’s educational policy, National education movement, Indian Education Commission (1882) and its influence on the subsequent development of education, Sadler Commission (1917), Wardha Scheme of education (1937).

Unit IV: Education Commission and Policies in India

- ✿ Education in Independent India and attempts to reform it, Overview of Education Commissions and National Policies on Education.

Unit V: Sociological Aspects of Education

- ✿ Education and social change, Factors of social change, Indian constitution and educational values of democracy, socialism and secularism, Promoting equality through education, National and emotional integration, Fundamental rights and duties.

Unit VI: Present Trends in Education

- ✿ Environmental pollution, Green and clean society, International understanding, Vocationalization of secondary education, Universalization of primary education, Education of the disadvantaged groups, Role of education in preserving cultural heritage.

REFERENCE BOOKS:

1. Marathe, R.M. : Principles of Education, School College Book Stall, Kolhapur.
2. Pathak, P.D. : Principles of Education, Vinod Pustak Mandir, Agra.
3. Brubacher, J.S. : Modern Philosophies of Education, Mc-Graw-Hill Book Co., New York.

4. Francies Brawn : Educational Sociology, Asia Publishing House Bombay.
5. Chaubey S.P. & Chaubey, Akhilesh: Philosophical & Sociological Foundations of Education, Vinod Pustak Mandir, Agra
6. Subodh, A.: Bhartiya Shiksha Ke Sidhanth, Avinash Prakashan, Allahabad.
7. Mathur, S.S. : Shiksha ke Sidhanth, Vinod Prakashan, Agra.
8. Agarwal, S.K. : Shiksha ke Tatvik Sidhanth, Rajesh Publishing House, Meerut.
9. Pandey, R.S. : Shiksha Darshan, Vinod Pustak Mandir, Agra.
10. Bhatnagar, R.P. & Verma, B.: Educational Administration, Loyal Book Depot, Meerut.
11. Kimprouch, R.B. & Nunnery, M.X. : Educational Administration : An Introduction, McMillan Publishing Co., New Delhi.
12. Pandey, R.S.: Bhartiya Shiksha Darshan, Vinod Pustak Mandir, Agra.
13. Seetharamu A.S. : Philosophy of Education, Ashish Publishing House, New Delhi.
14. Russel, Bertrand : History of Western Philosophy, Unwin University Books, London.
15. Pandey, R.S. : Principles of Education, Vinod Pustak Mandir, Agra, 1991.
16. Bhattacharya, B.: Foundation of education, Atlantic Publishers & Distt., New Delhi, 1996.
17. Pathak, P.D. & Tyagi, S.D.: Principles of Education, Vinod Pustak Mandir, Agra, 1990.



PAPER – II

DEVELOPMENT OF LEARNER AND TEACHING-LEARNING PROCESS

OBJECTIVES:

1. To enable the teacher-trainees to understand the meaning of psychology and scope of educational psychology.
2. To make the teacher-trainees aware with the different stages of growth and development.
3. To expose the teacher-trainees to the process of learning and the different viewpoints of various psychologists.
4. To introduce the student teacher with the implications of psychology for the normal and special need children.
5. To acquaint the student teachers with the knowledge of psychological principles/theories on which effective teaching is based.
6. To introduce the student teachers with the process of learning and factors, which influence the process of teaching-learning.

CONTENTS:

Unit I: Introduction

- ✿ Educational Psychology: Meaning, nature, methods, scope, importance, and functions.
- ✿ Stages of Human Development and their characteristics. (Physical, Mental & Emotional)
- ✿ Adolescence: Characteristics, needs and problems.

Unit -II : Learning & Motivation

- ✿ Definition and nature of learning, Factors influencing learning and teaching process.
- ✿ Theories of learning and their implications in education, Thorndike (Trial & Error), Pavlov's theory of classical conditioning, Kohler's insight theory, Skinner's reinforcement theory.
- ✿ Motivation: Definition, nature, types and techniques of enhancing

learner's motivation.

Unit- III : Intelligence

- ✱ Nature, type and characteristics of intelligence, Theories of intelligence, Two factor, Multifactor (Primary mental abilities) and S.I. Model.
- ✱ Measurement of Intelligence : Verbal, Non-verbal and Performance Test (each one).
- ✱ Creativity: Concept, identification of creative children, enhancing creativity of students.
- ✱ Emotional Intelligence: The concept and its significance.

Unit –IV : Personality

- ✱ Definition, meaning & nature, Development of Personality, Measurement of Personality: Type & Trait theories of personality.

Unit – V : Exceptional Children

- ✱ Concept, Types, Characteristics of each type including children with learning disabilities.
- ✱ Individual Difference: Meaning, nature, types, importance and different techniques.

Unit – VI : Mental Health

- ✱ Meaning, nature, factors, principles & educational implications.

Unit – VII : Guidance & Counselling

- ✱ Meaning, need & significance, basic principles.
- ✱ Types of guidance : Career, Personal, Educational and Social.
- ✱ Types of Counselling – Directive & Non-Directive.
- ✱ Organisation of school guidance services; use of community resources for school guidance services.

Unit – VIII : Statistics

- ✱ Measures of central tendency, Variance, Standard Deviation, Quartile Deviation.
- ✱ Inferential Statistics, Correlation (Rank Difference).

PRACTICAL WORK:

- ✿ Observing the behaviour of an early, mid adolescent and describing her/his characteristics and problems.
- ✿ Administering and interpreting the results of two tests of intelligence – verbal, non-verbal or performance.
- ✿ A case study of an exceptional child and suggesting how to provide for this particular child education.

REFERENCE BOOKS :

1. Mangal, S.K.: Advanced Educational Psychology, 2ed., PHI Learning Pvt. Ltd., New Delhi, 2008
2. Guilford, J.P.: General Psychology, 2ed., D. Van Nostrand Co. Inc., Princeton, N.J., 1952
3. Skinner, C.E.: Educational psychology (4ed.). Prentice Hall of India, New Delhi, 1996.
4. Dececco, L.: Psychology of Learning & Instruments, Prentice Hall of India Pvt. Ltd., New Delhi, 1974.
5. Bigge & Hunt : Psychological Foundation of Education, Harper & Raw Publishers, New Delhi.
6. Rastogi, K.G : Educational Psychology, Rastogi Publications, Meerut.
7. Mathur, S.S.: Educational Psychology, Vinod Pustak Mandir, Agra.
8. Wallia, J.S. : Foundations of Educational Psychology, Paul Publication, Jallundar.
9. Mohan, J.: Educational Psychology. Wiley Eastern Ltd., New Delhi, 1993.
10. Sprinital N.A. and Sprinital, R.C.: Educational psychology: A development approach (5ed.). McGraw Hill, Inc., 1990.
11. Rao, S.N.: Counseling and Guidance, 1994.
12. Brainerd: Development Mental Psychology, 1991.
13. Sharma: Counseling Psychology, 1993.



PAPER – III

ESSENTIALS OF EDUCATIONAL TECHNOLOGY AND MANAGEMENT

OBJECTIVES :

1. To introduce the teacher-trainees with the meaning and nature of educational technology.
2. To introduce the teacher-trainees with the audio-visual aids and modern innovations in the field of educational technology.
3. To make the teacher-trainees aware with various applications of modern technology and equipment in the classroom teaching.
4. To develop favourable attitude, knowledge, understanding and basic skills among pupil-teachers towards software and hardware educational technologies.
5. To make the teacher-trainees aware about the organization of various curricular and co-curricular activities in schools.

CONTENTS:

Unit I : Introduction

- ✿ Educational Technology: Meaning, definition, scope and significance.
- ✿ Approaches (hardware & software) and types (Teaching Technology, Instructional Technology, Behavioural Technology) of educational technology
- ✿ Significance and types of hardware technologies: Educational television; Projectors (OHP, slide & LCD); Computer (E-mail, internet, language laboratory)
- ✿ Significance & types of software technologies: Teleconferencing, Micro teaching, PI (linear & branching), CAI.

Unit II : Psychological bases for use of modern technologies

- ✿ Multisensory instruction
- ✿ Cone of experience (Edgar Dale)

Unit III : Modalities and Strategies of teaching

- ✿ Phases / Operations
- ✿ Levels
- ✿ Strategies
- ✿ Tactics

Unit IV : Administration and Management

- ✿ Roles and responsibilities of Principal and Teacher
- ✿ Managing educational aspects of school- Curriculum, time table, co-curricular activities
- ✿ Control and Planning- Discipline, school records, institutional planning, preparing institutional profile

Unit V : Evaluation and Standards

- ✿ Evaluating instructional outcomes- Types of test items (essay type, short answer, and objective), item construction, types of testing (norm and criterion referenced)
- ✿ Teacher evaluation – Need, significance and methods (self rating, pupil rating, peer rating principal / supervisor rating), composite rating scores and its uses
- ✿ Teacher accountability – Meaning, types, significance and assessment
- ✿ Professional norms and ethics for the teachers

REFERENCE BOOKS :

1. Mangal, S.K. & Mangal, U.: Essentials of Educational Technology, PHI Learning Pvt. Ltd., New Delhi, 2009.
2. Sampath, K., Panneerselvam, A. & Santhanam, S.: Introduction to Educational Technology, Sterling Publishers Pvt. Ltd., New

- Delhi, 1998.
3. Sharma, R.A.: Teaching Learning Innovation, Loyal Book Depot, Meerut.
 4. Sharma, R.A.: Technology of Teaching, International Publishing House, New Delhi.
 5. Sharma, R.A.: Shikshan Takniki, Loyal Book Depot, Meerut.
 6. Dale, E. : Audio-Visual Methods of Teaching, The Dayden Press.
 7. Wittich, W.A. & Shaller, C.F.: Audio-Visual Materials - Their Nature & Uses, Harper International, New York.
 8. Srivastava, S.S.: Educational Technology (Hindi), Doaba House, New Delhi.
 9. Kumar, K.L.: Educational Technology, New Age International, New Delhi.
 10. Sukhia, S.P.: School Administration organization and Health Education, Vinod Prakashan, Agra, 1997.
 11. Dececoo, & Crawford: Psychology of Learning & Instruction, Prantice Hall of India Pvt. Ltd., New Delhi.
 12. Brennan, N.K.: Curriculum for Special Needs, Open University Press, 1985.
 13. Desai, A.N.: Helping the Handicapped Problems and Prospects, Ashish Publishing House, New Delhi, 1990.
 14. Bigge & Hunt: Psychological Foundation of Education, Harper & Raw Publishers, New Delhi.
 13. Dececco, P.: Psychology of Learning & Instruction, Prentice Hall of India Pvt. Ltd., New Delhi.



PAPER - IV

METHODS OF TEACHING

This paper has been divided into three sections:

Section A: Teaching of Computer Science

Section B: Teaching of Two School Subjects

OBJECTIVES :

1. To prepare the teacher-trainees to implement teaching programmes in classrooms.
2. To enable the pupil-teachers for the needs of classroom instruction.
3. To develop necessary skills and attitude required for applying various devices and methods of teaching in integrated classrooms.
4. To familiarize the teacher-trainees with various instructional techniques.

PAPER IV (SECTION A): TEACHING OF COMPUTER SCIENCE

CONTENTS:

- Unit 1. Aims and objectives of teaching computer science. Qualities of a computer science teacher.
- Unit 2. Methods of computer science teaching – Lecture, Demonstration, Assignment, Project, Laboratory, and Problem Solving.
- Unit 3. Organization and management of computer laboratory.
- Unit 4. Text book and work book in computer science, their merits and demerits

Unit 5. Audio- visual Aids in Computer science teaching

Unit 6. Planning different types of lessons.

Unit 7. Co-relation of computer science with other school subjects

REFERNCE BOOKS :

1. Singh, Y.K. & Nath, R.: Teaching of Computers, APH Publishing Corporation, New Delhi.
2. Goyal, H.K.: *Computer Vigyan Shikshan*, R. Lall Book Depot, Meerut.
3. Leon & Leon: Fundamentals of Information Technology, Vikas Publishing House, New Delhi.



PAPER - IV (SECTION B):

(1) TEACHING OF HINDI

CONTENTS:

- Unit 1. Aims and objectives of teaching Hindi at different stages.
- Unit 2. Importance of Hindi as mother tongue in education and importance of Hindi to non-Hindi speaking people.
- Unit 3. Application of modern methods in Hindi teaching.
- Unit 4. Methods of teaching of prose and poetry.
- Unit 5. Teaching of grammar, composition and rapid reader.
- Unit 6. Use of audio-visual aids in the teaching of Hindi.
- Unit 7. Text Books as means of instruction in Hindi teaching.
- Unit 8. Evaluation in Hindi teaching.
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS:

1. Srivastava, R.: *Bhasha Shikshan*, Vani Prakashan, New Delhi
2. Kulkarni, V.: *Hindi Ki Adshyayan Paddhati*
3. Sathey, G.N.: *Rashtra Bhasha Ka Adhyan*
4. Bhagat, R.T.: *Hindi Kaisay Padhayen*
5. Shaktriya, K.: *Matra Bhasha Shikshan*
6. Pandey, R.S.: *Hindi Shikshan*, Vinod Pustak Mandir, Agra



PAPER - IV (SECTION B):

(2) TEACHING OF ENGLISH

CONTENTS:

- Unit 1. Aims and objectives of teaching English at various stages.
- Unit 2. Importance of English as a foreign language to Indians.
- Unit 3. General problems in teaching English as a foreign language.
- Unit 4. Methods of teaching English with special reference to translation method, direct method, and structural approach.
- Unit 5. Teaching of prose, poetry and rapid reading at different stages.
- Unit 6. Teaching of Pronunciation, Grammar, Composition, Translation and Dictation at different stages.
- Unit 7. Importance of textbook as means of instruction.
- Unit 8. Use of audio-visual aids in the teaching of English.
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Joseph, M & Shabir, B.A.: The Teaching of English In India, Arya Book Depot, New Delhi.
2. Memon & Patel, J.: The Teaching of English as a foreign Language.
3. Palmer: The Principles of Language Study.
4. Pathak, P.D. : Teaching of English In India, Vinod Pustak Mandir, Agra.
5. Anand, R.L.: Aims & Methods of Teaching English in India.
6. Jain, R.K.: Essentials of English Teaching, Vinod Pustak Mandir, Agra.



PAPER - IV (SECTION B):

(3) TEACHING OF MATHEMATICS

CONTENTS:

- Unit 1. Aims and objectives of teaching mathematics, Place of mathematics in school curriculum.
- Unit 2. Methods of teaching mathematics: Inductive, deductive, analysis-synthesis, laboratory, project etc.
- Unit 3. Correlation in teaching of mathematics.
- Unit 4. Importance of drill, oral and mental work in mathematics.
- Unit 5. Need and evaluation of textbook of mathematics.
- Unit 6. Audio-visual aids in teaching of mathematics.
- Unit 7. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

- 1. Aiyanger: The Teaching of Mathematics in New Education.
- 2. Pitter, F.F.: The Teaching of Mathematics.
- 3. Schultze, A.: The Teaching of Mathematics in Secondary School.
- 4. Young, J.W.A.: The Teaching of Mathematics.
- 5. Ballard, P.B.: Teaching of Essentials of Arithmetic.
- 6. Modben, L.: Mathematics for Millions.



PAPER - IV (SECTION B):
(4) TEACHING OF SCIENCE
(PHYSICS & CHEMISTRY)

CONTENTS:

- Unit 1. Place and importance of science teaching in schools.
- Unit 2. Aims of teaching science at Primary, Junior and High school levels.
- Unit 3. Methods of Science teaching: Lecture, Heuristic, Laboratory, Demonstration and Project.
- Unit 4. Science Laboratory-Construction and equipment.
- Unit 5. Audio-Visual aids in science teaching.
- Unit 6. Co-curricular activities in science teaching, Science museums, Science clubs, Excursions, Science talent search.
- Unit 7. Text books, Laboratory manuals, workbooks of science.
- Unit 8. Correlation of Physics and Chemistry internally and with other school subjects.
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Rao, A: Teaching of Physics, Anmol Publications, New Delhi.
2. Siddiqui, N.N. & Siddiqui M.N.: Teaching of Science, Doaba House, New Delhi.
3. Rawat, M.S. & Agarwal M.B., Naveen Vigyan Shikshan, Vinod Pustak Mandir, Agra
4. Yadav, M.S.: Objective Science, Anmol Publication, New Delhi
5. Singh, R.: Teaching Methods in Schools, Commonwealth Publication, New Delhi



PAPER - IV (SECTION B):

(5) TEACHING OF BIOLOGY

CONTENTS:

- Unit 1. Aims of Biology teaching.
- Unit 2. Important applications of Biology in modern human life from the school pupils' point of view.
- Unit 3. Methods of Biology Teaching: Heuristic, Demonstration, Laboratory, Inductive, Deductive and Project methods.
- Unit 4. Aids of Biology teaching-construction and maintenance of aquarium, school garden, models, charts, film projector, epidiascope.
- Unit 5. Planning a Biology laboratory: Requirement and maintenance.
- Unit 6. Co-curricular activities: Collection of specimen, presentation of specimen, excursions for biological studies, biological museums, science fairs and science clubs.
- Unit 7. Textbooks and work-books in Biology: Merits and demerits.
- Unit 8. Correlation of Biology with other sciences and with other schools subjects.
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

- 1. Chandra, T.: Principles of Teaching, Anmol Publication, New Delhi
- 2. Version: Biological Science - An inquiry in to life.
- 3. Green, T.I.: Teacher of Biology of Secondary Schools.
- 4. Chauhan, S.S.: Innovations in Teaching, Vikash Publication House, New Delhi
- 5. Kulshrestha, S.P.: Jeev Vigyan Shikshan, Loyal Book Depot, Meerut



PAPER - IV (SECTION B): (6) TEACHING OF HISTORY

CONTENTS:

- Unit 1. History: Meaning, nature and scope; Formulating the objectives of teaching History at the junior and senior stages with special reference to desired behaviour.
- Unit 2. The teaching of current events in History, Syllabus and textbooks of History at the junior and senior stages, their critical analysis and evaluation.
- Unit 3. Methods and techniques of teaching History.
- Unit 4. Aids and Equipment in History teaching
 - a. Black-board, Maps, Graphs and time and space charts, pictures, Models, slides, Films, Filmstrips.
 - b. History room
 - c. History Library
 - d. Role of History teacher
- Unit 5. Teaching of History and international understanding of our human heritage.
- Unit 6. Examination and evaluation in History, Evaluation approach to the teaching of history, Different techniques of evaluation, different types of test (essay, short answer, objective based), their merits and limitation.
- Unit 7. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Kaushambi, D.D.: An Introduction to Study of History.
2. Hurston, W.N.: Principles of Teaching History.
3. Ghate, V.D.: Suggestion for Teaching of History in India.
4. Tyagi, G.D.: Itihas Shikshan, Vinod Prakashan, Agra.
5. Pillai, N.P.: History and Method of Teaching of History.
6. Chowdhary, K.P.: Audio-Visual Aids in Teaching of Indian History.

PAPER - IV (SECTION B):

(7) TEACHING OF CIVICS

CONTENTS:

- Unit 1. Justification of the teaching of Civics as a separate subject in the school curriculum; Propagation of social ideals through teaching of Civics.
- Unit 2. Formulating objectives of teaching Civics at different levels.
- Unit 3. The syllabus of Civics, its scope and adequacy; an evaluation of the contents of the present syllabus. Principles involved in the construction of a syllabus for Civics. Fixing up the contents to be prescribed as learning experience for different grade.
- Unit 4. Methods, techniques and aids of teaching Civics to be discussed under the following heads.
 - a) The broad principles
 - b) Their suitability to different content areas
 - c) Application precautions to be taken while using different methods, techniques and aids.
 - d) Evaluation, discussing their merits and demerits.
- Unit 5. Textbooks of Civics. How to construct the evaluation criteria for the appraisal of textbook in Civics and its application principles involved in the selection of textbooks. An evaluation of the current textbooks of Civics.
- Unit 6. Evaluation approach in the teaching of civics, construction of objective based items in Civics.
- Unit 7. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

- 1. Tyagi, G.D.: *Nagrik Shastra Shikshan*, Vinod Pustak Mandir, Agra

2. Kochhar, S.K.: Teaching of Social Science, Sterling Publication, New Delhi.
3. Buning A. C.: Teaching of Social Studies in Secondary Schools, McGraw Hill Book Company Inc., New York.
4. High J.: Teaching Secondary School Social Studies, The Macmillan Company, New York.
5. Singh, R.P.: Civics Teaching, R. Lal Book Depot, Meerut
6. Mittal, M.L.: Civics Teaching
7. Kodesia, U.C.: Civics Teaching Techniques, Vinod Pustak Mandir, Agra



PAPER - IV (SECTION B):

(8) TEACHING OF ECONOMICS

CONTENTS:

- Unit 1. The meaning and scope of Economics, a brief history of Economics thought. Significance and importance of Economics in the school curriculum.
- Unit 2. Formulating objectives of teaching Economics at different stages.
- Unit 3. Methods, techniques and aids in the teaching of Economics.
- Unit 4. A critical evaluation of the textbooks and syllabus to Economics preparing evaluation criteria for this.
- Unit 5. Correlation of the teaching of Economics with other subjects.
- Unit 6. Improving tools and visual aids for the teaching of Economics.
- Unit 7. Application of evaluation approach in the teaching of Economics, construction of objective centered test items.
- Unit 8. Qualities of good Economics Teacher
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Tyagi, G.D.: Teaching of Economics, Vinod Pustak Mandir, Agra
2. Buning, A.C.: Teaching of Social Studies in Secondary Schools, McGraw Hill Book Company Inc., New York.
3. High J.: Teaching Secondary School Social Studies, The Macmillan Company, New York.
4. Jarolimek, J.: Social Studies in Elementary Education, The Macmillan Company, New York.
5. Sharma K. & Tuteja T.: Teaching of Economics, Vani Prakashan, New Delhi.



PAPER - IV (SECTION B):

(9) TEACHING OF GEOGRAPHY

CONTENTS:

- Unit 1. Significance of Geography in the school curriculum, the modern concept of Geography for national and international understanding.
- Unit 2. Objectives of teaching Geography at the senior stages with special reference to desired behaviour change, understanding of ecology through Geography.
- Unit 3. Methods and techniques in teaching of Geography.
- Unit 4. The place of pictures, models and sketches and other material aids in the teaching of geography. Preparing maps and charts.
- Unit 5. Equipment of the Geography room, apparatus and applications, the Geography museum and library, the study of local Geography Excursion.
- Unit 6. Correlation of Geography with other subjects with particular reference to Science, Nature study, Work and History.
- Unit 7. Application of evaluation approach in teaching of Geography, Construction of objective centered item in Geography.
- Unit 8. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

- 1. UNESCO: Source Book for Geography Teaching, Langmans Green & Co., Paris.
- 2. Bernard, H.G.: Principles & Practice of Teaching Geography (3ed.). University Tutorial Press, London.
- 3. Hart, S.R.: Perspectives on the nature of Geography. Butler and Tanner Ltd., London.
- 4. Morris, J.W.: Methods of Geography Instruction, Blaissdell Publishing Co., London.
- 5. Simpson C.: The Study of Local Geography - Hand Book for Teachers.

6. Long, M. & Robertson, B.S.: Teaching Geography, Education Book Ltd., London.
7. Singh, H.N.: *Bhugol Shikshan*. Agra: Vinod Pustak Mandir, Agra.



PAPER - IV (SECTION B): (10) TEACHING OF COMMERCE

CONTENTS:

- Unit 1. The meaning and scope of Commerce; Significance and importance of commerce in school curriculum.
- Unit 2. Objectives of teaching Commerce, proper selection of profiles for the course. Course curriculum and its division.
- Unit 3. Equipment and aids for effective instruction and classroom arrangement.
- Unit 4. Different methods and techniques of teaching Commerce.
- Unit 5. Correlation of the Commerce with other subject.
- Unit 6. Selection of textbooks, reference Books, reports, trade journals and statistical publications.
- Unit 7. Evaluation methods in Commerce.
- Unit 8. Qualities of a Commerce teacher.
- Unit 9. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Singh R.P. & Singh P.: *Vanijya Shikshan*, Vinod Pustak Mandir, Agra
2. Tripathi, S.: Teaching Methods, Radha Publications, New Delhi
3. Chauhan, S.S.: Innovations in Teaching Learning Process, Vikash Publication House, New Delhi
4. Siddiqui, M.H.: Excellence of Teaching, Ashia Publication House, New Delhi



PAPER - IV (SECTION B):

(11) TEACHING OF HOME SCIENCE

CONTENTS:

- Unit 1. Aims, objectives and importance of Home Science.
- Unit 2. Subject to be included in Home Science -
 - a) Physiology and Hygiene
 - b) Home Nursing and First-Aid
 - c) Needle work, household sewing and mending
 - d) Food values and cooking
 - e) Home Management
 - f) Laundry and the values of each in the Home-economy.
- Unit 3. Methods of Home Science teaching- Demonstration, Project, Laboratory, excursion and exhibition.
- Unit 4. Material aids for teaching of Home science, library books, charts, models and other apparatus required for the teaching of the various branches of the subjects.
- Unit 5. Organization of Home Science department.
- Unit 6. Qualities of a good teacher of Home Science.
- Unit 7. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Shaili, G.P.: Grah Vigyan Sikshak, Vinod Pustak Mandir, Agra
2. Das R.R. & Ray, B.: Teaching of Home Science, Sterling Publications Private Limited, New Delhi
3. Sukhiya, S.P.: Home Science Teaching, Sahitya Prakashan, Agra
4. Bloom, B.S.: Taxonomy of Education Objectives, McKay Co., New York
5. Bossing, N.H.: Teaching Secondary Schools, Amrind Publishing Co., New Delhi
6. Ryons, D. C.: Characteristics of Teachers, Sterling Publication Co. Pvt. Ltd., Delhi



PAPER - IV (SECTION B):

(12) TEACHING OF SANSKRIT

CONTENTS:

- Unit 1. The importance of Sanskrit as a classical language, its cultural, literary and linguistic values, relationship of Sanskrit with modern Indian languages.
- Unit 2. Aims of teaching Sanskrit at different stages.
- Unit 3. Methods of teaching Sanskrit-grammatical method, substitution method, translation method, direct method analytical & explanatory method.
- Unit 4. Methods of Teaching-Prose, Poetry, Grammar, Composition, Dictation, Translation, Drama & rapid reader.
- Unit 5. Importance of Phonetics.
- Unit 6. Use of audio-visual aids in the teaching of Sanskrit.
- Unit 7. Planning different types of lessons, steps involved in lesson planning : Herbartian and Unit planning.

REFERENCE BOOKS :

1. Pandey, R.S.: *Sanskrit Shikshan*, Vinod Pustak Mandir, Agra.
2. Mittal, S.: *Sanskrit Shikshan*, R. Lall Book Depot, Meerut.
3. Vatsa, B. L.: *Sanskrit Shikshan*, Vinod Pustak Mandir, Agra.



PAPER - IV (SECTION B): (13) TEACHING OF SOCIAL STUDIES

CONTENTS:

- Unit 1. Aims and objectives of teaching social science with special reference to Indian conditions.
- Unit 2. Curriculum of social science at secondary level and its critical analysis.
- Unit 3. Principles and maxims of class-room teaching of social science.
- Unit 4. Traditional and modern methods of teaching social science.
- Unit 5. Techniques of teaching social science.
- Unit 6. Teaching aids in the teaching of social science: importance of teaching aids, different kinds of teaching aids.
- Unit 7. Text book of social science: importance of text book, basic principles of selection of text books, critical study of present text book of social science at secondary level.
- Unit 8. Lesson planning in social science: meaning, needs, importance and preparation of lesson planning.
- Unit 9. Teacher of social science: personal, social and professional qualities of an ideal teacher of social science.

REFERENCE BOOKS :

1. Kochhar, S.K.: Teaching of Social Science, Sterling Publication, New Delhi.
2. Bunning, A.C.: Teaching of Social Studies in Secondary Schools, McGraw Hill Book Company, Inc., New York.
3. High, J.: Teaching Secondary School Social Studies, The Macmillan Company, New York.
4. Tripathi, S.: Teaching Methods, Radha Publications, New Delhi.
5. Chauhan, S.S.: Innovations in Teaching Learning Process, Vikash Publication House, New Delhi.
6. Siddiqui, M.H.: Excellence of Teaching, Ashish Publication House, New Delhi.

PAPER – V

COMPUTERS & THEIR USES IN EDUCATION

OBJECTIVES:

After undergoing this course the teacher-trainees will be able to:

- 1: Understand the working of computers.
2. Use computers to enhance teaching / learning skills.
3. Use various hardware and software tech'nology in their classroom processes.
4. Use computers in designing lesson plan.curriculum
5. Develop skills in the use of internet.
6. Understand and operate windows and its applications.

CONTENTS:

Unit-I Introduction to computer

Definition of computer, characteristic and generation of computer, Block diagram of computer, Basic concept of computer system, Types of computer.

Unit -II Common Prophetical Devices

Input devices (key board, pointing devices, scanner, OMR, OCR, MICR, Bar Code Reader), Voice recognition devices, output devices- VDU and its type (LCD,TFT, CRT, image projector), Printers and its type.

Unit-III Storage Devices

Primary memory and its type, Secondary memory -Hard disk, CD, Mass Storage Device (Pendrive), DVD, Flash Drives.

Unit-IV Communication & Network

Communication and its elements, modes of communication, communication media, Networking: need and importance, network technologies, types of networks (LAN, WAN), Internet, types of internet connections (Dial-up, PPP, TCP/IP), WWW, URL, E-Mail, Search engines, Web browsers, ISP.

Unit-V Operating System

Types of software, Introduction to operating system, functions of operating system, types of operating system: batch processing, time sharing, Multi-programming, Multiprocessing, real-time. Introduction to Windows XP and its basic operations (Explorer, File Manager, Managing Printing).

REFERENCE BOOKS:

1. Sinha, P.K.: Computer Fundamental, BPB Publication, New Delhi.
- 2.. Rajaraman, V: Fundamental of Computers,
3. Computer Primer: Raja Ramana, Ed.2, New Delhi: Prentice-Hall of India Pvt. Ltd.
4. Fundamentals of computers by V. Rajaraman, PHI, New Delhi.
5. ABCs of Intranets'By Dyson, BPB publication, New Delhi.
6. Balamurali, S.: An Introduction to Computer Science, Vikas Publishing House, New Delhi.



PAPER- VI

COMPUTER AIDED TEACHING/LEARNING

OBJECTIVES:

1. To enable teacher trainees in understanding the educational applications of computer.
2. To provide teacher trainees with an in-depth understanding of latest trends in teaching with computers.
3. To acquaint the teacher trainees with the knowledge regarding computer hardware and software environment to support CAI.
4. To make the teacher trainees aware with the issues, problems, strategies for the using CAI.

CONTENTS:

Unit-I

Role and history of computers in teaching, Terminology such as CAI, CMI, CBT, hardware & software requirements to develop CAI.

Unit-II

Styles of CAI and selection of Style to achieve different instructional objective, uses of CAI in existing teaching system and its contribution to lectures, self study, distance teaching-learning.

Unit-III

Design and Development of educational software, screen design, user interface design, robustness and evaluation of educational software.

Unit-IV

Role of Multimedia in education, Artificial Intelligence, use of AI techniques in teaching and learning.

Unit-V

Introduction to MS-PowerPoint, uses of PowerPoint, creating presentations using different slide layouts and templates. Inserting pictures, clip art, table, graph, word-art, sound, video in presentations. Slide animation and transition, background, different views of slides; Creating master slides.

PRACTICAL WORK:

Practicals based on MS-Power Point

REFERENCE BOOKS:

1. Mc. Dougall, A. and Dowling, C. Computers in Education, North Holland.
2. Gallini, J.K. : Instructional Design for computers.
3. Reza Azarmsa : Educational Computing - Principal and Applications, Educational Techonology pub., New Delhi.
4. Laurice Ulrich: Sams Teach yourself Microsoft Office 2000 in 21 days: Tech media, New Delhi.
6. Let us Learn Computers by Mehta, BPB publication, New Delhi.
7. Exploring Microsoft Office XP by Breedon II, BPB publication, New Delhi.
8. Learning Microsoft Office XP by Weixel, , BPB publication, New Delhi.



PAPER - VII

COMPUTER PROGRAMMING AND WORD PROCESSING

OBJECTIVES:

After undergoing this course, teacher-trainees will be able to:

1. Use computers to enhance teaching-learning skills.
2. Use various technology applications like Word processors, spreadsheets in their classroom processes.
3. To develop programs using BASIC language.
4. Use computers in designing lesson plan, curriculum.

CONTENTS

Unit-I Introduction to Computer Languages

Low level language, High level language, Classification of High level language, Program translators: Assembler, Compilers, Interpreter, Characteristics of good programming languages. Number System : Binary, Decimal, Octal, Hexa Decimal number system and its conversion.

Unit -II Program design

Modular Program, Structured Program, Top-down and Bottom-up design Approach, Steps to Program development (System Development Life Cycle), Designing tools : Algorithms, Flow chart, Pseudo-code .

Unit-III BASIC

Constants and Variables. Operators and Expressions, Mathematical and Logical operators, Hierarchy of operations, Use of parentheses, Input and Output statements, Relational operators, conditional branching(if - then - else), Multiple branching(on goto), looping: for-next, while-wend, nested-

loops, Functions, Library functions, Referencing a function, Subroutine, Arrays.

Unit-IV Documentation Tool -MS Word

Creating, opening, saving and printing documents; Page setup, Text formatting, Paragraph formatting, Page breaks, Header and footer. Deleting, moving, replacing and editing text document. Creating and editing tables; Toolbar and its utility. Mail merge.

Unit-V Analysis Tool-MS Excel

Introduction to Worksheet/Spreads, Features of Excel, Formatting worksheets and workbook, Graph and its formatting, In-built functions of Excel, Formatting Cells, Sorting the data, Querying the data, Filtering the data (auto and advance filters), What-if analysis, printing a worksheet.

PRACTICAL WORK:

Based on:

Basic Programming language (Unit -III)
MS- Word & MS-Excel (Unit IV and V)

REFERNCE BOOKS:

1. Sinha, P.K.: Computer fundamental, BPB Publication, New Delhi.
2. Rajaraman, V: Fundamental of Computers
3. Computer Primer: Raja Ramana, Ed.2, New Delhi: Prentice-Hall of India Pvt. Ltd.
4. Sams Teach yourself Microsoft Office 2000 in 21 days: Laurice Ulrich, Tech media, Munish plaza, 20 Ansari road, Darya Ganj, New Delhi -2.
5. Manahar Lotia : Modern All About Gw -basic, BPB publication, New Delhi.
6. Programming with Basic by Byron S. Gottfried, TMH, New Delhi.
7. Fundamentals of computers by V. Rajaraman, PHI, New Delhi.

8. Let us Learn Computers by Mehta, BPB publication, New Delhi.
9. Excel 2000/2002 - Right From The Start By Heathcote, BPB publication, New Delhi.
10. MS Word 2002 - Right From The Start By Richard, BPB publication, New Delhi.
11. ABCs of Intranets By Dyson, BPB publication, New Delhi

