

***SYLLABUS***  
***for***  
**The Degree of Bachelor of Education**  
**(B. Ed)**



**As approved by the Board of Studies of the Department of Education  
in its Meeting held on 27 & 28.05.03 & 27 & 28.10.03**

**DEPARTMENT OF EDUCATION**  
**DIBRUGARH UNIVERSITY**

## REGULATIONS

### Admission :

A candidate for the Degree of Bachelor of Education must be a graduate of Dibrugarh University or any other university recognised for this purpose and must satisfy the following conditions.

- i) He / She must possess a minimum of 45% marks in major or in aggregate at the first degree/Post Graduation to appear in the Common Entrance Test (CET) conducted by Dibrugarh University . (This may not be applicable in case of the teachers deputed by the Govt. of Assam.)
- ii) He / She must clear the CET conducted by the university.
- iii) He / She shall not do any other job during the regular teaching hours.
- iv) He / She shall not enroll himself/herself as a student for a course in any other Department of this or any other University. He / She shall cease to be a B.Ed student if he/she violates the above condition.
- v) A relaxation of 5 % marks may be considered for the candidates having a minimum of 5 (five) years teaching experience in a recognised secondary school and Inspecting Officers of the Education Department of the Government of Assam.
- vi) Students admitted from other universities should not exceed 15% of an Institution conducting the B.Ed course.

### Duration of the course:

A candidate admitted to the B.Ed Course shall undergo a regular course of study for one academic year in the subjects offered by him/her in the Department of Education of this University or in a College affiliated to the University for this purpose.

### Attendance:

A candidate shall maintain a minimum attendance of 75% of the total number of working days prescribed in the year before he/she can be allowed to appear in the B.Ed Final Examination. If the percentage is not below 60 the candidate may be permitted to appear as a non-collegiate student.

Candidates whose percentage of attendance falls below 60 shall be declared discollegiate and shall not be eligible to appear in the final examination.

### Course of study:

The course of study shall include the following :

#### A.COMPULSORY GROUP:

	MARKS	
	Written	Internal Assessment
PAPER-I : EDUCATION IN EMERGING INDIA	90	10
PAPER-II : EDUCATIONAL PSYCHOLOGY AND EDUCATIONAL STATISTICS	90	10
PAPER-III: SECONDARY EDUCATION AND THE TEACHER	90	10

PAPER-IV: PART-A: SCHOOL ORGANISATION AND MANAGEMENT 45 5

PART-B: ELECTIVE PAPERS ANY ONE OF THE FOLLOWING

1.MEASUREMENT AND EVALUATION IN EDUCATION	45	5
2.GUIDANCE & COUNSELLING	45	5
3.ENVIRONMENTAL EDUCATION	45	5
4.POPULATION EDUCATION	45	5
5.SPECIAL EDUCATION	45	5
6.COMPUTER EDUCATION	45	5
7. VALUE EDUCATION.	45	5

**B. ELECTIVE GROUP:**

PAPER-V: TEACHING SPECIALISATION 90 10

PAPER-VI: TEACHING SPECIALISATION 90 10

The students shall have to offer any two of the following:

- i. TEACHING OF ASSAMESE
- ii. TEACHING OF ENGLISH
- iii. TEACHING OF GENERAL SCIENCE
- iv. TEACHING OF GEOGRAPHY
- v. TEACHING OF MATHEMATICS
- vi. TEACHING OF HISTORY
- vii. TEACHING OF SOCIAL STUDIES
- viii. TEACHING OF SANSKRIT

Note : Students shall be allowed to offer only one subject from the following groups:

- i) Teaching of General Science or Teaching of Geography
- ii) Teaching of Assamese or Teaching of English
- iii) Teaching of Social Studies or Teaching of History or Teaching of Geography.

**C. PRACTICAL WORKS**

**PRACTICAL WORK : A**

Marks

a) Teaching Practical ( as detail under scheme of examination)

100

b) Inspection of sessional work and viva-voce in Teaching specialization

100

**PRACTICAL WORK : B**

**a) Work Experience :  
100 / 50**

Each candidate other than the candidates who offer either General Science or Geography will take up any two of the following activities and will be assessed for 100 marks.

Candidates offering either General Science or Geography will take up any one of the activities and they will be assessed for 50 marks leaving the other 50 marks for external Practical Examination.

Work experience will include activities such as:

Knitting, Embroidery, Bamboo and Cane work, Pot Culture, Land Development, Campus-beautification, Horticulture, Music, Painting, Art work, Chart and Book Binding, File making, Envelope making, Toy making, Paper-cutting, Repairing of Electrical appliances, Badge-making, Making of Decorative materials, Candle making etc.

**b) Community Work and Social Service 70**

**c) Question Paper Setting 30**

This will include blue print, design, analysis of question, scoring-key, etc. The question paper may be for full course or a unit plan carrying 100 marks.

Total Marks in Theory Papers	:	6 X 100 = 600
Total Marks in Practical s	:	2 X 200 = 400
Therefore Total Marks (Theory & Practical)		= 1000

**d) Laboratory Practical in General Science / Geography / Computer Science 50**  
(Details given in Corresponding Syllabus).

**SCHEME OF EXAMINATION :**

There shall be written examination in each of the subjects under Group A and Group B. Each theoretical paper shall carry a total of 90 marks and be of four hours duration. In each paper 10 marks are assigned for internal assessment making the total marks 100 in each subject.

In the Teaching Specialization Papers there should not be any direct question on content as such. There would be questions on content in relation to teaching methods, techniques and procedures.

There should not be overall options of questions in all the theory papers. Care should be taken to cover the entire course content providing appropriate internal options (Not more than two in each question)

Candidates will have to practise a minimum of 15 lessons for each of the Teaching Specialization Subjects (Total 15+15=30 lessons) and prepare two additional lesson plans (not from the already practised lessons) for final examination.

A candidate will be required to appear in only one subject in the Teaching Practical. Those who fail in this practical may be allowed by the External Examiner to appear in the other subject. Examination of the Teaching Practical shall be conducted by a Board of Examiners to be appointed by the University.

While assessing the candidate's performance in the sessional Work and Viva-Voce in relation to the Teaching Specialization the following will be taken as the bases:

- |  |                |
|--|----------------|
| 1. Two Lesson Note Books :   | Marks:15+15=30 |
| Each Note Book should contain a minimum of 15 lessons of all types e.g. knowledge, skill and appreciation. Lessons should be spread over the entire school range i.e. from class V to X. |                |
| 2. Two final lesson plans exclusively prepared for Final Examination.  | 5+5=10         |
| 3. Teaching aids prepared during the Practice Teaching.  | 10+10=20       |
| 4. Micro-Teaching: Skills to be practised and records to be maintained for final evaluation.   | 20             |
| 5. Viva-Voce   | 20             |

Note: Instructions for preparing Lesson Note Books:

Lesson Note Books will contain the following :

- A. General Objectives of teaching the subject should be written at the beginning only (not to be repeated in every lesson)
- B. Each Lesson Plan will indicate:
- i. Identification data
  - ii. Specific Objectives
  - iii. Introduction
  - iv. Presentation
    - a) Teaching Points: For each teaching point a small paragraph is to be written and its method of presentation outlined.
    - b) Continuous evaluation.
  - v. Closure

### **Community Work and Social Services and Work Experience:**

In all these activities the process of evaluation should be continuous and internal. Emphasis should be placed as much on the process as on the quality of the finished product. The records of the candidates' performance in these will be maintained and kept ready for external inspection.

### **Laboratory Practical Examination:**

In the Teaching Specialisation of General Science and Geography practical examination shall be conducted by a Board of Examiners to be appointed by the University.

**Standard of Passing:**

- i) A candidate shall be declared to have passed the B.Ed .examination if he/she passed both the Theory and the Practical Examinations.
- ii) Candidates obtaining 60% or more of the total marks in the Theory papers and Grade B or above in the Practical papers shall be placed in the First class and the remaining successful candidates (obtaining 40% or more in Theory and Grade D or above in Practical) be placed in the Second class.
- iii) A candidate shall be declared to have passed the Theory examination if he/she obtains a minimum of 40% marks both in Written and Internal Assessment separately, i.e. 36 marks out of 90 marks in the written examination and 4 marks out of 10 marks in Internal Assessment. Those who fail in Internal Assessment will not be allowed to appear in the final examination.

[Note: The marks of Internal Assessment will be assigned on the basis of the following:

- a) Assignment ( at least One in each Theory paper) and
- b) Performance in class test/ Terminal Examination (at least one).]
- iv) Marks will be awarded in the Theoretical Part while grades will be given in the Practical Part. There will be nine grades as stated below depending on the qualitative difference in the performance of the candidates. These grades will be shown in the result sheets and the mark sheets.

A+	75-100
A	70-74
B+	65-69
B	60-64
C+	55-59
C	50-54
D+	45-49
D	40-44
E	Below 40

- v) A candidate shall be declared to have passed the practical examination if he/she obtains any one of the eight grades ranging between A+ and D.
- vi) A Candidate shall be declared to have failed the practical examination if he/she obtains grade E.
- vii) A candidate who fails in one or more papers but secures an overall average of 45% marks in theory (including internal assessment) in the 1<sup>st</sup> or 2<sup>nd</sup> chance will be considered eligible for appearing in the compartmental examination in these failed papers.
- viii) If a candidate fails in any Theory paper(s), the marks obtained by him/her in the Internal Assessment shall be carried over to the next chance(s).

- ix) A candidate who fails in one or more (Theory) papers and obtains less than 45% marks in aggregate in the theoretical papers shall not be eligible for appearing in the Compartmental Examination but shall be required to appear again in all the papers.
- x) A candidate shall not be permitted to appear for the theory or practical examination on more than three consecutive occasions.
- xi) A candidate who is eligible for appearing the Compartmental examination may appear in the said examination in any of the remaining two chances. Those who could not appear the compartmental in the 2<sup>nd</sup> chance, he/she can appear in the third and last chance.
- xii) If a candidate appears in the compartment examination and fails, he/she will have to appear in all the theory papers in the third and last chance.
- xiii) A candidate who fails in the Practical Part-I (Teaching Practicals) will have to take at least 10 (5+5) Practice Teaching classes and appear in the said practical examination in the next year. If the candidate fails again he/she will get another chance to pass the Practical Part-I Examination after going through the same process.
- xiv) A candidate who fails in Practical part-II (Work Experience & Community Work and Social Service) will have to attend the community work and perform the assigned tasks and obtain pass marks in the next examination. If she/he fails again she/he will get another chance.
- xv) A candidate who fails in both Practical Part-I and II Examinations will have to go through all the processes mentioned in xiii and xiv.
- xvi) A candidate who is a repeater, his/her marks of the previous session will be carried over and final result will be declared with class.
- xvii) A candidate who fails to appear both the theory and the practical papers in the 1<sup>st</sup> time will appear as a non-collegiate student in the 2<sup>nd</sup> consecutive year and this will be his/her 2<sup>nd</sup> chance.

Marks:100  
External:90  
Internal:10

Objectives: To enable the student-teachers understand :

1. About the relationship between Philosophy and Education and implications of philosophy on education.
2. About the importance and role of education in the progress of Indian society.
3. The need to study education in a sociological perspective and for creation a new social order as per constitutional directives.
4. About the cultural heritage of India.
5. About the emerging concerns in the field of education.

Syllabus:

- Unit I : Education & Our Heritage: 20
- Our Common Cultural Heritage - its compositeness, unity, richness and continuity.
  - Our Philosophical traditions- central teachings of Indian Philosophies viz: Samkhya, Yoga and Vedanta.
  - Impact of Idealism, Naturalism and Pragmatism on Indian system of education with reference to Gandhiji, Tagore, Rousseau and Dewey.
- Unit II : Education : Aims & function : 15
- Education; Nature, Meaning and Scope.
  - Functions of Education for Indian society.
  - The Indian constitution and its directive principles, various articles related to education.
  - Modernization - its operational aspects and education
  - Education in India : National and Emotional integration.
  - Secularism, democracy and socialistic, patterns of society
  - Education as an agency of Human Resource Development.
- Unit III: Education and Indian Society : 10
- Indian social system : Structures, class, caste, stratification mobility.
  - Role of education in promoting equality of educational opportunity.
  - Educational needs of special groups (S.C., S.T., Women, Mentally and Physically challenged groups.)
  - Education as a tool of economic development.
- Unit IV : Educational Heritage of India. 15
- Development of Education in India in historical perspective with regard to Aim, Organization, Curriculum and Method of Teaching with in the Vedic, Brahmanic, Buddhist & Islamic systems of Education.



- Education under colonial rule with reference to Macaulay's Minute, Woods' Despatch, Curzon's Policy and Nationalist movement.

Unit V : Education and National Development : 15

- Educational development during 1947 to 1966.
- Educational development during 1966-1986.
- Educational development since 1986.

Unit VI : Emerging concerns for Indian education: 15

- population education with special emphasis on adolescence education.
- Environmental education
- Privatization of education
- Sarba Shiksha Abhijan
- Value education in Indian context.

### References :

1. Goswami, A.C. - Philosophical and Sociological bases of Education in Emerging India.
2. NCTE - Curriculum Framework for Quality Teacher Education.
3. Bali, Dr D.C. - Introduction of Philosophy
4. John Dewey - Democracy and Education.
5. Rusk, R.R. - Doctrines of Great Educators
6. Toft ler, Alvin - The future shock
- 7 .Nurulla & Naik - A History of Indian Education
8. Rao, V.K. - Education and Human Resource Development
9. The Report of the National Education Commission of 1964-66.
10. NCERT - The Report of N.E.P.,1986
- 11 McIver, R.M.,Page.C.H. - Society- An Introductory Analysis.
12. Jena D.N.& Mohapatra U.K.- Social change,Themes & Perspectives
13. Kabir, Hunazan- Indian Philosophy f Education
14. Radha Krishnan, Dr.S. -The Bhagawad Gita
15. Education Commission Report.

### Paper-II

### EDUCATIONAL PSYCHOLOGY AND STATISTICS

Marks: 100  
External:90  
Internal:10

Objectives:

To enable trainee teachers to :

- acquire knowledge and understanding of stages of human developmental and developmental tasks with special reference to adolescent learners.
- Develop understanding of the process of learning in learners in relation to their intelligence, motivation
- Develop skills for effective application of their knowledge in classroom situations.

Unit I: Nature of psychology and learners : 10

- a) Educational Psychology- Its meaning, nature, scope relevance of educational psychology for secondary school teacher.
- b) Concept of growth and development, factors influencing development :
- c) Stage specific characteristics and developmental tasks with emphasis on cognitive, emotional and aesthetic, social and moral development.
- d) Adolescence in Indian context - characteristics and problems of adolescents, their needs and aspirations, guiding & counseling adolescents.

Unit II: The Learners as Individuals: 15

- a) Individual difference : Meaning and significance, concept of intra and inter differences - factors causing individual differences: genetic, physiological, environmental, socio-cultural, home, community and peer group.
- b) Intelligence and cognitive abilities: aptitude
- c) Creativity- nature, identification and guiding creative children.
- d) Interests, attitudes, values.
- e) Adjustment of teaching- learning process to suit individual differences- learning styles and teaching strategies.
- f) Educating Learners with Special Needs: -Identifying special needs
  - a) Physical disabilities
  - b)Intellectual deficiency
    - a) Giftedness and Creativity
    - b) Specific learning disabilities(common type)
    - c) Low achievement and under-achievement, slow learning
  - d) Behaviour disorders-delinquency, truancy, withdrawal, day-dreaming etc.
    - Measures for over coming difficulties and optimum learning and development.

Unit III: Learning and Motivation 20

- a) Nature of learning, cognitive affective and psycho-motor learning; trial & error learning; insightful learning,Spinner operant conditioning.
- b) Factors influencing learning

- personal factors-Age, sex, intelligence, previous achievement, interest, needs, motives etc.
  - School factors-Organisational climate, learning facilities, physical conditions.
  - Temper factors- Attitudes, competence, personality, mental health.
  - Home factors-Intellectual, cultural, socio-economic status, social and emotional climate, facilities.
- c) Techniques of enhancing learners motivation: Information Processing Theory  
Maslow's Self Actualization Theory.

Unit IV : Personality- Definition, Meaning and Nature, Concept of balanced mature personality. Type & Trait Theories of Personality 15

- Assessment of Personality
- Mechanisms of adjustment
- Concept of Mental Health & Hygiene
- Preventive & Curative aspects.

Unit V : Educational Statistics 20

- Nature and scope of Statistics, Two kinds of Numerical Data, Enumeration Data and Measurement Data, Tabular classification of data, Frequency table
- Measures of Central Tendency: Mean, Median and Mode -Measures of variability: Range, Quartile deviation, S.D., formula and methods of computation.
- Graphical presentation of data, Bar diagram, Histogram, Frequency polygon, Frequency curve, Ogive, Pie- diagram.

Unit-VI :To perform the experiments on any 2 of the following and interpret the results : 10

- Memory- Recall and Recognition (Words, Figures, Numbers)
- Mirror Drawing - Progress of Learning, Bilateral , Transfer of Learning
- Administering and interpreting two Intelligence tests - verbal, Non-verbal or performance, Alexander Pass-Along Test ; Koh's Block Design Test
- Association - Free and Controlled
- Assessment of Personality - Rorschach Ink Blot Test, Thematic Apperception Test
- Observing the behaviour of an adolescent and describing her/his characteristics and problems.

**Note :** The internal marking in this paper will be done from the Practical. Each candidates will be required to perform the experiments given and interpret accordingly. For the statistical practical, data will be collected from schools.

Internal Marking - Conduct of an Experiment which will be drawn by lot. 5 Marks

Viva- Voce - 3 Marks

Note Book - 2 Marks

**Recommended Books :**

1. Bhatia, H.R.: Elements of Educational Psychology Bombay; Asian Publishing Company.
1. Chauhan, S.S.: Advanced Educational Psychology
2. Mathur, S.S.: Educational Psychology, Agra, Vinod Pustak Mandir
3. Rastogi: Educational Psychology
4. Garrette: Educational Statistics.

Paper-III

**SECONDARY EDUCATION AND THE TEACHER**

Full Marks :100 : External: 90  
Internal :10)

Unit I : Secondary Education : 20

- Aims of Secondary Education
- Responsibility of the Teacher
- Changing role of the Teacher:
  - a) Teacher as a System Manager,
  - b) Role of the Teacher vis-à-vis S.S.A.
  - c) Teacher as a link between School and Community
  - d) Role of the teacher in transacting curriculum
  - e) Teacher as a Mobiliser of Community Resources
  - f) Role of the teacher in preparing students to encounter future challenges.
- Professional Ethics of a teacher
- Teacher's Commitment to the subject matter, students and society
- Teacher Accountability

Unit II : Curriculum and Co-curricular activities : 10

- The concept of curriculum
- The present Secondary School Curriculum
- Principles and process of curricular Development
- Objectives of co-curricular activities
- Principles underlying the organisation of co-curricular activities
- Types of co-curricular activities
- Management of co-curricular activities.
- Evaluation of Co-curricular activities

Unit III : Communication process :	15
<ul style="list-style-type: none"> <li>- Meaning and significance</li> <li>- Teaching as a Communication process.</li> <li>- Type of Communication : Intra , Inter, Mass and Group.</li> <li>- Barriers to Effective classroom communication</li> <li>- Guidelines for better classroom communication.</li> </ul>	
Unit VII : Instructional Technology:	20
<ul style="list-style-type: none"> <li>- Concept of instructional technology</li> <li>- Hardware and Software</li> <li>- Distinction among methods, model, strategy of teaching</li> <li>- Learner centered approach</li> <li>- Inquiry training model</li> <li>- Effective Teaching</li> <li>- Making Teaching More Effective</li> <li>- Qualities of an Effective Teacher</li> <li>- Principles and maxims of teaching</li> <li>- Computer-Assisted Instruction</li> </ul>	
Unit V : Action Research:	10
<ul style="list-style-type: none"> <li>- Meaning, Scope and Importance</li> <li>- Identification of problems in school and classroom</li> <li>- Solving a problem through Action Research</li> <li>- Trying out Innovative Practices.</li> </ul>	
Unit VI : Evaluation:	15
<ul style="list-style-type: none"> <li>- Meaning, Nature and scope.</li> <li>- Basic Principles of Evaluation</li> <li>- Place of Evaluation in Teaching Learning Process.</li> <li>- Continuous and Comprehensive Evaluation</li> <li>- Process and Product Evaluation</li> <li>- Norm-referenced and Criterion- referenced Tests</li> <li>- Qualities of a Good Evaluation Tool</li> <li>- Critical Appraisal of Existing Evaluation System.</li> </ul>	

**Recommended books :**

- Saettler, Paul(1968) : Instructional Technology. McGraw Hill, New Delhi.
- Singh, L.C.(Ed) 1990: Teacher Education in India-A Resource Book NCERT,  
New Delhi
3. Best, John W.(1987): Research in Education. Prentice Hall of India  
New Delhi.
4. Decceco and Crawford(1974): The Psychology of Learning and instruction.  
Prentice Hall of India New Delhi.
5. Stinnet, T.M.(1990) : The Profession of Teaching , Prentice Hall of India,  
New Delhi.
6. Taba, Hilda : Curriculum Development.

7. NCTE(1998) : Assessment and Evaluation in Teacher Education, New Delhi
8. NCTE(1996) : Curriculum Framework for Teacher Education, New Delhi.
9. Das B.C.(1996) : Educational Technology, Kalyani Publishers, New Delhi.
10. Das B.C.(2000) : Teacher Education at a Distance. Kalyani Publishers, New Delhi
11. Das and Gogoi (1998) : Micro-teaching. Kalyani Publishers, New Delhi.
12. Kundu, C.L.(Ed) 1998 : Indian Year Book on Teacher Education. Sterling Publishers, New Delhi.
13. Pandey, B.N. and Khosla, D.N. (1974) : Student Teaching and Evaluation: Handbook of Secondary Colleges of Education, NCERT, Delhi.
14. Brubacher, John S. (1981): Modern Philosophies of Education, McGraw Hill.
15. Braskamp,L.A. e.al(1984) : Evaluating Teaching Effectiveness -A Practical Guide, Crown Press, INC, Sage Publications, Newbury Park, California.
16. Patton, Michael Qwim(1990): Qualitative Evaluation and Research Method, Sage Publications India Pvt.Ltd. M-32, Market, Greater Kailash, New Delhi-110004.

**PAPER IV : Part A**  
**SCHOOL ORGANISATION AND MANAGEMENT**

Marks : 50  
External : 45  
Internal : 5

**Unit I : Concept of School Organisation and Management 8**

Meaning of School Organisation and Management  
Difference between School Organisation and Management  
Aims of School Management  
Process and Principles of School Management

**Unit II : Management of Resources 12**

Meaning and Types of Resources : Human Resources, Material Resources and Financial Resources  
Management of Resources :  
a) Human Resources : Head Master, Teachers, Students, Office Staff, Parents and Management Committee.  
b) Material Resources : Land, Building, Furniture, Teaching Aids  
c) Financial Resources : Grants, funds, fees, endowment etc.  
Management of Time : Annual Scheme, Academic Calendar, Time Table, Maintaining of School Records of Pupils, Teachers etc.

**Unit III : Library, Laboratory, Museum, Workshop, Hobby Centres 10**

- (a) Functions and Organisation of Library in schools
- (b) Functions and Organisation of Laboratory in schools
- (c) Functions and Organisation of School Museum
- (d) Functions and Organisation of Workshop in school
- (e) Functions and Organisation of School Hobby Centres.

**Unit IV : School as a Community Centre 7**

Adult Education, Community Service Programmes, Parent-Teacher Association, Participation in various literacy programmes – Village Education, Anganwadi etc. Generation and Utilisation of resources from the community.

**Unit V : School Administration 8**

Types : Fully Government, Provincialised and Private.  
Problems faced by the schools under different types of management, relating to quality of education.  
Concept of leadership  
Role of Head Master as a leader –Technical and managerial skill

**Reference Books :**

1. A.L.Kohli & A.S. Parmar : **Secondary School Administration**  
The Indian publication Bureau, Ambala & Cantt.
2. B.C.Rai : **School Organisation and Management**  
Prakashan Kendra, Railway crossing, Sitapur Rodad  
Locknow-226020
3. J.C.Agarwal : **School Organisation Administration & Management**
4. K.S.Sidhu : **School Organisation and Administration,**  
Sterling Publishers PVT.Ltd., L-10,Green Park Extension,  
New Delhi 110016.
5. M.C.Nolte : **An Introduction to School Administration** (Selected  
Reading), The McMillan Company, London.
6. R.N.Safaya & B.D.Shaida : **School Administration & Organisation**  
Dhanpat rai & Sons, Jalandhar- Delhi.
7. R.Sinha : **Educational Administration in India**  
The Indian Publication Bureau, Ambala Cantt.

8. S.K.Kochhar : **Secondary School Administration**  
Sterling publishers Pvt.Ltd., L-10,Green Park Extension,  
New Delhi 110016
9. S.P.Sukhia : **Educational Administration, Organisation & Health Education**, Vinod pustak Mandir, Agra-2
10. S.S.Mathur : **Educational Adminstration**, Krishna Brothers, Jullundar.
11. W.M. Ryfurn : **The Organisation of Schools**, Oxford University Press,  
Calcutta.
12. W.S.Eldntrr & Harold J.Mc Nally : **Elementary School Administration and Supervision**  
Eurasia Publishing House Pvt.Ltd., Ram Nagar, New Delhi.
13. W.S.Williams : **Educational Administration in Secondary Schools**

Paper: IV

Part-B Option - I

**MEASUREMENT AND EVALUATION IN EDUCATION**

Marks : 50

External:45

Internal :05

Objectives :

To enable trainee teachers to :

1. Understand some basic scientific concepts & practices in educational & mental measurement
2. Tabulate and find out some standard meaning from the raw scores by using statistical procedures
3. Develop skills and competencies for the use of the techniques in the classroom.
4. Interpret the result of educational measurement.

Unit I : i) Concept of Measurement and Evaluation ; Formative and Summative Evaluation. 10  
ii) Scales of measurement - nominal, ordinal, interval and ratio.  
iii) Measurement and the instructional process.

Unit II : i) Tools and techniques of measurement and evaluation - 10  
a)Questionnaire b) Interview c) Rating Scale d) Observation Method e)Tests  
ii) Characteristics of a good test - Objectivity, Reliability, Validity and Usability, Norms.  
iii) Construction and standarisation of an achievement test.

Unit III : Acquaintance with some psychological tools - 10



- a) Intelligence -i) Binet-Simon Test ii) Wechsler Test
- b) Interest - Kuder-preference test.
- c) Aptitude- Differential Aptitude Test
- d) Attitude - Likert Technique
- e) Personality-Personality Inventory

Unit IV : Statistical Treatment of Data	15
e) Normal Probability Curve-Characteristics, Uses and Divergence from normality .	
f) Correlation- concept & method of computation- Product-Moment Coefficient of Correlation and Rank Difference Method.	

**Reference :**

1. Henry E.Garret - Statistics in Psychology and Education, Allied Pacific Pvt.Ltd. Bombay.
2. J.P.Guilford - Fundamental Statistics in Psychology and Education, McGraw Hill Book Company Inc. New York,1956.
3. Melre U.Tale - Statistics in Education and psychology, Macmillan Comp., Collier-Macmillan Canada Ltd. Toranto.
4. D.N.Elhance - Fundamentals of Statistics, Kitab Mahal, 15 Thernhill Road, Allahabad.

Paper: IV  
Part-B Option - II  
**GUIDANCE AND COUNSELLING**

Marks:50  
External :45  
Internal :5

**Objective :**

- To help teacher trainees understand concept, need and view point of guidance.
- To help teacher trainees guide for children with special needs.
- To develop in students an understanding of various procedures of organizing various guidance services in schools.

**Course Content:**

Unit I : Concept, Principles, issues and Need scope and significance of guidance.	15
- Types of guidance - Educational, vocational personal and group guidance.	
- Role of teacher in guidance.	
- Agencies of guidance - National-level, State level Role of NGO's.	
Unit II : Guidance of children with special needs	10
a) Problems and needs	
b) Guidance of the gifted and creative students	
c) Guidance of under- achiever and first generation learners.	
d) Role of teachers in helping children with special needs.	
Unit III : Counselling process, concept, nature and principles of counselling, Characteristics of good counselling	10

- Counselling approaches - directive, non-directive, group counselling vs individual counselling.
- Counselling for adjustment

Unit IV : Organization of guidance Programme. 10

- a) Principles of organisation
- b) Organising guidance programme in Secondary Schools, Method and technique, use of tests & mobility for diagnostic purposes.
- c) Group guidance, individual inventory service and information orientation services, placement services.
- d) The guidance and counselling Personnel, Role of the Headmaster, Teacher, The librarian, The Medical Staff, Parents.

Practicum:

Administration and interpretation of the following test.

1. Group test of Intelligence
2. Aptitude test (DAT Test)
3. Personality inventory
4. Students will organise by carrier talk

**Reference :**

- 1 K.C.Kocher - Educational & Vocational Guidance and Counselling
- 2.L.R.Saikia - Psychological and Statistical test
3. P.C.Das- Experimental Psychology

Paper: IV

Part-B Option - III

**ENVIRONMENTAL EDUCATION**

Marks: 50  
External:45  
Internal:5

Objectives:

1. To make the students teachers understand about the concept of environmental education.
2. To develop awareness in the student teachers about environmental pollution, possible hazards and its courses and remedies.
3. To develop a sense of responsibility towards conservation of environment, bio-diversity and sustainable development.
4. To develop reasonable understanding about the role of school and education in fostering the idea of learning to live in harmony with nature and the need to conserve the environment for sustaining development.

Course contents:

Unit-1: Environment: Meaning, Nature & Scope of environmental education: 10  
-Types of environmental pollution

-Eco-system and its relation with human life.	
Unit -II : Causs & Effects of Environmental hazard, global and local. -Greenhouse effect and Ozone layer depletion and its effects.	10
Unit-III: Bio-Diversity-Need for conservation of genetic diversity for maintaining ecological balance and learning to live in harmony with nature.	10
Unit-IV: Environmental awareness through Education. Different programmes environmental education for secondary school children - Environmental education for developing health attitude towards environmental protection	10
Unit V: Role of Teachers & Students in Environmental conservation and its impart on Sustainable Development.	5
Practicum:	5
To submit a report after surveying a typically degraded area and suggest remedial measures on any of the following:	
a) Deforestation	
b) Air pollution	
c) Water pollution	
d) Role of pollution control boards	
e) Role of society and voluntary organisation in pollution control	

**References :**

1. Anil Agarwal et.al. State of India's Environment, 1982 - The First Citizen's  
Report, Centre of Science & Environment, New Delhi, 1982.
2. Anne Nadakavukaren, Man and Environment- A Health Perspective, Waveland  
Press, Illinois, 1990.
3. R.A. Sharma : Environment Education

Paper: IV  
Part-B Option - IV  
**POPULATION EDUCATION**

Marks :50  
External:45  
Internal :5

**Objectives :**

1. To make the student-teacher understand the concept, need and importance of  
population education.
2. To enable the students-teachers understand various terminology connected with  
population studies and factors responsible for population growth.

3. To develop awareness in the student-teachers of the implications of population growth on various aspects of social functioning.
4. To develop an understanding of the effect of unchecked growth of population on the depletion of natural resources from the environment.
5. To appreciate the role of population education as an educational intervention for upgrading the quality of social functioning.

Course contents:

- Unit I : - Nature, concept, scope and importance of population education. 12
- Factors affecting population growth: Fertility, mortality and migration.
  - Population dynamics : distribution and density, population composition : Age, sex, rural/urban, literacy level, (all India).
- Unit II : - Population and Quality of life : Population in relation to socio-economic development, health status, nutrition, health services and education, Communication. 10
- Effect of unchecked growth of population on natural resources and environment, demographic changes of Indian states.
  - Population and literacy campaigns in India.
- Unit III : Population education in schools : Scope of population education in schools. 10
- Integration of population education with other subjects.
- Unit IV : - Methods and Approaches : Inquiry approach, observation, self-study, discussions, assignments. 8
- Use of mass-media : Newspapers, Radio, Television, A.V. Aids.
- Unit V : - Role of Teachers: Teachers' role in creating awareness of the consequences of population problems, inculcating new values and attitudes leading to modification of student behaviour. 5
- Working with community to build awareness.

Practicum :

1. Content analysis of the text books and identify population education components.
2. Survey of population situation of any locality inhabited by disadvantaged section.
3. Survey population dynamics
4. Drawing out plans for creating community awareness about social evils etc.
5. Critical reporting of mother care, child care, health & cleanliness etc.
6. Collection and analysis of data from available sources, problems of accommodation, schools, hospitals, transport etc.

Paper: IV  
Part-B Option - V  
**SPECIAL EDUCATION**

Marks :50  
External: 45  
Internal :5

Objective

To make the trainees :

- Know the meaning, and scope of Special Education .
- To be aware of the presence of such children in the school and in the class
- To understand various programme for meeting the needs of such children.

Course Contents :

Unit I : Meaning and scope of special education : 5

- i. A brief history of special education
- ii. Scope of Special Education
- iii. Objectives of Special Education

Unit II : a) Types of exceptional children 15

- Gifted
  - Mentally challenged- Educable mentally challenged, trainable mentally challenged
  - Slow learners.
  - Physically handicapped -visually impaired, hearing impaired locomotor, speech handicapped.
- b) The meaning, salient characteristics and identification of learners of each category.

Unit III : Government policies and legislation, Recommendations given in NPE 1986, POA 1992, and PWD (Persons with Disability Act) 1995. National Institutes of Handicapped and the role of Rehabilitation Council of India. 10

Unit IV : Nature and objectives of special schools; 15

Concept of mainstreaming, integrated schools and support services provided within them viz. Resource room, resource teacher, counselor etc., concept of remedial teaching(specially for learning disabled children); role of peer, members of the school(children as well as teachers); family of the concerned child and the community in educating the child who is an exceptional one. Importance of public education; creation of public awareness; use of community resources, Integrated Education for Disabled (I.E.D), Emerging concept of inclusive education

Practical :Any one of the following

- (i.) Students will be required to visit any institution catering to children with special needs and thereafter write a report.
- (ii) Organizing school health-check-up to identify children with special needs.

(ii) Holding Seminar, Talks, Workshop to create Public Awareness.

**References :**

1. Education of the Exceptional Children - Prof. K.C.Panda
2. Exceptional Children- Cintamoni Kaur
3. Inclusive education- Prof. Sanat Kr. Ghosh

Paper: IV  
Part-B Option - VI  
**VALUES EDUCATION**

Marks : 50  
External:45  
Internal:05

**Objectives:**

1. To understand the nature and sources of values,.
2. To understand the classification of values under different types.
3. To appreciate educational values like democratic, secular and socialist.

Unit-I : Nature and sources of values, biological, psychological, social and ecological determinants of values- their bearing on education in varying degrees. 6

Unit-II : Classification of values into various types, material, social, moral and spiritual values; status of values, how can these be realized through education. 6

Unit-III: Corresponding to values there are evils or dis-values - material, social, economic, moral and religious evils leading to faithlessness and irreverence; how can education overcome these negative values. 6

Unit-IV : Levels of value realization, how to resolve the conflicts among values, how to work for the integration of values that are embedded in education. 6

Unit-V : Development of values as a personal and life-long process-teaching of values as an integral part of education. 6

Unit -VI : Evaluating that teachers and other school personnel are value laden, students and parents are value laden, curriculum is value laden Evaluate 15

- Value of self-sacrifice Vs value of self centredness
- Values of excellence Vs values of ego-centricism
- Values of work Vs values of selfishness
- Every teacher of all teachers need to teach values.

**Practicum:**

1.To Make a list of Material, social, moral, spiritual and economic values pertaining to, the present Indian context.

2. To organised talks on values/ activities and related issues in secondary schools.

**Paper: V / VI**

**TEACHING OF ASSAMESE**

Full Marks : 100

External : 90

Internal : 10

Unit 1. Nature of Language and Development

- 1.1 Language- its nature, characteristics and functions.
- 1.2 Standard language, dialect, mother tongue, first language, second language
- 1.3 The process of acquiring mother tongue.
- 1.4 Importance of mother tongue.
- 1.5 The role of the mother tongue in the education of a child.
- 1.6 Need of teaching mother tongue
- 1.7 Position of mother tongue

Unit 2. Elements of Mother Tongue (Assamese)

- Origin and development of Assamese language : a brief introduction.  
Assamese sound system.  
Vocabulary  
Scripts and Spelling System  
Writing System and Sentence Structure  
Grammatical rules  
A brief review of the literature of Assamese, literary movements, Major writers and their works.  
A discussion on common literary terms – Alankar, Rasa, Metre, Literary genres.

Unit. 3. Objectives and Principles of Teaching and Learning Assamese as a First and Second language

- 3.1 Objective of Teaching Assamese
  - 3.1.1 In Primary Stage / Level
  - 3.1.2 In Secondary Stage / Level
- 3.2 Principle of teaching Assamese.
- 3.3 Problems of teaching Assamese.
  - 3.3.1 Standard Language.
  - 3.3.2 Interference of dialects and other Modern Indian Languages
- 3.4 Teaching of Prose : objectives, methods and approaches of teaching.
- 3.5 Teaching of Poetry : objectives, methods and approaches of teaching.
- 3.6 Teaching of Grammar : objectives, methods and approaches of teaching.

## Unit 4. Development of Language Skills

### 4.1 Listening and Speaking

- 4.1.1 Nature of the skills of listening and speaking
- 4.1.2 The vocal mechanism of the child
- 4.1.3 Teaching of the sound of the standard language
- 4.1.4 Continued development of the skill of speaking through dialogues, recitation, dramatization, discussion, classroom interaction
- 4.1.5 Testing of Listening and Speaking Skills

### 4.2 Reading

- 4.2.1 Mechanism of the skill of reading
- 4.2.2 Purpose and types of reading
  - (i) Reading aloud for pronunciation, clear enunciation, and fluency.
  - (ii) Silent reading for speed, comprehension and thinking. Reading for appreciation and pleasure through poetry, story, play.
  - (iii) Intensive and extensive reading text, supplementary, rapid readers.
  - (iv) Reading for vocabulary expansion, information, enjoyment and reference (e.g. Dictionary, Encyclopaedia etc)
- 4.2.3 Testing of reading comprehension.
- 4.2.4 Development of reading habit, Development and use of subject Library.

### 4.3 Writing

- 4.3.1 Mechanism of writing skills; spelling, punctuation
- 4.3.2 Various writing experience – writing out explanation and salient points, summarizing, paraphrasing story reproduction.
- 4.3.3 Composition – guided and free, letter and application writing, descriptive and reflective essays;
- 4.3.4 Teaching creative writing.

## Unit 5. The Syllabus and the Text Book

### 5.1 Syllabus : General principles, Principles of selection and Gradation.

### 5.2 Text book as an instrumental aid

- 5.2.1 Principles governing preparation of the Textbook, Reader and Supplementary.
- 5.2.2 The use of the textbook for language development in children.

## Unit 6. Method and classroom technique

### 6.1 Approaches to teaching Mother tongue

### 6.2 Stating Instructional Objectives, Identifying the Teaching points and Learning outcomes in Behavioural Terms.

### 6.3 Planning a lesson.

### 6.4 Microteaching Skill



6.5 Preparation and use Teaching Aids; Role of modern technological equipments – Radio, T.V., Tape Recorder, Linguaphone, Computer etc. in teaching of Mother Tongue.

#### Unit 7. Evaluation

7.1 Modern concept of evaluation, continuous and comprehensive evaluation, testing tools, synchronizing with objectives of teaching mother tongue at different school levels.

7.2 Types of tests for evaluation language skills.

7.3 Construction of objective based tests, unit test, sessional tests, and final examination.

7.4 Analysis of results for remedial teaching.

#### Practicum :

1. Studying critically the common Mother tongue and Second language school Syllabus and Textbooks.
2. Setting Question Papers, Preparation of Blue Prints of Question Paper.
3. Observation and discussion of a series of demonstration Lessons, planning and discussing some individual lesson plans and implementing these in peer group and microteaching.
4. Practice Teaching in Secondary Schools.

#### Reference Books :

1. Dr Madan Sarma : *Asamiya Bhasa Sikshan Paddhati*, Students' Stores, Guwahati
2. Shri Jatindra Nath Goswami : *Matribhasa Sikshan*, Mani-Manik Prakash, Guwahati.
3. Shri Haliram Das : *Asamiya Matribhasa Sikshan Paddhati*, Sribhumi Publishing Co. Kolkatta.
4. Dr. Satyendra Nath Sarma : *Asamiya Sahityar Samikshatmak Itibritta*, Saumar Printing & Publishing Pvt. Ltd. Guwahati
5. Dr Maheswar Neog : *Asamiya Sahityar Ruprekha*
6. Dr Maheswar Neog : *Nika Asamiya Bhasa*
7. Dr Upendra Nath Goswami : *Asamiya Bhasar Rupkatha*,
8. Dr Golok Ch. Goswami : *Asamiya Byakaranar Moulik Bicar*,
9. Dr Mahendra Bora : *Sahitya Upakramanika*
10. Dr Mahendra Bora : *Asamiya Chandar Silpatattva*
11. Tirthanath Sarma : *Sahitya Bidya Parikrama*
12. Navakanta Baruah : *Chandasilpar Bhumika*
13. Navakanta Baruah : *Kabitar Deh Bicar*
14. Dr K.K. Deka & Dr M. Hazarika : *Anu Sikshan* (Microteaching), Banalata, Dibrugarh

15. Dr K.K. Deka & Dr M. Hazarika : *Sikshan Abhyas aru Path Parikalpana* ( Practice Teaching and Lesson Planning), Banalata, Dibrugarh.
16. NCERT : **Handbook on Paper Setting**, NCERT, New Delhi.

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## TEACHING OF ENGLISH

Marks: 100  
External : 90  
Internal:10

Objectives :

- a) To enable the student-teachers to know about the Role, function, position of 2<sup>nd</sup> language in the school curriculum.
- b) To enrich content knowledge of student-teachers.
- c) To acquire the knowledge and skill of practical techniques and methods of teaching English.
- d) To enable the student-teachers to develop and use of different teaching material in the English classroom.
- e) To develop the competence in the students teachers to plan a lesson, unit plan, question paper setting.

Unit I : Objectives of Teaching and Learning English at the Secondary Level:

- a) The use of English in India and the place of English in the secondary school curriculum.
- b) Objectives of teaching English at different school levels -
  - teaching and learning English as a second language in a multilingual society.
- c) The Curriculum of English at the secondary level.

Unit II : The nature of language and Language learning :

- a) Language- its nature, characteristics and functions.
  - Learning mother tongue and a second language processes
  - Importance of developing four fold skills in English in a second language.

Unit III : Essential Elements of the English language :

Practicum A.(a) The phonetic structure of English

- Sounds, word stress and sentence stress; intonation patterns; consultation of dictionary for correct pronunciation(use of phonetic symbols and stress marks).
- (Note: Evaluation for (a) Viva with Teaching Practical Examination:10 marks. Questions on this will not be included in; the theory paper).
  - The syntactic structure of English
- Importance of word order

- Structure words and structural Pattern.
  - Meaning : Lexical meaning.
  - Essentials of English Grammar :

Noun and Noun modifiers; Pre-modifiers and Post modifiers; Preposition; Adverbs and Adverbials. Comparisons of Adjectives ; Relative clauses; Noun-clauses, Adverbials clauses; Tenses and Modals.

Unit IV : Levels of English language - related skills and Teaching of these skills:

A. Teaching of Listening(understanding) and speaking:

- a) Analysis of listening and speaking skills.
- b) How to give pupils practice in listening and comprehension.

-26-

- c) Presentation of English speech sounds in meaningful sequences- words, phrases, sentences, corrected speech.
- d) Using pronunciation drills, question-answer exercises, conversation, story telling, Choral recitation of rhymes and jingles.
  - To develop oral communicative competence
- how to ask questions, respond to inquiry, introduce and thank a speaker interact in an interview situation.
- How to give instructions to pupils-initiate classroom interaction-when and how to use LI in the class.
- e) Listing common mispronunciations and finding ways to correct these.
- f) Testing of listening and speaking.
- g) Developing reading habit through subject library
- h) Testing of reading comprehension

N.B.: Intensive training in language skills starts with (e) above.

B. Teaching(Reading skills and how to teach) Reading :

- a) Process of reading
  - b) Purposes of reading- language learning, pleasure, information, appreciation and reading procedures.
  - c) Types of reading- reading aloud, silent reading, intensive reading
  - d) Reading aloud with correct pronunciation, stress, intonation in class-prose, poetry, drama.
  - e) Teaching reading with appropriate speed for various purposes
  - f) Teaching reading for overall comprehension, implication, interpretation, evaluation, making inferences.
  - g) Teaching rapid, silent reading, encouraging supplementary reading, teaching reference skills,
    - teaching contextual meaning, inferring meaning from the context
  - h) Training in the use of collateral reading materials- dictionaries, papers, journals, encyclopedias, to expand vocabulary and to get information and enjoyment.
- C. Teaching Writing ( Developing reading habit through subject library and Testing of reading comprehension):
- a) Mechanics of writing
    - Spelling, punctuation, indenting, title, use of parenthesis, abbreviation, capital letters,

- Correct form of address letters, applications.
- b) Teaching the organisation of a paragraph, an essay,
- guided and free composition.
- c) Teaching study skills- paraphrasing, summarising, note taking, story.
- d) Testing of writing skill.
- D. Teaching English Grammar
- a) Presenting grammatical structures in the class-inductive and deductive methods.
- b) Providing practice in Verb pattern
- c) Using the test for teaching grammatical structures
- d) Planning for remedial work on various areas of English grammar
- e) Explicating the Tense usage in English

Unit V : Methods and Techniques of Teaching of English (as a Second Language and Classroom techniques):

- A. Method: Approaches to language and language learning
  - Behavioural and Cognitive
- b) Approaches to language and language learning
  - behavioural and cognitive.

Syllabuses predetermining method (content-oriented):

Grammar-translation

Structural

Situational

Selection and grading of teaching materials, Bilingual & Eclectic.

Syllabuses not pre-determining methods(process oriented)

- a) Communicative (approach) Language Teaching
  - What facilitates language learning
- B. Techniques (Practical Work)
- a) Using LI in the class
- b) Practice in the class-drill, pattern practice, Substitution and matching tables.
- c) Detailed analysis of school syllabuses and English Textbooks.
  - Identification of teaching points- instructional objectives
  - Tackling a language text-prose, poetry, supplementary reader
- d) Planning a lesson, Unit plan
- e) Preparation and use of teaching aids- Use o blackboard and classroom apparatus
- f) Preparation of practice materials
  - Use of modern technical equipments : Tape Recorder, Radio, T.V. etc.

Unit VI: Evaluation :

- a) New directions in evaluation
  - Continuous and comprehensive evaluation in English Language Teaching (ELT)
- b) Review of existing tests, examination patterns question papers
- c) Qualities of a good tests in ESL.
  - Periodic tests, annual/final examination, paper setting, Oral and written tests.
  - Informal and formal diagnostic tests, remedial tests and techniques.
- d) Construction of objective-based test items in English

- Unit tests
- Follow up of the Test results. Analysis of list results for Remedial Teaching.

**Practical Work**

- Micro teaching
- Observation and discussion of a series of demonstration lessons
- Planning and discussing some individual lesson plans and implementing these in real and simulated situations and micro teaching,
  - Practice teaching in Secondary schools.

**Books Recommended :**

- Texts: 1. Bright, J.A. and Mc Grogar, G.R.: Teaching English as a Second Language, ELBS Longman, 1970,1978.
2. Bansal, R.K. and Harrison,: Spoken English for India
  3. Hornby, A.S.: Guide to Patterns and Usage in English ELBS& OUP, 2<sup>nd</sup> ed 1975.
  4. Hornby, A.S. ed.: Advanced Learners Dictionary
  5. Krishnaswami, N: Modern English Grammar

**Essential Reference Books :**

1. Wilkins, DA Second Language Learning and Teaching London: Edward Arnold
2. Strevens P. New Orientations in the Teaching of English, OUP, 1977.
3. Baruah, T.C. : The English Teacher's Handbook, Sterling, Revised ed.1988.
4. Leech, G. and Svartvik J. : A Communicative Grammar of English ELBS/Longman 1975,1979.

**TEACHING OF GENERAL SCIENCE**

Full marks : 100

External :90

Internal :10

Objective :

Student teacher to have the ability to :

1. Develop a broad understanding of the principles and procedures used in modern science education.
2. Develop their essential skills for practicing modern science education.
3. Develop their skills necessary for preparing international accessories
4. Prepare acceptance lesson models which lay down this procedure to be adopted for preparing designs of lessons.

5. Manage introductory activity in such a way that the vast majority of the learners attain most of the objectives.

Unit I : Nature and scope of general science and objective of teaching it. 10

- (i) The concept of science as process and product, concept of general science.
- (ii) Impact of science on modern world.
- (iii) Path tracking discoveries and land mark development in science.
- (iv) Globalisation and science
- (v) Need of science as a subject of study in school curriculum
- (vi) Objective of teaching science at different school levels -(a) Primary (b) Secondary and (c) Higher Secondary.

Unit II : Life and work of a few Indian scientists . 10

- (i) Homi Jahangir Bhaba, (ii) P.C.Roy, (iii) J.C.Bose, (iv) Salim Ali (v) C.V.Raman, (vi) Hargobinda Khorana and (vii) Meghnad Saha.

Unit III : Construction of General science curriculum 10

- (i) Principles of construction and organisation of General Science Curriculum - (a) Psychological and logical considerations, (b) Topical and Spiral(Concentric) Approach and (c) Correlation of General Science with other school subjects and life..
- (ii) Modern trends in curriculum construction
- (iii) Exploring and utilization of resources for curriculum transection.
- (iv) Adapting the curriculum to the local needs
- (v) Evaluation f existing secondary General science curriculum.

Unit IV : Objective based instruction in teaching science. 15

- (i) Selecting the content for instruction (facts, concepts, generalisation, process, sequencing of content categories), identifying the teaching points, organisation of content.
- (ii) Concept of entering and terminal behaviour.
- (iii) Concept of objective based instruction with special reference to Bloom's Taxonomy.
- (iv) Sating instructional objectives, identifying learning outcomes in behavioural terms (knowledge-define, state, write, recall, recognise, reproduce, name, underline, select, list, label, measure etc. Comprehension - identify, illustrate, explain, justify, represent, judge, select, contrast, indicate, formulate, clarify etc. Application - predict, choose, construct, select, find out, compute, assess, show, use, explain, compare demonstrate, perform, contrant etc, Skill- perform, do, draw etc.)

Unit -V : Teaching methods and teaching Aids used in science. 20.

- (i) Choosing the appropriate methodology (lecture-Demonstration method, Heuristic method, Problem-solving method, project method).
- (ii) Co-curricular and non-formal approaches in science teaching ( Activity approaches and non-formal methods of science teaching in terms of field

- trips, school gardening science clubs, visits to science museums, maintenance of aquariums, herbariums and projects.
- (iii) Using appropriate teaching aids (Audio-visual aids, preparation and development of improvised apparatus, general science laboratory text-book and other reading materials like hand book, guide book, journals etc.

Unit -VI : Lesson planning and evaluation. 25

- (i) Planning for instruction in science (planning for teaching developing year plans, unit plans, lesson plans and content analysis)
- (ii) Using appropriate evaluation tools (Achievement test, qualities of a good evaluation tool - reliability, validity, objectivity and norms).
- (iii) Framing different types of test items(essay type, short answer type, completion, true/false, classification, odd man out, multiple choice, matching).
- (iv) Evaluating outcomes of science teaching ( Developing test for measuring specific outcomes - cognitive outcomes, affective outcomes and psycho-motor outcomes)

**Reference :**

- Sharma, R.C.: Modern Science Teaching, Dhanpat Rai & Sons, New Delhi.
- Sharma, R.C. & D.N. Sharma : Teaching of Science, Dhanpat Rai & Sons, New Delhi.
- Siddiqi & Siddiqi : Teaching of Science Today and Tomorrow, Victor Offset Printers & Publishers.
- Kholi. V.K.: Teaching of Science, Krishna Brothers, Jullunder.
- Nain, C.P.S. : Teaching Science in our School, S. Chand & C0. (Pvt.) Ltd. Ram Nagar, New Delhi-35.
- Thakur W.A. & Alfred T. Collette : Teaching Science in Today's Secondary Schools, Prentice Hall of India (Pvt.) Ltd. New Delhi.
- NCERT : Teaching of Science in Secondary Schools, New Delhi.
- UNESCO : Source Book for Science Teaching , Equal productions Ltd. Wake field, Yorkshire.
- \*\*\* : Text books on General Science for Secondary Schools recommended and or published by SEBA, NCERT, CBSE etc.

**General Science Practical**  
**Marks : 50**

A. Physical Sciences :

25

Handling of following measuring instruments :

- (a) Slide Caliper
- (b) Screw Gauge
- (c) Spherometer
- (d) Improvised balance
- (e) Barometer
- (f) Maximum and minimum Thermometer

Determination of the specific gravity of a solid

- heavier than water
- Lighter than water

(iii) Soluble in water and a liquid by (a) Nicholson's hydrometer, (b) Hydrostatic balance.

3. Determination of the specific gravity of a liquid by specific gravity bottle, and Hairs apparatus.
4. Verification of the law of limiting fraction
5. Verification of the law of length of simple pendulum and hence finding out the acceleration due to gravity,  $g$ .
6. Verification of the Boyle's law.
7. Determination of the fixed points of a thermometer.
8. Determination of the velocity of sound by resonance tube.
9. Comparison of the illuminating powers of two sources of light by Remford's photometer.
10. Verification of the laws of reflection by pin method and hence finding out the position of the image formed.
11. Verification of the law's of refraction by pin method and hence finding out the position of the image formed.
12. Plotting of the I-D curve and determination of the refractive index of material of the prism.
13. Determination of the angle of minimum deviation and hence the refractive index of the material of the prism.
14. Determination of the poles of a bar magnet
15. Tracing of lines of force due to a bar magnet placed in the magnetic meridian (North pole pointing North and North pole pointing south).
16. Demonstration of magnetic field produced by electric current.
17. Verification of Ohm's law and determination of the resistance of a coil.
18. Connection of resistance and cells in series and parallel.
19. Preparation, collection and verification of the properties of Oxygen, Nitrogen, Hydrogen and Carbon dioxide gases.
20. Separation of the elements of a mixture by common laboratory processes.
21. Neutralisation of Acids with Bases.



22. Preparation of models and charts (e.g. Improvised thermometer, pin-hole camera, telescope, periscope, kaleidoscope, motor, dynamo, engines, ammeter, voltmeter, galvanometer, electric bell, laclanche cell, solar and lunar eclipse etc.)

B. Biological Sciences

25

1. Use of simple and compound microscope.
2. Preparation and staining of microscopic slides : Human blood, onion chromosome, lactobacillus bacteria, squamous epithelium, plant tissue (identification of xylem and phloem in dicot and monocot stems etc)
3. Study of permanent slides under microscope : Amoeba, plasmodium, amphibian blood, stages of mitotic and meiotic cell divisions in plants and animals, human nervous tissue, plant cell and animal cell etc.
4. Chemical tests : Carbohydrate, Starch, fat, protein, digestion of carbohydrates by human saliva.
5. Morphological study : typical plant, fine typical seed ( monocot and dicot), Modified roots and stems.
6. Physiological experiments : evolution of oxygen during photosynthesis, respiration in plants, transpiration, effect of sunlight in plant growth.
7. Dissection of supplied flower and determine its systematic position.
8. Preparation of herbarium (at least five sheets).

## TEACHING OF GEOGRAPHY

Full Marks : 100

External:90

Internal:10

- Unit I : Meaning, nature and scope of Geography ; Historical development of Geography ; Its present perception. 12
- Its relationship with other social sciences ; Different areas of Geography
  - Objectives of teaching Geography.
- Unit II : Principles of designing the Geography curriculum with due weightage to its different areas 12
- Organising the Syllabi logically at different levels
  - Text books and reference books in Geography -their essential qualities.
- Unit III : Instructional Strategies for teaching Geography in terms of Specific methods like - Story telling, Lecture, Discussion, Source, Project, Observation, Laboratory and Regional 12
- Home Geography, Field trips and Excursions
- Unit IV : Planning Instruction :  
Meaning and importance of lesson Planning : Program of a lesson plan. 24
- General objectives of teaching Geography and specific objectives in cognitive, affective and psychomotor domains
  - Developing instructional objectives of a particular lesson in pupils' behavioural terms
  - Selection of teaching points and content analysis
  - Micro-teaching lesson plans for development of skills like - Writing instructional objectives in pupils' behavioural terms, Introducing a lesson, Blackboard writing, Questioning (Fluency & Probing), Explaining, Demonstration, Stimulus variation and Achieving closure
- Unit V : - Teaching of Physical, Regional, Human and Economic Geography; their meaning, usefulness and teaching methodology. 10
- Concept development of national integration and international understanding
  - Techniques, devices and maxims of teaching Geography
  - Current events : their selection & objective of teaching.
- Unit VI : - Audio-visual devices : their needs and advantages 10
- Proper use of audio-visual aids in teaching Geography
  - Maps, Charts, Pictures, Diagrams, Chalk board, Bulletin board, Graph board, Models, Objects and Specimens, T.V,V.C.R, Radio, Films, Filmstrips, Slide and Computers
  - Geography Laboratory and its equipments Geography museum and a Library.
- Unit VII : - Concept of evaluation ; Continuous and comprehensive evaluation ; 10
- Need for a criterion for systematic evaluation in Geography
  - Different types of evaluation tools- their merits and limitations

- Unit tests- their preparation and use.

### **Practical work**

- Micro-teaching : Practice & Evaluation
- Observation and discussion of a series of demonstration lessons
- Planning and discussion of individual lesson plans and their implementation
- Practice teaching in Secondary schools
- Preparation of teaching aids.

### **Recommended Books:**

1. Dasgupta and Kapur A.N, Physical Basis of Geography  
S. Chand & Co. New Delhi
2. Goswami P.C., The Economic Development of Assam.  
Kalyani Publishers, New Delhi
3. Kellaway G.P., Background of Physical Geography  
Macmillan & Co. Pvt. Ltd. Calcutta
4. Lake Phillip Physical Geography  
Macmillan & Co. Pvt. Ltd. Calcutta
5. Mukherjee S.P. Geography and Education  
Jiwan Jyoti Prakashan  
Darjeeling, W.Bengal
6. Negi B.S. Economic & Commercial Geography  
Kedar Nath Ram Nath. Meerut.
7. Shaida B.D. & Sharma J.C, Teaching of Geography  
Dhanpat Rai & Sons, Jullundhar, Delhi
8. Sharma & Cutin Economic & Commercial Geography of India  
Vikash Publishing House Pvt.Ltd. New Delhi.
9. Stamp Dudley L, The world, Orient Longmans Source Book of  
Geography
10. UNESCO Teaching  
Longmans Green & Co.Ltd.
11. Verma O.P. Geography Teaching  
Sterling Publishers Pvt. Ltd. New Delhi.
12. Verma O.P & Vedanayam Geography Teaching  
Sterling Publishers Pvt. Ltd. New Delhi.

## Geography Practical

Full Marks-50

Unit I : Map and Scale; their classification and use; construction of a plain scale

Projections : their definitions and kinds

Drawing of maps on the following projection :

- a) Zenithal - Gnomonic, Stereographic and orthographic
- b) Conical - Simple Conical Projection with one standard parallel
- c) Cylindrical - True Cylindrical and Cylindrical Equal Area  
their construction, properties and use

Unit II : Drawing of Contours and Profiles of Uniform Slope, Convex Slope, Col or pass, Plateau, Cliff, Gorge, Escarpment, 'V' shaped Valley, 'U' shaped Valley, Rapid and Waterfall.

Conventional signs used in Survey Maps

Topographical map interpretation.

Unit III : Simple meteorological observation: Wall thermometer, Maximum and

Minimum thermometer, Hygrometer, Rain gauge and Barometer

Drawing and interpretation of climatic graphs of the following :

Monsoon, Equatorial, Desert, Mediterranean and Polar

Drawing and interpretation of an Indian daily Weather Report of the Summer Season.

Unit IV : Cartograms

- a) Simple and compound Bar graphs;
- b) Wheel diagram and
- c) Population distribution maps by dot and shade method.

### Recommended Books:

1. Singh R. & Kanaujia L.R : Mapwork and Practical Geography  
General Book Depot, Allahabad.
2. Singh R. & Dutta P.K. : Elements of Practical Geography
3. Jhsatiaq M. : A textbook of Practical Geography  
Heritage Publishers, New Delhi.
4. Zamir A. : A textbook of Practical Geography  
Vikash Publishing House Pvt.Ltd., New Delhi.

# TEACHING OF MATHEMATICS

Marks: 100

External:90

Internal:10

## Objectives:

To enable the pupil teacher to -

1. Understand and appreciate the uses and significance of mathematics in daily life.
2. Learn successfully various approaches of teaching mathematics and to use them in actual classroom judiciously.
3. Know the methods of planning instruction for the classroom.
4. Prepare curricular activities and organize the mathematics library.
5. Appreciate and organize activities to develop aesthetics of mathematics.
6. Obtain feedback both about teaching as well as student's learning.

Unit I : Meaning, nature and scope of Mathematics. 8

- The concept of Mathematics
- Place of Mathematics in the modern world
- Need and place of Mathematics in school curriculum

Unit II : History of Mathematics : 8

(a) Contribution of Indian Mathematicians with reference to :

- (i) Bhaskaracharya
- (ii) Aryabhatta
- (iii) Ramanujan
- (iv) Leelawati

(b) Contribution of Arabs and Greeks to the development of Mathematics.

Unit III : Construction and Organisation of Mathematics curriculum : 8

- Principles governing the construction of Mathematics curriculum
- Organisation of Mathematics curriculum
  - (i) Psychological and Logical consideration
  - (ii) Topical(concentric) and Spiral approach
  - (iii) Correlating Mathematics with other subjects and with life
- Modern trends in curriculum construction.
- Evaluation of existing secondary school mathematics syllabuses.

Unit IV : Planning of Instruction in Mathematics:

- (a) Selecting the content for instruction (facts, concepts, generalisation, process, sequencing of content categories), identifying the teaching points, organisation of content. 8
- (b) Stating instructional objectives, identifying learning outcomes in behavioural terms. 8
- (c) Choosing the appropriate methodology ( Inductive-Deductive, Heuristic, Analytic-Synthetic, project, problem-solving and laboratory) ; Using various

techniques of teaching mathematics viz. oral, written, drill, assignment, supervised study and programmed learning.	12
(d) Using appropriate teaching aids (low cost improvised teaching aids ; TV, Radio, Audio/Video tapes, computer Assisted Instruction, Textbook, Visual aids - models, charts).	8
(e) Use of appropriate evaluation tools(Achievement test in Mathematics ; qualities of a good achievement test : reliability, validity, objectivity ; Types of items).	8
(f) Lesson Plan : Meaning, purpose, proforma ; Concept of Unit and Unit-Plan ; Meaning and purpose of yearly plan.	6
 Unit V : Using mathematics as a game for recreation ; Organising quiz programmes, skill development in answering puzzles, riddles, magic squares etc. Developing a Mathematics Laboratory.	 8
 Unit VI : Teaching of Arithmetic	 8
Unit-VII : Teaching of Algebra	
Unit-VIII : Teaching of Geometry	
Unit IX : Teaching of Statistics	

**Recommended Books:**

1. Baur Gregory R and Linder Olson George: Helping children Learn Mathematics. Cummings publishing Co. INC, London.
2. Chadha, B.N. and S.M. Agarwal : Teaching Mathematics. Dhanpat rai and Sons, Delhi.
3. Young, J.M.A.: The Teaching of Mathematics. Longmans.

## TEACHING OF HISTORY

Full marks :100

External: 90

Internal:10

(Each unit carries 15 marks)

Unit: I: Meaning, Nature and Scope of History, -Modern concept of History, -History as a Science and Art. Aims, Objectives and Values of teaching History - Aims of teaching history at Middle stage and Secondary stage. Instructional objectives of teaching History at Secondary stage. Values of teaching History.

Unit: II: Curriculum in History

Principles of History curriculum, selection of subject matters and contents of history for different stages - critical analysis of the curriculum. Correlation with other subjects viz., Literature, Geography, Political Science, Economics, Social Studies, Science, music and Culture.

Types of instructional materials, Textbooks, Workbooks, Handbooks, General reference materials. Teaching Aids- its place and importance - Types of teaching aids, Techniques of using teaching aids.

Unit : III: Methods of teaching History: Different methods of teaching History - Need for right method. Essential qualities of a History Teacher - Teaching controversial issues in History - Types of controversies. Teachers' role.

Utilising current events and contemporary affairs in teaching history.

Unit IV : Planning History lessons: Defining a Lesson Plan in History. Need for Lesson Planning - Principles of Lesson Planning - Steps in Lesson Planning - Some model lesson plans and critical evaluation.

Unit V : Evaluation in History : Evaluation approach to the Teaching of History.

Developing an effective evaluation programme - Techniques of evaluation - Oral Tests, Essay type tests, Short answer type tests, Objective type tests, standardized Test, Designing a good test in History.

Unit VI:

1. History teaching and National Integration.
2. Developing International Understanding through History teaching.
3. Techniques for promoting emotional integration in teaching history.
4. The History class room, good learning environment.
5. History library and History museum.

**References :**

1. Bhattachajee, Arun. : History of Ancient India, New Delhi, Sterling Publishers,1982.
2. Majumdar, R.C.(ed): The History and culture of the Indian people. Vol.I. Bombay Bharatiya Vidya Bhaban, 1951.
3. Sharmah, S.R. : Religions Policy of the Mughals, Bombay Asia Publishing House.

4. Bala hushevich, V.V. et.al.: a Contemporary Histiry if India, Delhi Peoples' Publishing House.
5. Kochhar, S.K. : Teaching of History revised and enlarsed edition, Sterling Publishers Pvt. Ltd.

## **TEACHING OF SOCIAL STUDIES**

Full Marks: 100

External :90

Internal : 10

Unit : I 15

1. Meaning, scope and concept of Social Studies : Its need for teaching in schools
- Difference between Social Sciences and Social Studies : present perception about social studies
- Rationale for including -History, Geography, Civics, Economics and sociology in social studies
- Aims and values of teaching each subject and their integrated teaching approach.

Unit II : 15

1. Principles of designing the social studies curriculum with due weightage to its components
  2. Organisation of social studies curriculum in terms of correlation, integration, spiral, unit and chronological approaches.
- Selection of its contents - its organisation and presentation
- Current events and education for citizenship.
- Text books in social studies -Criteria for selecting a good textbook.

Unit III : 15

- 1 Instructional strategies for teaching social studies in terms of the specific methods like Lecture, Discussion, Project, Source, Story-telling, Problem solving and Observation
2. Techniques, devices and maxims of teaching social studies

Unit IV : Planning instruction 25

1. Meaning and importance of lesson planning; program of a lesson plan
- Instructional objectives of each of its component subjects : History, Geography, Civics, Economics and Sociology.
2. General objectives of teaching social studies and specific objectives in cognitive, affective and psychomotor domains
  3. Considerations for developing instructional objectives of a particular topic/lesson and general and specific objectives in pupils' behavioural terms.



4. Micro-teaching lesson plans for developing skills: Writing instructional objectives in pupils' behavioural terms, Introducing a lesson, Blackboard writing, Explaining, Demonstration, Stimulus variation and Achieving closure.

Unit V : Audio-visual devices : their needs and advantages 10

- 1 .Use of audio-visual and relevant community resources in teaching its component subjects
2. Objects & specimens, pictures, models, maps, charts, diagrams, time lines, chalk board and bulletin board
3. Television, Radio, Tape recorder, films, filmstrips, slides, V.C.Rs, computers
4. Social studies laboratory and museum.

Unit VI: Purpose for evaluation in social studies 10

1. Continuous and comprehensive evaluation
  2. Need for and criterion of systematic evaluation in different areas of social studies
- Different types of evaluation tools : their merits and limitations  
Unit tests: their preparation and use.

### **Practical work**

1. Microteaching: Practice & Evaluation.
2. Observation and discussion of a series of demonstration lessons
3. Planning and discussion of individual lesson plans and their implementation
4. Practice teaching in secondary schools.
5. Preparation of teaching aids. TLM

### **Recommended Books :**

1. Alan J. Hoffman & Thomas F.Ryan : Social studies and the Child's Expanding Self.
2. Bining Arthur & Bining David : Teaching of Social studies in Secondary Schools.
3. Aggarwal J.C : Teaching of Social Studies
4. Kochhar S.K. : The Teaching of Social Studies
5. Malcolm P. Douglass : The Teaching of Social Studies
6. Saijidian K.G : Education for International Understanding.
7. NCERT : Education for International Understanding
8. Yajnik K. : The Teaching of Social Studies in India.

## TEACHING OF SANSKRIT

Full Marks: 100

External : 90

Internal : 10

Unit I : The Importance of teaching Sanskrit :

- a) Sanskrit as a key to Indian Culture
- b) The influence of Sanskrit on Modern Indian Language
- c) Integration influence of Sanskrit

Unit II : Objectives of teaching Sanskrit

- a) The place of Sanskrit in the secondary school curriculum- as a classical language, as a second language, as a third language
- b) Objectives of teaching Sanskrit at different school level
- c) The curriculum of Sanskrit at the secondary level
- d) Aims of teaching prose, poetry and grammar in different classes

Unit III: Essential Elements of the Sanskrit Language:

- a) Phonetic and syntactic structure of Sanskrit
- b) Essential of Sanskrit Grammar : bibhakti, sabdarup, pratyayas, sandhi, samasa, formation of words and sentences.

Unit IV : Epics, poetry, fables, Hitopadesha, prose, Romance, drama. Major poets and dramatist( classical period) and their works.

Unit V: Principles of teaching Sanskrit:

- a) General Principles of language learning and teaching a second language
- b) Principles of teaching Sanskrit as a second or third language
- c) Problems of teaching Sanskrit in various classes

Unit VI : Methods of teaching Sanskrit- old and new:

The aim, objective, techniques and characteristics of

- a) The traditional (Pathsala i.e. learning by memory) method
- b) The Chandarkar of Grammar-translation method
- c) The text book method
- d) The Direct method
- e) The Structural approach
- f) Recent experiments in teaching of Sanskrit

Unit VII: Development of Language skills:

- a) Oral Work-(I) Its Importance, question-answer-construction, reproduction of dialogues in the reader, Recitation of Verse, story-telling, description, dramatization, (II) Pronunciation-Sounds of Sanskrit, training in the correct pronunciation of letters, words, sentences right articulation .
- b) Reading: Importance of reading, different methods of teaching, different types of reading-reading aloud and silent reading training in each type of reading.
- c) Writing: Simple sentences and paragraphs, translation to and from other languages, writing out explanations

Unit VIII: Teaching of Prose, Poetry and Grammar:

- a) Prose: Development of linguistic abilities-abilities in silent reading and reang aloud; extension of vocabulary; development of literacy taste and love of extensive reading for pleasure and knowledge; different types of prose lessons essays; short stories, dialogues and the methods of teaching these.
- b) Poetry; Different methods of teaching poetry-aesthetic appreciation of poetry.
- c) Grammar: Objectives, formal and functional grammar, correlation with text and composition; different methods of teaching grammar-inductive and deductive.

**Unit IX : Evaluation of Sanskrit:**

Evaluation, its importance and means of evaluation; construction and use of new types-objective based- tests, continuous, evaluation.

**PRACTICAL WORK:**

- (i) A critical study of the Sanskrit syllabuses for the Secondary stage and a review of the prescribed texts.
- (ii) Planning and discussing individual lesson plans and unit plans.
- (iii) Micro-teaching Practice teaching in secondary schools
- (iv) Preparation of an anthology of 50 Sanskrit Quotation of Subhasitas and Verses suitable for school students.
- (v) Rendering of Selected passages of a difficult Sanskrit prose work like the Kadambari into Simple Sanskrit Versions (at least 10 sentences)
- (vi) Preparation and administration of achievement test-objective type in Sanskrit.

**Reference :**

1. H.P.Bokly and N.A.Parmis: A New approach to Sanskrit
2. G.S.Hupanikea: The Problems of Sanskrit Teaching
3. A.B.Keith: A History of Sanskrit Literature.