

(I1) Sociological Foundation of Education

Objectives :

To enable the trainee teacher

1. To develop the understanding of interrelationship between sociology and Education.
2. To understand the role of various agencies in the process of socialization various agencies in the process of socialization and Education.
3. To get acquainted with the concept of social change.
4. To understand various barriers in National Integration and measures taken for it.
5. To get acquainted with social aspects of Education.

Unit 1 : *Educational Sociology*

- 1.1 Meaning and scope of sociology and Educational Sociology.
- 1.2 Interrelationship between Education and Social variables.
 - a) Education and Family
 - b) Education and Culture
 - c) Education and Religion
 - d) Education and Economics
 - e) Education and Politics
 - f) Education for Peace

Unit 2 : *Education and Socialization*

- 2.1 Process of Socialization
- 2.2 Agencies of Socialization
 - a) Family
 - b) School
 - c) Peer Group
 - d) Mass Communication Media

Unit 3 : *Agencies of Education*

- 3.1 Informal agencies
 - a) Community
 - b) Reference group
 - c) Cultural organization
 - d) NGO
- 3.2 Formal agencies
 - a) School
 - d) Government organization - State

Unit 4 : *Education and Social Change*

- 4.1 Meaning of social change
- 4.2 Education as an instrument of social change and social discipline.
- 4.3 Barriers in National Integration - Religion, Social, Economic, Political, Linguistic, Education.

- 3.4 Meaning and Measures taken for equality of opportunities - Gender, Weaker section, Women

Unit 5 : *Social Aspects of Education*

- 5.1 Population Education
5.2 Health Education
5.3 Human Rights - Concept, role of education in promoting human rights
5.4 Futurology of Education

Practical :

Study of needs and aspirations of two pupils and parents.

Reference Books

1. Principles of education – R. M. Marathe
2. Teacher and Education in Emerging Indian Society – NCERT
3. Education Sociology – Francic – Francic Brown
4. Sociological Approach to Education – S. S. Mathur
5. Human values & Education – S. P. Ruhela
6. Educational Philosophy & Sociology – Waila
7. Educational Theories & Modern Trends – G. N. Graind & R. P. Sharma.
8. Human Values in Education – Gupta N.
9. Future studies, National Psychological Corporation agra – Passi B. K. and Sahool P. K.
10. Future Shock, Batam Books, New York – Toffler Ealvin (1971)
11. Future classrooms in India, Vikas Publishing House, New Delhi – Singh R. P. (1966)

(12) Psychology of Learner and Learning Processes

Objectives :

To enable the trainee teacher

1. To understand the process of learning, theories of learning and factors affecting learning.
2. To get acquainted with the individual differences in learners
3. To understand the behaviour of learners in a social environment.
4. To understand the effect of teacher behaviour on student- achievement.

Unit 1 : *Learning*

- 1.1 Concept, nature, process / steps of learning.
1.2 Factors affecting learning.
a) Maturation - Concept and educational implications.

- b) Attention - Concept, types and educational implications.
- c) Motivation - Concept (Maslow's theory of self actualization)

Unit 2 : *Theories of Learning*

- 2.1 Behaviourist theories
 - a) Trial and error learning.
 - b) Conditioning - Classical and operant
- 2.2 Cognitivist theory - Ausbel's meaningful verbal learning.
- 2.3 Social Learning – Vygotsky's social development theory.
- 2.4 Constructivistic approach of learning and its classroom applications
 - a) Co-operative and collaborative learning - concept and principles.
 - b) Brain based learning - concept and principles.
- 2.5 Transfer of learning – concept and types.

Unit 3 : *Learner Diversity*

- 3.1 Individual differences : Concept, areas
- 3.2 Influence of internal and external factors on academic achievement of learners.

Unit 4 : *Social Psychology*

- 4.1 Meaning and characteristics of a social group.
- 4.2 Group dynamics - Process and importance in learning
- 4.3 Importance of development of group cohesiveness.
- 4.4 School as a social group - role in social and emotional development of the learner.

Unit 5 : *Effect of teacher behaviour on student achievement*

- 5.1 Effective teaching - concept.
- 5.2 Planning for effective teaching.
- 5.3 Important Learning Principles
- 5.4 Classroom Management Strategies
- 5.5 Knowledge of basic brain structure and relation to learning and intelligence.

Practical : Prepare a lesson plan based on co-operative learning strategies.

Reference Books

1. Elementary Educational Psychology – J.C. Aggarwal
2. Educational Psychology – D. Bhatia
3. Educational Psychology – S. S. Mathur
4. Educational Psychology – S. K. Mangal
5. Educational Psychology – Stella Reynolds
6. Psychological Foundations of Education – N. K. Dutt
7. Fundamentals of Experimental Psychology – W. N. Dandelar
8. Educational Psychology – A. K. Nayak
9. Educational Psychology – B. Upadhya
10. Psychology of Learning and development – J. C. Aggarwal
11. Basic ideas in educational Psychology – J. C. Aggarwal

12. Textbook of Educational Psychology – Y. Sharma
13. Critical Educational Psychology – J. Ysseldyke
14. Psychological Foundations of Education – I. Thomarasseri
15. Educational Psychology – P. Bhatt
16. Advanced Educational Psychology – B. Upadhya and Y.Singh
17. Educational Psychology – M. H. Siddiquie
18. Educational Psychology – P. Sharma
19. Special Education – A. Chadha
20. Psychological Foundations of Education – Prem Prakash
21. Advanced Educational Psychology – S. K. Mangal
22. Educating children with special needs – A. Chadha
23. Children's Education and Maturation Process – Pushpa Agarwal
24. Advanced Educational Psychology – B. Kuppusamy
25. Psychological Foundations of Education – W. N. Dandekar
26. Educational Psychology – Tara Chand
27. Educational Guidance & Counseling – B.D. Damnal
28. Educational Psychology – S. S. Mathur
29. A text book of educational Psychology- R.N.Dash and N.A. Dash

(I3) Educational Management

Objectives :

To enable the trainee teacher -

1. To understand the concept of educational management.
2. To become competent in educational planning, organization and administration.
3. To understand administrative setup related to Secondary and Higher Secondary education.
4. To get acquainted with various agencies and institutions at national and state level concerned with Secondary and Higher Secondary education.
5. To comprehend various problems and remedies of Secondary and Higher Secondary education.

Unit 1 : *Introduction to Educational Management*

- 1.1 Concept, meaning, characteristics of educational management
- 1.2 Principles and functions of management
- 1.3 Styles of educational management
 - a) Democratic
 - b) Autocratic
 - c) Laissez faire
- 1.4 Classroom Management - concept, importance.
- 1.5 Disaster Management - concept, importance

Unit 2 : *Managerial Practices:*

A) Physical Resources

2.1 Characteristics of ideal school surroundings and building.

2.2 Infrastructural facilities

a) Classroom b) Laboratory

c) Library d) Playground

2.3 School records and their maintenance.

B) Human Resources

2.4 Eligibility and functions and interrelationship of

a) Teacher b) Headmaster

c) Supervisor d) Non teaching staff

C) Planning

2.5 Planning and process of timetable and staff meeting.

Unit 3 : *Administrative set-up and service regulations*

3.1 Main objectives of secondary and higher secondary education.

3.2 Structure, duties and functions of directorate of education - Maharashtra.

3.3 Functions and duties of

a) Secretary b) District Education Officer

3.4 Secondary school code - Importance

3.5 Secondary Education Act

Unit 4 : *Issues and problems of secondary and higher secondary education.*

4.1 Problems of wastage and Stagnation

4.2 Problems of crowded classes.

4.3 Problems of school discipline.

4.4 Problems of location of '+2' stage

4.5 Problems of vocational education

Unit 5 : *Supportive Educational Agencies*

5.1 State Council of Educational Research and Training (SCERT)

5.2 Maharashtra State Board of Secondary and Higher Secondary Education.
(M.S.B.S.H.S.E.)

5.3 Maharashtra State Bureau of Text Book Production and Curriculum Research.

5.4 State Institute of Educational Technology (Balchitravani, SIET)

5.5 State Institute of Science Education. (SISE)

Practical :

1) Study of functioning of an educational institution.

2) Study of physical resources of secondary/ higher secondary schools.

Reference Books

1. Teacher and Secondary education – Mathur S.

2. School organization and administration – Sidhu, Kulbir S.

3. History of Indian Education and contemporary problems – Khanna S.D.

4. School organisation, administration & Management – Sachdeva M.S.
5. School organisation and Management – Aggarwal J.C.
6. Management of Education – Rao V.K.
7. Innovations in higher education – Aikara Jacaob
8. Educational administration and Management – Goel Aruna
9. School organisation and administration – Singh Raj
10. School Management – Tilak J.
11. Higher education and administration – Son.R.
12. School Administration – Sharma B.M.
13. Problems of secondary education – Hemchand T.K.
14. Problems of higher education – Hemchand T.K.
15. School resource planning and management – Josephine
16. School Management – Panda U.

(J1) Educational Research

Objectives :

To enable to Trainee Teacher-

1. To understand the concept of research and educational research.
2. To understand the types and methods of educational research.
3. To understand the steps involved in action research.
4. To understand the use of different tools and techniques in educational research.
5. To understand the concept, steps and significance of research proposal.

Unit 1 : *Introduction to Educational Research*

- 1.1 Meaning and nature of Educational research
- 1.2 Importance of Educational research
- 1.3 Areas of Educational research

Unit 2 : *Types and Methods of Educational Research*

- 2.1 Types of Educational research
 - a) Fundamental research - concept
 - b) Applied research - concept
 - c) Action research - concept, significance, characteristics and steps
- 2.2 Methods of Educational research
 - a) Historical research - concept, significance and characteristics
 - b) Survey - concept, significance and characteristics
 - c) Experimental research - concept, significance and characteristics

Unit 3 : *Tools and Techniques of Data Collection*

- 3.1 Tools of Data collection
 - a) Questionnaire
 - b) Rating Scale

- c) Check list
- 3.2 Techniques of Data collection
 - a) Interview
 - b) Observation

Unit 4 : *Population and Sampling*

- 4.1 Population - concept
- 4.2 Sampling - concept, methods of sampling - probability and non probability and their subtypes
- 4.3 Characteristics of a good sample

Unit 5 : *Research Proposal*

- 5.1 Concept and significance of research proposal
- 5.2 Review of related literature - Concept and significance
- 5.3 Hypothesis - concept and types
- 5.4 Assumptions, Scope, Limitations, Delimitations, Variables - concept
- 5.5 Steps in research proposal

Practical :

Preparation of a research proposal.

Reference Books

1. Research Methodology & Statistical techniques - R.C.Manocha
2. Educational testing and Measurement - Tom Kubisyn
3. Statistics in Psychology and Education - S. K. Mangal
4. Constructing classroom examinations - D. George
5. Methods of educational research - R. Prakash
6. Statistics in educational research - R.P.Pathak

(J2) Teacher Education

Objectives :

To enable the trainee teacher-

1. To get acquainted with the concept of Teacher Education.
2. To become aware about recommendations of various commissions on Teacher Education.
3. To know the structure and functions of various agencies of Teacher Education.
4. To understand various aspects of Teacher Education.
5. To understand the current issues in Teacher Education.

Unit 1 : *Concept of Teacher Education*

- 1.1 Teacher Education - Meaning and Nature.
- 1.2 Teacher Education as distinguished from Teacher training.
- 1.3 Teacher Education - Importance
- 1.4 Teacher Education - Aims and Objectives at different level.
- 1.5 Qualification and eligibility conditions for teachers at different levels.

Unit 2 : *Recommendations of various commissions on Teacher Education*

- 2.1 Kothari Commission
- 2.2 National Policy on Education (1986)
- 2.3 Programme of Action (1992)
- 2.4 National curriculum framework (2005)

Unit 3 : *Agencies of Teacher Education*

- 3.1 U.G.C.
- 3.2 NCERT and SCERT
- 3.3 NCTE
- 3.4 Open University

Unit 4 : *Aspects of Teacher Education*

- 4.1 Pre-service Teacher Education - Concept and Importance.
- 4.2 In-service Teacher Education - Concept and Importance.
- 4.3 In-service Teacher Education – Types: orientation and refresher courses.
- 4.4 Teachers’ professional organizations
- 4.5 Teacher Evaluation

Unit 5 : *Current issues in Teacher Education*

- 5.1 Teacher Education and practicing schools
- 5.2 Preparing Teacher for special schools
- 5.3 Preparing Teacher for inclusive classroom
- 5.4 Integrating technology in Teacher Education
- 5.5 Faculty improvement programme in Teacher Education

Practical :

A study of any Teacher Education institute

Reference Books

1. Teacher Education - Theory and Practice - J.C. Aggarwal
2. Teacher Education - V.K. Rao
3. Teacher Education - U.K. Singh, K.N. Sudershan
4. Principles and practices of Teacher Education - Janardan Prasad

Content-Cum-Methodology in School Subjects

Objectives :

To enable the trainee teacher-

- 1) To understand the nature and importance of maxims, principles, methods, techniques and models of teaching.
- 2) To be aware of the role and responsibilities of a subject teacher.
- 3) To understand the importance of subject related educational activities.
- 4) To get acquainted with the nature and importance of subject related evaluation procedure.

(K1) English

Unit 1 : *Teaching of English.*

- 1.1 Principles of teaching of English.
- 1.2 Maxims of teaching of English.
- 1.3 Methods of teaching of English.
 - a) Grammar Translation Method
 - b) Direct Method
- 1.4 Approaches of teaching of English
 - a) Structural Approach
 - b) Communicative Approach
- 1.5 Techniques of teaching of English
 - a) Story telling
 - b) Dramatization
 - c) Role playing
- 1.6 Models of teaching for teaching English.
 - a) Advance Organizer Model.
 - b) Concept Attainment Model.

Unit 2 : *Teaching of special aspects of English.*

- 2.1 Methods of teaching listening
 - a) Extensive listening
 - b) Intensive listening
- 2.2 Methods of teaching speaking
 - a) Conversation
 - b) Imitation and practice
- 2.3 Methods of teaching reading
 - a) Alphabet method
 - b) Word method
 - c) Phrase method
 - d) Sentence method
- 2.4 Methods of teaching writing
 - a) Drill and practice
 - b) Spelling and Punctuation
- 2.5 Teaching of various aspects of English.
 - 1) Teaching of Prose
 - 2) Teaching of Poetry
 - 3) Teaching of Grammar
 - 4) Teaching of Composition

Unit 3 : *English Teacher*

- 3.1 Qualities of Good English Teacher
- 3.2 Role and responsibilities of an English teacher in organization of subject related activities - essay, elocution, debate, drama competitions etc.
- 3.3 Supplementary examinations for language proficiency.

Unit 4 : Evaluation Procedure.

- 4.1 Nature and Procedure of Evaluation of
 - a) Auditory Comprehension
 - b) Speaking
 - c) Reading
 - d) Writing
 - e) Composition
- 4.2 Diagnostic testing and Remedial teaching in English.

Practical Work :

Subject related practical

Reference Books

1. Content-cum-Methodology of English - Waje S.R.
2. Methods of teaching English - Wakankar K.
3. Models of teaching English - Jouce Bruce
4. Teaching of English - Quirk Randoph
5. Teaching of English - Panihrahi S.S.
6. Teaching of English language - Sharma P.
7. Teaching of English - Sharma K.(ed.)
8. Teaching of English - Tarafder S.K.
9. Teaching of English in India - Gautam G.J.
10. Principles, methods and techniques - Agarwal J.C.
11. New approach to teaching English in India - Sachedeva M.S.
12. Theory and Practice of teaching English language - Pawar N.G.
13. Teaching of English a Modern Approach - Bose F.L.
14. The techniques of language teaching - Billows F.L.
15. Teaching of English as a second language – Allen H.B.
16. Language Testing - Labo Robert
17. The essentials of English Teaching - R.K. Jain
18. Teaching of English - G.L. Gadre
19. Structural Approach to Teaching of English - B.D. Shrivastav

(K2) मराठी

घटक १ : मराठीचे अध्यापन

- १.१ मराठी अध्यापनाची तत्वे
- १.२ मराठी अध्यापनाची सूत्रे
- १.३ मराठी अध्यापनाच्या पध्दती
 १. व्याख्यान पध्दती
 २. नाटयीकरण पध्दती
 ३. चर्चापध्दती
 ४. प्रकल्प पध्दती
- १.४ मराठी अध्यापनाची तंत्रे
 १. कथाकथन
 २. भूमिकाभिनय
- १.५ मराठी अध्यापनासाठी प्रतिमाने
 १. अग्रत संघटक प्रतिमान
 २. संकल्पना प्राप्ती प्रतिमान

घटक २ : मराठी विषयातील भाषिक कौशल्यांच्या विकासासाठी अध्यापन

- २.१ श्रवण कौशल्य विकास
- २.२ भाषण कौशल्य विकास
- २.३ वाचन कौशल्य विकास
- २.४ लेखन कौशल्य विकास
- २.५ मराठी विषयाच्या विविध अंगांचे अध्यापन
 १. गदय अध्यापन
 २. पदय अध्यापन
 ३. व्याकरण अध्यापन
 ४. निबंध लेखनाचे अध्यापन

घटक ३ : मराठी अध्यापक

- ३.१ चांगल्या मराठी अध्यापकाची गुणवैशिष्ट्ये
- ३.२ विषयाशी संबंधित उपक्रमांमध्ये मराठी अध्यापकाची भूमिका व जबाबदारी
- ३.३ मराठी भाषा विकासासाठी पूरक परिक्षा

घटक ४ : मूल्यमापन प्रक्रिया

- ४.१ अ) श्रवणाद्वारे आकलन ब) भाषण क) वाचन
ड) लेखन इ. च्या मूल्यमापनाची प्रक्रिया व स्वरूप
- ४.२ मराठी विषयासाठी नैदानिक चाचण्या व उपचारात्मक अध्यापन

प्रात्यक्षिक कार्य:

विषय संबंधित प्रात्यक्षिक

संदर्भसूची

१. आशययुक्त अध्यापन पध्दती - संपादक, डॉ.अनंत जोशी, १९९९
२. मातृभाषा मराठीचे अध्यापन - शास्त्रीय विश्लेषण - डॉ. नलिनी पिचड, डॉ.रामदास बरकले २००१
३. मराठीचे अध्यापन व अध्यायन - डॉ.दि.हे. पाटील, डॉ.श.रा.राणे
४. मराठीचे अध्यापन - अकोलकर, पाटणकर
५. मातृभाषेचे अध्यापन - चंद्रकुमार डांगे
६. मराठी कवितेचे अध्यापन - फाटक
७. मराठीचे अध्यापन - कुंडले

(K3) हिंदी

अध्याय १ : हिंदी अध्यापन

- १.१ हिंदी अध्यापन के तत्व एवं सूत्र.
- १.२ हिंदी अध्यापन की प्रणालियां.
 १. व्याख्यान प्रणाली
 २. चर्चा प्रणाली
 ३. स्वाभाविक प्रणाली
 ४. व्याकरण अनुवाद प्रणाली
- १.३ हिंदी अध्यापन के लिये आवश्यक प्रतिमान.
 १. अग्रत संघटक प्रतिमान.
 २. संकल्पना प्राप्ति प्रतिमान.

अध्याय २ : हिंदी भाषा के विविध अंगों का अध्यापन

- २.१ श्रवण
- २.२ भाषण
- २.३ वाचन
- २.४ लेखन
- २.५ अ) गदय अध्यापन
ब) पदय अध्यापन
क) व्याकरण अध्यापन

अध्याय ३ : हिंदी अध्यापक

- ३.१ अच्छे हिंदी अध्यापक के गुण विशेष.
- ३.२ हिंदी विषय से संबंधित उपक्रमों में हिंदी अध्यापक की भूमिका एवं जिम्मेदारियां.
- ३.३ हिंदी भाषा विकास के लिये पूरक परिक्षाएं.

अध्याय ४ : मूल्यांकन प्रक्रिया

- ४.१ श्रवण, भाषण, वाचन एवं लेखन कौशलोंका मूल्यांकन स्वरूप एवं प्रक्रिया.
- ४.२ नैदानिक कसोटी एवं उपचारात्मक अध्यापन.

प्रात्यक्षिक कार्य:

विषय संबंधित प्रात्यक्षिक

संदर्भसूची

१. राष्ट्रभाषा की शिक्षा - डॉ. श्री.ना.मुखर्जी
२. हिंदी की अध्यापन पद्धती - केणी, कुलकर्णी
३. राष्ट्रभाषा का अध्यापन - ग.न.साठे
४. राष्ट्रभाषा कैसे पढाए - रा.तु.भगत

(K4) संस्कृत

घटक १ : संस्कृतचे अध्यापन

- १.१ संस्कृत अध्यापनासाठीची तत्वे व सूत्रे
- १.२ संस्कृत अध्यापनाच्या पद्धती
 १. पाठशाळा पद्धती
 २. प्रत्यक्ष पद्धती
 ३. भांडारकर पद्धती
 ४. व्याकरणाध्यापनाची उद्गामी पद्धती
- १.३ संस्कृत अध्यापनाची तंत्रे
 १. कथाकथन
 २. नाटयीकरण
 ३. भूमिकाभिनय
- १.४ संस्कृत अध्यापनासाठीची प्रतिमाने
 १. अग्रत संघटक प्रतिमान
 २. संकल्पना प्राप्ती प्रतिमान

घटक २ : संस्कृत विषयातील भाषिक कौशल्यांच्या विकासासाठी अध्यापन

- २.१ श्रवण कौशल्य विकास
- २.२ भाषण कौशल्य विकास
- २.३ वाचन कौशल्य विकास
- २.४ लेखन कौशल्य विकास
- २.५ संस्कृत विषयांच्या विविध अंगांचे अध्यापन
 १. गद्य अध्यापन
 २. पद्य अध्यापन
 ३. व्याकरण अध्यापन

घटक ३ : संस्कृत अध्यापक

- ३.१ चांगल्या संस्कृत अध्यापकाची गुणवैशिष्ट्ये
- ३.२ संस्कृत विषयाशी संबंधित उपक्रमांमध्ये संस्कृत अध्यापकाची भूमिका व जबाबदारी
- ३.३ संस्कृत भाषा विकासासाठी पूरक परिक्षा

घटक ४ : मूल्यमापन प्रक्रिया

- ४.१ श्रवणाद्वारे आकलन, भाषण, वाचन, लेखन इ. च्या मूल्यमापनाची प्रक्रिया व स्वरूप.
- ४.२ संस्कृत विषयासाठी नैदानिक चाचण्या व उपचारात्मक अध्यापन.

प्रात्यक्षिक कार्य:

विषय संबंधित प्रात्यक्षिक

संदर्भसूची

1. A new approach to Sanskrit – Bokil, Paranis
2. Teaching of Sanskrit – Apte, Dongare
3. Problem of Sanskrit Teaching - G.S.Huparikar
4. शैक्षणिक प्रविधि: Educational Technology – रमाकान्त मिश्र:

(K5) Science

Unit 1 : *Teaching of Science.*

- 1.1 Teaching of Science - Definition, Characteristics, Variables
- 1.2 Maxims of Teaching Science.
- 1.3 Methods of Teaching Science
 - a) Demonstration Method
 - b) Laboratory Method
 - c) Heuristic Method
 - d) Project Method
- 1.4 Models of Teaching Science
 - a) Concept Attainment Model
 - b) Inquiry Training Model

Unit 2 : *Science Teacher and Science Laboratory*

- 2.1 Science Teacher - Qualification and Qualities.
- 2.2 Science Laboratory -
 - a) Importance of Science Laboratory.
 - b) Planning, Kinds and Administration of a Laboratory.
 - c) Record keeping (different registers and journals)
 - d) First aid kit in Laboratory.
 - e) Some common accidents in Laboratory and their remedies.

Unit 3 : *Science Related Educational Activities*

- 3.1 Science Club
- 3.2 Science Museum
- 3.3 Science Fair
- 3.4 Visits to the places of scientific interest
- 3.5 Competitive examinations in Science

Unit 4 : *Remedial Teaching in Science*

- 4.1 Diagnostic Test
- 4.2 Remedial Teaching

Practical :

Subject related practical

Reference Books

1. Teaching of Science - Bandula, Sharma
2. Teaching of Science : Today and Tomorrow – N. N. Siddiqui
3. Teaching of Science – D.M. Dhamdhare
4. Science Education – V.K. Rao
5. Methods of teaching Science – V. Malhotra

6. Teaching of Science – U. Singh
7. Teaching of Science in classroom – B.R.Sen
8. Science of Education and education of Science – Y. Waghmare
9. Teaching of Science – B.M.Sharma
10. Teaching of Science for primary teaching – Rajinder Kaira
11. Teaching of Science – M.H.Siddiqui

Unit 1 : *Teaching of Mathematics*

- 1.1 Use of maxims in teaching of Mathematics.
- 1.2 Special methods of Mathematics teaching.
 - a) Inductive Deductive method
 - b) Analysis and Synthesis method
 - c) Heuristic method
 - d) Problem solving method
 - e) Experimental method
 - f) Project method
 - g) Laboratory method
- 1.3 Techniques of teaching Mathematics
 - a) Assignments
 - b) Drill work - Oral and Written
- 1.4 Models of teaching.
 - a) Concept Formation Model
 - b) Advanced Organizer Model

Unit 2 : *Mathematics Teacher, Mathematics Laboratory and Mathematics Club.*

- 2.1 Mathematics teacher - Qualities, Qualification and Responsibility.
- 2.2 Difficulties faced by teacher in teaching Mathematics and suggestive measures.
- 2.3 Mathematics laboratory.
- 2.4 Mathematics club.

Unit 3 : *Subject related activities.*

- 3.1 Competitive examinations in Mathematics
- 3.2 Concept of Vedic Mathematics
- 3.3 Abacus

Unit 4 : *Strategies for Individual Differences*

- 4.1 Diagnostic testing
- 4.2 Remedial teaching

Practical:

Subject related practical

Reference Book

- 1. Teaching of Mathematics - S.D.Khanna
- 2. Teaching for Mathematics – Sidhu Kulbir Singh
- 3. Modern methods of teaching Mathematics – Deepak Dayal
- 4. Methods of teaching Mathematics – V. Malhotra
- 5. Teaching of Mathematics – C. Mattuvaekuzhall
- 6. Teaching of Mathematics in secondary school – D. P. Sankhala
- 7. Teaching aids in Mathematics – R. Fatima

8. Teaching of Mathematics – Russel John
9. Teaching of Mathematics : Modern Methods – S. Rani
10. Research in Teaching of Mathematics - S. Rani
11. J{UVmMo AÜ¶mnZ d Ame¶¶w°\$ AÜ¶mnZ - X.~m.nm|jo
12. J{UV Ame¶¶w°\$ AÜ¶mnZ - h.Zm.OJVmn

Unit 1 : *Teaching of History*

- 1.1 Maxims of teaching [Known to Unknown, Simple to Complex, Easy to Difficult, Concrete to Abstract, Psychological to Logical, Whole to Part]
- 1.2 Special Methods of Teaching of History.
 - a) Narration Method
 - b) Dramatization Method
 - c) Discussion Method
 - d) Source Method
 - e) Project Method
- 1.3 Models of Teaching History
 - a) Inquires Teaching
 - b) Advance Organizer

Unit 2 : *Learning Resources*

- 2.1 Teaching Aids – Meaning and Importance.
- 2.2 Types of Teaching Aids –
 - a) Charts
 - b) Pictures
 - c) Models
 - d) Objects and specimens
- 2.3 History Museum

Unit 3 : *Evaluation Procedure*

- 3.1 Techniques of Evaluation [Oral tests, essay test, short answer test, objective test]
- 3.2 Remedial teaching in History.

Unit 4 : *The History Teacher*

- 4.1 Qualities and Qualification of a good History Teacher.
- 4.2 Professional Growth of the History Teacher.

Practical:

Subject related practical

Reference Books -

1. Teaching of History - V.D.Ghate
2. Teaching of History – S.V. Kochhar
3. B {VhmgmMo Ame¶¶w°\$ AÜ¶¶mnZ - S>m°.gw {ebm Amo {S>¶¶ma
4. Ame¶¶w°\$ AÜ¶¶mnZ nÜXVr - g\$nmXH\$, S>m°.AZ\$V Omoer
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6. B {VhmgmMo AÜ¶¶mnZ - Z.am.nmagZrg, ¶.O.YmaH\$a
7. B {Vhmg AÜ¶¶mnZ nÜXVr - àm.lr.‘m.nÈH\$s
8. B {VhmgmMo AÜ¶¶mnZ nÜXVr - àm.gr.‘m. {Vdmar

Unit 1 : *Learning Resources.*

- 1.1 Teaching aids
- 1.2 Geography Room

Unit 2 : *Teaching of Geography*

- 2.1 Maxims in Teaching Geography.
- 2.2 Methods of Teaching Geography.
 - a) Regional Methods
 - b) Journey Methods
 - c) Project Methods
 - d) Lecture cum Demonstration.
 - e) Object Method
- 2.3 Models of Teaching
 - a) Enquiry Training
 - b) Advance Organizer

Unit 3 : *Geography Teacher and Geography Room*

- 3.1 Qualifications and qualities of a Geography Teacher.
- 3.2
 - a) Organization of club, events.
 - b) Geography information system.
 - c) Planetarium, Nature Park.

Unit 4 : *Strategies for Individual Differences*

- 4.1 Diagnostic Tests.
- 4.2 Remedial Teaching.

Practical:

Subject related practical

Reference Book

- 1. ^yJmob AÜ¶¶Z AÜ¶¶mnZ - ^m.Jmo.~mnQ>
- 2. ^yJmobmMo AÜ¶¶mnZ - X.~m.nm|jo
- 3. Ame¶¶w°\$ AÜ¶¶mnZ nÜXVr - àm.lr‘Vr ¶¶w.~r.nmQ>rb, lr‘Vr gwaoIm Omoer
- 4. ^yJmobmMo AÜ¶¶mnZ - àm.nmQ>UH\$a
- 5. Hand-book of suggestion on the teaching of Geography (UNESCO)
- 6. Geography in School - Fairgive.
