### **BHARATHIAR UNIVERSITY COIMBATORE - 641 046**

**B.Ed., DEGREE COURSE SYLLABUS (Non-Semester)** (Revised and Amended in the Board of Studies Meeting held on 22-11-2007)

(2007 - 2008)

### **BHARATHIAR UNIVERSITY: COIMBATORE -641 046**

### **DEGREE OF BACHELOR OF EDUCATION (NON SEMESTER PATTERN)**

## REGULATIONS AND SYLLABUS (Effect from the Academic year 2007-2008 Batch and onwards)

### 1. ELIGIBILITY FOR ADMISSION INTO THE COURSE

- (i) The candidates should have passed the UG\* degree examination in the 10+2+3 stream, with the same main subject in Part III, for which he is seeking admission in the B.Ed., course.
- \* With the minimum mark required in the UG degree for admission to B.Ed., course community / Category wise.

Community / Category	Minimum Required in UG Degree
OC	50%
BC	45%
MBC	43%
SC / ST	40%
Physically Handicapped	40%

- (ii) Candidates who have taken more than one main subject in part III (Double or Triple major) of the U.G degree have to choose only one of the main subjects and apply for that optional in B.Ed.,
- (iii) Candidates who have done their U.G degree in Applied Chemistry, Bio-Chemistry or Applied Physics can apply for Chemistry and Physics optional respectively in B.Ed., those who have done Environmental Science, Bio-technology and Micro-Biology can apply for Biological science optional in B.Ed., and similarly candidates with Applied Geography in UG degree can apply for Geography optional. B.Sc., (CS), BCA and B.Sc., (IT) can apply for the Optional Computer Science.
- (iv) a) A P.G degree with minimum pass is required for admission.
  - b) In the case of candidates belonging to SC and ST communities, a pass in the relevant UG degree course is enough.
  - c) In the case of handicapped (both physical and Visual) candidates, a minimum pass in the degree is required.
- (v) Candidates with P.G qualification alone will be considered for optionals: Economics, Commerce, Computer Science and Home Sciences.

### 2. ELIGIBILITY FOR ADMISSION TO EXAMINATION

A candidate shall be admitted to the B.Ed., degree examination only if he/she has undergone the prescribed course of the study satisfactorily in an affiliated College of Education having put in the prescribed attendance.

The minimum attendance prescribed is 75 % of working days for affiliated Colleges of Education.

### 3. DURATION OF THE COURSE

The duration of the course shall be for one academic year, consisting of 200 working days (170 teaching days and 30 supervised practice teaching days) excluding University examination days per year providing for a minimum 1000 hours of course work at 5 hours a day for affiliated colleges.

### 4. COURSE OF STUDY

The course of study shall consist of the following subjects:

### (a) Core Subjects

- 1. Challenges in Indian Education
- 2. Psychology in Education
- 3. Evaluation, Research, Educational Technology and Innovation in Education.
- 4. Computer Aided Instruction
- 5. Communicative English

### (b) Optional subjects (Technology of Teaching)

- 1. General English Education
- 2. Special English Education
- 3. General Tamil Education
- 4. Special Tamil Education
- 5. Mathematics Education
- 6. Physical Science Education
- 7. Biological Science Education
- 8. History Education
- 9. Geography Education
- 10. Social Science Education
- 11. Home Science Education –Optional I
- 12. Home Science Education Optional II
- 13. Commerce and Accountancy Education Optional I
- 14. Commerce and Accountancy Education Optional II
- 15. Computer Science Education Optional I
- 16. Computer Science Education Optional II
- 17. Economics Education Optional I
- 18. Economics Education Optional II
- (i) Candidates must choose two Optional Subjects.
- (ii) Candidates with Tamil / English Literature in their graduate course or post-graduate course may choose Tamil Education / English Education as Two optional.
- (iii) Other B.A / B.Sc graduates may choose 1<sup>st</sup> Optional subject relating to their major subject and the other optional from the subject studied at ancillary level or a language ( General English Education / General Tamil Education)
- (iv) Post-graduates may choose either General Tamil or General English as one Optional II subject and the other related to their course of study at M.A., / M.Sc., level or any other subject as in part (III) or Major subject at PG level as Optional I.

### (c) Electives

- 1. Reading
- 2. Educational Planning and Administration
- 3. Value Education
- 4. Environmental Education
- 5. Physical Education and Health Education

Candidates must choose one of the elective subjects cited above depending upon the subjects offered in affiliated colleges.

### (d) Teaching Competence

Teaching competence consists of observation of lessons and teaching sessions.

There shall be an observation of at least three micro-skill teaching sessions in the colleges and 10 macro teaching sessions in each optional subject in the schools (Practical teaching) AND

There shall be intensive teaching practice of 3 micro skill lessons and 20 macro teaching lessons for each optional subject.

### (e) Other Practical Work

Practical shall include Practicals related to (a) Optional subjects (b) Projects and experiments: (c ) Behavioural assessment – Psychology practicals (c ) Camp or community work and (d) Physical Education and Health Education

### **5. MEDIUM OF INSTRUCTION**

The medium of instruction of the course may be either Tamil or English.

### **6. SCHEME OF EXAMINATION**

The scheme of examination for **REGULAR** candidates shall be as follows.

Paper	Subject and paper	Exam Duration	External Marks	
			Max	Min
I	Challenges in Indian Education	3 hrs	100	50
II	Psychology in Education	3 hrs	100	50
III	Evaluation, Research, Educational Technology and Innovation in Education	3 hrs	100	50
IV	Computer Aided Instruction	3 hrs	100	50
V	Communicative English	3 hrs	100	50
VI	Optional Subject I	3 hrs	100	50
VII	Optional Subject II	3 hrs	100	50
VIII	Elective Subject	3 hrs	100	50
		Total	800	400

### **Distribution of marks for Practical**

### (i) Teaching Competency

Si.	Subject/Practical	Internal		External		Total	
No.	Subject/Practical	Max	Min	Max	Min	Max	Min
1	Teaching Competency: Optional I	50	25	50	25	100	50
2	Teaching Competency: Optional II	50	25	50	25	100	50
Total			50	100	50	200	100

### (ii) Other Practical

Si.	Subject/Practical	Inte	Internal		External		Total	
No.		Max	Min	Max	Min	Max	Min	
1	Preparation and use of instructional aids Optional I	20	10	20	10	40	20	
2	Preparation and use of instructional aids Optional II	20	10	20	10	40	20	
3	Test and Measurement Optional I	20	10	20	10	40	20	
4	Test and Measurement Optional II	20	10	20	10	40	20	
5	CAI and PLM Package Development Optional I	10	5	10	5	20	10	
6	CAI and PLM Package Development Optional II	10	5	10	5	20	10	
7	Instructional Materials Optional I	10	5	10	5	20	10	
8	Instructional Materials Optional II	10	5	10	5	20	10	
9	Psychology Practical	10	5	10	5	20	10	
10	Language Lab Practical	10	5	10	5	20	10	
11	Audio- Visual Aids	10	5	10	5	20	10	
12	Action Research/ Project Works/Case Study	10	5	10	5	20	10	
13	Physical Education and Health Education	10	5	10	5	20	10	
14	Camp/ Community Service	10	5	10	5	20	10	
15	Socially Useful Productive Work (SUPW)	10	5	10	5	20	10	
16	Participation in Seminars/Workshops/ Symposia/Conferences	10	5	10	5	20	10	
	Total	200	100	200	100	400	200	

### **Practicals**

Practical	Internal		Exte	ernal	Total		
Teaching Competency	100	50	100	50	200	100	
Other Practical	200	100	200	100	400	200	
Grand Total	300	150	300	150	600	300	

Page 5 of 66

### 7. PRACTICAL EXAMINATION BY THE BOARD OF SUPERVISING EXAMINERS

The board of supervising examiners (Internal & External) appointed by the university will examine the teaching competency of a significant section of the candidates or all the candidates and the practical work of all the candidates. The supervising examiners shall report to the university the marks awarded to each candidate in two divisions of practical examination.

#### 8. PASSING MINIMUM

- (I) A candidate shall be declared to have passed in the B.Ed., Degree examination only if he/ she has passed both the written and practical examination and passes in the written examination shall be permitted to appear again for the same and vice-versa.
- (II) Every candidate should register for all the papers in the written examination and practical examination in the first attempt. A candidate who fails in one or more papers in the written examination shall be permitted to appear again only for those papers in which he/ she fails.
- (iii) A candidate shall be declared to have passed the written examination if he/ she obtains not less than 50% in each paper in External Examination and aggregate of 50% in both internal and external examination.
- (iv) A candidate shall be declared to have passed the practical examination if he/she obtains not less than 50% of marks in teaching competency in each of two optional subjects and not less than 50% marks allotted to other practical work.

### 9. CLASSIFICATION OF SUCCESSFUL CANDIDATES

All successful candidates shall be classified separately for written examination and practical examination. In each case, candidates who pass the examination and obtain not less than 60% of total marks will be placed in the <u>first class</u>, those who have obtained 50% to 59% of marks in the aggregate will be placed in <u>second class</u>.

### 10. PRACTICE TEACHING

Teaching competency programme for each student shall be undertaken at Government recognized schools including Matriculation Schools. Practice Teaching shall include Observation and Teaching. Practice is to be given at micro and macro levels. Micro teaching and Demonstration classes shall be conducted at the respective colleges of Education for 10 working days. Each student has to prepare 6 micro lessons (3 for each optional). Macro teaching and observation classes shall be at the schools under a qualified trained teacher (Guide teacher) for 30 working days.

For the purpose of teaching practice, each student shall work as an apprentice under a selected teacher and under the general supervision of the Principal and the lecturers of the college concerned.

He/She shall also maintain separate records for micro teaching lessons ,macro teaching lessons and observations of lessons. The micro teaching record shall include 6 skills (3 for each optional). The macro teaching record shall contain 30 macro lesson plans (15 for each optional). The observation record shall contain observations of 10 lessons (5 for each optional). Marks for teaching practice shall be based on practice in micro teaching, lesson plan writing, observation of lessons and macro teaching competency

However, students offering English/Tamil as the equivalent to two optional subjects will be required to maintain a record each for two different standards (e.g VIII & IX) relating to the paper on the teaching of English/ Tamil as the case may be. The records shall contain plans of at least 15 lessons, for each standard in the teaching of English or Tamil as the case may be. Marks for teaching practice shall be based on the reports of lessons in the optional subjects and on the records maintained. A separate record shall be maintained for each standard for recording the 10 lessons observed(5 th each standard). This applies to all postgraduate teachers who opt for the same subject as 2 optionals.

Each teaching practice lessons shall be reported separately to the Principal by the lecturers or the teachers authorized for the purpose and the reports and the record shall be made available to the supervising examiners who will be appointed by the university. The final report of each student with the records shall be made available to the supervising examiners whose decision on the marks to be awarded shall be final.

### 11. OTHER PRACTICAL WORK

### 1. Preparation and use of Instructional aids

Students shall prepare instructional aids in both the optional subjects. They may take five specific units from his school / higher secondary school syllabus and prepare teaching aids with reference to concept/ ideas in the units Aids of different types(Charts, models, film strips, tapes, slides, transparencies) should be included.

### 2. Test and Measurement

The construction of tests must be made in both the subjects in the case of students offering two different subjects as optional, In the case of students offering a subject as two optionals the construction of tests should be made in teaching high school subjects and higher secondary school subjects. In both the cases interpretation of results should also be made and recorded. It is suggested that preparation and administration for the achievement test be completed during the intensive teaching practice.

### 3. CAI and PLM Package Development

All student teachers have to be exposed to computer. Students have to select an individual topic in each optional subject & prepare PLM for those topics. The student teacher should prepare CAI material in CD format for each optional.

#### 4. Instructional Material:

Each student has to select one unit in each optional and prepare the instruction material.

### 5. Psychology Practical

The primary objective of psychology practicals is to expose the student teachers to the procedures of conducting various experiments in psychology directed towards the study of behavioral changes of the pupils. Each student teacher is expected to do at least 10 experiments covering all focal areas of Educational Psychology and all types of psychological tests. For list of experiments refer to the practicals in core paper: Educational Psychology.

### 6. Language Lab Practical

The student-teachers should be evaluated on the language skills based on language software practiced by the student-teachers.

### 7. Audio-Visual Aids

Student teachers should know about the audio- visual aids that can be used in the classroom teaching learning process. Detailed instruction on the use of audio-visual aids in teaching is given by the optional teachers. In terms of record writing, a minimum of ten audio- visual aids must be described with illustration and pictures.

### 8. Action Research/Project Work/Case Study.

The purpose of the project work is to give work experience in the respective method subject of the student teachers. Every student teacher is expected to have discussion with the faculty to choose individual tope for project work to be undertaken by him/her

Case study is considered as a diagnostic technique. During the teaching programme, each student teacher should conduct case study about an indifferent child who has notable problems either in learning or in their adjustment to the environment. The information for the case study should be collected in such a way that it will suggest an intervention programme for the pupil to overcome his/ her problems. A perfect record should be maintained for this purpose.

### 9. Physical Education and Health Education

This record should contain descriptions of at least five minor games and three major games. Description of each game should include the theory, rules and the ground layout of the game. The student has to observe two games classes and record them. The pictures, diagrams, cutouts, etc., depicting the health education activities should be given in the record. Preparation of an album on health and physical education is a must.

### 10. Camp/Community service

Each teacher trainee must participate in a camp for seven/ten days during the academic year to share in community life. The camp activities may include NSS Programme /Guiding/First aid/ Citizenship camp. The camp may be held outside the college preferably in a rural setting.

### 11. Socially Useful Productive Work

Some productive work that is useful to society, like basket making, book binding, making covers, files and pads. wood work, making of soap and soap powder, food preservation, shall be made and recorded.

### 12. Participation in Seminars/ Workshop and Symposia

The assessment under this head shall include evaluation of leadership role played as well as participation made in follow up discussions, initiative, contribution of ideas, critical thinking and receptivity. The seminars, workshops and symposia will relate to the core, optional and elective subjects.

### CORE PAPER - I CHALLENGES IN INDIAN EDUCATION

### **Objectives:**

On successful completion of the course the student-teachers should have:

- 1. understood the history of Indian education in different periods of time.
- 2. learnt the role of teachers and various systems in education.
- 3. realized the problems of school education, higher education, women education and teacher education in India.
- 4. gained the knowledge of school health programmes, nutritional requirement, population education, physical education and environmental education.
- 5. appreciated the divergent philosophies behind education and their differential implications.

### **UNIT I: History of Indian Education**

- 1.1 Gurukula system of education, Buddhist and Jain system of education, Education by Christian Missionaries
- 1.2The progress of education in Free India with special emphasis on vocationalisation community and Social service Socially Useful Productive Work (SUPW)
- 1.3 Directive Principles Article 45 Responsibilities of State and Central Governments on Education
- 1.4 India's Secular Policy Religious and Modern Education
- 1.5 Regional Educational Development in India Imbalances and Variations in different environment

### **UNIT II: Role of Teachers and System of Education**

- 2.1 Inculcation of Socialism, Secularism and Democracy through Indian Education
- 2.2 Teacher's role towards: (a) Pupils' development, (b) Community development, (c) National integration and reconstruction, (d) International understanding, and (e) Elimination of Social tensions and conflicts
- 2.3 Educational Influences of Home, School, Community and Mass Media
- 2.4 Formal and Non-formal systems of education
- 2.5 Continuing Education and the concepts of Open University

### **UNIT III: Current problems in Indian Education**

- 3.1 Primary Education: Education for all, Wastage and Stagnation
- 3.2 Secondary Education: Co-education, Examination reforms, New evaluation procedures, Inspection and Supervision
- 3.3 Higher Secondary Education: Curricular needs and Vocational needs of Rural India, Social Impact
- 3.4 Women's Education: Status of Women in Higher Education
- 3.5 Teacher Education: Training teachers for all levels of education Preservice and In-service facilities, Code of conduct for teachers

### **UNIT IV: Health and Nutrition Education**

- 4.1 School Health Programme, Common ailments of children, Communicable diseases Preventive measures, First Aid, Sex-education
- 4.2 Nutritional deficiencies, Preservation of nutrients, Balanced diet, Healthy Food Habit
- 4.3 Population Education: (a) Impact of population growth on Social, Economic and Educational development; (b) Family welfare policies of Government-

Small family norms; and (c) Correlating school subjects with population problems

- 4.4 Physical Education: Importance of physical education and role of teachers
- 4.5 Environmental Education: Types of environment, Teacher's role

### **UNIT V: Philosophical Foundation of Education**

- 5.1 Idealism, Realism, Naturalism and Pragmatism Aim, curriculum and teacher's role
- 5.2 Educational philosophies of Swami Vivekananda, Mahatma Gandhi, Tagore
- 5.3 Curriculum Construction: Principles flexibility and sensitivity to the need and differences of pupils; Curriculum and national goals improvement of teachers in curriculum planning and implementation
- 5.4 Promotion of scientific outlook and attitude among students
- 5.5 Institutional planning: Human relationships and application of modern management techniques in educational institutions.

### REFERENCE

- 1. Taneja, V.R. (1998). Educational Thoughts and Practice. Delhi: University Publications.
- 2. Anand (1993). The Teachers Education in Emerging Indian Society. New Delhi: NCERT.
- 3. Saraswathi, T.S. (1999). Culture, Socialisation and Human Development. New Delhi: Sage Publications.
- 4. Sharma, R.N. and Sharma, R.K. (2004). Problems of Education in India. New Delhi: Atlantic Publishers.
- 5. Mishra, B.K. and Mohanty, R.K. (2003). Trends and Issues in Indian Education. Meerut: Surya Publication.
- 6. Ghanta, R. and Dash, B.N. (2005). Foundations of Education. Hyderabad: Neelkamal Publications.

### CORE PAPER – II PSYCHOLOGY IN EDUCATION

### **Objectives:**

- 1. To enable the trainees to understand the basic concepts of education and psychology as the science of behaviour
- 2. To enable the trainees to know the concept of growth, development and adolescents needs and special needs.
- 3. To enable the trainees to understand the general nature of learning and the learning process.
- 4. To help them to acquire competence in their teaching using motivation.
- 5. To help them to acquire knowledge of higher level mental process thinking, reasoning and problem solving
- 6. To enable them to gain knowledge about personality and adjustment
- 7. To enable them to gain a knowledge about intelligence, and Multiple intelligence.
- 8. To enable them to gain knowledge about creativity, mental health and mental hygiene.
- 9. To enable them to gain the knowledge about counseling and guidance.
- 10.To help them apply these knowledge in classroom teaching- learning process effectively.

### UNIT I : INTRODUCTION TO EDUCATIONAL PSYCHOLOGY AND CONCEPT OF GROWTH AND DEVELOPMENT

- 1.1 Definition, meaning, nature and focal areas of educational psychology Psychological aspects of teaching Bases of effective Teaching.
- 1.2 Methods of educational psychology introspection method, Observation Method, Experimental method, Differential method, Psychoanalysis method, and Case study method.
- 1.3 Concepts, principles, stages and characteristics of human growth and development- concept of maturity
- 1.4 Factors influencing growth and development Piaget,s stage of cognitive development.
- 1.5 Characteristics of adolescence and their special problems- influence of group behaviour

### **UNIT II: ATTENTION AND MOTIVATION**

- 2.1 Sensation, perception and concept formation.
- 2.2 Attention Meaning, Nature, Distraction and Span of attention Classroom conditions for attention.
- 2.3 Motivation Types of motivation Motivation cycle
- 2.4 Maslow's need hierarch theory
- 2.5 Role of reward and Punishment Achievement motivation

### **UNIT III: LEARNING AND MEMORY**

- 3.1 Nature and importance of learning Types of learning
- 3.2 Theories of learning Trial and Error learning –Thorndike Classical Conditioning Pavlov Operant conditioning Skinner's
- 3.3 Difference between S- R theory and Insight theory
- 3.4 Meaning and nature of memory types of memory factors/ stages of memory
- 3.5 Meaning and nature of forgetting- forgetting curve measures to promote memory.

### UNIT IV: PERSONALITY, INTELLIGENCE AND CREATIVITY

- 4.1 Meaning and nature of personality Theories of personality (type and trait)
- 4.2 Assessment of personality Subjective, Objective, Projective ways of assessment.
- 4.3 Factors influencing personality Integrated personality Teachers role in developing personality.
- 4.4 Intelligence Multiple intelligence assessment of intelligence
- 4.5 Definition, nature and meaning of creativity assessment of creativity.

### **UNIT V: MENTAL HEALTH AND MENTAL HYGIENE**

- 5.1 Definition of mental health Importance of mental health
- 5.2 Conflicts and frustration Adjustment Defense mechanism
- 5.3 Meaning of Mental Hygiene The objective of Mental Hygiene The scope of mental Hygiene
- 5.4 Meaning of Guidance Need for Guidance The purpose of Guidance Educational and Vocational Guidance.
- 5.5 Meaning of counseling Goals of counseling Types of counseling Directive, Non-Directive and Eclectic counseling.

### **Practicals**

Sl.No	Focal Area	Title of the experiment
1		Transfer of Training (Mirror – Drawing)
2	Learning	Maze Learning (systematic –nonsystematic)
3		Span of Attention
4	Attention	Distraction of attention ( using cancellation sheet)
5		Power of recall for Meaningful and Meaning les stimuli
6	Memory	Span of memory – Auditory stimuli
7	Habit	Habit Interference
8	Interest	Kuder Preference Record
9	Aptitude	Differential Aptitude Test
10	Attitude	Teacher Attitude Scale
11	Thinking	Sentence construction
12	Intelligence	A Battery performance Test of Intelligence By – Bhatia

### **List of Reference Books**

- 1. Kuppuswamy B. Advanced Educational Psychology, Sterling Publishers Private limited, new Delhi –1967
- 2. Santhanam. S Teacher and learners, Asian Book Company, Madras 1985
- 3. Kuppuswamy. B. A Text book of Child Behaviour and Development, 2<sup>nd</sup> Rec Edition, Vikas Publishing Hous Ltd., New Delhi-1989
- 4. Boaz, G.D General Psychology, Boaz Institute of Psychological Services 1962.
- 5. Chaube S. P Educational Psychology, Lakshmi narain Agarwal, Agra 1983.
- 6. Hilgard, E.F., Earnest Richard C, Attkinson and RitaL., Introduction to Psychology, 5<sup>th</sup> edition.
- 7. Slavin, R.E. Educational Psychology, 3<sup>rd</sup> ed., Englewood cliffs,N.J: prentice hall 1986
- 8. Stipeck, DJ. Motivation to learn: From theory to practice, Englewood Cliffs, N.J., Prentice-Hall, 1988.
- 9. Weiner.B., Human Motivation, New York: Holt, Rinehart & Winston, 1980.
- 10. Woodworth,R.S and Marquis, D.G., Psychology (5<sup>th</sup> ed.,). Newyork: Henry Holt, 1998.

# CORE PAPER III EVALUATION, RESEARCH EDUCATIONAL TECHNOLOGY AND INNOVATIONS IN EDUCATION

### **Objectives**

- 1. To enable student teachers understand the basic concepts of testing and evaluation.
- 2. To help them understand the taxonomy of educational objectives and write various types of test items.
- 3. To help them understand the basic statistical concepts and their applications in testing and evaluation.
- 4. To help them understand the basic concepts of research as applied to education
- 5. to enable them have the knowledge in different types of research applicable to education.
- 6. To understand the concept of educational Technology.
- 7. To appreciate the growing trends in the system of educational communication
- 8. to become aware of the techniques of improving teacher behaviour.
- 9. To understand the innovative practices in education.

### **UNIT I TAXONOMY OF EDUCTIONAL OBJECTIVES & EVALUATION**

- 1.1 The purpose and place of Evaluation in education Cognitive domain, Affective Domain and Psychomotor domain.
- 1.2 Purpose and place of Evaluation- Types of Evaluation- Formal, informal, oral written, formative and summative.]
- 1.3 Tools of Evaluation observation, Interviews, Rating Scales, Questionnaires & testing.
- 1.4 Different types of Testing –Diagnostic, Prognostic Achievement and Psychological tests; Norm reference and Criterion reference tests. Types of test items .
- 1.5 Characteristics of a good test item Objectivity, Reliability, Validity and Feasibility Steps in test construction Preparation of Blue Pint, writing and editing pre testing item analysis Difficulty level and Discriminating Power administration scoring- interpretation.

### **UNIT II: STATISTICAL CONCEPT**

- 2.1 Tabulation- Frequency table, measures of central Tendency Arithmetic Mean, Median, Mode, Quartiles and Percentiles.
- 2.2 Measures of Variability -Range, Quartile Deviation and Standard deviation.
- 2.3 The normal distribution and its properties- Concept of skewness and kurtosis.
- 2.4 Correlation-definition, meaning and uses, computing the coefficient of correlation by Rank difference method.
- 2.5 graphical representation of data- Bar diagram –Histogram, frequency polygon & cumulative frequency curve.

### **UINT III: RESEARCH AND TYPES OF RESEARCH**

- 3.1 Need and Scope for Research in Education Selection and statement of the problem- review of related literature.
- 3.2 Types of Research Basic, Applied research, Action research-definition and scope steps in action research.
- 3.3 Hypothesis and its place in research outline of a research Design Research proposal.
- 3.4 Research methods Survey, case study Experimental and Historical.
- 3.6 Research Report.

### **UNIT IV: EDUCATIONAL TECHNOLOGY AND COMMUNICATION**

- 4.1 Definition, need scope and role of Educational Technology.
- 4.2 Principle process, methods and role of communication in classroom teaching and learning. Mass communication media and its application criteria for selection of appropriate media.
- 4.3 Teacher Behaviour interaction analysis meaning and scope Tools and methods of interaction analysis. Flander's system of interaction analysis
- 4.4 Modern Communication technology in education: Meaning, scope and choice Projected and non-projected media
- 4.5 Models of teaching- Definition, funtamental elements glascer's basic teaching model and concept attainment model.

### **UNIT V: INNOVATIONS IN EDUATION**

5.1 Innovative practices in Education – Nature, meaning and scope

Micro teaching –Descriptive analysis of skills and practice in classroom – programmed learning techniques.

Audio video technology – language laboratory- teaching machine, CAI and CAL interactive Video teleconferencing

Distance Education. Education through satellite- open universities, Floating Universities

Community schools and polytechniques school complex programs and Navodaya Schools.

#### Reference

- 1. Aggarwal. Y. P. (1992) Research in Emerging fields of education: Concepts, trends and prospects, New Delhi; sterling Publishers.
- 2. John W. Best (1998) Research in Education. New Delhi: Prentice Hall of India (P) Ltd.
- 3. Nagarajan.K and Srinivasan. R (1994) Research methodology in Education. Ram Publishers, Madras.
- 4. Garret, Hendry. E. (1972)Statistics in Psychology and education.Bombay: Vakils, Feffer & simons(P0 Ltd.
- 5. Mangal. S. K (1985) Fundamentals of Educational Technology. Prakash Brathers.
- 6. Sampth. K., Panneerselvam. A., Santhanam.S (1981) Introduction to Educational Technology., Sterling Publishers Pvt.Ltd
- 7. Agarwal. J.C. 1995, Essentials of Educational Technology: Teaching learning Innovations in Education. Vikas Publishing house Pvt. Ltd
- 8. Buch M.B and santanam M.R (1970) . Communication in classroom, Boroda: CASE
- 9. Storurour.L. M (1962) Teaching by machine: Washington D.C; U C printing office.
- 10.Duevin W. R and Holrold C (editors) 1969, Aspects of Education Technology. London: Methuen

### CORE PAPER IV COMPUTER AIDED INSTRUCTION

### Objectives

- 1. To know the common hardware components that functions the computer and the types of software used in computers.
- 2. To understand the architecture of internet and its role in communication.
- 3. To learn the basics of theories and models involved in Instructional Designing.
- 4. To know the basic features of Microsoft PowerPoint and to apply those knowledge in preparing attractive presentations.

### <u>Unit I – Introduction to Computers</u>

Types of Computers – Hardware: CPU, Input / Output Devices, Storage Devices – System Software: Operating Systems, Programming Languages, Application Software – Networks: LAN, WAN, Client-Server

### **Unit II - Internet**

History of Internet – Intranet and Extranet – DNS – Connections: Dial-up, ISDN, DSL, T1, T3, Wireless, and Satellite – Communications: E-mail, Chat, Forum, and Newsgroups – Browsers – Search Engines

### <u>Unit III - Introduction to Instructional Designing</u>

Instructional Strategies: Behaviorism, Cognitivism, and Constructivism – Analysis: Task Analysis, Need Analysis – Writing Objectives: Mager Format, Gagne Briggs Format, ABCD Format – Multimedia and Instruction – Evaluation: Formative and Summative

### <u>Unit IV - Instructional Models</u>

Models: Kemp Model, Instructional Development Institute Model, Interservice Procedure for Instructional Systems Development Model, CRI Model – Information Processing

### **Unit V - Microsoft PowerPoint**

Open a blank presentation, insert text in a presentation, add slides and save a new presentation – Work with slide views, move around in a presentation, check spelling, and templates – Insert objects in a presentation – Move, copy, duplicate and delete slides

Select and align text in a presentation, enhance text appearance, and apply slide color schemes and backgrounds – Copy text formatting, move and copy text, adjust paragraph spacing – Insert Header, footer, and bullets – Work with autoshapes, group and ungroup objects and layer objects – Add organization chart and tables in a presentation – Add transitions, sound and timings – Set up and run a presentation

### **References**

- 1. Absolute Beginner's Guide to Computer Basics, Michael Miller, Prentice Hall, 2004
- 2. Internet & World Wide Web How to program, 3<sup>rd</sup> Ed., H.M. Deitel, P.J. Deitel, et al., Prentice Hall, 2003
- 3. Instructional Technology: Foundations, Robert Mills Gagne, Lawrence Erlbaum Associates, 1987
- 4. www.cudenver.edu/~mryder/itc\_data/idmodels.html
- 5. Instructional Technology: A Systematic Approach to Education, Frederick G. Knirk, Kent L. Gustafson, Holt, Rinehart and Winston, Inc, 1986
- 6. PowerPoint 2007 Bible, Faithe Wempen, Willey Publications, 2007

### CORE PAPER V COMMUNICATIVE ENGLISH

### **Objectives**

- 1. Refresh language skills which were previously acquired.
- 2. Enable students to speak fluently and confidently in a variety of situations for a variety of purposes and audiences.
- 3. Practically applying skills being learned in the present language course for business communication.
- 4. The basic core for the development of language skills is through a language lab. The proposed syllabus will enhance the students 'language skills.
- 5. One of the important aspects in communication and personality impression of the students is pronunciation. This will be enhanced through the aid of language lab and the instructors own drilling exercises.

### **UNIT I - GRAMMAR**

Nouns, Pronouns, Adverbs, Adjectives, Comparative Adjectives, Prepositions, Gerunds, Modal Verbs, Relative Pronouns, Clauses and Phrases, Voice, Sentence Patterns, Simple Present Tense, Present Continuous Tense, Simple Past and Past Continuous Tenses, Formation of Questions, Present Participle, Past Participle – Punctuation.

### **UNIT II - RHETORICAL FUNCTIONS**

Defining , Process Description, Comparison, Stating Problems and Proposing Solutions, Making Checklists, Narrating Events, Asking Questions and Answering.

### **UNIT III - WRITING**

Business Communication (Personal Letters, Official Letters, Letters to the Editor, E-mails, Memo...), Transcoding Graphics(Flowcharts, Fishbone Diagrams, Tables),

### **UNIT IV - VOCABULARY**

Synonyms, Antonyms, hyponymy, homonymy ,polysemy, Compound Nouns, Prepositional Phrases, Prefixes and Suffixes, Use of Reference Words, Sequential Expressions, Discourse Markers, Idioms and Phrases.

### **UNIT V - READING , SPEAKING AND LISTENING SKILLS PRACTICE**

Questions for Oral Discussion, Role Play Exercises, basics of phonetics, Received Pronunciation, Word Stress, tone, intonation.

### Reference:

### **Books**

- 1. Developing Communication skills- Krishna Mohan & Meera Banerji, Macmillan India Ltd
- 2. How to Write and Speak Better Reader's Digest, The Reader's Digest Association Limited
- 3. The Right Word at the Right Time- Reader's Digest, The Reader's Digest Association Limited
- 4. Modern Linguistics, Prof. Krishnaswamy, S.K. Verma, Oxford University Press

#### Websites

Conversation Practice: www.focusenglish.com, Grammar:www.englishclub.com, www.usingenglish.com, www.edufind.com, www.english-the-easy-way.com, Grammar Quizzes- a4esl.org/q/j/

### OPTIONAL PAPERS OPTIONAL -I GENERAL ENGLISH EDUCATION

### **Objectives:**

To enable the trainees to
Understand and appreciate the importance of English
Learn the different methods, techniques and strategies of ELT
Develop the habit of examining cyllabuse and teaching materials critics

Develop the habit of examining syllabuse and teaching materials critically Learn to frame general and specific objective before planning the lessons.

Prepare and use appropriate teaching aids to make teaching more effective.

### UNIT I BASIS, METHODS AND APPROACHES TO ELT

- 1.1 The scene of ELT in India at present
- 1.2 The study of the skills to be attained at the end of secondary school and higher secondary school courses as outlined in the syllabuses.
- 1.3 Factors affecting ELT in India- Teacher –student relationship –Motivation–Student attitude Mother tongue interference- Mixed ability classes.
- 1.4 Grammer Translation method Structural-oral-situational method Communicative approach
- 1.5 Direct method Bilingual method Humanistic approach

### **UNIT II LESSON PLAN WRITING**

- 2.1 Motivation Content learning experience evaluation
- 2.2 Asking questions –teaching aids recapitulation
- 2.3 Prose- poetry -
- 2.4 Grammar- non-detailed text
- 2.5 Composition need for a carefully graded course in writing- controlled, guided and free composition –role of questioning, group discussion and pair work in a composition class correction of composition note books reformulation.

### **UNIT III READING, REFERENCE AND STUDY SKILLS**

- 3.1 Abilities of a skilled reader Silent reading intensive and extensive reading
- 3.2 Intensive and extensive reading reading comprehension Questions types
- 3.3 Expansion of vocabulary through intensive reading teaching of passive vocabulary through extensive reading
- 3.4 Uses of dictionaries uses of Encyclopedia Skimming and Scanning
- 3.5 Note making, summarizing, précis writing SQ3Rs

### UNIT IV TEACHING, LISTENING AND DEVELOPING ORAL FLUENCY

- 4.1 Using prescribed text books for reading loud reading
- 4.2 Using pictures and objects Short speeches and lectures
- 4.3 Role play and dramatization Group work and pair work, debates, Story telling, narrating events Dictation.
- 4.4 Phonetics Sounds of English Vowels –Consonants
- 4.5 Diphthongs- Features of connected speech difficulties of connected speech- Devising exercises like minimal pairs to improve the pronunciation of learners.

### UNIT V WRITING SKILLS AND TESTING

- 5.1 Writing skills Mechanical skills Grammatical skills
- 5.2 Discourse skills judgment skills
- 5.3 characteristics of a good test Backwash effects Testing of grammar
- 5.4 Testing of Vocabulary- Testing of Writing skills -
- 5.5 Testing reading comprehension Testing listening skills.

### Reference:

1. A training for TEFL., OUP (1995) peter Hubbard, Hywel Jones, Barbara Thornton, and E.Wheeler.

- 2. ELT Approaches, methods, techniques, Orient Longman (1996) .Geetha Nagaraj.
- 3. English phonetics and phonology, CUP (1997), Peter Roach.
- 4. About Language: Tasks for Teachers of English CUP (1997), Scott Thornbury
- 5. English grammar: on outline, CUP (1996)Mary Spratt.
- 6. The communicative approach to language teaching, OUP(1979)
- 7. The communicative approach to language teaching, OUP (1979) EJ. Brumfit and K.Johnson.
- 8. Writing OUP (1988) Tricia Hedgo.
- 9. How to increase reading speed, Sterling Publishers, (1994) G.C Ahuja and Pramila Ahuja
- 10. Teach English, CUP (1995), Adrian Doff.
- 11.Literature, OUP (1990) Alan duff and Alan maley,
- 12.English vocabulary in use, CUP (1994), Michael MC Carthy & Felicity. O'Dell
- 13. Guide to patterns and usage in English, ELBS, OUP(1998), A.S Hornby
- 14. The Oxford guide to writing and speaking OUP (1998) John seely
- 15. The text book of English phonetics for Indian students, Macmillan (1990), T. Balasubramaniam.
- 16. Developing reading skills, CUB (1986) Francosie Grellet.
- 17. Teaching English to Young Learners, OUP (1989), John selly.
- 18. Writing English Language Tests, Longman, 1986. J.B Heaton.

### OPTIONAL PAPERS OPTIONAL II SPECIAL ENGLISH EDUCATION

### **Objectives**

To enable the teacher to

- 1. Improve the spoken English, reading ability and writing ability in English.
- 2. acquire knowledge of the basics of linguistics.
- 3. acquire a working knowledge of various aspects of grammer at th higher secondary level..
- 4. get aquainted with materials and modern teaching strategies and techniques appropriate to advanced students of the language.

### **UNIT I: READING, INTENSIVE READING AND RELATED ACTIVITIES**

- 1.1 practice in the use of dictionary (long words, syllabic division, spelling, word-formation, pronunciation, usage, selecting required meaning etc.,) Examining different dictionaries.
- 1.2 Referring to books-use of index-table of contents, sub-headings –surveying contents- various study techniques –quoting from sources. using a library.
- 1.3 Pertaining the overall organization of matter in a written text-so that the main ideas, their relationship and their sequence and the overall meaning of the text are understand.
- 1.4 Reading with detailed understanding to extract the surface meaning, literal or explicit meanings, ( The suggestions and implications of the text, the writer's unstated conclusions, bias or slant and particular expressions like idioms, etc.
- 1.5 Reading for specific purpose-skimming and scanning.

#### UNIT II: SOUND SYSTEM AND EXTENSIVE READING

- 2.1Speech organs and their role the concepts of the phoneme and allophones, the phonemic systems of Tamil and English compared and contrasted.
- 2.2 Varieties and standards of pronunciation of English -
- 2.3 The individual sounds Consonants clusters Sounds difficult of Tamil speakers.
- 2.4Trainees are expected to read a number of novels and short stories as well as simple books written for the layman n a wide variety of subjects- An absolute minimum of 5 full length books should be read during the academic year
- 2.5Trainees are expected to writ book reviews on any 5 of the books they read.

### UNIT III: WRITING AND GRAMMAR

- 3.1 Note-taking from reading practice will be given in note-taking. Summary writing assignment will be given on summary writing.
- 3.2 Practice will be given in the use of abbreviations, symbols, word-compression and word omissions, in picking out salient points while omitting examples and in the ordering the points in such a way as to show the relationship between tem and their sequence.
- 3.3 Grammar: Noun phrase verb phrase Basic sentence patterns
- 3.4 Concord Subordinate clauses Co-ordinate clauses
- 3.5 Relative clauses Transformation of sentences.

### **UNIT IV: LINGUISTICS, STRESS AND INTONATION**

Definition of language – Definition of linguistics

A brief history of linguistics – Various branches of linguistics

Language variations – Transformation- generative grammar.

The nature of word stress and sentence stress. English as a stress-timed language- Stress-timed language

Intonation and meaning – Using tape-recorders and cassettes. – Using computers for learning the pronunciation.

### UNIT V: LITERATR TO TEAH LANGUAGE DIAGNOSTIC TESTS AND REMEDIAL TEACHING.

- 5.1 Poems appreciation of poetry paraphrasing poetry –short stories essays- figures of speech poetic features rhyme scheme-alliteration assonance-idioms-discourse-features
- 5.2 An overview of literary forms-epic-lyric-ode-sonnet-elegy
- 5.3 Meaning of diagnostic and remedial teaching- errors –common errors.
- 5.4 Language spoke and written –disabilities and handicaps
- 5.5 remedial teaching -motivation- teaching pupils at their own level.

#### Reference:

- 1. Guide to patterns and usage in English, ELBS and Oup(1976), A.S. Hornby.
- 2. A training course for TEFL, ELBS and OUP (1976), Peter Hubboard Hywel Jones, Barbara, Thornton &Ro Wheeler.
- 3. Developing reading skills, CUP(1986), Francoise Grellet.
- 4. The oxford guide to writing and speaking, OUP (1998) john seely
- 5. Literature OUP(1990) Alan Duff and Alan Maley.
- 6. Introduction to the grammer of EnglishCUP (1988) Rodney Huddleston.
- 7. English Grammar, An outline CUP (1996) Rodney Huddleston.
- 8. What is linguistics? Edward Arnold Pvt,Ltd (1985) David Crystal.
- 9. A handbook of English grammar, Longmans 1972. R.W Zandvort.
- 10. Teaching language as communication OUP (1978), H. Widdowson.
- 11. About language CUP (1997) Scott Thornburry.
- 12.EnglishVocabulary in use CUP(1996) Michael Mc. Carthy and Felicity O' Dell.

### OPTIONAL PAPERS OPTIONAL: MATHEMATICS EDUCATION

To enable the teacher trainees

- 1. To acquire knowledge of the nature of mathematics and its development.
- 2. To know and understand long term and short term goals of teaching mathematics.
- 3. To develop skill in the formulation of general instruction objectives (GIO) and specific learning outcomes(SLO)
- 4. To understand and practice the different methods and techniques of teaching and develop competency in teaching.
- 5. To develop ability to prepare and use develop competency in teaching.
- 6. To develop the competency to construct and administer diagnostic and achievement tests, to develop competence in evaluation techniques applied to mathematics.
- 7. To understand the principles of curriculum construction with emphasis on content and organization
- 8. To Acquire knowledge of the recent trends in mathematics.
- 9. To acquire elementary knowledge of computers,
- 10.To understand the need for research in mathematics education.

### UNIT I: NATURE, SCOPE, DEVELOPMENT AND GOALS OF TEACHING MATHEMATICS.

- 1.1 Nature of mathematics Precision, logical structure Abstractness, symbolism.
- 1.2 Mathematics and its relationship with other disciplines.
- 1.3 History of mathematics contribution of some Indian mathematicians.
- 1.4 Aims-practical, social disciplinary and cultural.
- 1.5 Objectives GIO's and SIO's related to cognitive, affective and psychomotor domains.

### UNIT II: METHODS OF TEACHING AND LEARNING MATHEMATICS.

- 2.1 Lecture, demonstration, heuristic and project. Inductive, deductive, Analytic Synthetic and problem solving method.
- 2.2 Importance of teaching aids Projected and non-projected aids –improvised aids (paper folding and paper cutting) its specific uses in teaching mathematics.
- 2.3 Lesson plan need, components, uses of lesson plan and unit plan.
- 2.4 Cooperative learning, individualized instruction- programmed learning and computer assisted instruction, Dalton plan.
- 2.5 seminar, group discussion, team –teaching and guided discovery

### **UNIT III: CURRICULUM AND RESOURCES**

- 3.1 Curriculum Principles of selection, organization logical and psychological, spiral and topical.
- 3.2 Text books, reference books and workbooks -importance and qualities
- 3.3 Mathematics teacher- Qualification special qualities required to a mathematics teacher
- 3.4 Library, Mathematics club and its activities.
- 3.5 Analysis of content prescribed for mathematics in standard VIII of Tamil Nadu Text book committee.

### **UNIT IV COMPUTER EDUCATION**

- 4.1 History of computers Block diagram of digital computer
- 4.2 Computer languages (low-level, high level, assembly, machine)

- 4.3 Elementary ideas of flow charts and BASIC Programming.
- 4.4 The use of application software packages Ms office work, excel and foxpro, Access, Power point.
- 4.5 The uses of multimedia and internet and their applications in learning mathematics

### **UNIT V: EVALUATION AND RCENT TRENDS IN MATHEMATHICS**

- 5.1 Construction and importance of achievement and diagnostic tests.
- 5.2 Diagnosis and remediation of student difficulties in learning mathematics.
- 5.3 Individual difference in mathematical ability factors contributing ways of meeting their needs.
- 5.4 Contributions of Piaget, gagne and Bruner to the teaching of mathematics.
- 5.5 Recent trends in mathematics education.

### Reference

- 1. Kulbir Singh Sidhu (1995) 'The Teaching of Mathematics' Sterling Publishers (P) ltd, New Delhi.
- 2. Chauhan. S. S (1979) Innovations in Teaching o Learning Process . Vikas Publishing house (P) ltd.
- 3. Four authors (1994) " The Teaching of mathematics prakash Publishers Regd- Ludhiana.
- 4. Balaguruswamy Programming in Basic Emerald publishers Madras.
- 5. Faunce C. Ronald & Bossing I. Nelson Dveloping the core curriculum Prentice Hall Inc., Newyork-53
- 6. Vedanayagam.EG. 'Teaching Technology for college Teachers' Sterling Publishers (p) Itd New Delhi
- 7. Slauin R.E. 'Teaching –Learning Strategies and mathematical creativity Mittal Publications (1998)
- 8. Pillai S. Velayudham and Srirangan. K. (1994) Computer programming in Basic and Fortron, Emerald Publishers Madras

### OPTIONAL PAPERS OPTIONAL: PHYSICAL SCIENCE EDUCATION

### Objectives

- 1. To acquaint the student teachers with the objectives of teaching physical science in secondary and higher secondary schools and help them to plan learning activities according to these objectives.
- 2. To give practice to the student teachers in the use of hard and software relating to technology of teaching.
- 3. To guide the student teachers in acquiring specific skills relating to the teaching of physical science, planning the lessons and presenting them effectively.
- 4. To help the student teachers to understand the principles of curriculum construction and examine critically the syllabi in physical science of the secondary and higher secondary classes.
- 5. To help the student teaches to understand the evaluation techniques and prepare objectives based items to assess the achievement and progress of pupils.
- 6. To acquaint them with the knowledge of development of intelligence through science and steps put forward by Piaget.
- 7. To guide the student teachers in maintaining the science laboratory effectively and the method of purchasing equipments and chemicals to the physical science laboratory.
- 8. To develop teaching and organizational skills in physical science.
- 9. To expose the impact of physical science in modern world.

#### **UNIT I: INTRODUCTION**

- 1.1 Nature and scope of physical science: a body of knowledge and method of enquiry physics and chemistry as process and product- Interdisciplinary app
- 1.2 Physical science and environment values of physical science in relation to environment.
- 1.3 Aims and objectives of teaching physical science- cognitive, affective and psychomotor Domains-
- 1.4 Specifications and Instructional objectives and behavioural objectives
- 1.5 Objectives -knowledge -attitude good habits and skills.

### **UNIT II METHOTOLOGY AND LESSON PLAN WRITING**

- 2.1 Textbook method Lecture method lecture cum demonstration –Individual practical work- project method specific methods.
- 2.2 Heuristic methods- Historical and biographical method. Modern methods of teaching physical science,
- 2.3 Illustrated lectures by students guided by the teacher Discussion method Seminar symposium –workshop assignment method.
- 2.4 Supervised study team teaching- teaching for creativity.
- 2.5 A course in physical science- principles of lesson planning- Importance of lesson planning- planning for specific behavioral change- herbatian steps preparation and analysis of some lesson plans.

### **UNIT III AUDIO-VISUAL AND ENRICHMENT OF MATERIALS**

- 3.1 Importance of Audio Visual aids Principles of Selection and uses- hardware and software audio aids, Visual aids their uses in education.
- 3.2 Importance of self-learning devices programmed learning-
- 3.3 Principles & styles role of computer in teaching physical science.
- 3.4 Content enrichment in laws of motion & sources of energy, radioactivity and artificial nuclear Transformation
- 3.5 Acid, Base, Salts, concept of oxidation and reduction Atomic structure.

### **UNIT IV: CURRICULUM DEVELOPMENT AND LABORATORY**

- 4.1 Definition principles of curriculum development organization psychological, spiral, Concentric and Unitary methods.
- 4.2 curricular models PSSC and chem..Study- curriculum for IX, X, XI and XII standard content portion.
- 4.3 Physical Science Laboratory selection of physical facilities and planning and equipping organization and maintenance of laboratory –
- 4.4 Storage and chemicals Records to be maintained -
- 4.5 Improvisation of apparatus accidents and first aid.

### UNIT V: ACHIEVEMENT TEST, PROFESSIONAL TEACHING AND PERSONALITY OF PHYSICAL SCIENCE TEACHER

- 5.1 Achievement test in physical science- Essay and objective tests construction and uses of tests –
- 5.2 Hall marks of a good test different forms of tests Multiple choice Matching, completion, grouping, true or False. Tests involving figures.
- 5.3 Academic qualification- professional teaching- clarity of thought and expressions interest in the subject love for pupils Sincerity and open mindedness.
- 5.4 Desire to learn and participation in In-service course role models of a good science student. management of science class
- 5.5 Personality and dress attention to individual differences- encouragement to pupils giving importance to problems raise by students. Self evaluation of teaching- maintenance of records Evaluation of teachers by pupils by informal talk and questionnaire.

### **Practicals**

- 1. Preparation of instructional materials for at least one unit in physical science
- 2. Demonstration of at least few important experiments in the classroom.
- 3. Drawing up of a list of experiments in physical science for a particular grade.
- 4. Preparing a programmed instructional material for any new unit.
- 5. Building a picture file, a science news album.
- 6. Biography of important scientists, collection of charts

#### References

- 1. Davell Barnard J. "Teaching of High School Science", National Education, Washington Association.
- 2. Dess, G, "Teaching of Science", Oxford University press.
- 3. Edgar Dale, "Audio Visual Methods inTeaching:. Hodl, Rinhart Inc. New york.
- 4. Heiss, Obourn and Hoffman, "Modern Science Teaching" Macmillan.
- 5. NCERT, "General Science Handbook of Activiites" VI, VII Classes.
- 6. PSSC "Physics Textbook Laboratory Manual, Teacher's Guide", NCERT.
- 7. Rao, C.S "Science Teachers Handbook", American Corporation Pub.

### OPTIONAL PAPERS OPTIONAL: BIOLOGICAL SCIENCE EDUCATION

### **Objectives**

- 1. To develop necessary competence in teaching the subject in trms of methods skills and techniques.
- 2. To enable the student teachers to understand the basic principles of the biological science education at secondary and higher secondary level.
- 3. To gain knowledge in acquainting and administering a biology laboratory, curricular and co-curricular activities
- 4. To acquire skills in making aids, preparing instructional materials and using audio visual aids

### **UNIT I: INTRODUCTION**

- 1.1 Present status of biological science as a subset study in high schools and secondary schools scope of the study.
- 1.2 Various branches of biology and the interrelationship with other subjects.
- 1.3 Changing trends in biology Education-traditional setting science and society Axis Science for all science and development International commission on education further outlook learning societies humans, Environment and sustainable society
- 1.4 Aims and objectives of teaching biology at primary, Secondary and higher secondary levels.
- 1.5 Values of teaching biology problems in teaching biology the discoveries in biology till date

### **UNIT II CURRICULAR AND CO-CURRICULAR ACTIVITIES**

- 2.1 General and specific Instructional objectives and their taxonomy advantages behavioural terms- knowledge, comprehensive, skills, scientific Interest and appreciation
- 2.2 Lesson plan- definition, need, advantages criterial for a good lesson plan Herbartian steps preparation of lesson plan- unit plan definition –model unit plan –advantages.
- 2.3 Curriculum –definition –Principles in the construction of biology curriculum selection and arrangement of topics at various levels B.S.C.S and nffield scienc projects N.C. E.R.T Curriculum defects of the present biology curriculum.
- 2.4 Need and importance of co-curricular activities in biology biology cluborganization various activities biology study circles- scientific hobbies- need and importance of –list of hobbies in biology- biology exhibition organizations advantages.
- 2.5 Biological science Talent Research Objectives –abilities and skills to be tested –method of selection.

### **UNIT III:TECHNOLOGY OF TEACHING AND ALLIED ACTIVITIES**

- 3.1 Problem solving approach –definition various steps involved –selection of problems and solving scientific attitude- fostering ways and means to develop scientific attitude.
- 3.2 Laboratory method –definition –planning Laboratory to high, higher secondary school- conducting practical work and its importance physical facilities- Chemical stains and veagents preservative technique-prepartion of permanent and temporary mounts advantages of laboratory method.
- 3.3 Laboratory assistant and duties Maintenance of registers care and maintenance of apparatus safty rule –Laboratory accidents –prevention and first aids.

3.4 Internet –meaning –flow of information –characteristics of internet – uses of internet in teaching and learning biology – some internet services (ERNET, Soft net GIAS, NICNET)

3.5 Project method – definition – different steps- criteria for a good poject – purpose-different types of project – selection of project at primary secondary and higher secondary level – merits and demerits.

### **Unit IV Audio-Visual Materials And Teaching Aids**

- 4.1 Importance of audio-visual materials in teaching biology –OHP, Epidiascope, Film strip projects, Micro projector, 16 mm Film and Loop projector- 35 mm projector, Flims and Film strips
- T.V C.C.T.V Teleconferencing, computers, compact disc-importance in teaching biology.

Charts –still pictures – Flat pictures – photographs- Flash cards –text books – chalk boards- roller board- flannel board – bulletin board – magnetic board loop and hook board – peg board –the importance in teaching biology. Models –Mock Ups – Dummy – Real objects specimen – Diorama-sand table- puppets.

Improvisation in biology – Characteristics of improvised materials – material useful for activities – tools needed for making apparatus – merits and demerits.

Insect box – herbarium –micro slides- aquarium, terrarium, vivariumorganizations – educational values.- Magnifying aids – microscopes-hand lenslight microscope - uses in biology

### **UNIT V: GUIDANCE AND COUNSELLING IN BIOLOGY**

- 5.1 Diagnosis of student difficulties in learning biology
- 5.2 Guidance and counseling purpose of student counseling need of counseling situations of counseling needed.
- 5.3 Suitable remedial measures the role of biology teacher Head Master public in providing guidance and counseling in biology activities
- 5.4 Identification- slow and gifted learners counseling needed for slow learners- Guidance at the primary stage Secondary stage
- 5.5 Vocational, Educational guidance and its importance in biological science

#### Practical

- 1. Design and carry out simple investigator projects in Biology.
- 2. preparation of improvise Biology model.
- 3. preparation of Charts, Micro slides, herbarium, stuffed animal invertebarate,
- 4. Preparation of food items (any three): preparation of janatha fridge.

#### Reference

- 1. Dass. R. C (1992) Science teaching in schools. New Delhi: sterling publications.
- 2. Vedanayagam (1994) Teaching technology for college teachers. New Delhhi. sterling Publishers.
- 3. Chand. Tara (1992) Educational technology. Allahabad. Horizen Publishers.
- 4. Anju soni. Teaching of biology / Life Science Tnadon publications Ludhiana.
- 5. Cima.M Yeole (1991) Educational Technology. Kolhapur.
- 6. Oberoi. S.C (2004) Educational Technology. New delhi. Arya book depot.
- 7. Jaganath Motianthi (1992) Educational Technology. New Delhi. Deep & Deep publication
- 8. Kochhar. S. K (1996) Guidance and Counselling in college and universities. New Delhi Sterling publishers pvt Ltd.
- 9. Kohli. V. K (1969) Teaching of Science. M/s Krishna Bros. Amirstar: Hall Bazar.

10.Rai B.C (1983) Method of teaching Science. Lucknow:Prakashan Kendra Sitapur road.

- 11. Raj Gopa. K (1978) Teaching biology. Govt of tamil nadu.
- 12.Ratho.T.n & Ravi Prakash (1996) Emerging trends in teaching biology. Horizon Publishers. Allahabad.
- 13.Sampth.K and others(1992) Introduction to Educational Technology. New Delhi Sterling publishers
- 14. Sharma R.C (1975) Modern Teaching Science Deltil .Jullunder. J.C Kapur for Dhanpet Rai & sons.
- 15. yadav.K (1993) Teaching of life science. Allahabad. Horizon Publishers
- 16. Yadav. M.S. (1992) Teaching of science. Agra. H.P Bhargava Book House

### OPTIONAL PAPERS OPTIONAL: HISTORY EDUCATION

### **Objectives**

- 1. To enable the students to develop and apply effective instructional strategies in history.
- 2. To help them familiar with the application of advanced technology in teaching-learning history.
- 3. To help them acquire the knowledge in preparation and management of suitable aids materials, equipments for teaching history and analyse the subject matter of history prescribed for the standards IX and XI

### **UNIT I: INTRODUCTION**

- 1.1The meaning and scope of history History as a special field of study History of history and historiography.
- 1.2 Different conceptions history Biographical conceptions. History as a record of the past evolutionary conceptions. Implications of these conceptions to teachers. History as a science.
- 1.3 Specific aims on the various stages.
- 1.4 Values Informative, Educational, Ethical, Cultural, Disciplinary vocational
- 1.5 A thorough study of the subject matter of syllabus for std IX and X

### UNIT II METHODS OF TEACHING HISTORY AND LESSON PLANNING

- 2.1 Text book recitation and the lecture- The oral lesson- a) the induction lesson. -b)Socialised recitation.
- 2.2 Problems and projects the laboratory method The source method Dramatisation
- 2.3 Supervised study and Dalto plan. Ways of making the past real
- 2.4 The need for lesson planning Principles of lesson planning.
- 2.5 Steps formation of educational objectives selection and organization of concepts and aids- students activity and teaches role –recapitulation and assignment. Evaluation different forms of lesson plans.

### **UNIT III GENERAL ASPECTS OF TEACHING HISTORY:**

Dimensions of history, continuity, development, time, place.

Geographical foundation of history.

Chronological divisions of history.

Doctornine of natural taste and interests. – Culture epoch theory. – Proceeding from near to remote.

The ideal approach –reconciliation of the psychological development of the child with demands of the time.

### UNIT IV ORGANIZATION OF MATERIALS, EQUIPMETNT AND RESOURCES

- 4.1 Chronological and periodical The concentric and spiral
- 4.2 The unit and the topical Regressive plan.
- 4.3 Text books Collateral reading Library Audio visual aids -
- 4.4 History room Field trips.
- 4.5 Community resources Current events- Evaluation History teacher- Pupils record.

### UNIT V: APPLICATION OF EDUCATIONAL TECHNOLOGY AND ACHIEVEMENT TEST IN HISTORY.

- 5.1 Programmed learning Linear, Branching and mathematic programmes.
- 5.2 Cooperative learning and methods of using it in teaching history .
- 5.3 Computer applications in teaching history.

5.4 Achievement test in History Education – Essay and objective type tests – construction and uses of tests – Hall marks of good test

5.5 Different forms of tests – Multiple choice – matching- completion-Grouping-True or False. Test involving figures.

#### References:

- 1. Bruce Joyce and Marisha Weil. 1985 Models of Teaching. New Delhi: Prentice Hall of India.
- 2. Kaushik, Vijayakumari 1997. Essential of Teaching and Learning. India Bhagaua Pub.
- 3. kochar S.k 1998 Social Science in actual practice India Sage Pub.
- 4. Steven Bruit 1998. School and Society. India: Sage Pub.
- 5. Verma Rameshetal 1998. Modern trends in Teaching Technology. India Bhagaua pub.

### OPTIONAL PAPERS OPTIONAL: GEOGRAPHY EDUCATION

### **Objectives:**

- 1. To enable the students to develop and apply effective instructional strategies in geography.
- 2. To help them familiar with the application of advanced technology in teaching learning geography.
- 3. To help them acquire the knowledge in preparation and management of suitable aids materials equipments for teaching geography prescribed for the standards IX and XI

### **UNIT I INTRODUCTION**

- 1.1 Modern Geography its definition, its importance in the present day world world various branches of geography.
- 1.2 Aims and objectives of teaching geography in behavioural items cognitive domain- knowledge comprehension application analysis world mindedness: appreciation and interest- psychomotor skills.
- 1.3 Purpose of teaching geography in the elementary, secondary and higher secondary stage.
- 1.4 Correlation of geography with the other subjects of the curriculum.
- 1.5 Geography room –needed for it-minimum requirements –equipments etc.,

#### **UNIT II LESSON PLANING AND CURRICULAR ACTIVITIES**

- 2.1 Organisation of a lesson unit-lesson plan-teaching notes-notes of a lesson.
- 2.2 Communication skills particulars to geography-macro lessons -cycle of operational plan.
- 2.3 Skills of using visual aids with special reference to maps-different kinds of maps, graphs, diagrams- statistical diagrams-interpretation of maps-use of map in the classroom.
- 2.4 Educational technology, use and principles of –Hardware-films and film strips-tape recorder-television
  - 2.5 Software-Black board picture -globes and need for improvised aids.

### **UNIT III INSTRUCTIONAL TECHNIQUES**

Traditional ways – modern methods – individual methods – group methods Induction method – comparative method – method of using current events – Regional method.

Knowledge of the treatment of the following in the high school and higher secondary school syllabi – Weather and climate, Mathematical Geography –land forms- Economic and commercial – population geography.

Geography teacher: the pivotal position of geography teacher.

Essential qualities in a geography teacher, professional growth of geography teacher.

### **UNIT IV ORGANISATION OF MATERIALS**

- 4.1 Importance of observation–Excursion-school-journeys-exp-concept –direct study.
- 4.2 Instructional materials Textbooks, Library, Meseum
- 4.3 Evolution in geography: concept on evolution-objectives of evolution-construction of tests-tools of evaluation-use of statistics in evaluation-interpretation of list results self-evaluation-students evaluation.
- 4.4 Self learning devices –techniques of programmed learning Classroom climate class management methods of arranging practical classes developing leadership equalities-training of teachers for effective roles.

4.5 Importance of arrangements in geography-value and views of practical note books –geography home work including types of work and time allotment.

### UNIT V METHOTOLOGY OF TEACHING GEOGRAPHY AND TESTS

- 5.1 Geography syllabus –principles of selection and organization of subject matter.
- 5.2 Principles of curriculum development in geography-curriculum construction.
- 5.3 Test measurement and evaluation in teaching and learning geography.
- 5.4 Achievement test type test –objective type test –merits and demerits.
- 5.5 Characteristics of good achievement test –Blue print criterion referenced test and norms reference test-interpretation of test scores, mean S.D., Correlation among scores.

### **Practicals**

The student may be asked to maintain records of the activities such as those suggested in higher secondary schools. The following are some of the activities.

Working model – Non-working model – Maintenance of records – weather, interpretation of climatic data-unusual phenomena –diagramatic representation of facts and figures.

Designing a proforma for self evaluation and students evaluation.

### OPTIONAL PAPERS OPTIONAL: SOCIAL SCIENCES EDUCATION

### **Objectives**

- 1. The student teacher develops an understanding of all topics that he has to teach in social sciences
- 2. Aims and values, instructional objectives and methods of teaching such topics.
- 3. The procedures for developing school curriculum.
- 4. Curriculum activities pertinent to the teaching of social science.
- 5. Modern techniques of teacher-preparation for effective teaching and for evaluation.

### **UNIT I: NATURE AND STRUCTURE OF SOCIAL SCIENCES**

- 1.1 History meaning definition, nature, characteristics of social sciences.
- 1.2 Different conception of History-Biographic and evaluating. Conception: Social sciences as evaluation philosophical economic and social and as evaluation of civilization. Social sciences as a record of the past –relevance to present and future. –scope of social sciences-dimensions of History-continuity development time, place, idea.
- 1.3 Social sciences as a Science and Art.- Correlation with other subjects.-Teaching and learning of Social sciences – year plan, unit plan and lesson plan – need
- 1.4 Formulation of performance –objectives –books and ideas makers views cognitive affective and psychomotor levels.
- 1.5 Values-practical, cultural, ethical, disciplinary values of teaching history

#### **UNIT II INSTRTIONAL STRATEGIES**

- 2.1 Traditional methods lecturer, oral, recitation, review, drill, story telling-inductive and deductive story telling.
- 2.2 Modern methods laboratory methods, demonstration, role play and dramaitization, -historical method.
- 2.3 Project method and problem solving approach- discussion and socialized methods: small group, panel buss session, seminars, workshops, symposia.
- 2.4 Field trip and excursions team teaching, group learning and individual learning.
- 2.5 Social science teacher-characteristics and tools preparation-year plan-Unit plan and lesson plan.

### **UNIT III CURRICULUM DESIGNING**

- 3.1 Selection –organization and radiation of subject content principles to be followed the linear, or spiral and the concentric types of curriculum, logical psychological organization Need for choice of materials in the syllabi Curriculum revision.
- 3.2 Curriculum improvement enriched curriculum-assessment of different school curricula. Homogeneous grouping Dalton play improvised study. Theories influencing selection of materials doctrine of natural taste and interest- cultural epoch theory –proceeding form near to remote etc.,
- 3.3 Curriculum improvement enriched curriculum –assessment of different school curricula. Homogeneous grouping Dalton play improvised study- Theories influencing selection of materials doctrine of natural taste and interest cultural epoch theory proceeding from near to remote.
- 3.4 Equipment /resources: Collateral reading books. Social science club and its activities- social science textbook –preparation qualities.
- 3.5 Teachers guide social sciences room with globe, maps, models etc., social science guest lectures by eminent social scientists.

### **UNIT IV LEARNING STRATEGY**

- 4.1 Assignments –oral, written and drawing forms-workbooks –preparation of models and specimens.
- 4.2 Visits to related fields-temples-museums, Art galleries, Exhibitions. Collection of specimens-stamps coins.
- 4.3 Reading of books, historical novels, magazines, news papers and learning from other media.- self learning material and using instructional materials
- 4.4 Radio, Record player and the cassette recorder.- slide projector, film strips projector, the OHP and sound film projector.
- 4.5 TV VCR. Use of computer in social science education Need for improvised aids.

### **UNIT V CONTENT, RECENT TRENDS AND EVALUATION**

The subject content prescribed for classes VIII, IX, X,XI and XII by the T.N Text book society.

Recent trends in social sciences-education-evaluation of social sciences education –civic, political, social economical, geographical, historical points of view.-

Diagnostic and remedial teaching.

- 5.4 Achievement test type test –objective type test –merits and demerits.
- 5.5 Characteristics of good achievement test –Blue print criterion referenced test and norms reference test-interpretation of test scores, mean S.D., Correlation among scores.

#### **Practical work**

- 1.Prepartion of instructional material for any one unit in one of the subjects of social sciences.
- 2. Dramatization of certain important events given in any one of the subjects of social studies.
- 3. Evaluation of a text book in any one of the subject of social sciences.
- 4. Preparation of self-learning materials, C/I and Units for one unit, scoring tabulation and interpretation.
- 5. Preparation of one and each in the following categories –maps –charts –slide and models.
- 6. Bulletin boards –Building up a picture album –Improvised aids Excursions and visits to place of sociological importance.
- 6. Participation on social studies club activities.

### References

- 1. Willy E.B, "Teaching social studies in High Schools" Health & Co.
- 2. Binny &Binny, "Teaching the social studies in Sec. Schools," Mc Graw Hill Book co., Newyork 1952.
- 3. Smith-Et-al, "Educational Encyclopedia", prentice Hall, New York, 1961.
- 4. Bhattacharya Srinivas and Daiji, D.R "Teaching Social Studies in Indian schools", Baroda, Acharya Book Deport.
- 5. Erning C. Arthru and Binding David (1952),"Teaching social studies in secondary schools. New yorK. Mc Graw hill Book Co

### OPTIONAL PAPERS OPTIONAL I : HOME SCIENCE EDUCATION

### **Objectives:**

- 1. To help the teacher trainee understand and appreciate the importance of study home science at the secondary and higher secondary levels.
- 2. To help them realize the role of home science in shaping the personality of an individual.
- 3. To help the teacher trainee develop the skill in planning the lesson.
- 4. To familiarize the teacher trainee with the different techniques of teaching and evaluation in home science
- 5. To promote the skill of preparing objective based question paper for different topics in home sciences.

### UNIT I: INTRODUCTION TO HOME SCIENCE EDUATION

- 1.1 Nature and structure of Home Science relevant to family work -
- 1.2 History of Home Science education Need for Home Science for Women.
- 1.3 Home Science as a subject in the academic structure relationship with the other subjects.
- 1.4 Aims, Goals, objectives and values of Home Science education Objectives Cognitive and psychomotor on Bloom's model in Home Science at different levels, primary secondary higher secondary and at the college in relation to the needs of pupils and society.
- 1.5 Annual plan, Unit plan and lesson plan preparation of lesson plan.

### **UNIT II: INSTRUCTIONAL AND LEARNING STRATEGIES**

- 2.1 Instructional strategies in teaching Home Science, heuristic method, Dalton plan, Individualized instruction –
- 2.2 Individual projects home projects, supervised study, team teaching, lecture, demonstration, discussion, seminar, symposium, role play –
- 2.3 Practice of micro teaching for any fie skills relevant for teaching link practice Home Science Home Science teacher characteristic Role.
- 2.4 Learning strategies Assignment Problem solving , using Radio, TV, Filmstrip, Audio tape, charts displays, models, improving aids,
- 2.5 Usage of CAI, Mid-day meal programme nutrition, oxtons in programme, adult education programme.

#### **UNIT III CURRICULUM DESIGNING**

- 3.1 Curriculum Designing selection- organization and up gradation of subject content.
- 3.2 Principles to be followed linear , spiral and concentric types of content selection- logical and psychological organization
- 3.3 Need for choice of material in the syllabus curriculum revision improvement –assessment of different school curricula.
- 3.4 home science exhibition, Home science club, Home science Lab, equipping the lab, organizing and its maintenance –records, registers to be kept, Home text of books and reference books.
- 3.5 Principle and criteria of good text books, review of books used, Text books Library Organization, storage and use Guest lectures by eminent Home Scientists CAI in Home Science

### **UNIT IV: INSTRUCTIONAL AIDS AND CONTENT ANALYSIS**

- 4.1 Radio, Record player, cassette Recorder, Slide Projector
- 4.2 Software, TV, VCR, DVD, and other electronic devices
- 4.3 Charts, diagram, Specimen, Need for improvised aids.

4.4 Analysis of content prescribed for Home science for XI and XII stds, by Tamil Nadu Text Book Society.

4.5 Recent trends in Home Science Education

### UNIT V: ACHIEVEMENT AND DIAGNOSIS TESTS IN HOME SCIENCE EDUCATION

Essay and objective type tests – Advantages and limitations

Norms referenced and criterion referenced – Power and sapped test

Oral pronunciation and fluency tests – Reading comprehension test

Blue print construction for achievement test – Characteristics of good test – interrelationship of test results –

Mean, SD, Correlation, Need for continuous evaluation - cumulative record card - diagnosis and Remedial teaching.

### **Practicals**

- 1. Teacher trainee is expected to give minimum of 12 lessons in topics from nutrition, children, home management, textiles and clothing, first aid and home nursing.
- 2. practical are to be arranged to textiles and clothing home management record is to be maintained
- 3. Organizing of exhibitions
- 4. Demonstrations of food preparation for infants, pre-schools and adolescents to rural community.
- 5. Preparation of teaching aids in relation to Home Science clubs.
- 6. Preparation and administration of achievement test in unit scoring tabulation and interpretation of results.

#### **Reference Books**

- 1. Achar, S.T. (1959) "Child- care in India neighboring Countries". Madras. Macmillian & ci., Ltd.
- 2. beryl Ruth. (1967). Teaching Home Economics. London: Heinerman Denl.
- 3. Bondi. H and Others. (1969) Birth of a Baby. Marshall Vavendish. London.
- 4. Bowlby.J. (1961)Child –care and the Growth of Love. Penguin Books USA, 1961.
- 5. Colos. N.J (1949) About your Home. Blackie and Sons. London.
- 6. Dentyagi Susheela,(1968) "Fundamentals of Textiles and their Care. Madras: Orient Longmans
- 7. Devads Rajammal P. Teaching Home Science in Secondary Schools. (Revised Edn) New Delhi: NCERT.,

### OPTIONAL PAPERS OPTIONAL -II HOME SCIENCE EDUCATION

### Objectives

- 1. To help the student teacher of Home Science to understand the need for teaching Home Science in Secondary and Higher Secondary schools
- 2. To make them realize that home, school and community are joint laboratories in developing them as worthy citizens.
- 3. To impart knowledge of the different steps involved in the various methods of teaching
- 4. To enable the student teachers to acquire skill in planning a lesson with reference to methods and instructional materials and presenting them effectively.
- 5. To familiarize the students with recent trends in evaluation as applied to Home science and to prepare objective based test items to evaluate the achievement and progress of pupils.
- 6. To enable the student-teacher to understand the principles of curriculum organization in secondary and higher secondary schools.
- 7. To enable the student teacher to realize the value of Home Science in contemporary life.
- 8. To familiarize the student teacher with the organization and maintenance of the Home Science department.
- 9. to help the student –teacher to develop an analytical and creative mind and make them effective members of the home, the school, the community and the profession.

### **UNIT I: DEVELOPING LEADERSHIP AND METHODS OF INSTRUCTIONS**

- 1.1 Understanding adolescents the role of home, community and the teacher Securing discipline, sharing responsibility.
- 1.2 Developing leadership of teachers for effective roles Group work in practicals.
- 1.3 Individualized instruction assignment, supervised study, individual project and home project, programmed instruction and computer assisted instructions.
- 1.4 Group techniques Lecture Project Discussion Seminar dramatization experimental method.
- 1.5 Field trips and excursion- exhibition- educational games and puzzles team teaching.

### **UNIT II: PROGRAMMES OF NUTRITION & MALNUTRITION.**

- 2.1 Acquainting teachers with programmes of Nutritious Noon Meal Scheme Applied Nutrition programme
- 2.2 Adult Education programme World Food Day ICDS .,
- 2.3 Role of international agencies in the Nutritional programmes.
- 2.4 Critical problems India is facing at present malnutrition Over population communicable diseases. Causes and prevention of the above.
- 2.5 Need for the inculcation of values

### **UNIT III: HOME SCIENCE TEACHER**

- 3.1 The Home Science Teacher Qualification Duties and responsibilities to school and community and professional growth.
- 3.2 Problems faced by the Home Science teacher- Lack of Text books, Hob opportunities.
- 3.3 Home science department, organization and maintenance of Home Science Laboratory

3.4 Planning an all – purpose room –management of the department – records and registers.

3.5 Home Science Association of India, In service training, self evaluation of the teacher – need to design a self evaluation proforma.

# UNIT IV HOME SCIENCE TEACHING LEARNING ENVIRONMENT

- 4.1 Classroom climate Teacher dominated pattern Laissez faire pattern and democratically planned pattern
- 4.2 Significance of the classroom climate class room Interaction analysis.
- 4.3 Student evaluation Rationale for student evaluation Teacher pupil attitude.
- 4.4 Factors affecting criteria for evaluation based on student perception and teacher perception
- 4.5 Modification of teacher behaviour and development students growth.

## **UNIT V: MEASUREMENT AND EVALUATION**

- 5.1 Construction and Standardization of an achievement test in Home Science-
- 5.2 Blue print- Norms Reliability and Validity item analysis.
- 5.3 Graphic representation of data- Bar and Pie diagram Histogram Frequency polygon- Cummulative frequency Graphic and ogive Curve.
- 5.4 Objective based testing –Evaluation of teachers- rating by supervisors or colleges Evaluation by pupils- Self evaluation Comparing performance with lesson plan-
- 5.5 Teacher dominated pattern- Democratic pattern Laissez faire pattern Interaction Analysis (F.I.A.S)

**Note**: Students of optional "Home Science" are to be familiarized with the latest – Tamil Nadu Curriculum for "Nutrition and Dietetics", prescribed for Higher Secondary Classes.

# **Practical Work**

- 1. Presenting demonstration lessons to the peers in selecting topics from Home Management, Foods and Nutrition, Textiles and Clothing and Child Development.
- 2. Undertaking minor projects.

#### References

- 1. Devadas. R. P( 1978) Methods of Teaching Home Science, NCERT.
- 2. Devadas.R. P (1950) Teaching Home Science in Secondary Schools. New Dehi NCERT.
- 3. Evans. Home Economics. (1971) Teaching- Schools Council Curriculum Bulletin 4 methuen Education Ltd.,
- 4. Flek. H. Towards Better Teaching of Home Economics. New York. The Macmillan Co
- 5. Gobson.Jauice. T (1968) Educational Psychology: A Programmed Text, NewYork, Appleton Century Crafts.
- 6. Hall and Paulcci.(1968) Teaching of Home Economics. New Delhi. Wiley Easstern Private Ltd.,
- 7. Hatcher. H.M & Andrew. (1945) The Teaching of Home Making. London. Houghton Miffin & Co.,
- 8. Kulandaivel. K (1968) Audio Visual Aids. Coimbatore. Sri Ramakrishna Mission Vidyalaya.
- 9. Paintal.Iris. (1980) Microteaching: A Handbook for Teachers. Madras. Oxfort University Press
- 10.Passi.B.K Becoming a Better Teacher: Micro teaching approach(1976) Muranja.

11. Williamson. M.E. and Lyle M.S. (1954) Home Making Education in the High School, Appleton New York: Country Crafts.

12.Perspective in Home Science. (1977) The Silver Jubilee Celebration Committee, Coimbatore: Home Science Association of India.

# OPTIONAL PAPERS OPTIONAL I: COMMERCE AND ACCOUNTANCY EDUCATION

# **Objectives:**

- 1. To help the teacher trainees to acquire knowledge of nature and scope of commerce and Accountancy.
- 2. To understand the aims and objectives of teaching commerce and accountancy.
- 3. To develop micro teaching skills and understand the different methods, skills and techniques of teaching.
- 4. To know the preparation and use of audio visual aids in commerce teaching.
- 5. To implement the methods of evaluation, construct and administer the achievement and diagnostic tests.

## **UNIT I: COMMERCE EDUCATION - AN INTRODUCTION.**

- 1.1 A brief survey of the development of commerce education Nature of commerce and accountancy with special reference to Higher Secondary School Curriculum Development of commerce curriculum in Taiml Nadu.
- 1.2 Practical, social, cultural, moral, disciplinary and vocational values of teaching commerce and accountancy. Need for commerce and accountancy education importance.
- 1.3 Aims and Objectives of teaching commerce and accountancy subjects base for the development of the objectives through the appropriate learning experience-
- 1.4 Bloom's Taxonomy of educational objectives Classroom objectives of teaching commerce- General instructional objectives and specific learning outcomes relating to the objective affective and psychomotor domain.
- 1.5 Cognitive aspect like attention, perception and concept formation with reference to teaching of commerce and accountancy.

# UNIT II: MICRO TEACHING AND METHODS OF TEACHING COMMERCE AND ACCOUNTANCY.

Micro teaching – need for micro teaching – components – skill of explaining, stimulus variation, black board writing, reinforcement, illustrating with examples, - advantages of microteaching.

Traditional methods – lecture, demonstration, Heuristic, Story telling, Biographic and project method.

Modern Methods – Team Teaching, seminar, symposium, workshop, debate, panel discussion and group discussion.

Individualized instruction methods – supervised study – use of source materials- programmed learning –linear and branching programmes – case studies - their applicability to the teaching of commerce and accountancy.

Computer Aided Instruction (CAI) – Role of teachers in individualized instruction. Teaching for concept mapping and cooperative learning.

# UNIT III: APPROACHES AND SYSTEMS OF COMMUNCATION AND MODERN ACCOUNTING SYSTEM

- 3.1 Communication- principles and barriers of communication principles of modern communication informal and non formal learning situation Various stages in modern communication system-
- 3.2 Mass-media approaches to education different media multimedia approach in learning its need and scope –uses of internet in communication-
- 3.3 E-Commerce and the impact of information technology.

3.4 Preparation of cash book – simple, double and triple column cash book – explaining skill involved in Bank Reconciliation Statement – arranging items in Trail Balance and getting tallied

3.5 Preparing final account – Trading, profit and loss account and balance sheet –methodology of teaching final a/cs – teaching difficult items in accounts namely, adjustment entries.

#### **UNIT IV: AREAS OF TRADE AND INDUSTRY**

- 4.1 Major divisions of Commerce Trade, Transport, warehouse, bank Insurance and advertisement Trade wholesale and retail
- 4.2 Middleman and market functions departmental and multiple shops- cooperative consumer shops – fair price shops- hire purchase and installment system.
- 4.3 Transport and warehouse road, rail, air and water transport railway receipt –way bill –container service classification
- 4.4 Warehousing –warehouse documents- Banking and insurance –banking services- major activities of commercial banks.
- 4.5 Co-op banks –lending schemes of nationalized banks-RBI Travelers Cheques and Hundies.

### **UNIT V: AUDIO VISUAL AIDS AND EVALUATION**

Instructional Aids – need, uses and kinds – audio visual aids and their merits – Visual Aids – text books, black board, charts, models, flannel board, magnetic board.

LIC and other financial institutions – projective Aids: Film – strip – Film, OHP, projector, Epidiascope, Micro-projector – Audi-aids: Tape –recorder, gramophone plates – Field- trips, excursions – organising, commerce club, museum, exhibition, school co-operative society etc.,

Evaluation – concept –measurement and evaluation – types of evaluation-formative, summative, norm –referenced and criterion referenced. Tests – achievement and diagnostic –

Blue print – construction, administration, evaluation and interpretation item analysis- measures of central tendency. Measures of dispersion, correlation and rank correlation coefficient.

Teacher effectiveness – classroom climate – Teacher dominated pattern – democratic pattern- Lassie – fair pattern- significance of the classroom climate. –Evaluation of teachers- Flanders Interaction Analysis Category system.

#### Reference:

- 1. Tonne.H. A (1960) . Principles of Business Education.New york: Mc Graw hill Book col. Gregg Division. Company.
- 2. Green. H.L Activities Hand Book for Business Teachers. Mc Graw Hill Book Co.,
- 3. Venkataiah.N. (1996) Educational Technology, India: Bhargava, Pub.
- 4. Sampath K. and etc., (1992) Introduction to Educational Technology, New Delhi :sterling Publishers Pvt., Ltd
- 5. Vedayanayagam.E.G (1994) Teaching Technology for College Teachrs, new Delhi: Sterling Publishers Pvt., Ltd.,

# OPTIONAL PAPERS OPTIONAL II: COMMERCE AND ACCOUNTANCY EDUCATION

### Objectives

- 1. To acquire the knowledge of commerce as a subject at the secondary and Higher secondary levels and relation with other subjects.
- 2. To understand the cognitive aspects of teaching commerce and accountancy.
- 3. To practice the trainees to prepare the lesson plan.
- 4. To understand the nature and types of accounting functions.
- 5. To develop competency in evaluation techniques applicable to commerce.
- 6. To understand the principles of curriculum construction and organization of the subject matter at different levels of school education.
- 7. To know the various in-service programmes needed by a commerce and accountancy teacher.
- 8. To identify the slow and gifted learners in commerce and accountancy subjects.
- 9. to organize co-curricular activities in commerce and accountancy.
- 10.To develop competency in evaluation techniques applicable to commerce.

# **UNIT I: INTRODUCTION TO TEACHING OF COMMERCE**

- 1.1 Nature and scope of the subject commerce and accountancy its definition purpose of commerce education- importance and meaning of commerce education.
- 1.2 Correlation of commerce and Accountancy with other subjects Viz., Economics, Mathematics, Business Administration, and commercial Geography.
- 1.3 Need for accountancy education- importance fulfilling the present day needs.
- 1.4 Aims and objectives of teaching commerce and accountancy values of the study commerce- practical, social and vocational – history of vocational education- commerce education, its importance to present day educational system.
- 1.5 Aims and objectives and values of teaching commerce and accountancy, subject base for the development of the objectives through learning experience instructional objectives general, specific with reference to individual lessons.

# UNIT II PLANNING FOR SUCCESSFUL TEACHING

- 2.1 Need for preparation and planning the lessons in advance and advantage importance- of planning for successful teaching activity approach to lesson planning steps in the preparation of lesson plans.
- 2.2 Preparation of year plan and unit plan model lesson plans.
- 2.3 Motivation categories of learners identification of slow and gifted learners in learning of accountancy and commerce the characteristics of slow and gifted learners reasons for their variation in commerce and accountancy subjects.
- 2.4 Catering to the needs of different individual –planning differently through arranging for extra coaching classes and assigning simple problems. analysis of the effects of differential treatment.
- 2. 5 A study content of commerce and accountancy for plus 2 standard.

# UNIT III ACCOUNTING AND ITS PRINCIPLES - COMMERCE AND ACCOUNTANCY TEACHERS.

3.1 Types of Accounts –classification –concepts and convention – preparation of books of original entry – Final A/C – Depreciation a/c – Accounts of non trading

concern- accounts of partnership, admission, retirement, death, amalgamation, absorption and piece meal distribution.

- 3.2 Issue of shares, forfeiture and re-issue of shares preparation of company final accounts identify the difficulties in teaching the accountancy subjects n plus 1 and plus 2 students –remedial steps.
- 3.3 The commerce and accountancy teacher their academic and professional qualification- the need and importance of attending in-service programmes –the important duties .
- 3.4 Responsibilities of a commerce and accountancy teacher preparation of teacher's diary, time table
- 3.5 Proper maintenance of registers and records –qualities of a good commerce teacher.

### **UNIT IV: CURRICULUM AND ENRICHMENT ACTIVITIES IN COMMERCE**

- 4.1 Principles of curriculum construction principles to be observed in seletion of subject matter arrangement and order of topics Psychological and sectional arrangement- concentric pattern.
- 4.2 Latest trends in the curriculum construction in the developed countries a critical analysis of the commerce and accountancy syllabus at higher secondary level in Tamil Nadu.
- 4.3 Organising commerce clubs –utilizing commerce club for planning model banks forming and organizing co-operative stores, debates and discussions
- 4.4 Planning for special visits to commercial markets, banks, life insurance corporation of India etc.,
- 4.5 Procedure for taking part in stock exchange primary and secondary market visit to stock exchange market Excursions as a source of learning.

#### **UNIT V: EVALUATION**

Tools of evaluation – observation, oral testing, mental written tests – testing and evaluation –

Merits and demerits – different item types as applied to commerce and accountancy scoring of such items.

Tests for different purpose – achievement, diagnosis and prognosis

Diagnosis and prediction – test construction, administration and interpretation

Co-efficient of correlation – Rank order correlation- Normal probability curve and its applications in educational evaluation.

#### Reference:

- 1. Boynton. L. D (1985) . Methods of teaching book –keeping. Cincinnatti: South western Publishing Company.
- 2. Hardway. M. (1966). Testing and evaluation in businesss education. Cincinnatti: Southwestern publishing company.
- 3. Kadambari Sharma and Tripat Tuteja. (1995) . Teaching of Economics, India: Bhargava.Pub.
- 4. Lynn Erucjsib.H. (1998). Concept Based Curriculum and Instruction. India: Sage Pub.
- 5. Khan.M.S. The teaching of Commerce, New Delhi: Sterling
- 6. Batlibai, J.R (1984) Double entry book keeping, the STD accountancy Publications Private Limited.
- 7. Bhushan. Y.K (1987) fundamentals of Business Organisation and Management.
- 8. Gupta R.L and Radhasamy, (1987) Advanced Accounts, VolI-IV, S. Chand and Co.,
- 9. Shukla M.C and Grewal T.S (1986) Advanced Accounts, Sultan Chand and Co., New Delhi.

10.Bhergava. S. R (1994) . Practice of Educational Measurement, India: Vashist

- 11.Boynlon. L.O (1995) Methods of Teaching Book-keeping, Cincinnatti; South Western Pub., company.
- 12.Sinj., M.N & Maheswari. S.B (1975) . Methods and Techniques of Teaching commerce Subjects, Delhi: Yong men & co.,
- 13.Sinha. J. C and Mugali. V. N. (1986) " a text book of Commerce",  $8^{\rm th}$  Edition. S. Chand and co.,
- 14.Garrett. (1997) "Statistics in Psycholgy and Eduction, Vgikas, Feffer and Simsons Ltd., Bombay.
- 15.Buch.M.B (ed) (1974) " A study of Research in Education" Centre of Advance Study in Education, Baroda.

# OPTIONAL PAPERS OPTIONAL – I : COMPUTER SCIENCE EDUCATION

### Objectives

- 1. To help student teachers understand computer, its parts, its kinds and uses in schools
- 2. To enable them attain knowledge about the functioning of computers, developing computer programmes in BASIC AND C
- 3. To help them acquire skills of teaching and evaluation as applied to computer science at the higher secondary level.
- 4. To enable the student teachers understand the principles of curriculum construction.
- 5. to familiarize the student teachers with the various methods that can be employed for the teaching of computer science.
- 6. To help the student teachers in acquiring skills relating to planning lessons and presenting them effectively.

# **UNIT I: INTRODUCTION**

- 1.1 What computers are: The various uses of computes in general The main parts of the computer and their role.
- 1.2 Brief History of the development of computers. Different kinds of computers use of computes in schools.
- 1.3 The Aims and Objectives of teaching Computer Science in Schools -
- 1.4 Computer Science teaching at different levels, primary, Secondary and Higher Secondary levels.
- 1.5 The place of Computer Science in Higher Secondary Curriculum. Correlation with other school subjects computer Literacy and Awareness Programmes.

# UNIT II FUNCTIONING OF COMPUTER, OPERATING SYSTEMS AND APPLICATION.

- 2.1 Binary, octal and Hexa system of numbers. Computer Arithmetic pitfalls in computing.
- 2.2 Additional peripherals and their use Hardware- Software Importance Types and Utilities. Logic Gates Introduction –Utilities.
- 2.3 Operating systems function and Types DOS and its applications.
- 2.4 Windows Introduction Importance of mouse
- 2.5 Use of interpreters and Compliers Basic concepts in Visual Basic

# UNIT III COMPUTER SOFTWARES ( DOS BASED SOFTWARES AND WINDOW BASED)

- 3.1 Word star Introduction creating a document menus Lotus 1-2-3 introduction-menus.
- 3.2 Worksheets preparation uses dbase- introduction Utilities Creation of Reports creation of labels.
- 3.3 MS Office introduction and Utilities MS word Introduction Entering Text Creating documents
- 3.4 MS Excel Entering and changing information and formula functions copying moving and deleting information –Names and Arrays saving Worksheet –loading and printing Number formatting working with rows and columns Display Calculation Protecting the work Charts.
- 3.5 Power Point slide preparation applications in Teaching and Learning Net work its advantages and types.

## **UNIT IV: MICROTEACHING, LESSON AND UNIT PLANNING**

- 4.1 Teaching Skills Micro teaching Cycle Teaching components Planning a micro lesson
- 4.2 Teaching relevant Skills- Skill of Explaining, Stimulus Variation, Reinforcement, Questioning, Black board writing.
- 4.3 Lesson Planning: Importance of Lesson Planning
- 4.4 Writing Instructional Objectives and Planning for specific behavioral changessteps and preparation of Model Lesson Plan.
- 4.5 Curriculum need and importance Review of units in Computer science-need and importance of reviewing computer Science lessons Characteristics of good review Different techniques of reviewing a lesson.

#### **UNIT V: EVALUATION IN COMPUTER SCIENCE**

- 5.1 The concept of evaluation, Evaluation for achievement, diagnosis and prediction
- 5.2 Characteristics of good test Blue Print online examinations
- 5.3 Various kinds of test, Principles of construction and administration of an achievement test.
- 5.4 Diagnosis and prediction test construction, administration and interpretation
- 5.5 Co-efficient of correlation Rank order correlation- Normal probability curve and its applications in educational evaluation.

#### Reference

- 1. Alan simpson, (1986). Understanding DbaseIII+, BPB publications
- 2. BPB Publications. (1998). Windows 98 complete.
- 3. Craig Zacker. (2001) networking: the Complete Reference. Tata Mc Graw –Hill Pub.
- 4. Gary Cornell.(2002). Visual BASIC 6 from the Group Up. Tata MC Graw Hill company.
- 5. Gear. C.W (1986), Computer Organization and Programming, Mc Graw -
- 6. Gorden B. Davis(1982) . introduction to Computers, mc Graw- Hill book Company. Publishing Company
- 7. James C. Wetherbe, (1990) . Systems Analysis And Design, west Publishing Company.
- 8. Joe karaynak and Joe Habraken. (1997) Internet 6 in –1 Prentice –Hall of India Pvt. Ltd.
- 9. Jorgensen C. (1986aa0. Mastering 1-2-3, BPB Publications
- 10.karl Schwartz. (2000) Training Guide Microsoft windows 2000, DDC Publishing Inc.

# OPTIONAL PAPERS OPTIONAL -II COMPUTER SCIENCE EDUCATION

# **Objectives**

- 1. To help student teachers plan and manage computer laboratory.
- 2. To provide practical training in program entry, editing, debugging and question bank.
- 3. To enable student teachers understanding the fundamentals of 'Basic'
- 4. To enable them understand the fundamentals of 'c'
- 5. To help them using CAI packages for teaching
- 6. To enable the student teachers develop interest and appreciate various pedagogical principles in teaching of computer science.
- 7. To develop in the student teachers skills in preparing and using Computer Assisted Instruction Programmes.
- 8. To help the student teachers acquire knowledge on computer software and the growing capacity of computer Technology.
- 9. To enable the student teachers acquire knowledge on latest trends in Information Technology.

# UNIT I COMPUTER LABORATORY PLANNING AND MANAGEMENT - HANDS ON-TRAINING.

- 1.1 Need for planning the computer laboratory Special features of Computer laboratory Setting up a computer lab Essential infrastructure
- 1.2 Laboratory management lab routine for pupils arranging practical for pupils- Maintenance of records.
- 1.3 Hands- on training meaning and importance Organising Hands on Training for pupils
- 1.4 Programme entry, editing, debugging and execution Organising practical and evaluation of practical.
- 1.5 Question Bank preparation.

# UNIT II: FUNDAMENTALS OF 'BASIC' & 'C' PROGRAMMING

- 2.1 System commands Variables Statements Kinds and Syntax
- 2.2 Problem analysis Flowcharts program development Graphics on the computer Files and file operations.
- 2.3 Introduction to 'c' programming statements kinds syntax Simple program development
- 2.4 Validation of program and documentation
- 2.5 Speed and special uses of computers.

# UNIT III INSTRUCTIONAL METHODS FOR A GROUP AND INDIVIDUAL LEARNING

- 3.1 Introduction to Instructional Methods for a group large group strategy Lecture, Seminar, Symposium
- 3.2 Small group strategy co-operative learning, Discussion -
- 3.3 Diagnostic and remedial teaching program Interactive Video- Video Conference
- 3.4 Introduction to individual instruction concepts Principles involved in individualized instructions –Self-learning, library based learning
- 3.5 Programme learning, Material preparation uses.- Individual learning through Electronic media uses.

#### **UNIT IV: COMPUTER EDUCATION & TECHNOLOGY**

- 4.1 Computer software: Categories of software, different procedures for acquiring software advantages.
- 4.2 The ethical and practical issues involve in the software piracy.

- 4.3 The growing capability of Computer Technology.
- 4.4 Use of Robots Artificial intelligence Office Automation
- 4.5 Question Bank Preparation Validation Uses.

# **UNIT V: METHOD OF TEACHING AND USE OF TEACHING AIDS**

- 5.1 Introduction to Internet Utilities in Education Introduction to e-mail Utilities.
- 5.2 Modem and its functions Multimedia and its functions -
- 5.3 Introduction to Hyper Text Markup Language (HTML)
- 5.4 Need and importance of audio-visual aids in teaching Computer Science and their classification.
- 5.5 Use of graphic materials: Picture charts diagrams graphs and tables projective aids.

#### **Practical**

- 1. Study of the syllabus prescribed for Higher Secondary Classes
- 2. Hands-on Training in the operation of the computer
- 3. Preparation of simple program in BASIC And C
- 4. Maintain a record book containing at least 15 programs
- 5. Preparing a question Bank.

## Reference

- 1. Pradip kumar Bose. (1986) . Computer Programming for Social Science. Vistaar Publications
- 2. Rajaram R. (19980 . C Programming made Easy, Scitech Publications
- 3. Ralph W. Gerard. (1967) . Computers and Education, Mc Graw Hill Book co.
- 4. Ravichandran D., (2001) . Programming with C++, Tata Mc Graw- Hill Publishing
- 5. Robert A. Radcliffe. (1992). Encyclopedia c. BPB publications
- 6. Steve Oualline. (1998), Practical C Programming, Shroff Publishers & Distributors.
- 7. Tay Vaughan, 91997) . Multi Media Making it Work, Tata Mc Graw Hill Book Company.
- 8. Tondo C.L and Gimpel S.E (2001). The C answer Book, Prentice –Hall of India
- 9. Weber systems. (1986). C Language User's Hand Book, Galgotia Book Source
- 10. Wortman L.A & Sidebottom T.O .(1987) . The C Programming Tutor, Prentice Hall int.

# OPTIONAL PAPERS OPTIONAL I – ECONOMICS EDUCATION

### **Objectives**

- 1. To help the student teachers acquire knowledge of the nature, scope and development of Economics.
- 2. To sensitize student teachers the value of the discipline of Economics.
- 3. To create among student teachers awareness of Economic Problems and their impact on political and civic life.
- 4. To acquaint the student teachers with the objectives of teaching economics in Higher Secondary Schools and help them to plan the learning activities according to the stated objectives.
- 5. To enable the student teachers understand the long and short term goals of teaching Economics and develop the skill in the formulation of general instructional objectives and specific learning outcomes (specific objectives)
- 6. To develop effective instructional skill in the student teaches for effective delivery of the subject matter.
- 7. To guide the student teachers in acquiring skills relating to planning lesson and presenting them effectively.
- 8. To help the student teachers understand the principles of curriculum construction and examine critically the Economics curriculum in the light of the principles of curriculum construction.
- 9. To familiarize the student teachers with the various methods and techniques that can be employed for the teaching of Economics.
- 10.To develop the ability of the student teachers prepare and use effectively the A.V. aids and mass media.
- 11. To enable the student teachers understand the evaluation techniques and prepare objective based and type of test items to assess the achievement of the students.
- 12.To encourage the student teachers prepare hard and soft ware wherever and whenever necessary after understanding the theoretical value of them.
- 13.To encourage the student teaches understand the various methods of evaluating the classroom teaching.

## **UNIT I: NATURE, SCOPE OF ECONOMICS AND METHODS OF TEACHING**

- 1.1 Economics , political Science and civics as social sciences and the interrelationship between them- Place of these in higher Secondary Schools
- 1.2 General and specific aims of teaching Economics at the Higher Secondary level.
- 1.3 Principles of micro teaching- teaching of relevant set induction: Black Board Writing, Explaining, Questioning, illustrations with examples, Reinforcement, Stimulus Variations Need for link lessons in micro teaching.
- 1.4 Method of organizing experiences in teaching Lecture Demonstration Discussion o Problem Enquiry approach Project Supervised Study Socialized recitation –workshop Laboratory.
- 1.5 Activity based teaching use of source materials case studies Their applicability to the teaching of Economics at the Higher Secondary level.

## UNIT II: LESSON, UNIT PLANNING AND INSTRUCTIONAL AIDS

- 2.1 Lesson Planning importance of lesson plans Writing Instructional objectives Planning for specific behavioural changes. Essential parts of the lesson plan preparation and use of Unit plan.
- 2.2 Visual Aids: Charts Maps Graphs Diagrams Pictures and Photographs– Film & Film strips Over head projector –

2.3 Chalk board - Bulletin board - Flannel board - Magnetic boards - exhibits preparation of Models and improvised aids and their use in teaching of economics.

- 2.4 Audio Aids: Radio Tapes Record players
- 2.5 Audio Visual aids: Television video Cassette CAI Mass media. Use of these in the teaching of Economics.

# UNIT III: CURRICULUM DESIGN AND MODERN METHODS OF TEACHING ECONOMICS

- 3.1 The principles of curriculum construction as applicable to Economics The selection of content and its organization Content materials in the syllabus their relation to objectives of teaching the subject.
- 3.2 Critical Study of the Curriculum in Economics at the Tamil Nadu Higher Secondary School Level,
- 3.3 Uses of modern techniques in Teaching Economics Discussion seminar Workshop supervised study.
- 3.4 Scientific attitudes and its importance to the individual and society Catering to the individual difference.
- 3.5 Instructional model and multimedia Self learning Packages.

# UNIT IV: RESOURCES FOR TEACHING ECONOMICS AND EDUCATIONAL TECHNOLOGY.

- 4.1 Club Guest lectures Exhibition, Museums, field trips excursion-community resources use in the teaching economics.
- 4.2 Educational Technology: Introduction objectives, Future Trends: Emerging Technologies in education.
- 4.3 Audio Video Technology Interactive Broadcasting Tele text and Video text Audio conferencing.
- 4.4 Video Computer Technology Computer Videodisc Internet and Intranet and Intranet Electronic mail (E-mail)
- 4.5 Computer conferencing Tele –communication and Networks Telephone and Fax – Teleconferencing – V SAT (Very Small Aperture Terminals) – EDUSAT.

#### **UNIT V: EVALUATION AND STATISTICS**

Evaluation – Nature and scope – characteristics of a good test in Economics-Reliability – Validity- objectivity – Item analysis –

Different types of objective tests – Blue print of a question paper – Discriminating index and difficulty value.

Remedial measures – Interpretation of test scores – Measures of central tendency – Mean – Median – Mode – Measures of Variability.

Standard deviation- quartile deviation- Percentile and percentile ranks. – Coefficient of correlation

Rank order correlation – Normal probability curve and its applications in educational evaluation.

## **Practical Work:**

- 1. Preparation of unit plans in Economics.
- 2. Visits to different types of banks, super market, warehouse and industries.
- 3. Collection of yearbooks, newspapers, magazines and clipping of articles related to economics.
- 4. Evaluation of a text book in Economics.
- 5. Preparation of charts and albums relating to Economics

# Learning from Cyber Resources:

1. Identification and cataloguing of three websites relating to the prescribed school curriculum .

2. A comparative evaluation of any two Web Pages bearing on the same unit in the school curriculum.

#### References

- 1. Gupta. S.P. (1987) . Statistical Methods, New Delhi.: Sultan Chand and Sons, Publishers.
- 2. Garrett, Henry E. and Wood Worth, R.S (1981). Statistics in psychology and Education.
- 3. Guildford.J.P. and Fruchter.Benjamin (1973) . Fundamental Statistics in Psychology and Education(5<sup>th</sup> De.). New Delhi: Mc Grah-Hill Kogakusha Ltd.,
- 4. Nunnally. Jum.(1981) Psychometric Theory. (2<sup>nd</sup> Ed., ) New Delhi : Tata Mc Graw –Hill Company Limited
- 5. Paul. R. R. (1984). History of Economic Thought. Ludhiana. Kalyani Publishers
- 6. Rai .B.C. (1987) . Methods of Teaching Economics. Lucknow: Prakashan Kendra,
- 7. Ruddar Datt and K.P.M. Sundaram. (1986) . Indian Economy, : New Delhi Sultan Chand and Company Private Limited.
- 8. Sundharam.K.P.M and Sundharma. E.N. (1985) Micro Economics, Sultan Chand and Sons, Publishers, NewDelhi.

# OPTIONAL PAPERS OPTIONAL II: ECONOMICS EDUCATION

# **Objectives**

- 1. To enable the student teachers to understand the nature and scope of Economics.
- 2. To make the student teachers understand the Economical problems facing India.
- 3. To enable the student teachers develop interest in adopting modern method / techniques of teaching
- 4. To develop in student teachers competence in the preparation of programmed learning materials ( Economics text books and workbooks)
- 5. To develop the ability of the student teachers prepare and use effectively the A.V. aids and mass media.
- 6. To enable the student teachers understand the evaluation techniques and prepare objective based and type of test items to assess the achievement of the students.
- 7. To enable the student teachers understand the various techniques such as ATI, Models of Teaching and their implications to Economics teaching and learning.
- 8. To encourage the student teachers prepare hard and software wherever and whenever necessary after understanding the theoretical value of them.
- 9. To encourage the student teachers to understand the various methods of evaluating the classroom teaching.
- 10.To help the student teachers to recognize the special problems in teaching Economics in rural schools.

#### **UNIT I NATURE AND SCOPE OF TEACHING ECONOMICS**

- 1.1 Meaning Aims Values and scope of Teaching Economics Sectors of Economy.
- 1.2 Relationship with other subjects like Geography, Civics, History, Politics, Mathematics, Statistics, Management and commerce- the relative value of Economics
- 1.3 Organization and Maintenance : Structure and design for schools- Equipping the departmental libraries, Club and museums.
- 1.4 Educational Technology: Programmed Instruction Type of programming Computer assisted instruction
- 1.5 Use of Audio and Videotapes, Interactive video in teaching Economics.

## **UNIT II: METHODS AND MATERIALS OF TEACHING ECONOMICS:**

- 2.1 Use of modern techniques in teaching Economics- Discussion Seminar Symposium –Workshop
- 2.2 Team Teaching Supervised study and Tutorial system.
- 2.3 Scientific Attitudes and its importance to the individual and society.
- 2.4 Catering to the individual differences Aptitude Treatment Training-Programmed learning – techniques –
- 2.5 Linear and branching Instructional model and multimedia- self learning packages identification and care of the talented helping the slow learners in economics.

#### **UNIT III RESOURCE FOR TEACHING ECONOMICS:**

- 3.1 Contemporary issues community resources Excursions- Field trips Library uses of these in the teaching of economics.
- 3.2 Social and Economic problems in India.: Poverty over population unemployment Diseases Malnutrition- inflation. Economics Education and Eradication of Social and Economic problems.

3.3 Political and Economic Problems in India: Political and Economic Development in India – Liberalisation and Globalisation-

- 3.4 E- commerce its impact on internal and external marketing.
- 3. 5 Relationship between Political Problems and Economic problems

### **UNIT IV: TEACHER OF ECONOMICS**

- 4.1 Characteristics of a good Economic teacher Scholarship professional growth in-service education-
- 4.2 Availability of Teaching Aids and other relevant materials for economic teaching –
- 4.3 Periodicals related to economics and economic data.
- 4.4 Information , knowledge about functioning of economic organization like industries, banks, share and capital markets, wholesale and retail market etc..
- 4.5 Lack of background experience in students Inculcating Economic attitudes.

#### **UNIT V: EVALUATION IN ECONOMICS**

Construction and Standardization of an achievement test in Economics- Blue print- Norms – reliability and Validity- item analysis

Graphic representation of data Bar and Pie diagram – Histogram – Frequency polygon.

Cumulative frequency - Graphic and Ogive curve. Objective based testing Evaluation of teachers - rating by supervisors or colleges - Evaluation by pupils - Self evaluation -Comparing performance with lesson plan.

Class room climate – Teacher dominated pattern – Democratic pattern – Laissez faire pattern – interaction Analysis (F.I.A.S)

### **Practical Work**

- 1. Maps of India can be drawn showing the following things a. birth rate b. Mortality rate c. Migration d. Industries
- 2. Survey to find out the problems of the rural community a. Poverty b. Malnutrition c. illiteracy d. Status of Women e. Unemployment f) Diseases
- 3. construction and standardization of an achievement test in the subjects
- 4. Guest lectures on Liberalization and Globalization, Marketing and other subjects of local and topical interest

#### References

- 1. Gupta. S.P. (1987) . Statistical Methods, New Delhi.: Sultan Chand and Sons, Publishers.
- 2. Garrett, Henry E. and Wood Worth, R.S (1981). Statistics in psychology and Education.
- 3. Guildford.J.P. and Fruchter.Benjamin (1973) . Fundamental Statistics in Psychology and Education(5<sup>th</sup> De.). New Delhi: Mc Grah-Hill Kogakusha Ltd.,
- 4. Nunnally. Jum.(1981) Psychometric Theory. (2<sup>nd</sup> Ed., ) New Delhi : Tata Mc Graw -Hill Company Limited
- 5. Paul. R. R. (1984). History of Economic Thought. Ludhiana. Kalyani Publishers
- 6. Rai .B.C. (1987) . Methods of Teaching Economics. Lucknow: Prakashan Kendra,
- 7. Ruddar Datt and K.P.M. Sundaram. (1986) . Indian Economy, : New Delhi Sultan Chand and Company Private Limited.
- 8. Sundharam.K.P.M and Sundharma. E.N. (1985) Micro Economics, Sultan Chand and Sons, Publishers, NewDelhi.

# ELECTIVE PAPER -I READING

# **Objectives**: To enable the student teachers to

- 1. understand the importance of reading.
- 2. understand the psychology at the core of the reading process.
- 3. understanding the physical and mental factors that affect reading.
- 4. realize that reading is a complex skill and the result of co-ordination of various sense organs.
- 5. become familiar with various methods of teaching reading programmes to suit all.
- 6. become aware of the remedial measures to help the retarded reader.
- 7. gain knowledge about the ways of assessment of the rate of reading and skill of pupils.

#### **UNIT I INTRODUCTION TO READING**

- 1.1 The first of the three R.s., values of reading: reading and knowledge, reading and citizenship.
- 1.2 The function of eyes, perceptual process the eye movement the eye voice, eye memory spans interpretation of what is read; specific and generic meaning; development of meaning.
- 1.3 Factors affecting Reading ability: physical health visual adequacy visual acuity binocular difficulties auditory –
- 1.4 I Q and reading ability Social and emotional
- 1.5 Personal adjustment interest educational I inadequate methods.

#### **UNIT II READING READINESS:**

- 2.1 The language experience language readiness developing reading readiness
- 2.2 Mental, emotional and social development.
- 2.3 Education readiness- background experience language abilities
- 2.4 Auditory and visual Discrimination
- 2. 5 Teachers role in developing reading ability.

### UNIT III LEARNING TO READ

- 3.1 Learning to read: Reading an associative process; association among graphemic
- 3.2 Syntactic and semantic codes; word recognition –graphemic code visual and auditory
- 3.3 Comprehension syntactic and semantic codes.
- 3.4 Reading skills: Word recognition word meaning comprehension
- 3.5 Study skills and appreciation skills.

## **UNIT IV TEACHING READING**

- 4.1 Methods, alphabetic phonic, syllable word, and sentence its Advantages –
- 4.2 Basal readers materials for beginning readers.
- 4.3 Reading programmes for children and adults: aims, preparing for reading learning to read
- 4.4 Progress in mastering basic reading skills promoting permanent interest in reading
- 4.5 The Generral reading skills; basic reading skills rate skills rapid growth in reading ability achieving reading habits.

## **UNIT V: ASSESSMENT OF READING:**

5.1 The rate of reading, factors affecting the rate of reading development of appropriate reading rates;

- 5.2 Appraisal of reading rates- oral reading silent reading values relation between and proportion of time for each
- 5.3 Assessing the readability of printed media assessment of pupil competence- reading scales; inventory
- 5.4 The retarder -detection and correction of reading difficulties-
- 5.5 The hygiene of reading: fatigue, hygienic requirements in the printing of books.

### **Practicals**

Assessing Reading ability in Tamil or English of not less than 10 students in a high school class.

#### Reference

- 1. De Boer J.J and Dallmann. M. (1960) . The Teaching of Reading. New York, Holit Rinehart and Winston Inc.
- 2. Dechant E.V. (1974) Improving the Teaching of Reading. New Delhi, Prentice Hall of India Private Ltd.,
- 3. Daffy G.C and Sherman G.B., (1972) Systematic reading Instruction, New York, Harper and Row.
- 4. Melinik A and Merrit J.E.d (1978) The reading curriculum, London Open University.
- 5. Ahuja G., and Ahuja. Pramila, 1987 How to increase Reading Speed, Sterling publishers Pvt.Ltd. New Delhi.
- 6. Dallmann, Marena, et.al (1978) The Teaching of Reading (Sixth Ed.) New york: Holt, Rinehart Winston.
- 7. Lapp. Diance and Flood. James (1987) Teaching Reading to Every child. New york: The Macmillan Co.
- 8. Raman, Graytee. A (1978) Preparing to Teach Reading Boston, Little, Brown & Co.,

# ELECTIVE PAPER II EDUCATIONAL PLANNING AND ADMINISTRATION

# **Objectives:**

To enable the student teachers to

- 1. Gain knowledge regarding educational planning and the problems involved in educational planning.
- 2. Understand the need and scope of educational administration.
- 3. Recognize the basic principles of efficient administration.
- 4. Understand the hierarchy in educational administration for a proper understanding of the functions of educational administration at various levels.
- 5. Understand the responsibilities of the state and central Governments in the administration of schools.

# **UNIT I: EDUCATIONAL PLANNING AND ADMINISTRATION**

- 1.1 Planning for education place of education in the five year plans different levels of educational planning long term plans and short term plans.
- 1.2 Educational planning directed towards national integration role of the National Staff Colleges in educational planning and administrative techniques and procedure.
- 1.3 Essential elements planned allocation. Stimulation, Coordination and Evaluation.
- 1.4 Policy making and decision making factors influencing decision making.
- 1.5 Need for evaluating administrative techniques and procedure.

#### UNIT II HIERARCHY IN EDUCATIONAL ADMINISTRATION

- 2.1 Center and state their role in policy making NCERT and its impact on Administrative practices.
- 2.2 Education in the state list and its implications
- 2.3 Machinery for implementation Directorate of education its branches their role and functions.
- 2.4 Institutional Planning: Definition need and objectives implementation and evaluation.
- 2.5 Role of pupils, teachers and principals involvement of the public and cooperation of the community – time table- co – curricular activities – student government.

#### **UNIT III: SUPERVISION**

- 3.1Concept of supervision difference between supervision & inspection dynamics of supervisory behaviour.
- 3.2Improving teaching interest, leadership and group progress, panel Inspection advantages and draw backs
- 3.3Supervision as a means of valuating administrative practices and tone of the school.
- 3.4The school building and equipment
- 3.5The site master planning –building planning and designing school building essential elements of school architecture furniture the school office, school library , hostel.

## **UNIT IV: EDUCATIONAL ADMINISTRATION AT DIFFERENT LEVELS**

- 4.1 Secondary schools under different managements center –state and private agencies –
- 4.2 Public schools Sainik schools Oriented schools, Navodaya Schools and integrated schools for the handicapped.

4.3 Study of difference in administration – staff pattern, syllabus – conditions of recognition etc. problems peculiar to each type of school.

- 4.4 Problem peculiar to each type of school.
- 4.5 Institutional sources of Resistance.

# **UNIT V: HUMAN RESOURCE MANAGEMENT**

Scope, importance and functions of HRM

Human Resource Management as a Profession.

Human Resource planning in institutions – Characteristics of Human Resource Planning.

Reasons for Increased Focus on human Resource Planning Human Resources planning process in institutions.

### References:

- 1. Sharma. O.P " Administration of Education Boards in India" s. B. Nangia, Ashish publishing House, 8/81 Pubjabi Bagh. New Delhi 1
- 2. Bhatt. B. D. Sharma. S. R (1992) Educational Administration' C Modern Educatio (series), kaniskha publishing hous, New Delhi.
- 3. Sures Bhatnagar, 1985-86, " Indian Educatin To-day of Tomorrow", International publishing House, Meerut, U.P.,"
- 4. Raghunath Safaya & B.D. Shaida, (1975). School Administration and Organisation," Jagdish Kapur for Dhanpat Rai & sons, Jullundur, Delhi.

# ELECTIVE PAPER III VALUE EDUCATION

# **Objectives**

- 1. To enable the teacher trainee to realize their responsibility towards Indian Society and World Society as a teacher.
- 2. To help the teacher trainee to accept the importance of meditation and self discipline.
- 3. To enable the teacher trainee to realize her rime responsibility in educating the children to adhere to the democratic principles.
- 4. To enable teacher trainee to accept her / his in including nationalism and internationalism among the younger generation.
- 5. To help the teacher trainee to accept the influence of science and technology for building a progressive India.
- 6. To motivate the teacher trainee for preserving values, traditions and culture of our country.

#### **UNIT I: INTRODUCTION**

- 1.1 Concept definition, Scope of Value education Need for value education -
- 1.2 Sources of value education (Family, Peer Group, Religion, Culture etc., )
- 1.3 Education as a source of values Teachers, institutions and Books.
- 1.4 Art, Music and festivals of India
- 1.5 Painting dances of India, its impact on value development.

#### UNIT II DEVELOPMENT OF THE INDIVIDUAL

- 2.1 Man making and character building education
- 2.2 Development of right attitudes, aptitudes and interest,
- 2.3 Yoga, meditation and control over ones own senses, knowing the strengths and weakness.
- 2.4 Positive approach to life in words and deeds
- 2.5 Self discipline Politeness, personality, Punctuality and Conduct.

### UNIT III NATIONAL INTEGRATION

- 3.1 Nationalism, Unity, Integrity, Problems of internal and external security
- 3.2 Ideals of great Personalities Gandhi, Ambedkar, Jawaharlal Nehru,
- 3.3 Ideals of great Personalities Rabindranath Tagore, Swami Vivekananda.
- 3.4 Causes and prevention of social tension and conflicts
- 3.5 Role of society, friends and other peer group on national integration.

#### **UNIT IV CONSTITUTIONAL OBLIGATIONS**

Election, Voting, Professional ethics, Positive work, culture, Fundamental rights and duties.

Development of inter harmonious relationship through curricular instructions.

The Present crisis – Educational solutions

Education – a futuristic perspective – concerns and issues

Education of the downtrodden masses.

## **UNIT V: IMPACT OF MODERN EDUCATION AND MEDIA ON VALUES**

- 5.1 Impact of Science and Technology
- 5.2 Effects of Printed Media and Television on Values
- 5.3 Effects of computer aided media on Values (Internet-e-mail Chat etc.,)
- 5.4 Role of teacher in the preservation of tradition and culture.
- 5.5 Role of family, tradition and community prayers in value development.

#### References

1. Olivairm chokkalingam (2001) Gandian Manimolizigal – Chennai.

2. Ganapathi. R. (2003) Swami Vivekanandar . Sri Ramakrishna Math, Chennai – 4

- 3. Swami Ramakrishnanda,( 2003) For Thinkers on Education. Sri Ramakrishna Math, chennai 4
- 4. Adiriyar (1999) . Dr. Ambedgar Swami mali Publishers, chennai
- 5. Thamizh Natha. Nadu Porttrum nallavargal. Sarasu Publishers, Chennai .
- 6. A Vedanta kesari Presentation.(2001) Values The Key to a meaningful Life. Sri Ramakrishna Math, Chennai
- 7. Swami Vivekanandar. Aanmega Sindanaigal. Sri Ramakrishna Math, Chennai
- 8. Swami Nihseryasanda.(2001) Man and his Mind Sri Ramakrisha math. Chennai
- 9. Durga Das Basu.(2003) Introduction to the Constitution of India Wadhwa and co. Law publishers New Delhi, India.

# ELECTIVE - IV ENVIRONMENTAL EDUCATION

## **Objectives:**

On successful completion of the course the student-teachers should have:

- 1. understood the concept and evolutionary development of environmental education.
- 2. developed the ability to identify the environmental problems caused by pollution and destruction of natural resources.
- 3. learnt the environmental Acts, Policies and Legislations.
- 4. learnt the environmental programmes conducted world wide through various modes and agencies.
- 5. gained the knowledge to frame the environmental education curriculum along with method of teaching and learning through technology.

## **UNIT I: Concept of Environmental Education**

- 1.1 Meaning, need and scope of environmental education
- 1.2 Evolution of environmental education
- 1.3 Development of environmental education
- 1.4 Stock Holm conference, Tbilisi conference and Earth Summit
- 1.5 Instructional objectives of environmental education

#### **UNIT II: Environmental Problems**

- 2.1 Acid rain and Ozone depletion
- 2.2 Effects of Urbanisation and Industrialisation
- 2.3 Impact of Deforestation
- 2.4 Pollution: Kinds, Causes and Prevention
- 2.5 Global warming and Kyoto Conference

### **UNIT III: Environmental Policies**

- 3.1 The Water Act 1974, 1977
- 3.2 The Air Act 1981
- 3.3 Wild Life Act 1972 and Forest Conservation Act 1980
- 3.4 Environment Act 1986
- 3.5 Environmental Legislations in India and Environment Management

#### **UNIT IV: Environmental Programmes**

- 4.1 Conservation Education Movements: Chipco Movement, Social Forestry Scheme and Role of UNESCO
- 4.2 National and International Movements: Silent Valley Project, Ganga cleaning and Del Lake study
- 4.3 Educative and Preventive measures adopted by Government, NGOs and other voluntary organisations
- 4.4 Narmada Controversy
- 4.5 Environmental awareness World Environment Day and Water Day

### **UNIT V: Curriculum Development and Environmental Education**

- 5.1 Curriculum Development: Inter-disciplinary, Multi-disciplinary, Formal and Non-formal approach
- 5.2 Learner initiated activities: value oriented, problem centered, community oriented activities
- 5.3 Teaching-learning strategies and evaluation techniques in environmental education
- 5.4 Planning environmental education in schools, colleges and universities

5.5 Role of electronic media, mass media and computers in environmental education.

### REFERENCE

- 1. Doraisami, S. (1979). Environmental Education in the Curricula of Indian Schools. School Science. Vol. 8, No.3.
- 2. The Curriculum Guides on Nutrition/ Health Education and Environmental Sanitation in Primary Schools. New Delhi: NCERT.
- 3. Kaayar, V.S. (1997). Environmental Concerns, Depleting Resources and Sustainable Development. Jaipur: Pointer Publishers.
- 4. Karpagam, M. (1991). Environmental Economics. New Delhi: Sterling Publishers.
- 5. Manivasakam, M. (1995). We Breathe and Drink Poison. New Delhi: National Books Trust.
- 6. Sharma, B.M. (2004). Teaching Environmental Education. New Delhi: Akansha Publishing House.
- 7. Kumar, A. (2004). A Textbook of Environmental Science. New Delhi: A.P.H. Publishers.
- 8. Krishnamacharyulu, V. (2004). Environmental Education. Hyderabad: Neelkamal Publications.
- 9. Anjaneyulu, Y. (2005). Introduction to Environmental Science. Hyderabad: BS Publications.

# ELECTIVE PAPER – V PHYSICAL EDUCATION AND HEALTH EDUCATION

# **Objectives**

- 1. To understand the importance of physical education in schools.
- 2. To enable students organize physical education activities.
- 3. To help them understand the concept of physical fitness.
- 4. To appreciate the concept of health education.
- 5. To understand environmental education related to physical education.

#### UNIT I: INTRODUCTION TO PHYSICAL EDUCATION

- 1.1 Definition Meaning Aim and Objectives of Physical Education
- 1.2 Physical Education as a integral part of General Education.
- 1.3 Principles of Physical Education.
- 1.4 Modern Olympics Asian Games.
- 1.5 Role of National Organizations Viz. SAI, NSNIS,LOA, SDATN, AGF, AND LLINPE in promoting physical education and Sports in India.

# **UNIT 2: METHODS, ORGANIZATION & ADMINISTRATION**

- 2.1 Lesson Plan Parts and preparation of General Lesson.
- 2.2 Methods of teaching physical activities.
- 2.3 Organization of Intramural and Extramural Competitions
- 2.4 Organization of play Festival Tournaments and Athletic meet.
- 2. 5 Basic knowledge of physical activities and games:
  - i) Calisthenics.- ii) Indigenous activities a. Padmasana, b.
     Pujangasana c. Salabasana, d. Dhanurasana, e.
     Sarvankasana, f. Halasana, g. Vakkirasana, h.
     Arthmachendasa, i. Savasana
  - ii) Minor Games
  - iii) Major Games: Basic skills and rules of the following games:
    - a. Indigenous games: Kabaddi (or) KNO-Kho.
    - b. Ball games : Volley Ball (or ) Ball Badmint.

## **UNIT: III PHYSICAL FITNESS**

- 3.1 Meaning of physical well being physical fitness and its importance Relationship of physical well being with physical fitness.
- 3.2 Meaning and importance of components of fitness: Strength, Flexibility, Muscular endurance and Cardio –Vascular endurance.
- 3.3 Assessment of physical fitness AAFPERD Health Related Physical Fitness Test. iii) Cooper's Run and Walk Test (12 Minutes Men & 8 Minutes Women )
- 3.4 Development of Components of physical fitness
- i) Stretching exercise, ii) isotonic exercises and iii) Aerobic exercises 3.6 Adapted physical education programme for the diabled.

## UNIT IV HEALTH EDUCTION AND NUTRITION

- 4.1 Meaning and importance of Health Importance of Health education aim and objectives of Health Education.
- 4.2 Factors influencing Health Desirable, Health habits Hygiene School health programme.
- 4.3 Communicable disease Typhoid, cholera, malaria, chicken pox, T.B Agencies of transmission signs and symptoms measures to control them.
- 4.4 Food and Nutrition constituents of good nutritive food fat, protein, carbohydrate, minerals, vitamins. –role of nutrients and sources. Body mass index.

4.5 Balanced Diet, under nutrition, malnutrition- caloric requirements for different age and sex. Ergogenic aids in sports.

### **UNIT V: FIRST AID AND PHYSIOTHERAPY**

- 5.1 First Aid meaning need and importance of first aid common sports injuries and their first aid treatment (sprain, stain, contusion, fracture, dislocation and skin injuries)
- 5.2 Bandages Types of Bandages and kind of dressing
- 5.3 Common ailments among school children and their treatment chilblain Prickly Heat warts impetigo Erysipelas and Whitlow)
- 5.4 Physiotherapy Definition –importance of physiotherapy principles of physiotherapy.
- 5.5 Electrotherapy Hydrotherapy Thermo therapy Posture Postural deformities therapeutic exercises.

#### Reference:

- 1. Anderson. Bob (1997), Stretch yourself for Health and Fitness. Shelfot Publications. USA
- 2. Bucher A. Charles. (1992) . Foundation of Physical Education and sport. New Delhi -, B1 Publication Janpath.
- 3. Dambrosia. D., Robert. D (1993) Prevention and Treatment and running injuries. New jersey, Slack Incorpor Road: Thorofare.
- 4. Eriksson. O Bengt et.al (1990) Sports medicines, halth and Medication, Enfield: Guninness Publishing Road
- 5. Gopi Krishna. (1993). The Purpose of Yoga. New Delhi: Ubs Publishers Ltd.
- 6. Hedge. (1997) How to maintain good health. New Delhi : UBPSD Publishers.
- 7. Kamlesh Sangral. (1977). Methods in Physical Education / Ludhiana: Parkash Brothers.
- 8. Kirtani Reema. (1996). Physical Fitness. New Delhi: Khel sahitya sports publication.
- 9. Lan, Suresth Kumar. (1998). Physical Education for Handicapped children. Khel sahitya Kendra.
- 10. Mukesh Kumar. (1995) . Book of Sports and Games. New Delhi: Sports publications.
- 11. Norris M. Christopher. (199&). Sports injuries. London: Butterworth Heinemann Linacre House, Jordan.
- 12.Ramachandran, L.T. Dharmalingam. (1993). Health Education. A New approach. New Delhi: Vikas Publishers Ltd., Jangpura.
- 13. Sharma, O.P Teaching and Coaching Physical Education, Khel Sahitya Sports Publication.
- 14. Sorenson Marc. (1995) Mega Health, Bombay: Mangna Publishing co.Lt

### விருப்பப்பாடம் -1 சிறப்பு தமிழ் கற்பித்தல்

#### நோக்கங்கள்:

- 1. தமிழ் இலக்கியங்களின் தோற்றம், வரலாறு, வகைகள் பற்றிய அறிவு பெறுதல்,
- 2. பழங்கால இலக்கியங்களிலிருந்து வேறுபட்டு அமைகிற இக்கால இலக்கியங்களின் பண்புகளையும் போக்குகளையும் அறிதல்.
- 3. உரைநடை இலக்கியம், புதுக்கவிதை என்பனவற்றின் இலக்கணம் பண்புகளைப்பற்றி அறிதல்.
- 4. இலக்கியக் கலையின் பண்புகள், உறுப்புகள் பற்றி அறிதல்.
- 5. இலக்கியத்தின் பொருளையும் வடிவத்தையும் பற்றித் திறனைய்வு அறிவு பெறுதல்.
- 6. தமிழ் மொழியின் ஐந்திலக்கணத்தையும் அறிதல்,
- 7. மொழியியல் அறிவு மொழியாசிரியாகளுக்கு இன்றிமையாதது. ஆதலால் ஒலியியல், உருபியல், தொடரியல். பற்றிய கருத்துக்களை அறிதல், அவை தாய்மொழி கற்பித்தலுக்குப் பயன்டுமாற்றைப் புரிந்துகொள்ளுதல்.
- 8. தற்கால் உரைநடையின் இலக்கணத்தை அறிதல்
- 9. அறிவியல், ஆட்சி. தகவல் தொடர்பியல், கணிப்பொறி போன்ற பல்வேறு துறைகளில் தமிழின் வளர்சிசியற்றி அறிதல்.
- 10. மொழியின் பல்வேறு பயன்பாட்டையும், அதற்கேற்ற மொழி வேறு பாட்டையும் அறிதல்.

#### அலகு 1: இலக்கிய வரலாறு

- 1.1 சங்ககாலம்- சங்க இலக்கியங்கள்- பத்துப் பாட்டு, எட்டுத்தொகை, சங்க காலம் தமிழ் இலக்கியப் பொற்காலம்- தொல்காப்பியம்- அதன் சிறப்புகள்.
- 1.2 நீதி நூல்கள்- பதினெண்கீழ்க்கணக்கு.
- 1.3 பக்தி இலக்கியம்- பன்னிருதிருமுறை- நாலயிரத்திவ்விய பிரபந்தம், பன்னிரு ஆழ்வார், இரட்டை காப்பியங்கள்-
- 1.4 கம்பராமாயணம், மகாபாரதம்-புராணங்கள்-சிற்றிலக்கியங்கள்- சமயங்கள் வளர்த்த தனிழ்-இசைத்தமிழ்- நாடகத்தமிழ்- கதை இலக்கியம்.
- 1.5 இருபதாம் நூற்றாண்டு தமிழ் இலக்கியம்- பாரதியார், பாரதிதாசன், கவிமணி, நாமக்கல் கவிஞர் புதுக்கவிதை- உரைநடை ஆசிரியர்கள்- குழந்மை இலக்கியம்- பயண இலக்கியம்.

### அலகு:2 இலக்கியத்திறனாய்வு.

- 2.1 அறிவியலும் கலையும்- கலைகள்: இலக்கியக்கலை, இலக்கியத்தின் இயல்புகள்-இலக்கியத்திறனை நுகர்தல்- இலக்கியமும் வாழ்க்கையும்- இலக்கியத்தின் தோற்றம் பற்றிய கொள்கைகள்- திறனாய்தல்- கலை கலைக்காகவே-
- 2.2 உணர்ச்சி- கற்பனை- கற்பனை வகைகள்
- 2.3 அணிகள்- உவமை உருவகம்
- 2.4 ஓசைநயம் தொடைநயம் தொல்நயம் பொருள் நயம் குறிப்புப் பொருள் பாநலம் பாராட்டல் பயிற்சிக்கு இக் கருத்துக்கள் உதவுமாறு.
- 2.5 புதினம்- சிறுக்தை இவந்நின் இலக்கணம்- தோந்நமும் வளர்ச்சியும்- புதுக்கவிதையின் பண்புகள்- இலக்கிய நுகர்ச்சி பந்நிய கருத்துக்களைப் பள்ளிப் பாடம் நடத்துகையில் பயன் படுத்துதல்.

### அலகு: 3 இலக்கணம்

- 3:1 எழுத்து இலக்கணம்
- 3.2 சொல்லிலனக்கணம்
- 3.3 பொருளிலக்கணம்
- 3.4 யாப்பு, அணியிலக்கணம்
- 3.5 உயர் நிலைப் பள்ளிக்குரிய இலக்கணப்பகுதிகளும் தொடர்புடைய இலக்கண நூல்களும்.

#### அலகு: 4 மொழியியல்

- 4.1 மொழியின் தோந்நம் பந்நிய கொள்கைகள்- மொழியும் மொழியியலும்
- 4.2 ஒலியியல்- ஒலியுறுப்புகளும் அவற்றின் தொழில்களும்- மெய்யொலிகள்- உயிரொலிகள்-ஒலியியல் அறிவு மொழியாசிரியாக்குப் பயன் படுதல்- மாணவாகளின் உச்சரிப்புப் பிழைகளைப் போக்குதல்.
- 4.3 ஒலியனியல்- ஒலியன்களை வகை செய்யும் முறை- தமிழில் ஒலியன்கள்-சொல்லாக்கப் பயிற்சிகள் உருவாக்ககுதல்.
- 4.4 உருபன்- உருபனிகளைக் கண்டறிதல்- விதிகள்- உருபொலியனியல்.
- 4.5 சொல்வகை- தமிழின்வினைச் சொற்கள்- கூட்டுவினை- தொடரியல்-மாற்றிலக்கணகோட்பாடு- வாக்கிய மாற்றப்பயிற்சிகளை உருவாக்குதல்- பேச்சுமொழி-மொழியில் கடன்வாங்குதல்- சமுதாய மொழியியல்- தாய் மொழி.

#### அலகு:5 பல்துரைத்தமிழ்:

- 5.1 உரைநடையில் வளர்ச்சி- உரைக்கோவை, உரைக் கோவையின் வகைகள்- உரைக் கோவையின் அமைப்பு.
- 5.2 வாக்கிய அமைப்பு, பத்தி அமைப்பு, நிறுத்தல் குறியீடுகளின் பயன்பாடு.
- 5.3 அறிவியல் தமிழ்- கலைக்சொல் உருவாக்கம்- விதிகள்- ஆட்சித்தமிழ்.
- 5.4 தகவல் தெர்புத்துறையில் தமிழ்- கணிப்பொறியும் தமிழும்.
- 5.5 கல்வித்துறையில் தமிழ்- தாய்மொழிவழிக்கல்வி.

#### செயல் முறைவேலை:

- 1. முன்னறிவிப்பில்லாச் சொற்பொழிவுகள், சொற்போர்
- 2. கருத்தரங்கம்
- 3. நாடகங்கள் எழுதி நடித்தல்
- 4. வானொலிப் பேச்சைக் கேட்டுக் குறிப்பெடுத்தல்
- 5. திறனாய்வுக் கட்டுரைகள் எழுதுதல்
- 6. பாநலம் பாராட்டல்
- 7. மலர் தயாரித்தல்
- 8. கற்பித்தல் பொருள் தயாரித்தல் தொடர்பான கருவிகள் தயாரித்தல்
- 9. பாடத்தொகுப்பு தயாரித்தல்
- 10. வினாவங்கி தயாரித்தல்
- 11. குறையறிபயிற்சியும், நிறைதீர் பயிற்சியும்
- 12. மொழிப் பயிற்சிகள் தயாரித்தல்.

#### நூல்கள்:

- 1. தமிழ் இலக்கிய வரலாறு- டாக்டர்.மு.வா
- 2. இலக்கியக்கலை அ.ச. ஞானசம்பந்தன், 1989.

- இலக்கியத்திறன் டாக்டர் மு.வா.1965
   வோழிவரலாறு டாக்டர் மு.வா.1990
   இக்கால மொழியில் டாக்டர் முத்துச்சண்முகம் -1988
- 6. அறிவியல் தமிழ் டாக்டர் வா. செ. குழந்தைசாமி-1990

### விருப்பப்பாடம் -2: பொதுத்தமிழ் கற்பித்தல்

#### நோக்கங்கள்:

- 1. தாய் மொழியின் இன்றியமையாமையையும், தாய் மொழி கற்றலின் நோக்கங்களையும் அறிதல்.
- 2. தாய் மொழியின் பல்வேறு பணிகளையும் அறிதல்
- 3. தாய்மொழியின் பல்வேறு பயிற்றுமுறைகளை அறியச் செய்தல்.
- 4. செய்யுள் உரைநடைப்பாடங்களைக் கற்பித்தலின் வேறுபாடுகளை அறிதல்.
- 5. இலக்கண பயிற்றலில் உள்ள திறன்களை வளர்த்தல்
- இலக்கண விதிகள் வரையறைகளைக் கற்பிக்க விளையாட்டு முறைகளைப் பயன் படுத்த பயிற்சியளித்தல்.
- 7. பல்வோடிவகையான கட்டுரைப் பாடங்களை அழியச் செய்கல்
- 8. மொழிபெயாப்பு- மொழியாக்கம் ஆகியவற்றின் அடிப்படைவிதிகளை அறிந்து கொள்ளச் செய்தல்
- 9. கேட்டுணர்தல் திறனையும், பொருளணர்தல் திறனையும் வளர்த்தல்
- 10. படிக்கும் பழக்கங்களை வளர்த்தல்
- 11. வினாக் கேட்டலில் பல்வேறு திறன்களைவளர்த்தல்
- 12. ஒரு சிறந்த மொழிப்பாட ஆசிரியர்களுக்கான பண்புகளை வளர்த்தல்
- 13. பாடத்திட்டம் அமைத்தலில் நவீன தொழில் நுட்ப சாதனங்களின் பயன்பாடுகளை அறிதல்
- 14. பாடத்திழ்டம் அமைத்தலில் உள்ள கோடபாடுகளை அறியச்செய்தல்

# அலகு:1 கல்வி ஏற்பாட்டில் தாய் மொழி பெறும் இடம், தாய் மொழியினைப் பயிற்றும் முறை.

- 1.1நோக்கங்கள், பயன்கள்- எண்ணத்தை வெளியிடுங்கருவி, திருத்தமாக பேச படிக்கஎழுத், வாழ்க்கை நுகாவுகள் கற்பனையாற்றலை வளர்த்தல்- அழகுணராற்றலை வளர்த்தல்- சமூகப் பண்பாட்டு மரபினையாயும் கருவி மொழியாகும்.
- 1.2 கல்வியின் இன்நியமையாமை- சமூகக் கடமைகளை மேற்கொள்ளுதல்- வாழ்க்கை நடத்தக் தேவையான திறன் களைப் பெறுதல்.
- 1.3 பிறமொழிகளைக் கற்பதற்குத் தாய் மொழியே அடிப்படை மாநில மொழியிலிருந்து தாய் மொழிவேறுபடும் போது ஏற்படும் சிக்கல்கள்.
- 1.4 தாய் மொழியினைப்பயிற்று முறை: பண்டோர் கண்ட முறை- தற்காலமுறை- விளையாட்டு முறை, செயல் திட்டமுறை- தனிப்பயிற்சி முறை- மேற்பார்வை படிப்பு முறை- விரிவுரை முறை- இம் முறையைப் பல்வேறு நிலையில் (நடுநிலை, உயர்நிலைஇ மேல் நிலை) பயன்படுத்துங்கால் எற்படும் நிறை குறைகள்.

# அலகு: 2 மொழித்திறன்களைக் கற்பித்தல்:

- 2.1 கேட்டல் திறன்-வரையறையற்ற கேட்டலின் வழிகற்றல்- கேட்டல் பழக்கத்தினை வளர்த்தல்-பொருள் மாறாது சுருக்கி எழுதலின் கீழ் பயிற்சி பெறுதல் -பத்திகளையும் பெரிய பத்திகளையும் சுருக்குதல்-பல்வேறு நோக்கங்களை நிறைவேற்றப்பார்த்தல்- செய்திகளை அறிதல்- நயம் பாராட்டல் போன்றவைகளுக்காக விளம்பரம்- கேட்டலுக்கும் பயிற்றலுக்குமுள்ள வேறுபாடுகள்.
- 2.2 பேசுதல் திறன் : அழுத்தமாகப் பேசுதல்- இலக்கண் வழுவின்றி பேசுதல்- மரபு மொழிகள்-பழ மொழிகள்- தொடக்க நிலை பேச்சாற்றல்- சொற்போர்- கலந்துரையாடல்- வினாடிவினா இவற்றைத் தெடக்கநிலை, நடு நிலை, உயர் நிலை வகுப்புகளுக்கு பொருத்தமாக அமைத்துக் கொள்ளுதல்.
- 2.3 வாய்மொழிப்பயிற்சி: இதன் இன்றியமையாமை- நோக்கங்கள்- பயன்கள், உச்சரிப்பில் ஏற்படும் சிக்கல்கள்- மனப்பாடம் செய்தலின் இன்றிமையாமை- திருந்திய பேச்சில் பொருந்திய நல்லியல்புகள், திருந்திய பேச்சனை வளர்க்க துணையாகும் இலக்கியங்கள்- நாடகங்கள், வாய்மொழிப் பயிற்சியினைப் பல்வேறு நிலைகளில் அளிப்பதற்கான முறைகள், ஆர்வத்தைத்தூண்டும் தலைப்புகளைப் பற்றி உரையாடல்- சிறுவர் பாடல்கள்- ஆட்டப்பாடல்கள், கதை சொல்லுதல்- கலந்துரையாடல் சொற்போர்-சொற்பொழிவுகள் மன்றுத்தில் பேசதல்
- 2.4 படித்தல் திறன்: படிக்கக் கற்பித்தலின் நோக்கங்கள்- படிக்கக்கற்பிக்கும் முறைகள், எழுத்துமுறைப்படிப்பு- சொல் முறைப்படிப்பு- சொற்றொடர் முறைப்படிப்பு- இவற்றின் நிறைகுறைகள்- சொற்களஞ்சியப் பெருக்கம்- படிப்பில் ஆர்வம் தூண்டல்- வாய்விட்டு படித்தல்- முறைகள் நன்மை தீமைகள்- நூல்களைப் பயன்படுத்துதல்- நூலகப் படிப்பு, தின, மாத, வார இதழ்கள் படிக்கும் பயிற்சி போன்றவை, ஆழ்ந்த படிப்பு, அகன்ற படிப்பு நோக்கங்கள் நிறைகுறைகள்- முதியோாக்குப் படிக்கக் கற்பித்தல்
- 2.5 எழுதுதல் திறன கையெழுத்தும் எழுத்துப் பிழையின்மையும், எழுதுவதற்குப் பயிற்சி அளித்தல்-சில முதற்பயிற்சிகள்- எழுது கருவிகளைப் படிக்கும் முறை- நல்ல கையெழுத்தின் நல்லியல்புகள், தெளிவு. அளவு. அழகு, இடைவெளி, எழுத்துப் பயிற்சி முறைகள், வரியொற்றியழுதுதல்- பார்த்து எழுதல்- சொல்வதை எழுதுதல்.

## அலகு:3 தமிழ்ப் பாடம் கற்பிக்கும் முறைகள்:

- 31. செய்யுள் உரைநடைப்பாடங்கள்: பயிற்றலின் நோக்கங்களுக்கிடையே அமைந்துள்ள வேறுபாடுகள்-பல்வேறு வகையான உரைநடைகளையும் செய்யுட்களையும் கற்பித்தலில் மேற்கொள்ளும் வழமுறைகள்- செய்யுள் நலம் பாராட்டிச் சுவையுணராற்றலை வளர்த்தல்.
- 3.2 இலக்கணம், கட்டுரை கற்பித்தல், தொல்காப்பியத்திலும், நன்னிலிலும் கூறப்பெறும் பண்டையோர் கற்பிக்கும் முறைகள்- உரையாசிரியாகள் காட்டும் முறைகள், தற்காலக் கொள்கை- விதிவருமுறை, விதி விளக்க முறை, உரைநடை, கட்டுரை ஆகிய பாடங்களுடன் இணைத்துக் கற்பித்தல், தலைப்புகளைத் தேர்ந்தெடுத்தல். விளையாட்டு முறையில் இலக்கணம் கற்பித்தல்.
- 3.4 கட்டுரை எழுதுவதின் வளர்ச்சிநிலைகள்- வகைகள்- சொற்றொடராக்கப் பயிற்சிகள்- வாழ்க்கை வரலாற்றுக் கட்டுரை பாடக்கட்டுரை- வருணனைக் கட்டுரை சிந்தனைக்கட்டுரை விவாதக்கட்டுரை

B.Ed. Course Syllabus 07-08 (R) வரலாற்றுக்கட்டுரை,கதைக்கட்டுரை, ஆய்வுக்கட்டுரை உரையாடல் கட்டுரை(கீழநிலை லேநிலை வகுப்புக்குரியது

### அலகு:4 பாடக்குறிப்பு, பாடநூல், நுலகம், மொழயாசிரியரின் பண்புகள்:

- 4.1 பாடக்குறிப்பு தயாரித்தலின் இன்றியமையாமை- பாடக் குறிப்பின் நன்மைகள், தீமைகள், ஆசிரியர் மனத்திற் கொள்ளத்தக்க பாடக்குறிப்பிற்கும் ஆசிரியரின் குறிப்பிற்குரிய வேறுபாடுகள்.
- 4.2. வினாக்கேட்டல்- வினாக் கேட்டலின் இன்றியமையாமை- வினவுதலின் நோக்கங்கள், பயன்கள், வினாக்கள் வினவுதலின் திறமை- வினாக்கள் வினவும் முறைகள்- வகைகள், கற்பிக்கும் வினாக்கள் வீட்டு வேலை வினாக்கள், தோவு வினாக்கள் போன்றவை. சிறந்த வினாக்களின் சிறப்பியல்புகள், நல்ல தோவின பண்புகள்.
- 4.3 சிறந்த பாடநூல்களைத் தயாரிக்கும் பொழுது மனதில் கொள்ளத்தக்க செய்திகள்- நல்ல பாடநூலில் அமைந்திருக்க வேண்டிய நன்மைகள்- ஆழ்ந்த படிப்பிற்கான பாடநூல்களின் தன்மைகள் 4.4 துணைப்பாடநூல்களின் தன்மைகள்
- 4.5 பள்ளி நூலகம், வகுப்பு நூலகம், கருவிநூலகம்.

### அலகு:5 மொழிக்கற்பித்தலில் கல்வித்தொழில் நுட்பம், மேல் நிலைவகுப்புகளில் அளிக்கப்படும் பயிற்சிகள்.

5.1 துணைக் கருவிகளை பயன் படுத்துதல்- டெசிடாஸ்கோப்- வாசிக்கும் கருவி- வானொலி-படநாடாப்பதிவு- ஒலிப்பதிவுநாடா- மொழிப்பயிற்றாய்வுக் கூடம்- கற்பிக்கும் பொறிகள்-திட்டமிட்டுக்கற்றல்- இவை மொழிப்பாடம் கற்பித்தலுக்கு எவ்வாறு துணைபுரிகிறது.

மொழிக்கற்பித்தலின் நுட்பக்கூறுகள் - தொலைக்காட்சியின் இன்றியமையாமை – கணணி வழிக்கற்றல் 5.2 மேல்நிலை வகுப்பகளில் அளிக்கப்படும் பயிற்சிகள்:

செய்திகளைத் தொகுத்தல், செய்திகளை வகைப்படுத்துதல், செய்திகளை விரிவு படுத்தல், நயம படவும் திறன்படவும் உரைத்தல், சொல்லாட்சித்திறன், கால வரையறையை விஞ்சாது எழுதும் பயிற்சி, தனக்கென நடையமைத்துக் கொள்ளல்

- 5.3 கடிதம், கடிதங்களின் வகைகள், கடிதம் எழுதும் முறை, எழுதலின் நோக்கம், சுருக்கி எழுதுதல் விவரித்து எழுதுதல்
- 5.4 மொழிபயிற்சி- சொற்றொடர் அமைப்பும், பத்தியமைத்தலும், சொற்றொடர் மாற்றங்கள் பத்திகளுக்குச் சிறு தலைப்புகள் தருதல், தலைப்புகள் இடுதல்- நிறுத்தற்குறியீடுகள்
- 5.5 மொழிபெயாப்பு- தாய்மொழியினின்று பிறமொழியில் மொழிபெயாப்பு, பிறமொழிகளினின்று தாய் தோழியில் மொழிபெயாப்பு, மொழிபெயாப்பில் எழும் சிக்கல்கள் பெயாப்பின் வகைகள்.

#### நூல்கள்:

- 1. தமிழ் பயிற்று முறை- ந. சுப்பு ரெட்டியர்-1957
- 2. நாற்றமிழ் கற்பிக்கும் முறைகள் 1 ரூ 11- வி.கணபதி- 1989
- 3. தமிழ் ஐவகைப்பாடங்களும், கற்பித்தலம்ு- வீ.குணுபுதி-1989
- 4. தமிழ் கற்பித்தல்- மா.சு..திருமலை- 1998
- 5. தமிழ் கற்பித்தல்- அணுகுமுறைகளும், செயல் முறைகளும்- இரா. சுந்திரசேகர்-2001.