

**SCHEME OF EXAMINATION**  
**BACHELOR OF EDUCATION (B.ED.)**  
**PART-A (PAPERS-1 TO VI)**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.
2. Internal assessment marks shall be given on the basis of marks secured by the candidate in the Descriptive Examination to be conducted by the respective study centre. Study centres are required to keep the record of the descriptive examination with them for inspection by the University. The marks of Internal Assessment must be submitted to the University before the termination of the University Examination in the concerned subjects. In the event of non receipt of the Internal Assessment Marks, the theory marks secured by the candidate shall be proportionately enhanced.

Paper	Nomenclature	Max. Marks			Time (Hours)		
		Theory	Practical	Pedagogical /Project Skill Development	Theory	Practical Work	Skill Development
	<u>Pedagogical/Project</u>						
I	Education in Emerging Indian Society	80	--	20	3	3	1.30
II	Psychology of Teaching & Learning	80	20	--	3	1.30	
III-A	Secondary Education & School Management	50	--	--	1.30	--	--
III-B	(Option -4) Education & Vocational Guidance	50	--	--	1.30	--	
IV	Educational Technology	80	20	--	3	--	1.30
V-VI*	(Option-I)English	100	--	--	3	--	--
Group -A	(Option-2)Hindi	100	--	--	3	--	--
Group -B	(Option -5) Mathematics	100	--	--	3	--	
	(Option-7) Commerce	100	--	--	3	--	
Group -C	(Option -9) Life Science	100	--	--	3	--	
Group -D	(option-13)Physical Sci.	100	--	--	3	--	
	(option-16)Social Studies	100	--	--	3	--	

**Paper V&VI :** Content cum-methodology courses in Teaching subjects of School level will be as follows:

- Group-A : English, Hindi
- Group-B : Mathematics, commerce
- Group-C : Life Science
- Group-D : Physical Science, Social Studies

**Note:**

The candidate shall choose two subjects for Methodology of Teaching from the above mentioned four groups. They will choose these from two separate groups. One of the subjects selected for these papers shall be at least be the same as offered for degree course.

Paper	Nomenclature	Max. Marks			Time (Hours)	
		Theory	Practical Project Skill Development	Pedagogical/ Theory	Practical Work	Skill Development
VII	Work education Practical	--		--	--	1
VIII	Work Experience Practical					
a)	Chalk Board –Writing	--	30	--	--	3
b)	Preparing Teaching Aids	--	35	--	--	1
c)	Handling of Available Equip.	--	35	--	--	
d)	Cane Work/ Candle Making (for Blind Students Only)	--	100	--	--	3
VIII	Work experience- Practical*					
	(Option-1) Drawing & Painting	--	50	--	3	--
	(Option-5) Interior Decoration	--	50	--	3	--
	(Option-7) Gardening	--	50	--	3	--
	(Option-10) Candle Making (For Blind Students only)	--	100	--	3	--

## Part-II (Papers VII to X)

\* Students are required to opt for two work experiences out of the list mentioned above. Blind students will opt. for only one work experience i.e. Candle Making Carrying 100 Marks.

IX. Participation in Community Services & Co-curricular activities (On five point scale) Grades will be awarded (NSS, Sports, Social Service, Cultural & Literary activities. On Five point scale).

X. \*Skill-in-Teaching

1. Teaching Subject-1      100      One School Period
2. Teaching Subject-2      100      One School Period

**Note:** Micro teaching lessons (Five per subject)

Planning mega lessons (Five per subject)

Mega lessons in simulation (Five per subject)

Model lessons by the teacher educator (Two lessons in each subject)

Discussion lessons by the teachers educator (Two in each subject)

Real Teaching in the school (15 lessons per subject)

Besides the above discussion lessons, one discussion lessons, one discussion lesson in each subject at the end of practice teaching in a school.

During practice Teaching, each student is supposed to take part in the morning assembly of the school, prepare a timetable, organize certain activities in the school, check the home task given to the students, maintain attendance register, prepare cumulative progress card and have knowledge of preparing school leaving certificate etc. A record of all these activities will be kept by the student teachers.

**BACHELOR OF EDUCATION (B.Ed.)**  
**EDUCATION IN THE EMERGING INDIAN SOCIETY**  
**PAPER-I (THEORY)**

**External: 80**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

**I. Education and Philosophy**

1. Philosophical Analysis of basic concepts of Education:
  - Education
  - Teaching
  - Instruction
  - Training
  - Introduction
  - Types of Education: formal, informal & Non-Formal
2. Philosophy Knowledge
  1. Concept of knowledge
  2. Types of knowledge
  3. Sources of knowledge
  4. Methods of acquiring knowledge

**II. Education and Philosophy**

1. Relationship between Education and Philosophy, Aims of Education, curriculum, methods of teaching, discipline and role of the teacher as influenced by idealism, naturalism and pragmatism.
2. Educational thoughts of Mahatama Gandhi, Tagore and Vivekanand and their impact on Indian Education.

**III. Aims of Education in contemporary Indian Society**

1. Education for;
  1. values;
  2. modernization;
  3. vocationalisation;
  4. health (physical, mental and emotional); and
  5. development of democratic outlook
2. Agencies of Education
  1. Formal agencies; School and State.
  2. Informal agencies; home, community, peer-groups, mass media.
  3. Home-school partnership; school-community collaboration.

**IV. Structure and Concerns of Modern Indian Society**

1. Structure of Indian Society; class; caste; religion, ethnicity and language.
2. Concerns of Indian Society : Democracy ; Social justice and equality, human rights, secularism, gender equality, social cohesion, national integration, population explosion, environmental degradation, globalization and privatization.
3. Educational and social change.

**V. Education for National Development and its Futurology**

1. Education and national development.

1. Meaning of national development.
  2. Education and national development
  3. Role of Education in economic development
  4. Education and human resource development
2. Futurology

Education in future India; schools, classrooms, teachers, methods, discipline.

## **PEDAGOGICAL SKILL DEVELOPMENT**

### **(PRACTICAL WORK)**

**External: 20**

One Project on any one of the following:

1. Socio-economic educational survey of a nearby village urban setting.
2. Study of education and income patterns.
3. Role of education in women empowerment.
4. Any Project related to Literacy/Health/Environment/Family Environment.

### **SUGGESTED READINGS**

Anand, C.L. et. al (Eds.) (1993) : The Teacher and Education in Emerging Indian Society, NCERT, New Delhi. Brubacher, John S. (1971) : Modern Philosophies of Education. Tata McGraw Hill, Delhi, Deiors, Jacques (1996); Learning the Treasure Within, Report to Unesco of the International Commision on Education for Twenty First century. UNESCO. Durkheim Emile (1956): Education ani Sociology. Free Press of Glencol, New York. Gore, M.A. et. Al. (1967) : Papers in Sociology of Education in India, NCERT, New Delhi, MHRD, Report of Education Commission 1964-66. Ministry of Education, Govt, of India, New Delhi.

## **PSYCHOLOGY OF TEACHING AND LEARNING**

### **PAPER-II (THEORY)**

**External: 80**

*Note:*

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

### **I. Psychology and its Relationship to Teaching**

1. Concept of Psychology
2. Concept of teaching and learning
3. Relationship of Psychology to teaching and learning.
4. Levels and factors affecting teaching.

### **II. Development of Learner**

1. Concept of growth and development
2. General principles of the development
3. Relative importance of heredity and environment in learner's development.
4. Stages and aspects of development with special reference to needs and problems of adolescents in the Indian context.

### **III. Psychology of Learning**

1. Concept and characteristics of Learning

2. Factors affecting learning and motivation
3. Theories of learning:
  1. Learning by trial and error
  2. Classical conditioning
  3. Insight theory
  4. Operant conditioning
  5. Memory and forgetting
  6. Transfer of learning

#### **IV. Nature of the Learner**

1. Intelligence: Meaning, nature and theory of intelligence (two factor theory and Thurston's group factor theory). Measurement of intelligence and application of intelligence tests.
2. Creativity; Concept; Relationship with intelligence; Techniques for fostering creativity.
3. Interest and aptitude and their assessment.
4. Personality: Meaning, nature and assessment.

#### **V. Guidance and Counseling**

(i) Meaning, significance, types, steps, approaches and techniques, (ii) Concept of Disability, its identification, causes and management.

### **(PRACTICAL WORK)**

**External: 20**

1. Administration, scoring and interpretation of the following psychological tests :
  1. Intelligence Test
  2. Personality Test
  3. Achievement Test
  4. Aptitude Test
  5. Creativity Test
  6. Interest Inventory
  2. Case Study

#### **SUGGESTED READINGS**

Anastasi, A. (1967): Individual Differences, John Wiley, New Delhi.

Ausubel, D.P. (1968) Educational Psychology : ACognitive Biew, Holt Rinchart and Winston, New York.

Bhatnagar, Suresh (1980) : Psychological Foundation of Teaching Learning & Development (Hindi), Loyal Book Depot, Meerut.

Bigge, M.L. (1967) : Learning Theories for Teachers, University Book Stall, Delhi.

### **SECONDARY EDUCATION AND SCHOOL MANAGEMENT PAPER-III A (THEORY)**

**External: 50**

#### **Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

**Unit-I**

## Development of Secondary Education in India

1. Significant development in secondary education during the pre-independence period in India.
2. Review of secondary education in India after independence with special reference to :
  1. Secondary Education Commission (1952-53)
  2. Indian Education Commission (1964-66)
  3. National Policy on Education (1986)
  4. Acharya Ram Murthi Committee (1990)
  5. Programme of Action
3. Constitutional obligations related to education in India and designed changes in the educational system with special reference to the secondary education.

## General Aims of Secondary Education.

**Unit-II**

## Secondary Education; Problems and Issues

1. Quality of secondary education with specific reference to its aims and objectives, curriculum, methods of teaching, human and physical resources, administration and evaluation.
2. Vocationalization of secondary education: its need and implication.
3. Distance education and open learning, Moral Education and Women Education.
4. Teacher education at secondary level : Pre-service and In-service.
5. Study of secondary education system of two developed countries: U.S.A. & U.K.

**Unit-III**

## School Management

1. Concept of school management
2. Management of human resources and material resources
3. Construction of time-table.
4. Class management.
5. Maintenance of school records
6. Organisation of school library
7. Organisation of co-curricular activities.

**SUGGESTED READINGS**

Bhatia K.K. & Chadda D.R.C (1980) : Modern Indian Education and its problems, Prakash Brothers, Ludhiana.

Chopra R.K. (1993) : Status of Teacher in India, NCERT New Delhi.

Menon T.K.N. & Kaul G.N. (1954) : Experiments in Teacher Training, New Delhi.

Ministry of Education, Govt, of India (1949) : Report of the University Education Commission, New Delhi; Report of the Secondary Education Commission (1962-53) Ministry of Education; Report of the Education Commission-Education and National Development (1964-66).

NCERX(1983) : The Teacher and Education in The Emerging Indian Society, NCERT, New Delhi.

NCTE (1988) : Competency based and Commitment Oriented Teacher Education for Quality School Education, Pre-service and In-service Programme, NCTE, New Delhi.

Nurullah S. & Naik J.R (1970) & Oad L.K. (Ed.)(1973) : A student History of Education in India.

Mc Millan & Co., Bombay; Shiksha Ke Nutam Aayam, Hindi Grantha Academic, Rajasthan.

Siddiqi M.A. (1993) : In Service Education of Teachers NCERT, New Delhi.

Singh L.C. & Sharma P.C. (1995) Teacher Education and the Teacher, Vikas Publishing House, New Delhi.

Singh, L.C. (Ed.) (1990) : Teacher Education in India-A Resource Book, NCERT, New Delhi.

Singh RP (1990) : Studies in Teacher Education, Bahri Publications, N. Delhi.

Warters J. (1964) Techniques of Counselling, McGraw Hill, New York.

Aggarwal J.C. (1967) Education Administration, School Organization and Supervision, Aiya Book Depot, Delhi.

Mukharjee S.N. (1963) Secondary School Admn.

## **EDUCATIONAL AND VOCATIONAL GUIDANCE**

### **(OPTION-IV) PAPER-III B (THEORY)**

**External: 50**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

**Unit-I**

1. Nature and meaning of Guidance.
2. Need of Educational and Vocational guidance.
3. Studying and appraising an Individual-its need and importance in educational and vocational guidance.

**Unit-II**

1. Measuring Achievement, Intelligence, Aptitude, Interest and Personality'-Inventories in Educational and Vocational Guidance.
2. Concept of Counseling and Counseling Interview.
3. Cumulative Record Card.

**Unit-III**

1. Guidance Services and their Organization in Schools.
2. Use of Educational and Occupational Information.
3. Role of teacher in guidance programme.

**Books Recommended**

1. Ohlen Merle, M., Guidance and Introduction, New York, Harcourt bruce, 1953.
2. Traxler, A.E. Techniques of Guidance, New York, Harcourt Bruce, 1953.
3. Warlens, Jane, Techniques of Counselling, New York, Mcgraw Hill, 1954.
4. Mehta, Porin, Handbook of Counselling, NCERT, 1976.

## **EDUCATIONAL TECHNOLOGY MANAGEMENT**

### **PAPER-IV (THEORY)**

**External: 80**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

**Unit-I**

- A. Concept, Meaning, Nature, Types, Scope and significance of Educational Technology.
- B. Communication Process
  1. Concept & Process
  2. Principles & Barriers

3. Classroom Communication (Verbal and non-verbal)
4. Different media of communication

### Unit-II

Techniques of Behaviour Modification

1. Micro-teaching
2. Flander's interaction analysis
3. Role playing and gaming
4. Concept and Procedure of Action Research
5. Significance of Action Research in Teacher Education.

### Unit-III

Programmed Learning

1. Meaning, Principles and Types of Programmed Learning
2. Development and Evaluation of Programmed Learning material.

### Unit-IV

**Models of teaching:** Glaser's Basic Teaching Model, Bruner's Concept Attainment Model, Suchman Inquiry Training Model and Mastery Learning Model.

### Unit-V

**Information Technology;** The concept, theory, approaches of Information Taxonomy of Information System, Information, Technology and Computers.

Computer Fundamentals : Input/Output, Data Storage Devices, Operating Systems Concepts, Graphical User Interface (GUI), Computer Virus, Internet and its tool like-Email. FTP (File Transfer Protocol), HTTP, www (World Wide Web). Browsers and E-Commerce.

Multimedia approach to Teaching-learning.

## SUGGESTED READINGS

Apter, Michael, J. (1968). The Technology of Education, Mac Millan; London.

Chauhan, S.S. (1978). A Text Book of Programmed Instructions.

Dececeo, John, P. (1964). Educational Technology Readings in Programmed Instructions. Holt Rinehart and Winston.

Markle, Susan Meyer. Good Frames & A Grammar of Frame Writing. John Wiley & Sons.

Pangotra, Natendera Nath, Fundamental of Education Technology. International Publishers, Chandigarh.

Richmond, Kenneth, W (1969). The Teaching Revolution, Methuen & Company, London.

Ruhela, S.R (1973). Educational Technology.

Sharma, R.A. (1977). Shiksha Taknik. Modern Publishers, Meerut.

Amidon, E.J. and Elizabeth Hunter (1976) Improving Teaching .The analysis of classroom verbal instruction. New York, Holt Rinehart and Winston Inc.

Bloom, B.S. (1956) Taxonomy of Educational Objectives, Cognitive Domain Book, New York, Mc Kay.

Bruce Joyce and Marshaweil (1980). Model of Teaching, New Jersey, Prentice Hall.

Flander, Ned, A (1960). Analysis Teacher Behaviour London Addison, Wesley Publishing Company.

Hooda, R.C. and Rana S.S. (1993). Essentials of Teaching Learning (Hindi) : Raj Publications, Vijay Nagar, Bhiwani.

Hooda, R.C. (1997) Creativity and Mastery Learning, Silen Sea Publishers, Lajpat Nagar, Gurgaon.

Hooda, R.C. Hooda, S.K. and Dahiya S.S: (2001). Mastery Learning to Enhance Creativity S.S. Publishers, Delhi.

Jangira, N.K. & Singh, Ajit (1980), Core teaching skillJ-Micro teaching approach, New Delhi, NCERT.

Mavi, N.S. Programmed Learning, Kurukshetra (English),



## PRACTICAL (INFORMATION TECHNOLOGY)

**External: 20**

\*Know your computer (list the configurations, input/output devices).

Write and practice on Computer.

\* How to start the computer, create a programme folder, create a file, save the file, close the file, shut down the computer. Use of Mouse and keyboard.

\*Microsoft Windows.

1. Often used windows terms, managing the file system, printing in windows.

\*Microsoft Word

1. Basic functions
2. Typing and Editing
3. Formatting Text
4. Page design and layout

(Student are supposed to prepare documents, New letters etc.)

\*Microsoft Power Point.

1. Presentation Graphics
2. Introducing Power Point
3. Creating a Presentation.

\*Read, compose and send E-mail messages

\*What is World Wide Web (www) and how it works? Use a browser to search for documents and explore the Internet. What is Web Search Engines?

(Students are supposed to visit few web sites like [http:\ www.ncte-in-org](http://www.ncte-in-org), <http://www.ignou.org>, [.http://www.nic.in](http://www.nic.in), <http://www.mduonline.com> etc.

## TEACHING OF ENGLISH

### (OPTION-1) GROUP-A

#### PAPER-V & VI

**External: 100**

*Note:*

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

### **I. Concept**

1. Nature of language
2. Importance of language
3. Functions of language
4. Linguistic principles
5. Aims and objectives of teaching English.

### **II. Content and Pedagogical Analysis**

1. Teaching of prose, poetry, composition and grammar.
2. Pedagogical analysis based on unit analysis, objectives, learning experience, chosen methods and material and evaluation of at least from prose, poetry, composition and grammar.

3. Preparation of micro lessons based on any of the following skills:

1. Questioning
2. Explaining
3. Illustration
4. Stimulus variation

### III. Methods of Teaching and Skills of Teaching

1. Difference between an 'approach' and 'method', Major methods of teaching English : Grammar-cum-translation method, direct method and bilingual method.
2. Structural approach : Meaning of structure and pattern, principles of selection and gradation of structure, presentation and practice of structure.
3. Latest development In the approach and methods of teaching English including the linguistic communicative approach.
4. Development of following linguistic skills:
  1. Listening and understanding
  2. Speaking
  3. Reading
  4. Writing

### IV. Instructional Material

1. Importance of instructional material and their effective use.
2. Use of following aids:
  1. Chalk Board
  2. Flannel Board
  3. Pictures
  4. Picture-cut-out
  5. Charts
  6. Tape-recorder
  7. Record-Player (Lingua phones)
  8. Radio
  9. Television
  10. Film and Filmstrips
  11. Overhead projector
  12. Language Laboratory

### V. Evaluation

1. Basic principles of testing English. The difference between measurement and English.
2. The meaning and significance of comprehensive and continuous evaluation in evaluation.
3. Development of good test items in English (objective type, short answer type and essay type),

### SUGGESTED READINGS

- Bansal, R.K. & Harrison, J.B. (1983). Spoken English for India. Orient-Lingman (II Ed.)
- Broughton Geoffrey et. al. Teaching English as a Foreign Language, London.
- Bhatia, K.K. (1968), New Techniques of Teaching English as a Foreign Language. NBS Educational Publishers, Chandigarh.
- Billows, F.L. (1961). The techniques of Language Teaching. Logoman, London.

**TEACHING OF HINDI  
(OPTION-2) GROUP-A  
PAPER-V & VI**

**External: 100**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.
1. मातृभाषा शिक्षणः अर्थस्वरूप महत्त्व एवं ब्लूम निर्धारित अनुदेशात्मक उद्देश्य।
2. भाषाई कौशल का सामान्य ज्ञान  
श्रवण कौशल  
भाषाण कौशल  
पठन कौशल  
लेखन कौशल  
हिन्दी में उच्चारण-शिक्षण, अक्षर विन्यास एवं विराम चिन्ह
3. सूक्ष्म शिक्षण द्वारा विभिन्न कौशलों का ज्ञान  
○ प्रश्न कौशल  
○ दृष्यन्त कौशल  
○ व्याख्या कौशल  
पाठ योजना का अर्थ, महत्त्व एवं रूपरेखा  
हिन्दी शिक्षण में अनुदेशात्मक सामग्री का अर्थ महत्त्व एवं उचित प्रयोग।
4. हिन्दी की विभिन्न विद्याओं का शिक्षण  
○ कविता शिक्षण रस पाठ एवं बोध एवं बोध पाठ के रूप में  
○ गद्य शिक्षण  
○ व्याकरण शिक्षण (औपचारिक एवं अनौपचारिक)  
○ रचना शिक्षण (कहानी रूप में पत्र व निबन्ध)
5. हिन्दी पाठ्यक्रम निर्माण एवं समीक्षा  
हिन्दी पाठ्यपुस्तक की विशेषताएं एवं समीक्षा
6. हिन्दी में मूल्यांकन एवं गृहकार्य  
○ हिन्दी में मूल्यांकन, अर्थ एवं स्वरूप हिन्दी पाठ्यक्रम निर्माण एवं समीक्षा  
○ विद्याओं में मूल्यांकन प्रक्रिया  
○ हिन्दी शिक्षण में गृहकार्य स्वरूप एवं संशोधन।

**सन्दर्भ ग्रन्थ सूची**

- |   |   |
|---|---|
| 1. शुक्ल, भगवती प्रसाद                    | हिन्दी शिक्षण लिपि।                                     |
| 2. सुखिया, के. के.                        | हिन्दी ध्वनियां और उनका शिक्षण, रामनारायण लाल इलाहाबाद। |
| 3. तिवारी भोलानाथ तथा भाटिया कैलाश चन्द्र | हिन्दी शिक्षण लिपि प्रकाशन। दिल्ली-1980                 |

- |                                 |  |
|---------------------------------|--|
| 4. निरंजन कुमार सिंह            | माध्यमिक विद्यालयों में आधुनिक हिन्दी शिक्षण राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर। |
| 5. बाहरी हरदेव                  | व्यावहारिक हिन्दी व्याकरण, लोकभारती प्रकाशन, 1972।                                 |
| 6. मंगल उमर 1991                | हिन्दी शिक्षण, देहली आर्य बुक डिपो।  |
| 7. पाण्डेय आर.एस. 1992          | हिन्दी शिक्षण, आगरा विनोद पुस्तक मन्दिर।   |
| 8. सिंह सावित्री 1992           | हिन्दी शिक्षण, मेरठ लायल बुक डिपो।   |
| 9. श्री वास्तव राजेन्द्र प्रसाद | हिन्दी शिक्षण, दि मैक मिलन कम्पनी आफ इण्डिया लि. देहली 1973                        |

## TEACHING OF MATHEMATICS

### PAPER-V & VI

#### GROUP-B (OPTION-5)

**External: 100**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

#### **I Nature of Mathematics:**

1. History of number system and metric system.
2. Meaning of mathematics, assumptions, postulates, axioms.
3. Aims and objectives of teaching of Mathematics at secondary stage.
4. Fundamentals of logic namely : use of if & then, and/for 'If & If only.
5. Translation of objectives in terms of behavioral outcomes.
6. Relationship with other subjects.
7. Values to be taught through teaching of Mathematics.
8. Contribution of Indian Mathematicians: Arya Bhatt, Bhaskarcharya & Ramanujan.
9. Development Curriculum.

#### **II Methods and Techniques of Teaching of Mathematics**

**Methods:**

1. Inductive-deductive
2. Analytic-synthetic
3. Problem Solving
4. Laboratory
5. Project

**Techniques:**

1. Oral Work
2. Written Work
3. Home assignment
4. Self Study
5. Supervised Study

### III Pedagogical Analysis

#### Unit Analysis

1. Objectives formulation
2. Learning Experiences
3. Choosing Method and Material
4. Evaluation

#### Pedagogical analysis of the following

1. Sets
2. Congruency
3. Area
4. Volume
5. Ratio and Proportion
6. Equations

### IV Instructional Planning & Material Development

1. Preparation of micro lesson plan.
2. Preparation of simulated *lesson* plan.
3. Preparation of class room lesson plan.
4. Preparation and use of audio-visual material and equipments.
5. Application of computer in teaching of Mathematics.

### Evaluation

1. Comprehensive and continuous evaluation
2. Development of test items;
  - (i) Short answer
  - (ii) Objective type
3. Diagnostic testing and remedial teaching
4. Preparation of an Achievement Test.
5. Criterion and norm referenced test.

### Suggested Readings

Association of Assistant Teachers. The Teaching of Mathematics in U.K. Cambridge University, Press.

Butler and Wren (1951). Teaching of Secondary Mathematics Mc Graw Hall Book Co. New York.

Davis, D.R.(1951). The Teaching of Mathematics, Addison Wesley Prosps, London.

Doiclani, B.F. (1972). Modem School Mathematics. Structure and Method.

London Mathematics Association. Report on the teaching of Arithmetic, Algebra & Geometry. B. Bell & Sons.

Nicholas, Engine, D. & Swain Robert. L. Mathematics for Elementary School teachers, Holt Rinehart & Winston, New York.

Schonnell, F.K & Schonnell J, F.J. (1965). Diagnostic and Remedial teaching Arithmetic. Liver and Boyd, London.

Schools Council(1972). Mathematics. Sterling Publishers, New Delhi.

## TEACHING OF COMMERCE

### PAPER-V & VI

#### GROUP-B (OPTION-7)

**External: 100**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

#### **I Meaning, Nature and Concept of Commerce:**

1. Meaning, nature and scope of commerce
2. Place of commerce in secondary school curriculum
3. Aims, objectives and values of teaching commerce.
4. Bloom's taxonomy of objectives.
5. Stating objectives *in* behavioural terms.

#### **II Content and their Pedagogical Analysis:**

1. Office Management
2. Bank
3. Trade
4. Insurance

Teacher will demonstrate pedagogical analysis of any one of the above topics. The students are expected to do pedagogical analysis of all the above topics. The examiner therefore can ask for pedagogical analysis of any one of the given topics. Following points should be followed for pedagogical analysis.

1. Identification of concepts
2. Listing behavioral outcomes.
3. Listing activities and experiments.
4. Listing evaluation techniques.

#### **III Development of Instructional Material**

1. Development and designing of curriculum
2. Development of text books
3. Development of self instructional material modules.
4. Development/Utilization of instructions aids-Charts, Maps, Graphs, Tables, Models, Film Strips, T.V. Computers.
5. Development of lesson plan

#### **IV Methods of Teaching & Skills of Teaching**

**Method**

1. Discussion Method
2. Problem solving method
3. Project method

**Skills of Teaching Commerce :**

1. Skill of narration
2. Skill of probing questions
3. Skill of stimulus variation

## V Evaluation

1. Meaning & Importance of evaluation
2. Evaluation devices-written, oral, observation, records.
3. Preparation of unit test.

## Suggested Readings

- Berbert A. Tone Principles of Business Education, Gargg Publishing Division.
- A.S. Baughtery. Methods of Basic Business & Economic Education, Western Publishing Co.
- Harm Harms & B.W. Stehr. Methods in Vocational Business Subject, Gragg Publishing Division, N.Y.
- Tone Popham & Freeman. Methods of Teaching Business Subject, Gragg Publishing Division N.Y.
- I.V. Doughlash, Blanford & NI Anderson Teaching Business Subjects, Prentice Hall, Inc. Englewood CHff, N.J.
- C.A. Nolan, Carlos, C. Haydon. Principles and problems of Business Education. South Western Publishing Co. N.Y.
- GOI. Teaching Commerce in Multipurpose School, DSPSE, New Delhi, 1961.
- GOI Report of the Special Committee on re-organization and Development of Polytechnic Education in India. Ministry of Education and Social Welfare, New Delhi, 1970-71.
- Srivivasan, K.R.A. Guide to the Methods of Teaching general Business, Regional College of Education, Mysore.
- Board of Sec. Edu. Rajasthan. Objectives of Teaching Commerce. Board of Secondary Education, Rajasthan, Ajmer.

## TEACHING OF LIFE SCIENCE

### PAPER-V & VI

### GROUP-C (OPTION-9)

**External: 100**

#### Note:

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

## I Importance, Aims and Objectives

1. Importance of Life Science in School Curriculum
2. General aims and objectives of teaching Life Science.
3. Bloom's taxonomy of educational objectives.
4. Formulation of specific objective of Life Science in behavioural terms.

## II Contents and Pedagogical Analysis

#### Contents:

1. Photosynthesis
2. Human digestive system-Respiratory, Excretory, Circulatory
3. Cell Structure
4. Micro-organism
5. Food chain
6. Ecological balance

#### Pedagogical analysis:

Following points should be followed for pedagogical analysis:

1. Identification of concepts

2. Listing behavioral outcomes
3. Listing activities and experiments.
4. Listing evaluation techniques.

Teacher will demonstrate pedagogical analysis of any one of the topics mentioned under contents above II (i). The examiner therefore can ask for pedagogical analysis of any of the given topics.

### **III Development of Instructional Material**

Transaction of contents:

1. Unit Planning
2. Lesson Planning
3. Preparation of teaching aids
4. Development of aquarium, vivarium etc.
5. Development of demonstration experiments.

Development of self-instructional material (Linear programme)

### **IV Methods of Teaching and Skills (Practical and Micro-teaching)**

Methods of teaching

1. Lecture-demonstration method
2. Project method
3. Problem solving method

Practical Skills

1. Preparation of temporary and permanent mounts
2. Collection and preservation of specimen

Micro teaching skills

1. Skill of introducing the lesson (set induction)
2. Skill of Questioning
3. Skill of illustration
4. Skill of explaining
5. Skill of stimulus variation

### **V Evaluation**

1. Concept of measurement and evaluation
2. Formative evaluation
3. Summative evaluation
4. Different types of grading
5. Attributes of a good Achievement test
6. preparation of an objective type and achievement test

### **Suggested Readings**

Bremmer, Jean, (1967). Teaching Biology, Macmillan, London.

Dastgir, Ghulam (1980). Science Kji Tadress, Translation of Sharma & Sharma Teaching of Sc.

Tarakki Urdu Board New Delhi. H & eller. R. (1967). New Trends in Biology Teaching, UNESCO, Paris. NCERT (1969).

Novak, J.D. (1970). The Improvement of Biology Teaching.

Sharma R.C., (1975). Modem Science Teaching. Dhanpat Rai & Sons, New Delhi.



# TEACHING OF PHYSICAL SCIENCES

## PAPER-V & VI

### GROUP-D (OPTION-13)

External: 100

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

#### **I Concept**

1. Importance of Physical Sciences in School Curriculum.
2. General aims and objectives of teaching Physical Sciences at Secondary School Staff.
3. Bloom's Taxonomy of Educational objectives.
4. Formulation of specific objectives in behavioural terms.

#### **II Concept and Pedagogical Analysis :**

Contents:

1. Energy-types
2. Transmission of Heat
3. Atomic Structure
4. Magnetism
5. Friction
6. Water as universal solvent

Pedagogical analysis of any one of the above topics

Following points should be followed for pedagogical analysis:

1. Identification of minor and major concepts
2. Listing behavioural outcomes
3. Listing activities and experiments
4. Listing evaluation procedure

#### **III Transaction of contents and Development of Instructional Material**

Transaction of contents:

1. Unit Planning and lesson planning
2. Preparation of teaching aids
3. Development of demonstration experiments
4. Co-curricular activities.
5. Development of self-learning material (Linear programme).

#### **IV Methods of Teaching and Skills involved in teaching**

1. Methods of teaching
2. Lectures Demonstration method
3. Project method
4. Problem solving method

**Skills**

1. Practical demonstration using laboratory
2. Improvisation of apparatus
3. Skill of introducing the lesson (set induction)
4. Questioning
5. Skill of Illustration with examples (visual)
6. Skill of explaining
7. Skill of using Black Board
8. Skill of Stimulus Variation

**V Evaluation**

1. Concepts of Measurement and evaluation and grading
2. Formative evaluation
3. Summative evaluation
4. Diagnostic evaluation
5. Characteristics of a good test
6. Preparation of an achievement test-objective tests.

**Suggested Reading**

- Anderson, R.D. Developing Children's Thinking Through Science. Prentice Hall, New Delhi.
- Carin, A.A. & Sund, R.D. (1976) Teaching Science Through Discovery. Merit. II A<sup>i</sup>ard project physics, (1968).
- An Introduction to Physics (Vol-CI) Hurd Dehart, P. (1971). New Directions in Teaching School Science. Rand Me Nally Co., Chicago Kuthiro, (1970).
- Physics Teacher Guide. Parker Publishing Co., New York, Lewis, J.L.( 1977) Teaching of School Physics. Longman. Group Ltd. London, Sharma R.C. (1981).
- Modern Science Teaching. Dhantapt Rai and Sons., Delhi Weber, Physics for Teachers, A Modern Review (1965).
- Mc Graw Hill. New, New York Anderson, R.D. (1970).
- Developing Children's thinking through Science. Prentice Hall New Delhi. Carin, A.A.& Sund R.D. (1972).
- Teaching Science through Discover, Merrill, London. Gerrise, J & Madsfield, D. (1971).
- Chemistry by Experiments and Understanding. New York. Hurd Dilburt, P. (1971).
- New directions in teaching in school Science. Rand Mc Mally Co. Chicago Murry John, 1970.
- Teaching of Science in Secondary School. Association for Science Education, NCERT.
- Position of Science teaching in Indian Schools, NCERT Strategies in Science Education (RCE) Ajmer, Nuffield, (1968).
- The Basic Course. Longman, London, Sharma. Teaching R.C. & Sharma. Teaching of Science Delhi, Siddiqui, N.N. Sidiuqi, Teaching of Science. New Delhi Asimov, 1 (1965).
- Guide to Science, Vol. I, Pelican Books. Bal-vigyanik(1981).
- Science Text Book for middle school. M.P. Text Book corporation. Boulind, H.F. teaching Physicals in Elementary schools. Oxford University Press. Edler, Innovations in Science Teacher Education.
- Penguin Books Rogers, E.M. Physics forthe Inquiring Mind Princeton University Press. Romey, W.D. (1968).
- Inquiry Technique for Teaching of Science Prentice Hall, New Jersey. Jenkin, E & Whirefield R. Readings in Science Education, A Source Book Mc Graw Hill, London Ya-Perelan Physics for Entertainment.
- MIR Publishers, Moscow. Walker, J. (1977). The Flying Circus of Physics. John Wiley and Sons.

## TEACHING OF SOCIAL STUDIES

### PAPER-V & VI

#### GROUP-D (OPTION-16)

**External: 100**

**Note:**

1. Examiner is required to set 10 questions covering whole syllabus of the paper and the candidates are required to attempt any 5 questions in all. All questions carry equal marks.

#### **I Concept, Objectives and Values**

1. Meaning, Scope and importance of social studies in schools.
2. Aims and objectives of teaching social studies with special reference to present Indian Conditions.
3. Bloom's taxonomy of objectives.
4. Formulating specific objectives of social studies in behavioural terms.
5. Values of teaching social studies.

#### **II Concept and their pedagogical analysis (upto Secondary level)**

1. Evolution of Indian Civilization, golden period.
2. Mugal dynasty and impact on Indian Culture.
3. History of freedom movement
4. Concept of democracy secularism and socialism.
5. Constitution, Preamble, Salient features of Indian Constitution, fundamental duties.
6. Factors affecting Indian Society.
7. Globe: General information about globe, longitude and latitude.
8. Structure of Indian Economy.
9. Major issues facing Indian Economy today.
10. National presumes
11. Current five year plan.

Teacher will demonstrate pedagogical analysis of any one of the above topics. The students are expected to do pedagogical analysis of all the above topics. The examiner therefore can ask for pedagogical analysis of any one of the given topics.

Following points should be followed for pedagogical analysis:

1. Identification of concepts
2. Listing behavioural outcomes
3. Listing activities & Experiments
4. Listing evaluation techniques

#### **III Development/utilization of Instructional material**

1. Development of lesson Plan.
2. Development and evaluation of curriculum and text books in social studies.
3. Development of self-instructional modules.
4. Development of self instructional material
5. Preparation of slides & transparencies
6. Bulletin board

7. Maps
8. Charts
9. Graphs.
10. Models
11. Scrap books
12. Applications of Radio, Video, Computer & O.H.P.
13. Dramatization
14. Use of Community resources U. Designing of social studies lab.

#### **IV Methods of Teaching and skills involved in teaching**

1. Story Telling Method
2. Problem Method
3. Inductive and deductive method
4. Skills of Planning
5. Skill of questioning
6. Skill of Explaining
7. Skill of illustration with examples
8. Skill of stimulus variation
9. Skill of map reading

#### **V Evaluation**

1. Meaning, need and objectives of evaluation
2. Evaluation devices
3. Oral Test
4. Essay Type
5. Objective type
6. Diagnostic testing and remedial measures
7. Observation
8. Interest inventory
9. Rating scale

#### **SUGGESTED READINGS**

- Bining A.C. and Bining D.H. (1952) Teaching the Social Studies in Secondary School. Mc Graw Hill Book Company, New York.
- Choudhary, K.P. (1975). The effective Teaching of History in India. NCERT, New Delhi.
- Dhamija, Neelam (1953), Multi media Approaches in Teaching Scoial Studies. Harmen Publishing House, New Delhi.
- Dixit and Bughela, 11. (1972). Itihas Shikshan Hindi Granth Academy, Jaipur.
- Fenton, Edwin (1967).The New Social Studies.
- H.O Richart, Winston, Inc. New York, NCERT, (1988), Guidelines and Syllabi for Secondary Stage (Class IX,X) NCERT, New Delhi.
- Hashmi, M.A.A. (1975) Tarikh Kaisse, Riaz Shakir (1982). Maashiyat Kaise Parhaen. T. Urdu. Board, New Delhi.
- Khan, Raiz Shakir, Arthashastra Shiksha. Kota Open University Publishers Delhi.
- Mofat, M.R. (1955) Social Studies Instructions. Prentice Hall, New York.
- Mouley, D.S. Rajput Sarla & Verma, P.S. (1990), Nagrik Shastra Shikshan. Kota Open University.
- NCERT, (1968). National Curriculum for Primary & Secondary Education: A Frame work Revised Version, NCERT, New Delhi.

- Quillen, I.J. & Hanna, L.A. (1943) Education for Social Competence, Curriculum Sc. Instruction in Secondary School Study. Scott, Foreman & Co. Chicago Ruhela, S.P. & Khan, R.S. Samajik Vigayan Shiksha. Kota Open University, B.E.-5 UNESCO (1981)
- Hand-books for Teaching of Social Studies, UNESCO (1981).
- Handbooks for Teaching of Social Studies, UNESCO, Paris.
- Wesley E.B. (1950) Teaching Social Studies in High School Health & Co. Boston DC.
- Boosing N.L. (1970). Teaching in Secondary School. Amerinal Publishing Co. Pvt., New Delhi.
- Branard, M.C. (1953) Principles and Practice of Geography Teaching. University Tutorial Press, London.
- Burton W.H. (1972) Principles of History Teaching Methuen, London.
- Buch, M.B.(1972) Principles of History Teaching, Methuen, London.
- Buch, M.B. (1969). Improving Instructions in Civics NCERT, New Delhi.
- Callahan, JJ. Dark, L.H. (1982). Teaching in the Middle Secondary Schools Planning for Comperence. New York.
- Clark. I.H. State, I.S. (1967). Secondary School Teaching Methods University Tutorial Press, London.
- Khan R.S. and Ahmad, I. (Eds) (1955). Lesson Planning IASE, J.M.I., New Delhi.
- Lee, N. (Ed) (1975) Teaching Economics. Heinemann Educational Books, London.
- Laws, E.M. (1960). Teaching History in Secondary School, Sterling Publishers Delhi.
- Verma O.P. (1981) Geography Teaching, New Delhi.

## WORK EDUCATION

### PAPER-VII

#### (a) CHALK BOARD WRITING

**Marks 30**

1. Kinds of different chalk boards.
2. Strengths and limitations of chalk board writing.
3. Correct use of chalk board writing.
4. Pitfalls in chalk board writing.
5. Use of stencils and multiple chalk holders on the chalk board.
6. Knowledge of paint and chalk.

#### SESSIONAL & PRACTICAL WORK

1. Writing of English & Hindi letters and numbers in block capital forms and in running hands.
2. Use of coloured chalk.
3. Stick drawing: Human figures, birds and animals.
4. Use of match stick for drawing.
5. Simple drawing of common objects flowers, fruits and vegetables.

#### (b) PREPARING TEACHING AIDS

**Marks 35**

1. Meaning, concept and significance of teaching aids.
2. Importance and need of teaching aids.
3. Classification of teaching aids.
4. Material required for preparing teaching aids as: paper, colours, scale, pencil, rubber etc.
5. Effective use of teaching aids.

#### SESSIONAL & PRACTICAL WORK

The student will prepare the following teaching aids:

1. One Rexine Chalk board 21/2x3 1/2, pointer, duster.
2. Ten coloured charts (Full size paper=20"x30") i.e. five in each teaching subjects.

3. One working model or three-dimensional or relief models related to students teaching subjects.
4. Two slides related to their teaching subject.

**(c) HANDLING OF AVAILABLE EQUIPMENT****Marks 35**

Each Teacher Education Institution will make available the following equipments for use of the students:

1. Overhead projector
2. Slide projector
3. Tape recorder
4. Epidiascope
5. T.V. & video-cassette recorder

The student will be required to get acquainted with the major components of the above equipment and their functions. They will be required to use any one of the above equipments (available in the institution in proper order). They will also prepare a scrap-book and get the same properly checked by concerned teachers.

**(d) CANDLE MAKING (For blind students only)****Marks 100**

Materials used in making candles moulds, thread colour, oil etc.

1. Origin of wax
2. Types of wax
3. Types of candles
4. Use of candles
5. Making of candles
6. Precautions while making candles
7. Preservation of candles

**WORK EXPERIENCE****PAPER-VIII****Any two of the following**

1. Drawing and painting
2. Interior decoration
3. Gardening
4. Candle making for blind students.

**SESSIONAL & PRACTICAL WORK**

Making of Different kinds of candles like

1. Simple candles
2. Decorative candles of different shapes
3. Scented candles
4. Mosquito repellent candles

**(Option-I) DRAWING & PAINTING****Marks 40+10**

1. Arts and its place in education
2. Definition of arts.
3. Element of arts
4. Principles of arts
5. Colour theory
6. Design & its kinds
7. Art material
8. Appreciation of art

**SESSIONAL & PRACTICAL WORK**

1. Colour scheme-1/4 Sheet.
2. Design border & centre motif e.g. leaves, flowers, birds and animals.
3. Writing block capital letters (English)
4. Hindi (Free hand with Kalam)
5. Greeting cards
6. Use of play methods thread, spray potato etc.

**(Option-5) INTERIOR DECORATION****Marks 40+10**

1. Importance of interior decoration
2. Principles of interior decoration
3. Factors to be considered while selecting furniture & furnishing of a house.
4. Colour combination & colour schemes.
5. Importance and types of flower arrangement

**SESSIONAL & PRACTICAL WORK**

1. Preparation of an article from waste material
2. Flower arrangement
3. Floor decoration.

**(Option-7) GARDENING****Marks 40+10**

1. Plant life Parts of a flowering plant, transpiration photosynthesis and respiration.
2. Soil diffraction, compounds of soil, types of soil.
3. Soil fertilizers & manures Nitrogenous, Prophetic, Potassic fertilizers, their effect on plants. Mounds from yard Mauna, coupled green norms.
4. Irrigation Importance of water to plants, methods of irrigation, loss of water and its control.
5. Tillage Importance of tillage, tools and implements for Tillage, seedbed property, inter tillage.
6. Weeds & Diseases Harmful effects of weeds on crop plants, characteristics of weeds, common diseases and pests and their control.

**SESSIONAL & PRACTICAL WORK**

1. Maintenance of garden
2. Preparation of nursery bed.
3. Transplantation of plants
4. Potting of plants, preparation of bores.
5. Growing of at least two vegetables, two plants and raising one garden plant.

**(Option -10) CANDLE MAKING (For blind students only)****Marks 100**

Materials used in making candles moulds, thread colour, oil etc.

8. Origin of wax
9. Types of wax
10. Types of candles
11. Use of candles
12. Making of candles
13. Precautions while making candles
14. Preservation of candles