

(2)

- हिन्दी ध्वनियां, उच्चारण शिक्षण, अक्षर-विन्यास एवं विराम-चिन्ह ।
- हिन्दी शिक्षण में सूचना तकनीकी की उपयोगिता एवं प्रयोग ।

### इकाई 2

(3)

- पाठ योजना का अर्थ, महत्त्व एवं रूप-रेखा ।
- हिन्दी शिक्षण के अनुवाद का अर्थ, विशेषताएं, प्रशिक्षण, विधियां एवं अभ्यास ।

(4)

- इकाई योजना एवं दैनिक पाठ योजना का निर्माण
- सूक्ष्म शिक्षण द्वारा शिक्षण कौशलों का विकास

### इकाई 3

(5)

- कविता-शिक्षण (रस पाठ एवं बोध पाठ के रूप में)
- गद्य-शिक्षण, रचना शिक्षण (कहानी, पत्र एवं निबन्ध रूप में)
- व्याकरण शिक्षण (औपचारिक एवं अनौपचारिक)

(6)

- हिन्दी पाठ्यक्रम निर्माण एवं समीक्षा ।
- हिन्दी पाठ्यपुस्तक की विशेषताएं एवं समीक्षा ।

### इकाई 4

(7) हिंदी में मूल्यांकन एवं गृहकार्य

- हिंदी में मूल्यांकन- अर्थ एवं स्वरूप
- विद्याओं में मूल्यांकन प्रक्रियां
- हिंदी शिक्षण में गृहकार्य- स्वरूप एवं संशोधन

(8)

- हिंदी पाठ्य वस्तु से अभिप्राय
- हिंदी पाठ्य वस्तु का शिक्षा शास्त्रीय विश्लेषण

#### प्रयोगात्मक क्रियाएँ

- माध्यमिक कक्षाओं के हिंदी पाठ्यक्रम में से किन्हीं दो पाठों; गद्य, पद्य, निबन्ध, कहानी, नाटक आदि का शिक्षा शास्त्रीय विश्लेषण
- निबंधात्मक, लघुत्तर एवं वस्तुनिष्ठ परीक्षा के लिए प्रश्न पत्र निर्माण
- पाठशालाओं में हिंदी की पाठ्यक्रम सहगामी क्रियाओं की व्यवस्था करना

#### संदर्भ ग्रंथ सूची

|   |   |
|---|---|
| शुक्ल, भगवती प्रसाद (1974)                    | हिंदी उच्चारण और वर्तनी, आर्य बुक डिपो, नई दिल्ली                 |
| सुखिया, के.के.(1976)                          | हिंदी ध्वनियां और उनका शिक्षण, रामनारायण लाल, इलाहाबाद            |
| तिवारी, भोलानाथ तथा भाटिया, कैलाश चन्द (1980) | हिंदी शिक्षण लिपि प्रकाशन, दिल्ली                                 |
| सिंह, निरजंन कुमार (1971)                     | माध्यमिक विद्यालयों में हिंदी शिक्षण, राजस्थान हिंदी ग्रंथ        |
| बाहरीण, हरदेव (1972)                          | व्यावहारिक हिंदी व्याकरण लोक भारती प्रकाशन, इलाहाबाद              |
| मंगल, अमर (1991)                              | हिंदी शिक्षण, देहली, आर्य बुक डिपो                                |
| पाण्डे, आर.एस.(1992)                          | हिंदी शिक्षण, आगरा, विनोद पुस्तक मन्दिर                           |
| सिंह सावत्री(1992)                            | हिंदी शिक्षण मेरठ, तायल बुक डिपो                                  |
| श्रीवास्तव, राजेन्द्र प्रसाद (1973)           | हिंदी शिक्षण दि मैकमिलन कम्पनी ऑपफ इंडिया लि, देहली               |
| मैन्युक ही (1997)                             | हिंदी शिक्षण, दी एक्यूजीशन एंड डवलैपमैण्ड ऑफ लैगवेज प्रिंटिंग हाल |
| वैस्टन कैनिप (1973)                           | डवलैपिंग सैकिडं लैगवेज स्किल्स थरौरी एण्ड प्रैक्टिस रैप्स मैकलील  |

## Paper-VI & VII (Group A) Opt. (ii): TEACHING OF ENGLISH

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. There will be 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to-**

- explain the concept of English and its elements
- define linguistic skills and process of development among pupils
- conduct pedagogical analysis and develop teaching skills.
- explain the concept of evaluation and methods of evaluating the performance of students.
- critically explain various teaching methods.
- demonstrate language competencies.

### **COURSE CONTENTS**

#### **UNIT-I**

- 1) Language and Distinctive Features of English
  - Meaning, Importance and Functions of Language
  - Linguistic Characteristics of English
  - Linguistic Principles, and Aims and Objectives of Teaching English.
- 2) Pedagogical Analysis of one lesson each from-
  - Prose
  - Poetry
  - Composition and
  - Grammar

#### **UNIT-II**

- 3) Learner centered Approaches and Methods of Teaching
  - Difference between 'Approach' and 'Method'.
  - Direct Method, Bi-lingual method, Communicative Approach, Constructive Approach and Co-operative Learning
  - Teaching of Prose, Poetry, Composition and Grammar- Objectives and Methodology
  - Micro and Mega Lessons

- 4) Instructional Material:
- Importance and their effective use.
  - Television
  - Films and Audio C. Ds
  - Language Laboratory: An important Instructional aid
    - Concept and Components
  - Use of ICT for Language Competency

### **UNIT-III**

- 5) Developing Language Skills- Listening and Speaking
- Features of English Pronunciation, Elementary Knowledge of English Sounds.
  - Stress, Rhythm, Intonation, Patterns and their Implications.
- 6) Developing Language Skills – Reading and Writing
- Teaching Mechanism of Reading.
  - Teaching Reading to Beginners
  - Teaching Reading with Comprehension.
  - Meaning, Need and Importance of Writing
  - Methods of Teaching Writing
  - Writing and Handwriting- Characteristics of good Handwriting, Causes of Bad Handwriting and Measures to Improve Handwriting

### **UNIT-IV**

- 7) Co-curricular Activities related to English
- Usefulness of Language Games, Quiz, Debates, Group-Discussions and other Co-curricular Activities in Teaching and Learning of English.
- 8) Remedial and Enrichment Content
- Meaning and Significance of Remedial Teaching
  - Common Errors in English and their Removal through Remedial Teaching
- 9) Evaluation Procedure
- Comprehensive and Continuous Evaluation
  - Formative and Summative Evaluation

### **SUGGESTED READINGS**

Crown, G. (1977). Listening to Spoken English. London: Longman.

Christopherson, P. (1972). Second Language learning, New Delhi: Penguin.

Chaturvedi, M. G. (1973). A Contrastive Study of Hindi-English Phonology, New Delhi: National Publishing.

- Dodson, C. J. (1972). *Language Teaching & the Bilingual Method*, Pitman Publishing.
- Erben, T., Ban, Ruth and Castaneda, Martha (2009). *Teaching English Language Learners through Technology*, New York: Routledge.
- Frisby, A. W. (1970). *Teaching English: Notes and Comments in Teaching English Overseas*, London: E.L.B.S.
- Girad, B. (1972). *Linguistics and foreign Language Teaching*, London: Longman
- Hayes, B. L. (ed.) (1991). *Effective strategies for teaching reading*, London: Allyn & Bacon
- Nation, I. S. P. (2009). *Teaching ESL/ EFL Reading and Writing*, New York: Routledge.
- Sachdeva, M.S. (2007). *Teaching of English*, Patiala: Twenty First Century Publications.
- Sharma, P. (2011). *Teaching of English: Skill and Methods*, Delhi: Shipra Publication.
- Wilkins, D. A. (1983). *Linguistics in English Teaching*. London: Edward Arnold ELBS Editions.

## **PAPER-VI & VII (Group A) Opt. (iii): TEACHING OF PUNJABI**

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to-**

- develop awareness about basic concepts related to teaching of Punjabi at the secondary level
- develop various skills e.g. language skills, use of techniques of evaluation, teaching skills (micro-teaching skills)etc.
- use current method of teaching Punjabi

### **COURSE CONTENTS**

#### **UNIT-I**

- 1) Nature of Punjabi Language, Aims and Objectives and Principles of Teaching.
  - The nature and importance of language – its origin and development
  - Origin and development of Punjabi language and its script
  - Role of mother tongue in the education of a child
  - Aims & objectives of teaching of Punjabi
  - General Principles and maxims of teaching of Punjabi
- 2) Content and Pedagogical Analysis\*  
\*Note: The Teacher will demonstrate pedagogical analysis of any one of the topics from prose and poetry. The students are expected to do pedagogical analysis of both the types. The examiner therefore can ask for pedagogical analysis of any one of the topics related to prose and poetry.
- 3) Development of Language skills
  - Listening
  - Speaking
  - Reading
  - Writing

## **UNIT-II**

- 4) Development of Micro lessons based on skills of questioning, explaining illustration and stimulus variation.  
Role of language activities
  - Debates
  - Recitation
  - Story telling
  - Symposium
- 5) Methodology  
Modern methods of teaching language with specific reference to:
  - Project method
  - Play way method
  - Discussion method
  - Correlation method
  - Observation method

## **UNIT-III**

- 6) Methods of teaching prose, poetry, composition and grammar
- 7) Preparation of lesson plans for each of the above aspects of language.

## **UNIT-IV**

- 8) Instructional Material
  - Audio-visual Aids: Meaning, importance and their kinds. Proper use of these in teaching of Punjabi
  - Construction of curriculum of Punjabi language, critical appraisal of Punjabi curriculum at secondary school level
  - Qualities of a good Punjabi text book, criteria governing the construction of Punjabi text books.
- 9) Evaluation:
  - Modern concept of evaluation in Language
  - Different types of techniques and tests for evaluating different language skills.
  - Construction of
    - Oral type tests
    - Short-answer type tests
    - Objective-type tests
    - Essay-type tests
    - Diagnostic tests

## **SUGGESTED READINGS**

- Jas, J.S. and Singh, M. (2012). Matri Bhasha Di Shiksha Vidhi. Jalandhar: New Book Company.
- Nandra, I.S. (2008). Panjabi Bhasha Da Adhyapan. Patiala: Twenty First Century Publication.

Sekhon, S. S. & Singh, P. P. (1961). Punjabi Boli Da Itihas. Punjab: Bhasha Vibhag

Sekhon, S.S. and Sekhon, M.K. (2009). Panjabi Bhasha Da Adhyapan. Ludhiana: Kalyani Publishers.

Singh, G.B. (1981). Gurumukhi Lipi Da Janam Te Vikas. Chandigarh: Punjab University Publication Bureau

Singh, G. (1971). Gurumukhi Lipi Bare. Ludhiana: Lahore Book Shop

Singh, H. (1966). Punjabi Bare. Patiala: Punjabi University



## Paper-VI & VII (Group A) Opt (iv): TEACHING OF SANSKRIT

Time: 3 Hours

Max. Marks: 100  
(Theory: 80, Internal: 20)

### NOTE FOR PAPER SETTER

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### OBJECTIVES

Pupil-teachers would be able to-

- explain the nature, need & principles of Sanskrit Language
- describe different methods of teaching of Sanskrit
- demonstrate the use of various audio visual aids
- explain the objectives and steps of teaching prose, poetry, composition & grammar of Sanskrit
- define the meaning of evaluation and types of evaluating techniques
- explain and organise different type of co-curricular activities related to Sanskrit. (Shloka Recitation, Lecture, Dramatization and other creative competitions)

## COURSE CONTENTS

### इकाई 1

1. संस्कृत भाषा एवं साहित्य का ऐतिहासिक तथा वर्तमान अवलोकन

- संस्कृत भाषा की पाठ्यक्रम में अनिवार्यता (उद्देश्य)

2. संस्कृत भाषा शिक्षण में सामान्य सिद्धान्त तथा सूत्र

- संस्कृत भाषा शिक्षण में श्रवण तथा पठन का अभ्यास।

### इकाई 2

3. संस्कृत भाषा शिक्षण की विधियाँ

- पाठशाला विधि
- पाठ्यपुस्तक विधि
- प्रत्यक्ष विधि

- व्याकरण अनुवाद विधि
- 4.
- संस्कृत पाठ्य पुस्तक निर्माण
  - संस्कृत अध्यापक तथा दृश्य श्रव्य साधन प्रयोग

### इकाई 3

5. संस्कृत में विधाओं का शिक्षण
- संस्कृत में गद्य-शिक्षण-प्रक्रिया. उद्देश्य तथा सोपान
  - संस्कृत में पद्य-शिक्षण- प्रक्रिया. उद्देश्य तथा सोपान
  - संस्कृत में व्याकरण शिक्षण –प्रक्रिया. उद्देश्य तथा सोपान
  - संस्कृत में रचना शिक्षण – प्रक्रिया . उद्देश्य तथा सोपान
  - संस्कृत में अनुवाद शिक्षण- प्रक्रिया. उद्देश्य तथा सोपान
6. संस्कृत विषय वस्तु
- धातु रूप-पठ्, लिख्, अस्, भू, कृ (लट् तथा लैँ लकार)  
शब्द रूप- राम, हरि, नदी, लता
  - प्रत्यय- (अनीयर्, तव्यत्) समास (बहुब्रीहि द्वन्द्व)
  - शब्दार्थ तथा अनुवाद (8वीं तथा 10वीं हरियाणा बोर्ड के पाठ्यक्रम से)

### इकाई 4

7. संस्कृत भाषायी कौशल
- संस्कृत में उच्चारण शिक्षण – अशुद्धि उच्चारण के प्रकार, व्याकरण तथा सुधार के उपाय।
  - संस्कृत में अक्षर-विन्यास, शिक्षण-सम्बन्धी अशुद्धियां, कारण तथा निवारण के उपाय।
8. संस्कृत भाषा ज्ञान का मूल्यांकन, अर्थ, परीक्षाओं के प्रकार  
(निबंधात्मक, वस्तुनिष्ठ, लघूत्तर)
- गृहकार्य नियोजन एवं संशोधन प्रक्रिया।
  - संस्कृत भाषा की सहपाठ्य क्रियाएं  
(श्लोकोच्चारण, भाषण, अभिनयीकरण एवं रचनात्मक प्रतियोगिताएं)

### संस्कृत शिक्षण हेतु अनुमोदित पुस्तकें

चौबे, विजय नारायण (1985) संस्कृत शिक्षण विधि, उत्तर प्रदेश हिन्दी संस्थान, लखनऊ।

सफाया, रघुनाथ (1990) संस्कृत-शिक्षण, चण्डीगढ़: हरियाणा हिंदी ग्रंथ, चण्डीगढ़।

पाण्डेय, राम शुक्ल (2008) संस्कृत-शिक्षण, आगरा एकादमी: विनोद पुस्तक मंदिर,  
आगरा।

मित्तल संतोष (2008) टीचिंग ऑफ संस्कृत, आर.एल. बुक डिपो।

वत्स, वी0 एल0 (2008) संस्कृत शिक्षण, अग्रवाल पब्लिकेशन्स, आगरा।

## **PAPER-VI & VII (Group A) Option-(v) TEACHING OF URDU**

**Time: 3.00 Hrs**

**M. Marks: 100**

**(Theory: 80, Internal:20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short- answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

#### **Pupil-teachers would be able to-**

- explain the concept of Urdu and its elements
- define linguistic skills and development of these skills among pupils
- conduct pedagogical analysis on two lessons in Urdu and develop teaching skills.
- explain the concept of evaluation and methods of evaluating the performance of students.
- critically explain various methods for teaching Urdu.
- demonstrate language competencies.

### **COURSE CONTENTS**

#### **Unit-I Objectives of Teaching, Remedial and Enrichment Content**

- i) Objectives of teaching Urdu at secondary and senior secondary level
  - Statement of objectives in behavioural terms
  - Trilingual formula
- i) Nature, development, forms, functions and significant movements in mode of Urdu Literature.
  - Urdu language, its phonetic structure, morphological structure and syntactic structure
  - Children literature

## **Unit-II Pedagogical Analysis**

- Unit planning in Urdu
- Pedagogical Analysis of six lessons in Urdu
- Identification of linguistic and ideational content of the lesson

## **Unit-III: Approaches Methods of Teaching Urdu and Text Book**

- i) Prose: Objectives and methodology teaching of story and drama, lesson planning.  
Poetry: Objectives and methodology, lesson planning
- Grammar: Objectives and methodology
- Speech development: speech defects, causes and remedies
- Writing: composition, objectives and methodology, spelling errors, causes and corrections
- Reading: loud reading, silent reading, intensive and extensive reading, self reading, Reading Habits.
- i) Urdu Text book and its evaluation
- Supplementary Readers
- Use of A.V. Aids in Urdu teaching

## **Unit-IV: Activities Related to Urdu, Evaluation and Action Research**

- Activities to develop listening and speaking competencies, reading competencies and writing competencies
- Evaluation
  - Continuous and comprehensive evaluation
  - Development of Test items, Essay , Short Answer and objective types
  - Preparation of achievement test, administration, analysis and reporting
  - Diagnostic Testing and remedial Teaching
- Action Research in Urdu
  - Concept and Importance of Action Research
  - Planning for Action Research



## PAPER-VI & VII (Group B) Opt. (i): TEACHING OF MATHEMATICS

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal:20)**

### NOTE FOR PAPER SETTER

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### OBJECTIVES

**Pupil-teachers would be able to-**

- explain the meaning, nature, aims and objectives of mathematics
- differentiate between methods and techniques of teaching mathematics
- perform pedagogical analysis of various concepts in mathematics
- describe instructional planning and development of relevant material for the teaching of mathematics
- demonstrate uses of I.C.T. in teaching of mathematics
- describe continuous and comprehensive evaluation, diagnostic testing and remedial teaching in mathematics
- explain importance and uses of learning resources in mathematics

### COURSE CONTENTS

#### UNIT-I

- 1) Concept and aims of Teaching of Mathematics
  - Meaning and Nature of Mathematics
  - Values to be taught through teaching of Mathematics
  - Aims and Objectives of Teaching Mathematics at Secondary stage
  - Writing objectives in terms of behavioural outcomes of students.
- 2) Diagnostic Testing and Remedial Teaching for
  - Gifted Learners
  - Slow Learners
  - Learners with Dyscalculia
  - Difficulties Faced by the Teachers in Teaching of Mathematics and Suggestive Measures to overcome them.

## **UNIT-II**

- 3) Methods of Teaching Mathematics
  - Lecture-cum-Demonstration
  - Inductive-Deductive
  - Analytic-Synthetic
  - Problem Solving
  - Laboratory
  - Project
- 4) Techniques of Teaching Mathematics
  - Oral work
  - Written Work
  - Drill-work
  - Home Assignment
  - Self-study
  - Supervised Study

## **UNIT-III**

- 5) Learning Resource
  - Importance and Organization of Mathematics Club
  - Visits, Excursions, Math Exhibitions and Mathematics Fairs
  - Importance and Setting up of Math Laboratory.
- 6) Instructional Planning and Material Development
  - Preparation of Micro Lesson Plan
  - Preparation of Simulated Lesson Plan
  - Preparation of Classroom Lesson Plan
  - Preparation and use of Audio-Visual Material and equipments
  - Application of I.C.T in Teaching of Mathematics.

## **UNIT-IV**

- 7) Unit Analysis
    - Formulation of objectives
    - Learning Experience
    - Choosing Method and Material
    - Evaluation.
  - 8) Pedagogical Analysis of any one of the following-
    - Central tendencies Mean, Median, Mode
    - Congruency
    - Trigonometry
    - Area
    - Volume
    - Linear and Quadratic Equations
    - Ratio and Proportion
- Following points should be followed while performing Pedagogical analysis



- Identification of concepts
- Listing behavioural Outcomes
- Listing Activities and experiences
- Listing Evaluation Techniques.

9) Evaluation.

- Continuous and Comprehensive Evaluation
- Development of Test Items
  - Short-Answer Type
  - Objective-Type
- Diagnostic Testing and Remedial Teaching
- Preparation of an Achievement Test
- Criterion and Norm Referenced Test.

### **SUGGESTED READINGS**

Butler, C. H. & Wren, K. H. (1980). The Teaching of Secondary Mathematics. New York: McGraw-Hill Book Company.

Carey, L.M. (1975). Measuring and Evaluating School Learning. Boston: Allyn and Bacon.

Copeland, R.W. (1979). How Children Learn Mathematics, New York: McMillan Publishing Company.

Dave, R. H. & Saxena, R. C. (1970). Curriculum and Teaching of Maths in Secondary Schools, A Research Monograph. Delhi: NCERT

David Wood (1988). How Children Think and Learn. Oxford U.K.: Blackwell Publishers Ltd.

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

Kapur, J.N. (1991). Suggested Experiments in School Mathematics. New Delhi: Arya Book Depot

Jain, S. L. (1973). Ganit Shikshan. Jaipur: Hindi Granth Academy

Kapoor, J. N. (1988). Vidyalaya Ganik ke Liye San Prayog. New Delhi: Arya Book Depot

Kulshrestha, A. K. (2007). Teaching of Mathematics. Meerut: R. Lall Book Depot

Mangal, S. K. (2007). Teaching of Mathematics. New Delhi: Arya Book Depot

Shankaran & Gupta, H. N. (1984). Content-cum-Methodology of Teaching Mathematics. New Delhi: NCERT

Thomas, A. S. (1993). *Mathematics for Elementary Teachers (An Interactive Approach)*. Florida: HBJ Publishers

## **PAPER-VI & VII (Group B) Opt. (ii): TEACHING OF HOME SCIENCE**

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to:**

- develop understanding of the aim of teaching of Home Science
- develop understanding of the various methods and procedures required for teaching Home Science effectively
- develop basic skills and competencies required for teaching of Home Science
- develop practical skill to organize various activities related to Home Science
- develop skills and competencies required for preparing teaching-aids in teaching of Home Science
- develop competencies and skill for effective evaluation in Home Science

### **COURSE CONTENTS**

#### **UNIT-I**

- 1) Home Science
  - The Concept, Meaning and Components
  - Place of Home Science in Secondary Education.
  - Aims and Objectives of teaching of Home Science.
- 2) Writing objectives in behavioural terms
  - Correlation of Home Science with other school subjects.

#### **UNIT-II**

- 3) Content and Pedagogical Analysis
  - Foods, Nutrition & Health
  - Child Care
  - Fiber and Fabric
- 4) Home management
  - Importance of Planning
  - Principles of Budget Making

- Hygiene and Sanitation

### **UNIT-III**

- 5) Methods of Teaching and Micro-teaching Skills
  - General Principles and Methods of Teaching-Project method, Discussion method, Demonstration, Practical and Individual work
  - Micro-teaching skill-Explaining, Questioning, Illustration and Stimulus Variation.
- 6) Home Science Laboratory
  - Concept and importance
  - Planning of Space and Equipment for Home Science Laboratory

### **UNIT-IV**

- 7) Curriculum, Teaching Aids, Lesson Plan, Textbook and Home Science Laboratory
  - Development and Designing of Curriculum
  - Teaching Aids-Classification and Importance
  - Concept of lesson plan, Preparation of lesson plan
  - Development of Text-Books
- 8) Evaluation
  - Evaluation in Home Science-Meaning and Importance of Evaluation
  - Comprehensive and Continuous Evaluation
  - Evaluation Devices-Written, Oral, Observation, Practical Work, Assignment

### **Sessional Work**

#### **Submit Report on any one of the following activities:**

1. A course of ten practical by the Pupil-teacher in the following:
  - Cooking - Its types
  - Stitching/Embroidery/knitting
  - Home Management
2. Writing of project report in extension education.
3. Preparation of test items (50) - Objective type, short-answer type, and essay-type.

### **For Internal Assessment**

- **One Test - 5 Marks**
- **One Assignment - 5 Marks**
- **Sessional Work -5 Marks**
- **Attendance - 5 Marks**

## **SUGGESTED READING**

- Dass & Ray. (1983) Teaching of Home Science, New Delhi: Sterling Publishers Pvt. Ltd
- Sheri, G. P. & Saran, D. P. (2008). Teaching of Home Science, Delhi: Vinod Pustak Mandir.
- Sukhia, S. P. & Malhotra, P. V. (1976). Teaching of Home Science, Chandigarh: Haryana Hindi Garanth Academy, Yadav, Seema. (2001). Teaching of Home Science, New Delhi: Anmol Publications.

## **PAPER-VI & VII (Group-B) Opt. (iii): TEACHING OF COMMERCE**

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to-**

- develop understanding of Importance and Principles of Commerce
- acquire knowledge of present Commerce conditions in India
- acquire competencies necessary for a Commerce teaching
- develop the competencies of a Commerce teacher with the present needs of the environment.

### **COURSE CONTENTS**

#### **UNIT-I**

Nature and Concept of Accountancy and Business Studies

- Meaning, Nature and Scope of Accountancy and Business Studies
- Values in Commerce Education.
- Aims, Objectives and Importance of Teaching Accountancy and Business Studies.
- Stating Objectives in Behavioural Terms (Bloom's Taxonomy of Objectives.)

#### **UNIT-II**

Content and their Pedagogical Analysis

1) Content

- Double entry System
- Final Accounts
- MNCs
- Organisational Management

Note: Teacher will demonstrate pedagogical analysis of any 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.

- 2) Following points should be followed for pedagogical analysis:
- Identification of Concept
  - Listing Behavioral Outcomes
  - Listing Activities and Experiments.
  - Listing Evaluation Techniques.

### **UNIT-III**

#### Development of Instructional Material

- Development and Designing of Curriculum
- Development of Text Book.
- Development of Self-Instructional Material-Modules
- Development/Utilization of Teaching aids- Models, Graphs, Charts, Computers, Internet.
- Development of lesson plan.

### **UNIT-IV**

- Methods of Teaching
  - Lecture Method
  - Discussion Method
  - Problem-Solving method
  - Project Method
  
- Skills of Teaching
  - Skill of Introducing lesson
  - Skill of Stimulus Variation
  - Skill of Explaining
  - Skill of Probing Questions
  - Illustration with Examples
  
- Evaluation
  - Meaning, Need and Importance
  - Types of Evaluation, their Advantages and Limitations
  - Achievement Test- Meaning, Uses, and Preparation of Achievement Test

### **SUGGESTED READINGS**

Aggarwal J.C. (1993). Documents on Higher Education in India – 1781-1982. Delhi: Doaba House

Aggarwal, A.N. (1995). Business Methods & Machinery, Part I & II, Allahabad: Kitab Mahal

Segwalkar, P.C. & Sarlekar (2000). The Structure of Commerce, Allahabad: Kitab Mahal.

Jain. K.C. (1982). Vanijya Shikshan, Jaipur: Rajasthan Hindi Granth Academy.

Popham, Schrag & Blockhus (1975). A Teaching and Learning System for Business Education, New York: McGraw-Hill.

Satlow, I.D. (1964). Teaching of Business Subjects Effectively, New York: Prentice- Hall Inc.

Shankar T. (2007). Methods of Teaching Commerce, New Delhi: Crescent, VIII, ISBN No. 81-8342-063-X

Tonne, H.A., Popham, E.L. & Freeman, M.H. (1965). Methods of Teaching Business Subjects, New York: McGraw-Hill Book Company

UGC (1998). Report of the Curriculum Development Centre in Commerce. New Delhi: UGC



## **PAPER VI & VII (Group B) Opt (iv) TEACHING OF ARTS**

M.M. 100

Time: 3 Hours

(Theory:80, Internal: 20)

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short- answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

#### **Pupil teachers would be able to-**

- develop an understanding of the place of Art in Education of the child.
- develop competencies and skills for teaching of Art.
- develop an understanding and insight into the stages of 'Art' development in children at various age levels.
- develop competencies and skills of the methods and techniques, in teaching of 'Art' of different kinds.
- develop competencies in evaluating some products of Art.

### **COURSE CONTENT**

#### **Unit I**

- (i) Art and meaning of Visual Communication
- (ii) Appreciation of Art
- (iii) Art in daily Life
- (iv) Art in Education

#### **Unit II**

- (i) Methods and Material of Art through the ages-encaustic, oil, tempera, Fresco etc.
- (ii) Modern Art movements- Abstraction, Cubism, Expressionism, Realism, Impressionism, Romanticism.

#### **Unit III Methods of Teaching Art**

- (i) Qualities of an Art Teacher and his role in Education
- (ii) How to prepare lesson notes for Art classes?
- (iii) How to prepare Art Syllabus for Art classes?
- (iv) How to teach Still life, Designs, Nature-Study and Painting-Composition.
- (v) Class room Decoration

## **Unit IV**

- (i) Stages of development in Children's Art
- (ii) How to teach Art in Primary, Middle, High and Higher Secondary classes, the material required, amount of time necessary and the size of the class?
- (iii) Relation of Art and Craft with other School subjects and the importance of Art and Craft Exhibitions in Education.

### **Sessional Work**

- (a) Landscape from memory: Simple composition in connection with common flowers, mountains, sky, huts, water, bridge, birds, animals and human figures in action in any medium on a quarter sheet of drawing paper.
- (b) Decoration designs: Pictorial composition in water or tempera.
- (c) Still Life Drawing and Painting of Group of two or three simple objects in any medium.
- (d) Poster: will include writing of Block and script Letters in English/Hindi/Punjabi/Urdu with nibs or brush in ink or colour.
- (e) Collage making
- (f) Presentation of Art-Work

### **For Internal Assessment**

- **One Test - 5 Marks**
- **One Assignment - 5 Marks**
- **Sessional Work -5 Marks**
- **Attendance - 5 Marks**

## **SUGGESTED READINGS**

- Abbate, F. (1972), Indian Art. London: Octopus Books.
- Arya, Jaidev (1972), Kala ka Adhyapan. Agra: Laxmi Narayan Aggarwal.
- Birdwood, G.C.M. (1988), Arts of India. Delhi: Rupa & Co.
- Jeswani, K.K. (1965), Appreciation of Art, Delhi: Atma Ram and sons.
- Jeswani, K.K. (1965), Art in Education, Delhi: Atma Ram and sons.
- Jeswani, K.K. (1951), Teaching and Appreciation of Art in Schools, Delhi: Atma Ram and sons.
- Lal, Manohar (1974), Premier of Art, Allahabad: Ram Narayan Lal.
- Singh, Chikralekha (2008), Kala Shikshan. Agra: Aggrwal Pub.
- Sharma, Kusum (1997), Kala Shikshan. Agra: Vinod Pustak Mandir.
- Srivastava, B.N. (1953) Chitrakala, Pathan tatha Rango ke Sidhanta. Banaras: Nand Kishore & Bros.



## **PAPER-VI & VII (Group C) Option-(i): TEACHING OF LIFE SCIENCES**

**Time: 3.00 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal:20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

#### **Pupil teachers would be able to-**

- develop awareness about development in the area of teaching and learning of Life Science at the national and international level
- develop competencies in the prospective teachers related to Life Science at the lower secondary level with specific reference to Indian School Conditions
- orient prospective teachers in specific educational aspects of Science e.g. general concept of Life Science, aims and objectives of Life Science, pedagogical analysis of contents in Life Science at the lower secondary level, transaction of contents, methods of teaching, evaluation etc.
- enable prospective teachers to be effective teachers in order to perform the required role as a Life Science teacher under Indian School conditions

### **COURSE CONTENTS**

#### **Unit-I**

#### **I. Importance, Aims and Objectives**

- Importance of Life Science in School Curriculum.
- General Aims and Objectives of teaching Life Science.
- Bloom's taxonomy of Educational Objectives.
- Formulation of specific objectives of Life Science in Behavioural terms.

#### **II. Contents and Pedagogical Analysis**

##### **(i) Contents**

- Photosynthesis
- Human systems- Digestive, Respiratory, Excretory, Circulatory systems.
- Cell structure.
- Micro-organism.
- Food Chain
- Ecological balance.

(ii) Pedagogical analysis

Following points should be followed for pedagogical analysis:

- Identification of concepts.
- Listing behavioural outcomes
- Listing activities and experiments.
- 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.

### **Unit-II**

1. Development of Instructional Material

- Transaction of contents
- Unit Planning
- Lesson Planning
- Preparation of teaching aids.
- Development of aquarium, vivarium
- Development of self-instructional material (Linear programme)

### **Unit-III**

Methods of Teaching and Skills (Practical and Micro-teaching)

1. Methods of teaching

- Lecture-demonstration method
- Project method
- Problem-solving method

2. Practical skills

- Preparation of temporary and permanent mounts
- Collection and preservation of specimen

3. Micro-teaching skills

- Skill of Introducing the lesson
- Skill of Questioning
- Skill of Illustration
- Skill of Explaining
- Skill of Stimulus variation

### **Unit-IV**

Evaluation

- Concept of measurement and evaluation
- Formative evaluation
- Summative evaluation
- Different types of grading
- Attributes of a good achievement test
- Preparation of an objective type achievement test

### **Suggested Readings**

Adams, (1964): Measurement and Evaluation in Education, Psychology and Guidance, New York: Holt, Rinechart and Winston

Bloom, B.S. et al (1956) Taxonomy of Educational objectives: The cognitive domain, New York:Longman's Green

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

Chhikara, M.S.(1982): Teaching of Biology (Life Science); Ludhiana, Praakash Brothers.

Green, T.C. (1967): The Teaching and learning Biology, Allman & Sons, London.

Gupta, V.K. (1994) : Life Science Education Today, Arun Publishing House Pvt.

Jangira, N.K. and Singh, Ajit (1983): Core Teaching Skills: The Micro Teaching Approach, New Delhi: NCERT.

Kilpatrick, W.H. (1918): The Project Method, Columbia, Teachers College Record.

Mangal, S.K. (2005): Teaching of Life Sciences, New Delhi, Arya Book Depot.

Miller, David, F. (1963): Methods and Materials for Teaching the Biological Science, Mc Graw Hill, New York.

NCERT (1969): Improving Instructions in Biology, New Delhi.

*Novak, J.D. (1970), The Improvement of Biology Teaching Modern Science Teaching, New Delhi, Dhanpat Rai & Sons.*

Nunn, Gordon (1951): Handbook for Science Teachers in Secondary Modern Schools, John Murry, London.

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

Thurber, Walter (1964): Teaching of Science in Todays Secondary Schools, Prentice Hall, New Delhi.

Vaidya, N. (1971): The Impact of Science Teaching, New Delhi; Oxford and IB+I Publication.

Waston, N.S. (1967): Teaching Science Creativity in Secondary School, U.B. Saunders Company, London.

## **PAPER-VI & VII (Group C) Option-(ii): TEACHING OF GEOGRAPHY**

**Time: 3.00 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **Objectives**

#### **The students will be able to:**

- understand the important concepts used in Geography.
- prepare lesson plans for different classes.
- critically evaluate existing school syllabus and text-books.
- prepare/handle suitable teaching aids and use them effectively in the classroom.
- prepare diagnostic achievement test, administer them, analyse the results for providing feedback.
- pedagogical analysis of contents in Geography.

## **COURSE CONTENT**

### **Unit-I**

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

- Meaning, nature, scope of Geography.
- Values of teaching Geography.
- Aims of teaching Geography.
- Bloom's taxonomy of objectives.
- Formulation of specific objectives of Geography in Behavioural terms.

### **Unit-II**

#### **Contents and their Pedagogical Analysis**

##### **1. Contents**

- Latitudes & Longitudes
- Rotation & Revolution
- Agents of denudation
- Physical division of India
- Cash crops of India

##### **2. Pedagogical analysis of above units.**

### **Unit-III**

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

- Development and designing of curriculum
- Development of text-books.
- Development of self instructional material
- Self Instructional Modules
- P.L. Material (Linear style) packages.
- Development utilizing instructional aids.
- Maps, Atlas, Globes, Charts, Graphs, Models, Film strips, Slides, utilization of T.V. Video OHP, Computer.
- Development of lesson plan.
- Designing geography laboratory.

### **Unit-IV**

#### **Methods of Teaching & Skills involved in teaching**

##### 1. Methods of teaching

- Story telling
- Lecture-cum-discussion.
- Observation
- Discovery
- Problem-solving
- Project Method
- Laboratory

##### 2. Skill in teaching

- Explaining
- Questioning
- Illustrating with examples.
- Stimulus variation
- Skill of Map reading (using maps).

##### 3. Evaluation

- Meaning and importance of evaluation confirmation & continuous evaluation.
- Evaluation devices-written, oral, practice Assignment, Daily working of the student.

#### **Suggested Readings**

Arora K.L. (1976) : The teaching of Geography Parakash Brothers, Jalandhar.

Broadman David (1985): New Directions in Geography Education, Fehur Press, London.  
Philadiphla

Ch. orely, R.J. (1970) : Frontiers in Geography Teaching Mathews and Co. Ltd. London.

Dhamija Neelam (1993) : Multimedia Approaches in Teaching Social Studies. Human  
Publishing House, New Delhi.



Graves, N.G. (1982) : New Source Books for Geography Teaching.  
Longman, the UNESCO Press

Hall David (1976): Geography Teacher, Unwin Education Books, London.

Huckle, J. (1983) : Geographical Educational Reflection and Action  
Oxford University Press, London.

Leong, Goh Chey (1976) : Certificate of Human and Physical Geography,  
Oxford University Press, London.

Morrey, D.C. (1972) : Basic Geography. Hien Manns Education Books Ltd., London.

Mohd. Z.U. Alvi (1984) : UNESCO Tadress Jugrafia, Taraggi Urdu Board, New Source  
Books of Teaching of Geography, UNESCO.

Verma, J.P. (1960) : Bhugol Adhyan, Vinod Pustak Mandir, Agra

Verma, O.P. (1984) : Geography Teaching, Sterling Publication Ltd., New Delhi.

Walford, Rex (1981) : Signposts for Geography Teaching, Longman, London.

UNESCO (1965) : Source Book for Geography Teaching, Longman, London.

## PAPER-VI & VII (Group C) Option-(iii) TEACHING OF ECONOMICS

**Time: 3.00 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

Pupil Teacher would be able to:

- develop understanding of Economic Principles for Growth and Development of the Indian Economy
- acquire knowledge of Present Economic Conditions in India
- acquire desirable attitudes and to become effective instrument of Economic Change
- become an effective Citizen and good Consumer
- acquire appropriate Professional Behaviour and to develop commitment to leading profession.

### **COURSE CONTENTS**

#### **Unit-I**

Meaning, Nature and Concept of Economics

- Meaning, Nature and Scope of Economics
- Place of Economics in Secondary Schools Curriculum.
- Aims, Objectives and Values of Teaching Economics.
- Bloom's Taxonomy of Objectives.
- Statement of Objectives in Behavioural Terms.

#### **Unit-II**

Contents and their Pedagogical Analysis

##### **I. Content**

- Wants and their Classification
- Laws of Return
- Population-its Growth Pattern, Problems of over Population, Density of Population.
- National Income-Meaning, Methods of Measurement.

Note: Teacher will demonstrate pedagogical analysis of any 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.

**II.** Following points should be followed for Pedagogical Analysis :

- Identification of Concepts.
- Listing Behavioural Outcomes.
- Listing Activities and Experiments.
- Listing Evaluation Techniques.

**Unit-III**

Development of Instructional Material

- Development and Designing of Curriculum
- Development of Text-Books.
- Development of Self-Instructional Material-Modules.
- Development/Utilization of Instructional Aids-Charts, Maps, Graphs, Tables, Models, Film Strips, T.V., Computer, Internet
- Development of Lesson Plan

**Unit-IV**

1. Methods of Teaching

- Lecture Method
- Discussion Method
- Problem Solving Method
- Project Method

2. Skills of Teaching

- Skill of Explaining
- Skill of Probing Questions
- Skills of Stimulus Variation
- Skill of Illustration with Examples

3. Evaluation

- Meaning & Importance of Evaluation
- Evaluation Devices-Written, Oral, Observation, Records.
- Achievement Test- Meaning, Uses, and Preparation of Achievement Test

**SUGGESTED READINGS**

Arora, P.N. (1985). Evaluation in Economics. New Delhi: NCERT.

Kanwar, B.S. (1973). Teaching of Economics. Ludhiana: Prakash Brothers.

Lee N (Ed.). (1975). Teaching of Economics. London: Heinemann Education Books.

Robinson, K. & Wulson, R(ed) (1977). Extending Economics within the Curriculum. London: Routledge and Kegan Paul.

Siddqi, M.H. (1993). Teaching of Economics. New Delhi: Ashish Publishing House.

Daughterely, A.S. (1965). *Methods of Basic Business and Economic Education*.  
Cincinnati: South Western Publishing Co.

Lemden, K.G. and Attiyeh, R. (1968). *Recent Researches in Economics Education*. New  
York: Prentice Hall.

Olve J.M. (1973). *The trends in economics*. London: Heinmann Educational Books.

## PAPER-VI & VII (Group C) Option-(iv) TEACHING OF MUSIC

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Practical: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. There will be 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

#### **Pupil Teachers would be able to:**

- develop understanding of aims of teaching of music
- develop competencies and skills for teaching of music
- develop understanding and awareness of the essential of music
- develop understanding of the importance of evaluative procedures in music
- promote among the student-teachers Aesthetic sense, Time sense, tolerance and self-confidence

### **COURSE CONTENTS**

#### **UNIT-I**

- A brief history of Indian Music.
- Aims and objectives of Music as a subject in the School curriculum.
- Knowledge of Swaras-differences of Swaras and Sruti: Division of Swaras in measures of Sruti.

#### **UNIT-II**

- Possibilities of notation for Indian Music II
- Voice-culture-information about Voice and Culture and Earynx.
- Knowledge of Motion and Rythm.

#### **UNIT-III**

- Method of teaching Music.
- To prepare Lesson Plans.
- Qualities of Music Teacher-Gayak, Vadak and Avadyakar.

#### **UNIT-IV**

- Aids of the teaching of Music.
- Importance of Classical Music, Suggestions for the popularization of classical Music.
- Evaluation in Music.

### **Sessional Work**

I. Every candidate should be able to sing a fast Khyal or play a rezakhoni Gat with Tanas and Alaps or Jhala and Toras in each of the following Rages :

Bhupali, Bhairvi, Brindavani Sarag, Asawari, Bhimplashi, Malkauns, Kaffi.

Every candidate should be able to sing or play a slow Khyal (Vitambit Bara Khyal) or Masti Khayal Gat in Asawan and Malkauns Rag.

2. The following Tals are required to be practised in Tha's and Dvignun

Laya on Table :

1. Teen Tal

2. Dadra

3. Jhaptal

4. Dharva

5. Ektal

3. Tuning of the instrumental for the instrument player and tuning of the Janpura for vocal music students.

4. Candidate shall be able to read, write music notation either of Bhatkande or Vishnu Digamber Pulskar.

### **For Internal Assessment**

- **One Test - 5 Marks**
- **One Assignment - 5 Marks**
- **Sessional Work -5 Marks**
- **Attendance - 5 Marks**

### **Suggested Readings**

Elliott (2012), Fundamental of Music, New Delhi: Prentice Hall of India.

Khanna, Jyoti (2003), Teaching of Music, Ludhiana: Tondon Publications.

Leeder, J. A and Haynie, William S. (1958), Music Education in High School. Prentice Hall of Inc. New Jersey

Myers, Louis K. (1953), Teaching Children Music in Elementary Schools. New Jersey: Prentice Hall of Inc. New York

Rainbow, Bernerr (Gen.Ed.) (1968), Handbook for Music Teachers.: Novelto and Co. Ltd., London.

Shah Shobhna (2006), Sangeet Shikshan, Vinod Pustak Mandir, Agra

Wilson, M. Emett. (1951), How to Help your Child with Music, Henry Schuman, New Jersey

## **Paper-VI & VII (Group C) Opt (v): TEACHING OF COMPUTER SCIENCE**

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to-**

- explain the importance of Computer Science in School Curriculum.
- define the aims and objectives of Teaching Computer Science.
- explain Bloom's Taxonomy of Educational Objectives.

### **COURSE CONTENTS**

#### **UNIT-I**

- 1) Importance, Aims and Objectives
  - Importance of Computer Science in School Curriculum.
  - General Aims and Objectives of Teaching Computer Science
  - Bloom's Taxonomy of Educational objectives
  - Formulation of Specific Objectives in Behavioural Terms
- 2) (i) Contents & Pedagogical Analysis
  - Computer System
  - Operating System
  - Net-Working
  - M.S. Windows
  - MS Office
  - Information Technology & Computers.
- (ii) Pedagogical Analysis
  - Following points should be followed for Pedagogical Analysis:-
    - Identification of Concept
    - Enlisting Behavioural Outcomes.
    - Enlisting Activities and Experiments
    - Enlisting Evaluation Techniques



Note: Teacher will demonstrate pedagogical analysis of any one of the topics mentioned under contents above. The examiner, therefore, can ask the pedagogical analysis of any of the given topics.

## **UNIT-II**

- 3) Instructional Planning
  - Unit Planning
  - Lesson Planning
- 4) Development and Utilization of Instructional Material
  - Development of Text Books
  - Development of Self Instructional Material
  - Development of Computer Assisted Instructional Material
  - Utilization of TV(Video), Films, OHP, Computer.

## **UNIT-III**

- 5) Designing and Managing Computer Laboratory
  - Importance of Computer Laboratory and its importance
  - Physical conditions and layout of Computer Laboratory
  - Managing a Computer Laboratory
- 6) Methods of Teaching
  - Lecture -Demonstrative Method
  - Inductive-Deductive Method
  - Problem-Solving Method
  - Project Method

## **UNIT-IV**

- 7) Micro-Teaching Skills
  - Skill of Introducing the lesson
  - Skill of Questioning
  - Skill of Illustration with examples
  - Skill of Explaining
  - Skills of Stimulus Variations
- 8) Evaluation
  - Concept, Need and Importance
  - Types of Evaluation
  - Attributes of Good Achievement Test
  - Types of Tests used in Computer Science

### **For Internal Assessment**

- **One Test - 5 Marks**
- **One Assignment - 5 Marks**
- **Sessional Work -5 Marks**
- **Attendance - 5 Marks**

### **SUGGESTED READINGS**

Burton, W. H. (1972). Principles of History Teaching, London: Methuen

Chaudhary, K. P. (1975). The Effective Teaching of History in India, New Delhi: NCERT

Cox, J. & Urban, P. (1999). Quick Courses in Microsoft Office, New Delhi: Galgotia Publications

Jain, Satish. (1990). Introduction to Computer Science and Basic Programming, New Delhi: Prentice Hall of India

Saxena, S. (1998). A first Course in Computer, New Delhi: Vikas Publications

Sinha, P.K. (1990). Computer Fundamentals, New Delhi: BPB Publications

Tanenbaum, A.S. (1998). Computer Networks, New Delhi: Prentice-Hall of India

Intel (2003). Intel Innovation in Education, New Delhi: Student Work Book

## **PAPER-VI & VII Group D (Option-i) TEACHING OF PHYSICAL SCIENCES**

**Time: 3 Hrs**

**M. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to-**

- develop awareness about developments in the area of teaching and learning of Physical Science at the national and international level
- develop competencies in the prospective teachers related to Physical Science at the lower Secondary level with specific reference to Indian School Conditions
- orient prospective teachers in specific educational aspects of Science and Technology Education e.g. General Concept of Physical Science, aims and objectives of Physical Science, Pedagogical analysis of contents in Physical Science at the lower secondary level, Transaction of contents, methods of teaching, evaluation etc.
- enable prospective teachers to be effective teachers in order to perform the required role as a Physical Science teacher under Indian school conditions.
- develop scientific attitude among prospective teachers

## **COURSE CONTENTS**

### **UNIT-I**

#### **I. Concept**

1. Importance of Physical Science in School Curriculum.
2. General Aims and Objectives of Teaching Physical Sciences at Secondary School Stage.
3. Bloom's Taxonomy of Educational Objectives.
4. Formulation of Specific Objectives in Behavioural Terms.

#### **II. Contents and Pedagogical Analysis.**

##### **1. Contents**

1. Energy-types
2. Transmission of heat
3. Atomic Structure
4. Magnetism

5. Friction
  6. Water as universal solvent
  2. 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.

#### **UNIT-II**

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

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

#### **UNIT-III**

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

1. Methods of teaching
  1. Lec-Demonstration method
  2. Project Method
  3. Problem-solving method
  4. Inductive and Deductive Method
  5. Heuristic Method
2. 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

#### **UNIT-IV**

### V. Evaluation

1. Concept-Measurement, Evaluation and Grading
2. Formative Evaluation
3. Summative Evaluation
4. Diagnostic Evaluation
5. Characteristics of a Good test
6. Preparation of Achievement test-objective tests.
7. Types of Examination

## Suggested Readings

Anderson, R.D. (1970). *Developing Children's Thinking Through Science*. Prentice Hall, New Delhi.

Carin, A.A. & Sund, R.D. (1976). *Teaching Science Through Discovery*. Merit, Harvard project Physics, (1968) *An Introduction to Physics (Vol -C)*.

Hurd Deart, P. (1971). *New Directions in Teaching School Science*. Rand McNally Co., Chicago.

Kuthiro, (1970). *Physics Teacher Guide*. Parker Publishing Co., New York.

Lewis, J.L. (1971). *Teaching of School Physics*. Longman Group Let. London.

Sharma R.C. (1981). *Modern Science Teaching*. Dhanpat Rai and Sons. Delhi

Weber, (1965). *Physics of Teachers: A Modern Review*. MacGraw Hill, New York,

Anderson R.D. (1970). *Developing Children's thinking through Science*. Prentice Hall New Delhi.

Cartin, A.A. & Sund, R.D. (1972). *Teaching Science Through Discovery*. Merrill London.

Gerrise, L. & Madsfield; D (1970). *Chemistry by Experiment and Understanding*. New York.

Hurd Dilhurt, P. (1971). *New Directions in Teaching School Science*. Rand MacMally Co. Chicago.

Murry John. 1970. *Teaching of Science in Secondary School*. Association Science Education NCERT. *Position of science teaching in india Schools*. NCERT Strategies in Science Education (RCE) Ajmer.

Asimov, I. (1965). *Guide to science*. Vol - I, Pelicen Books.

Bal Vigyanik (1981). *Science Text Books for Middle School*. M.P. Text book Corporation,

Romey, W.D. (1968). *Inquiry Teachnique for Teaching of Science*. Prentice Hall, New Jersey

Walker, J (1977). *The flying circus of Physics*. John Wiley and Sons.

## **PAPER-VI & VII (Group D) Option-(ii): TEACHING OF CIVICS**

**Time: 3.00 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **Objectives**

#### **Pupil Teachers would be able to-**

- enable the student teacher to define, discriminate and analyse the concept of civics
- enable the student teacher to formulate aims and objectives of teaching civics at various stages of schooling
- enable the student teacher to critically evaluate the existing schools syllabus of civics and give appropriate suggestions to improve it
- enable the student teacher to understand and apply different methods and techniques of teaching civics and give appropriate suggestions to improve it
- enable him/her to understand the specific role and qualities of a civics teacher
- enable the student teacher to write a review of text book of civics
- enable the student teacher to prepare a good evaluation tool on a given topic
- enable the student teacher to understand the fundamental rights and duties, citizenship and other salient features of constitution of India

### **COURSE CONTENTS**

#### **Unit-I.**

- Meaning and importance of civics and the place of civics in the school curriculum. Correlation with other social sciences.
- Aims and objectives of teaching civics.
- Citizenship, fundamental rights and duties and salient features of Indian constitution.

#### **Unit-II**

- Curriculum of civics at different levels. Principles of curriculum construction, preparing unit curriculum in civics.
- Methods of teaching civics project method, problem solving, socialized recitation, supervised study, Lecture.
- Lesson planning in civics, preparing a lesson plan on a given Unit/topic.

### **Unit-III**

- Audio-visual aids in the teaching of civics, preparing Audiovisual Aids in civics.
- Importance of civics text-book, qualities of a good text book.

### **Unit-IV**

- Civics teacher and his qualities.
- Evaluation in civics tools and techniques. Preparing a good tool to evaluate some concepts in civics.

### **Suggested Readings**

Dr. Iqbal Narayan. Principles of Civics, Shiv Lal & Co. Ltd. Agra- 3.

Dr. Iqbal Narayan. Our constitution & Civics Life (Shiv Lal and Co. Ltd. Agra -3).

Shyam Kishore Malvia. Administration in Free India and Civil Life Bal Bharti, Allahabad.

Niramal Yadav, Teaching of Civics and Political Science, Anmol Publisher (2003)

Syed M.H., Modern Teaching of Civics/Political Science, Anmol Publication Pvt. Ltd. (Dec.1, 2005)

## PAPER-VI & VII (Group D) Option-(III): TEACHING OF HISTORY

**Time: 3.00 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal: 20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**The students will be able to-**

- understand the meaning, scope and importance of History
- develop skill and competence to translate general objectives into performance
- describe the principles of curriculum construction in History and analysis content pedagogically
- demonstrate the different important methods of teaching History by selecting appropriate learning contents
- prepare lesson plan using specific methods of teaching History
- prepare appropriate tests for evaluation of some content in History
- prepare a Write-up of the places of historical importance
- use different aids in teaching of History

### **COURSE CONTENTS**

#### **Unit-I**

- Meaning, nature & scope of History
- Place of History in secondary school curriculum
- Aims, objectives and values of teaching History.
- Bloom's Taxonomy of objectives.

#### **Unit-II**

**Contents and Pedagogical analysis.**

- Indus Valley Civilization.
- Aryans
- Mughal dynasty
- Modern India

#### **Unit-III**

**Development of Instructional Material**

- Development & Designing of curriculum in History.



- Development of lesson plans for History
- Development of text-books.
- Development of self-learning modules.
- Development/utilization of instructional aids :-
  - Charts
  - Maps
  - Graphs
  - Models
  - Film strips
  - T.V.
  - Computers

### **Unit-IV**

#### **Methods & Skills of Teaching History**

##### 1. Methods

- Source method
- Discussion method
- Dramatisation (Role Play)
- Teaching History through monuments (Field trips)
- Story telling method.
- Project Method

##### 2. Skills

- Skill of narration
- Skill of probing question
- Skills stimulus variations.

##### 3. Evaluation

- Meaning & Importance of evaluation
- Evaluation devices
- Written, oral, assignments

#### **Suggested Readings**

Chaudhary, K.P. (1975) : The effective Teaching of History in India, NCERT, New Delhi.

Dixit U. & Bughcla (1972) : Itihas Shikshan, Hindi Granth.

Academic, Jaipur, Ghatge, V.D. (1956), Teaching of History (English & Hindi), Oxford University Press, Bombay,

Hashmi, M.A. (1975), Tarikh Kaisey Parhhaen (Urdu) : Maktaba Jamia Ltd. New Delhi,

Khan, S.U. (1998) History Teaching-Problems, Prospective Prospect. Heera. New Delhi,

Burton W.H. (1972) Principles of History Teaching, Methuen, London.

Gunnin, Dennis (1978) : The Teaching of History, Goom Helm Ltd. London.

Kochar, S.K. (1972): The Teaching of History, Sterling Publishers, Delhi.

Lewis, E.M. 1960: Teaching History in Secondary Schools, Sterling Publishers, Delhi-I.  
Mujee, M. (1960): World History in Secondary Schools, Sterling Publishers, Delhi.  
Shaida, B.D. & Singh, S. (1973): Teaching of History, Dhanpat Rai & Sons ,Jalandhar.  
Tara Chand, A History of Indian People: P.C. Dwadesh & Co., Aligarh.  
Weech. S.K.L. (1951): History of the World Odhas Press Ltd., London.

## **Paper-VI & VII (Group D) Opt. (iv): TEACHING OF SOCIAL STUDIES**

**Time: 3 Hours**

**Max. Marks: 100**  
**(Theory: 80, Internal:20)**

### **NOTE FOR PAPER SETTER**

- i) Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q. No. 1 will be compulsory and will carry 16 marks. It will be comprised of 4 short-answer type questions of 4 marks each to be selected from the entire syllabus.
- iii) Two long-answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

### **OBJECTIVES**

**Pupil-teachers would be able to:**

- define the concept of Social Studies
- explain different methods to teaching Social Studies
- develop self-instructional material
- explain the concept of evaluation and use evaluation method with the students objectively as well as subjectively
- explain use of teaching aids effectively in the class-room
- develop lesson plan with the help of advanced technology
- explain challenging situations in the society

### **COURSE CONTENTS**

#### **UNIT-1**

- 1) Concept, objectives and values:
  - Meaning, Scope, Importance and values of Teaching Social Studies.
  - Aims and objectives of Teaching of Social Studies with special reference to present Indian School.
  - Bloom's Taxonomy of objectives
  - Writing objectives in behavioural terms with particular reference to teaching of history/geography/civics.
- 2) Content & their Pedagogical Analysis (From Elementary to Secondary Level)
  - History of Freedom Movement.
  - Globe: General Information about Globe.
  - Indian Constitution.
  - Major issues facing Indian Economy, today.

#### **UNIT-II**

- 3) A) Methods and Skills of Teaching Social Studies(History/Geography/Civics):
  - Project Method
  - Inductive and Deductive Method.

- Assignment Method
- Source Method
- Story Telling Method
- Lecture Cum Discussion Method

B) Skills

- Skill of Narration
- Skill of Probing Question
- Skill of Stimulus Variation

4) Development utilization of Instructional Material

- Presentation of Lesson Plan with the help of Power Point.
- Development of Self-Instructional Modules excluding Programme Learning.
- Development of Self-Instructional Material.
- Bulletin Board, Maps, Scrap Books, Computer.
- Use of Community Resources.
- Designing of Social Science Lab.

### UNIT-III

5) Development/Utilization of Instructional Aids-

- Charts
- Maps
- Graphs
- Models
- Film strips
- T. V.
- Computers

6) Curriculum Development and Transaction

### UNIT-IV

7) Text Book: Importance and Qualities of a good text book of Social Science i.e. History/Geography and Civics

8) Evaluation

- Meaning, Importance and Objective of Evaluation.
- Evaluation Devices
  - Oral test
  - Written Test
  - Practical test
  - Diagnostic testing and
  - Remedial Measures
- Observation
- Rating Scale
- Grading and Credit System

## **SUGGESTED READINGS**

Burton, W. H. (1972). Principles of History Teaching, London: Methuen

Chaudhary, K. P. (1975). The Effective Teaching of History in India, New Delhi: NCERT

Dhamija, N. (1993). Multimedia Approaches in Teaching Social Studies, New Delhi: Harman Publishing House

Dixit, U. & Bughela, I. (1972). Itihas Shikshan, Jaipur: Hindi Granth Academy

Ghate, V. D. (1956). Teaching of History (English& Hindi), Mumbai: Oxford University Press

Hashmi, M. A. A. (1975). Tarikh Kaisey Parhhaen(Urdu) . New Delhi: Maktaba Jamia Ltd.

Khan, S. U. (1998). History Teaching-Problems: Prospective and Prospect, New Delhi: Heera Publications

**PAPER-VIII A: ICT ENABLED PRACTICAL/PROJECTS**  
(To be evaluated by the External Examiner)

**Time: 1.30 Hours**

**Max. Marks: 50**

**Distribution of 50 Marks will be**

- |  |
|--|
| <p><b>I. Sessional Work = 20 Marks</b></p> <p><b>II. Practical Work at the time of exam = 20 Marks</b></p> <p><b>III. Viva-voce = 10 Marks</b></p> |
|--|

**Objectives**

**Pupil-teachers would be able to-**

- demonstrate the use of ICT in Education.
- demonstrate the use of MS Windows and MS Office
- demonstrate the use of ICT and its integration in education.
- demonstrate the use of internet for teaching.
- use ICTs to develop digital portfolios in their teaching subjects
- use effectively the ICTs and the pedagogies associated with them

**COURSE CONTENTS**

**UNIT I**

**(ORIENTATION TO ICT)**

1) MS WINDOWS

- Basic concept of an Operating System and its functions.
- Introduction of Windows: Using Mouse and moving icons on the screen, My Computer, Recycle Bin, Task Bar, Start-menu and menu selection, running an application, Setting system date and time; Windows Explorer to view files, folders and directories, creating and renaming of files and folder, Opening and Closing of Windows, Minimize, Restore and *Maximize* forms of windows
- Basic components of a Window: Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal and Vertical), Using right button of the Mouse, Creation Shortcut, Basic Windows Accessories: Notepad, Paint, Calculator, WordPad, using Clipboard

2) MS OFFICE

- MS WORD

Introduction to a Word Processor: Creating, Saving, Editing and Formatting a Document; Text Style (B. I.U.), Font Type Size, Changing color, Alignment of text; Formatting paragraphs with line or paragraph spacing; Adding Headers and Footers Numbering pages, using grammar and spell check, utilities, using subscript and superscript, inserting Symbols, Print Preview, Printing a document.

Inserting Word Art, Clip Art and Pictures, Page Setting, Bullets and Numbering, Borders and Shading, Format Painter, Find and Replace, Inserting Tables.

- **MS POWER POINT**

Introduction to Presentation Graphics, Understanding the concept of Slide Shows, Basic element of a slide, Different types of Slide Layouts, Creating and saving a Presentation, Different views of a slide:- Normal view, Slide Sorter view and Slide Show, Editing and Formatting a Slide:- Adding Titles, Subtitles, Text Background, Watermark, Header and Footers, Numbering Slides; Inserting Pictures from files, Animating pictures and Text with Sound Effects, Timing Text box, Pictures and Slides, Rehearse Timings, ungrouping and Grouping pictures from Clipart.

- **MS Excel**

Introduction to Spreadsheets, Concept of Worksheets and workbooks, Creating and Saving a worksheet, Working with a spreadsheet: entering numbers, text, date/time, series using Auto fill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, Inserting of Deleting cells, rows and columns, Formula-Entering a formula in a cell, using operators (+,-,\*) (In formulae, Relative referencing, Absolute referencing and mixed referencing, Printing a worksheet. Use Simple Statistical functions: SUM ( ), AVERAGE ( ), MAX ( ), MIN ( ), IF ( ), (without compound statements); inserting tables in worksheet, Embedding Charts of various types: Line, Pie, Scatter, Bar and Area in a worksheet.

## **UNIT-II**

### **(INTEGRATION OF ICT WITH SCHOOL TEACHING SUBJECTS)**

#### **3) MAKING SMALL PRESENTATIONS**

- Basics of a presentation
  - Difference between presentation and document
  - Using Power Point
  - Opening a Power Point Presentation
- Creation of Presentation
  - Title
  - Text Creation
  - Fonts and Sizes
  - Bullets and indenting
  - Moving to Next Slide
- Preparation of Slides
  - Selection of type of Slides
  - Importing text from word documents
  - Moving to Next Slide
  - The Slide Manger
- Providing Aesthetics
  - Slide Designs

- Background and Text colors
- Marking your own slide format
- Footnotes and slide numbering
- Slide Manipulation and Slide Show Presentation of the Slides
  - Using the Slide Show
  - Printing the Slides and Handouts
  - Slide Sorter
  - Title Sorter

### **UNIT III**

#### 4) INTRODUCTION TO MULTIMEDIA AND ITS APPLICATIONS

- Multimedia
  - The Concept and Objectives
  - Hardware for Multimedia Computer
- Components of Multimedia
  - Textual Information, Images and their types
  - Animation, Digital Audio, Digital Video
- Software for Multimedia
  - Introduction to MS-Publisher
  - Introduction to Photo draw
  - Introduction to Front Page

#### 5) INTERNET

- Concept/Definition
- Relationship with and Distance computer
- The Internet: the World-Wide Web, Ways of using the Internet in instruction: utilizing already available websites
- Basic modes of use of the internet, e-mail, file exchange, discussion groups, live-conferencing (chat) and knowledge navigation
- Classification of the modes: searching for information and exchanging information