PRINCIPLES OF EDUCATION

Paper Code (EDY401)

LT P 31 0

Theory: 75 Marks Sessional: 15 Marks Assignment: 10

Objectives:-

- To enable the students to Know about the meaning concept and scope of education.
- To make the students able to explore the functions of education.
- To able the students to determine the aims of education in social and political context of the country.
- To acquaint the students with various agencies of education.
- To introduce the students with western philosophies of education.
- To expose the students with the concept of social change and role of education in social change.
- To introduce the students with Indian and western philosophers and their contribution in education

Unit – I - Education: Introduction

Meaning, Concept and scope of education

Functions of education:

Aims of education: Factors affecting aims of education, General aims of education.

Aims of education in context to social and political conditions of the country.

Unit- II – Agencies of Education:-

Formal, Informal and non formal, Home, School, Community, State, Religion and Mass Media, Peer group.

Unit – III – Philosophical Approaches to Education:-

Meaning and concept of philosophy, factors affecting philosophy

Critical study of Idealism, Nationalism, Realism and Pragmatism with their Educational Implications,

Value education:- need and importance in the light of education commissions, how to inculcate values in schools, value education and role of teachers.

Unit – IV – Education and Social Change:-

Meaning and Nature of social change, factors retarding social change – caste, language and religion. Socialization and acculturation, education and culture

Cultural heritage of India: Unity in Diversity, Secularism, communalism and role of education.

Unit – V – Educational Thinkers and their Contributions in field of Education:-

M.K. Gandhi, Sri Aurobindo Ghose, Ravindra Nath Tagore

Maria Montessori, Paulo Freiere.

Recommended Books:-

- Butler, J. Donald (1968) Four Philosophies and their practice in education and religion, Harper
 Row, New York.
- 2. Choube, S. P. & Choube A (2007) Foundation of Education, Vikas publishing House, Pvt. Ltd. New Delhi.
- Anand, C.L. AI (Eds) (1983). The teacher and education in emerging Indian society, New Delhi, NCERT.
- 4. Brubacher, John S. (1971). Modern Philosophies of Education, Delhi, Tata McGraw Hill.
- 5. Durkhein Emile (1956). Education and Sociology, New York, Free Press of Glencol.
- 6. Gore, M.A. et. Al (1967). Paper in Sociology of Education in India, New Delhi, NCERT.
- 7. MHRD, Report of Education Commission (1964-66), New Delhi. Govt. of India, Ministry of Education, New Delhi NCERT.
- 8. Value of education Source book (1994)
- 9. Oad L.K. (Ed.) (1988) "Shiksha ke Nutan Ayam" jaipur, Rajasthan, Hindi Granth Academy.

Psychology of Teaching and Learning Process Paper Code (EDY402)

L T P 3 1 1

Max. Marks: 100 Theory: 60 Sessional: 15

Practical: 25

Objectives:-

This course will help student-teachers to acquire knowledge about psychological perspective of the teaching-learning process and the learner. After completing the course the student-teacher will be able:

- to define Psychology and acquire knowledge of the nature and scope of Educational Psychology.
- Understand the learner, his needs and interests, development and his social background.
- to explain the processes of 'Growth' and 'Development'.
- to apply psychology in the classroom context.
- to state the factors responsible for the individual differences.
- to describe the different types of learning and the factors facilitating learning.
- to identify the processes of remembering and forgetting.

- to become a teacher with good mental health and promote mental health of the learners.
- Develop an understanding of theories of learning and intelligence.
- Develop skills for using psychological tests especially intelligence tests.
- Improve their teaching-learning in classroom context.

Unit-I - Psychology and Teaching Learning Process:-

Meaning, Nature, Scope and Methods of Educational Psychology- Case Study, Survey, Experimental, observation and interview methods.

Understanding learner characteristics and development- Concept of growth and Development, Stage Specific Characteristics and development in relation adolescent, Role of Heredity and Environment.

Unit – II – Psychology of Learning and Motivation:-

Learning: Nature and concept of Learning, Factors influencing learning. Educational implications of the theories of Thorndike, Pavlov, and Skinner, and Kohler's insight theory of learning.

Transfer of learning: Concept, theories and factors influencing transfer of learning

Memory and Forgetting: Concept, Factors influencing retention. Strategies of memorization,

Motivation: its nature, and types. Its role in learning and teaching. Techniques of enhancing learners and teacher's motivation.

Unit- III- Intelligence and personality:-

Intelligence: Nature, Definition and development of intelligence, Theories of intelligence- Two factors theory, Multi factor Theory, Structure of intellect (SI) Model, Types of Intelligence tests.

Personality: Definition, Nature, Type and trait theories, Assessment of personality.

Unit-IV- Memory and Forgetting:

Concept, Factors influencing gretention, Strategies of memorization. Exceptional Children: Concept, Types (Gifted and backward) Characteristics and their education. Creativity concept measurement and nurturing creativity.

Unit-V – Adjustment and Mental Health:

Concept of Mental Health, Mal adjustment, Symptoms and causes of mal adjustment, Group dynamics, and Individual differences.

Exceptional Children: - Concept, types (gifted and backward) characteristics and their education. **Practicals: -**

A – Test:

- 1. Intelligence Test: Standard progressive matrices (J.C. Ravens).
- 2. Personality: High school personality questionnaire (R.B. Cattel.).
- 3. Creativity: Passi Test of creativity (Performance material) (B.K. Passi).
- 4. Interest: Differential Personality Inventory. (Arun Kumar Singh, Ashish Kumar Singh)

B- Experiments:

- 1. Learning: Paired Associate Learning (D.S. Janbandhu) PAL-J.
- 2. Transfer of Training: Mirror drawing, electrical.
- 3. Mental Work and Fatigue: Ergograph for measuring physical fatigue. (Hand Grip Model).

4. Attention: Division of attention experimental material.(Dr. Shailaja Bhagwat).

Recommended Books:-

- 1- Contemporary Educational Psychology by Kelvin Seifert, at al. Wiki books, 2010.
- 2- An Introduction to Educational Psychology by M. Asch Sarup & Sons, 2005.
- 3- Advanced Educational Psychology author: S S Chauhan edition: Seventh Edition.
- 4- Advanced Educational Psychology by S. K. Mangal Books...Feb 3, 2013.
- 5- Elements of Educational Psychology Page vi Google Books Result Bhatia, H. R. 1973.
- 6^- Crow, L D and Crow A Educational Psychology (Revised Ed) N Y : The Macmillan & Co 1963

Curriculum, Evaluation and Action Research Paper Code (EDY- 403)

L T P 3 1 0

Contact Hours-4 Periods/weak Examination Duration-3 Hours Max. Marks: 100 Theory: 75 Sessional: 15 Assignment: 10

Objectives:-

After completing the course the student-teacher will be able:

- understand the concept, principles and determinants and process of curriculum development at different level.
- understand the concept of assessment and evaluation.
- understand the nature and uses of different assessing tests and tools and Techniques to assess student performance.
- devise, manage and interpret assessment data.
- appreciate the role of action research in improving classroom practices.

Unit1: -curriculum development

Meaning & concept of curriculum, determinants of curriculum –philosophical, psychological

Sociological, Dimensions of curriculum- Aims and Objectives, Content, Learning experiences and evaluation.

- Approaches to curriculum organization –subject centered –child centered and activity centered.
- National Curriculum Frame Work-Concept, need and process of development

Unit II: -Curriculum Development in the Indian context:

- University Education Commission, Secondary Education Commission 1952-53
- Education Commission 64-65, National Policy on Education 1968
- Curriculum for School Education NCERT (2005)
- National Policy on Education (1986).
- Revised National Policy of Education (1992)

Unit III: -Educational Evaluation –Tools and Techniques:

- Assessment and evaluation as an integral part of teaching learning process, Evaluation
 as continuous and comprehensive process, need and purpose of evaluation, formative and
- Summative Evaluation. Different tools and techniques- written and oral tests, observation,
 ratings
- scales, Check list. Anecdotal record, self reporting techniques. Types of tests items Essay type,
- short answer type and objective type Merits and limitations. Interpretation of student's performance.

Unit - IV: Construction of Classroom Tests:

- Type of tests: Standardized tests and Teacher made tests: Merits and Limitations.
- Construction of an Achievement Tests:
- Planning of tests: Content Analysis, weightage to topic/sub topic, weightage to levels of objectives, preparation of blue print of test.
- Constructing test items, reviewing and modifying, editing the test items and writing direction Planning answer key /making scheme.
- Administering the test, item analysis, and difficulty value and discrimination power.
- Concept of grading, its need, significance and types.
- Concept of CBCS, its need, significance.

Unit – V – Action Research:

Concept and need of Action Research, Steps of action research. Teacher as an innovator of new practices and user of the innovative practices. Action research approach to improve class and school practices. Development of an action research plan.

Recommended Books:

- 1 Bloom, B.S. and Krath, Taxonomy of Education Objectives Hand Book I,
- 2 Wohl (1956) New York Davis Mekay,
- 3 Edwl, R.L. (1965) Measuring Educational Achievement.
- 4 Sax Gilbert, (1974) Principles of Education Measurement & Evaluation, California Wadsworth.
- 5 Thorndike, R.L. (1971) Educational Measurement American council on Education, Washington
- 6 Singh, A.K. (1986) Tests Measurement and Ros. Methods in Behavioral Sciences. TMH, New Delhi
- 7 Anastasi, (A) 1968 Psychological Testing, London McMillan & Co.
- 8 Cranach, L.J. (1970) Essentials of Psychological Testing, N.Y. Harper & Raw.
- 9 Edwards, A.L. (1957) Techniques of Attitude scale construction
- 10 Gronlurd, N.E. Readings in Measurement & Evaluation. Macmillan & Co
- 11 Pomham Educational Evaluation, Prentice Hall.

Educational Technology & Computer Application in Teaching Paper Code (EDY404)

LTP

3 1 1

Max. Marks: 100 Marks

Theory: 75 Marks

Sessional: 15 Marks

Practical: 10 Marks

Objectives:-

After completing this course, the student teacher will be able to:

- know the meaning, concept and scope of Educational Technology.
- understand the role of Educational Technology in modern educational practices.
- be acquainted with the approaches and components of Educational Technology.
- understand the stages, levels and maxims of teaching.
- keep abreast with different innovations in Educational Technology and try them out for improving teaching learning.
- Identify the use of audio-visual aids in teaching and learning.
- Know the application of computers in teaching.

Unit - I

- (a) Meaning, concept, objectives and scope of Educational Technology.
- (b) Types of Educational Technology: Hardware Approach, Software Approach and System Approach.
- (c) Components of Educational Technology: Behavioural Technology, Instructional Technology and Teaching Technology.
- (d) Role of Educational Technology in modern educational practices.

Unit - II

- (a) Concept & characteristics of teaching
- (b) Stages of teaching: Pre-active, Interactive and Post active phase.
- (c) Teaching at different levels, Maxims of teaching.
- (d) Programmed Learning: Meaning, origin and concept.
- (e) Microteaching and simulated teaching: Meaning, purpose, procedure and importance.

Unit-III

- (a) Communication: concept, component and process.
- (b) Edger Dale's Cone of Experiences.
- (c) Audio visual Aids: Meaning, characteristics, importance and types.
- (d) Computer -Assisted and Computer-Managed Instruction.

Unit - IV-

- History of Computer, Generation of Computer, Characteristics and classification of computer.
- Need, Importance and Application of Computer.

- Computer Hardware: CPU, Various Input and output Devices, Mouse Keyboard, Monitor, Printer, Scanner, Projector.
- Computer Software: System Software. Application Software. Various Types of Application Software.
- Concept in Operating System: DOS and Windows, .Memory: Types of Memory RAM, ROM,
 Storage Devices, Floppy Disks, CD ROM.

Unit-V

- Application of Computer in Education: Computer Assisted Education. (CAE)Computer Assisted Learning (CAL) Power Point and Photoshop.
- Computer and Teaching: Preparation of Lesson Plan, Notes, Question paper, Preparation of Result and Report.
- Evaluation through the Computer.
- Internet and network: Website, e-mail, Search engine; LAN, MAN

Suggested Readings:-

- 1. Perival. F. And Ellington H, 1984 A Handbook of Educational Technology, London: Kogon
- Sampath et. al 1984. Introduction to Educational Technology, Sterling Publishers Pvt. Ltd, New Delhi.
- 3. Roblyer, MD; Edwards, J. Havriluk, Mary 2000. Integrating Educational Technology into Teaching.
- 4. Kulkarni, SS 1986 Introduction to Educational Technology, IBH Publishing Co., New Delhi.
- UNESCO 1988 Linking Technology with Science Education Technology in life, UNESCO Press.
- 6. Ruhela S.P, (1973) Educational Technology, Raj Prakashan, New Delhi.
- Mangal, S. K; Mangal Uma; 2009, Essentials of Educational Technology, PHI Learning Pvt. Ltd., New Delhi.
- 8. Besag, Frank P. Computer Literacy for Teachers, Beverly Hills: Sage Publications, 1985.
- Gill, N.S., Essentials of Computer and Network Technology, Delhi, Khanna Book Publishing Co., 2000.
- 10. Kershner, Helene G., Computer Literacy, 2nd ed., Lexington, Mars: D.C. Heath, 1992.
- 11. Vanaja, M. Rajasekar ,S. Educational Technology & Computer Education, Neelkamal Publications Pvt. Ltd., New Delhi, 2007.

Educational Technology (Practical)

Max. Marks: 10

List of Practicals:-

- 1. Power Point Presentation on:
 - a) Bloom's Taxonomy
 - b) Any two of the following core skills of teaching
 - i) Set Induction
 - ii) Explanation
 - iii) Probing Question
 - iv) Reinforcement
 - v) Stimulus Variation
 - vi) Using Black Board
- 2. Preparation of self instructional material (Any Two)
 - i) Linear Programming
 - ii) Branching Programming
 - iii) Computer -Assisted Instruction (CAI)
 - iv) Computer- Managed Instruction (CMI)
- 3. Lesson Planning through Computer.

Education & Environmental Conservation Paper Code (EDY405)

L T P 2 1 0

Contact Hours-3 Periods/weak Examination Duration-2 Hours Max. Marks: 50 Theory: 30 Sessional: 10 Assignment: 10

Objectives:-

After completing the course the student-teacher will be able to:

- understand the concept, aim, objectives and importance of environmental education.
- identify various methods and strategies for realizing the objectives of environmental education.
- establish the relationship of man with environment.
- appreciate the role of various agencies working in the area of environment.
- understand possible environmental hazards and their negative effects.

Unit – I – Introduction of Environmental Education:

- Meaning, Nature and scope of environmental education.
- Need and importance of environmental education.
- Relationship of Man and Environment.
- Need for conservation of environment.

Unit – II – Ecosystem and Man:

- Ecosystem: Structure and function, procedure, consumer and decomposers.
- Food chain & food web.
- Flow of energy: bio geo chemical cycles: oxygen, carbon, nitrogen and water.
- Effect of human activities on ecosystem.
- Acid rain, green house effect, global warming, ozone depletion.
- Deforestation and soil degradation.
- Population explosion and its effect on environment.

Unit - III - Environmental Education in the curriculum:

- Present status of environmental education in school curriculum in India.
- Methods of teaching Environment Education
- Project
- Survey
- Problem solving activity

• Lecture cum demonstration method.

Role of media – Print, film, TV, & Av aids.

References:-

- 1. NCERT (1981) Environmental Education at school level, New Delhi.
- 2. Sharma, R.C. (1981) Environmental Education, New Delhi, Metropolitan, UNESCO.
- 3. Sharma, R.A. Environmental education, Meerut.
- 4. Nasrin, Education Environment and Society, AMU, Aligarh.
- 5. Harishchandra Viyas (2001), Paryavran Siksha, New Delhi, Vidya Vihar.

METHODS & TECHNOLOGY OF TEACHING ENGLISH-A Paper Code (EDY406)

LT P 310

MAX. MARKS: 100

THEORY: 75 SESSIONAL: 25

Contact hours: 4 period/week

Exam. Duration: 3 hours

Objective:

After completing this course, the students' teacher will be able to:

- understand the nature and resources of language and issues related to language acquisition,
 variation and change.
- use the knowledge and skills needed to understand, analyse, evaluate, their own performance;
- appreciate the uniqueness of multilingualism in India as a linguistic and social –linguistic phenomenon and its implication for pedagogy.
- acquire knowledge about the role, status, objectives and problems of teaching English as a second language in India. Develop the four basic skills i.e. listening, speaking, reading and writing among the students;
- know compare and analyse various methods and approaches of teaching English as second language.
- Plan and teach lessons in English prose, poetry, grammar related to the course prescribed by different state boards of secondary education in the northern region

Unit -I

Language: Nature, concept, types (verbal & non –Verbal) functions

- Concept of language learning and acquisition
- Multilingualism as a resource
- The objective of teaching English as a second language at the secondary level the position and role of English in India
- Problems in effective teaching of English as a second language in Indian school and their possible solutions

Unit -II:

- Determiners
- Tenses
- Prepositions, clauses
- Direct and indirect speech
- Connectors, Active and passive voice
- Punctuation, phrasal verbs

Unit-III: Methods & approach to teaching English:

- Direct method of teaching English and its critical appraisal.
- Structural approach to teaching English, Advantage and disadvantages.
- Communicative Approach to English.

Unit- IV: Teaching of Grammar:

- Grammar –translation method
- Teaching of Grammar Place of grammar in the study of English.
- Deductive and inductive approaches.
- The mother tongue in the class.

Unit -V: Teaching:

- Teaching of prose, Aims and objectives.
- Teaching of poetry, Aims and objectives.
- Lesson planning in all the above areas.

References:

- 1. A university Grammar of English :R Quirk and S Greenbaum (longman)
- 2. A practical English Grammar (OUP): AJ Thomson and AV Martinet .
- 3. Intermediate English Grammar (C.U.P.): Raymond Murphy
- 4. A Traning course for TEFI (DLBS/OUP):Peter Hubbard ,Haywel joes
- 5. Developing Reading skills(C.U.P):Francoise grellet.
- 6. English vocabulary in use (CUP): Michael Mc Carthy, Felicity O, Dell
- 7. The Techniques of language Teaching (Longman): F.L. Billows

- 8. Teaching foreign Language Skills (University of Chicago Press): Wilga Rivers
- 9. Introduction to English Language Teaching (Logman): John Haycraft
- 10. Teaching Writing Skills (Longman):Done Byrne
- 11. Language Teaching games and contests (O.U.P):W.R.Lee

Visual Materials for the language Teacher (Logman): A Wright

METHODS & TECHNOLOGY OF TEACHING HINDI-A

Paper Code (EDY407)

LTF

3 1 0

Max. Marks: 100

Theory: 75 marks

Sessional: 25

Marks

Objectives:

After completing this course, the student teacher will be able to:

- trace the origin and development of Hindi language and its script.
- know and formulate the aims and objectives of teaching Hindi Language at different levels of school education.
- develop skills of loud and silent reading as well as reading aloud with expression
- know and use methodology of teaching different forms of literature viz. prose, poetry, grammar and composition.
- draw lesson plans for teaching Hindi language.

Unit - I -

- Language Meaning, types and importance.
- Origin and Development of Hindi Language and Devnagri script.
- Place of Hindi in school curriculum.

Unit - II-

- Elements of Hindi language, its phonetic morphologic and syntactic structure.
- Spelling errors, classification, causes and their correction through remedial teaching.
- Word formation in Hindi.

Unit - III-

- Aims & objectives of teaching Hindi language at primary, secondary & senior secondary levels of Education.
- Statement of objectives in behavioral terms.
- Lesson Plan: Meaning, Need and Format.

Unit - IV -

- Teaching of Loud reading, silent reading, intensive and extensive reading.
- Teaching of Prose objectives, methods and lesson planning.
- Teaching of Poetry objectives, methods and lesson planning.
- Teaching of Grammar objectives, methods and lesson planning
- Teaching of Composition- objectives, methods and lesson planning.

Unit-V-

- Use of Audio-visual aids in Hindi teaching.
- Co- curricular activities in Hindi teaching.
- Characteristics of a good Hindi Text book.

Suggested Readings:-

1. Mangal Uma (1991), (2006) Hindi Shikshan, Agra Book Depot, Delhi.

- 2. Wilkins D. A (1983): Linguistics and Language Teaching, Edvard Anod, London.
- 3. Singh, Savitri (1992); Hindi Shikshan, Loyal Book Depot, Meerut.
- 4. Bhai Yogendrajeet (2005): Hindi Nhasha Shikshan, Vinod Pustak Mandir, Agra.
- 5. Pandey, R.S. (1992); Hindi Shiakshan, Vinod Pustak mandir, Agra.
- 6. Srivastava, R. P. (1979): Teaching of reading, Bahri Publication, New Delhi.
- 7. Prasad, Keshar (1991): Teaching of Hindi, Dhanpat Rai & sons.

Paper Code (EDY408)

LTP 310

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam. Duration: 03 Hrs Theory: 75 Marks

Sessional: 25 Marks

Objectives:

To acquaint the students with meaning, concept and nature of Urdu Language.

To make the students know the function of Urdu Language.

To make the students able to understand the importance of Urdu Language in secondary school curriculum.

To enable the students to know the aims and objectives of teaching Urdu language at secondary level.

To enable the students to be aware about various methods of teaching Urdu language.

To make the students able to understand the characteristics a good text-book in Urdu.

To make the students able to explore the various techniques of evaluation.

Unit-I

- The nature of Urdu Language and its scope.
- Functions and purpose of Language.
- Communication (ii) Medium of Thinking (iii) Transmission of Culture

Unit-II

- Place of mother tongue in School Curriculum. The role of mother tongue in the education of child.
- Aims of teaching mother tongue at different levels---Primary, Lower,

Unit-III

- (a) Methods of Teaching:
 - Teaching of Prose (Story, Drama)
 - Teaching of Grammar
 - Teaching of Poetry (Poems, Ghazals)
- (b) Mechanics of Reading:
 - Silent reading
 - Reading aloud

Unit-IV- Text Books and Syllabus of Mother Tongue:

- General Principles
- Principles of Selection of the Text- Books

Unit -V-

• Importance of Essay type test and objective type test in evaluation of language abilities.

Recommended Books:

- 1. Ansari, Akhtar Ghazal Aur Ghazal, Taragi-e-Urdu-Board, ki Taleem New Delhi, 1979.
- 2. Ansari, Akhtar, Ghazal aur Dares-Ghazal, Anjuman Tarikhi-e- Urdu, Aligarh
- 3. Ansari, Akhtar, Studies in Language and Language Teaching, Friends Aligarh, 1962
- 4. Ahmad Hasan Tadrees on Urdu, Marathzara Collage of Education, Aurangabad, 1973.
- 5. Saiyadin, K.G.Zindagi, Zaban aur Taleem, Anjuman Tariq-e- Urdu, Aligarh, 1971
- 6. Moinduddin Urdu Zaban ki Tadrees, Tarikhi-Urdu Bureau, New Delhi, 1983
- Gurrey, P. Teaching the Mother Tongue in Secondary Schools, Longamans London 1958.

METHODS & TECHNOLOGY OF TEACHING ARABIC-A

Paper Code (EDY409)

LTP

310

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam Hrs: 03 Theory: 75 Marks

Sessional: 25 Marks

Objective:

After completing this course, the students' teacher will be able to:

- understand the nature and resources of language and issues related to language acquisition,
 variation and change.
- use the knowledge and skills needed to understand, analyse, evaluate, their own performance.
- Plan and teach lessons in English prose, poetry, grammar related to the course prescribed by different state boards of secondary education in the northern region

Unit-I Content:

- Language: Its meaning and functions.
- General Principles of language learning with special reference to Arabic.
- Development of Arabic Language.
- Special Features of Arabic language and its Universal significance.

Unit-II- Aims and Methods of Teaching:

- Aims and objectives of teaching Arabic as a foreign language.
- Translation method for teaching arabic as a foreign language.
- Direct method for teaching Arabic as a foreign language.

Place of mother tongue in teaching of Arabic.

Unit-III- Lesson Planning and Methods of Teaching:

- Meaning and importance of lesson planning and the general steps of the lesson plan.
- Teaching of Poetry: Intensive and Extensive reading, Silent reading, Reading aloud, Questioning,
 Planning a prose lesson.
- Teaching of Poetry: Objective of a Poetry lesson, Importance of recitation, Reading aloud, planning a poetry plan.
- Teaching of Grammar and composition: Place of grammar in teaching of Arabic, Inductive and deductive approaches, Letter writing and essay writing.

Unit-IV - Aids of Teaching:

- Meaning and importance of teaching aids.
- Types of teaching aids and their uses.
- General Principal of 'Word Selection' (Vocabulary)
- Salient features of a good textbook in Arabic.

Unit-V - Evaluation Techniques:

- Oral tests and their consideration.
- Objective type test and its construction.
- Short answer type test and its construction.
- Essay type test and its construction.

Books:

- 1. Allen H.B. Teaching of Arabic as a Mc Graw Hill Co. New Foreign Language York, 1965
- 2. Al-Naqa, Asasiyat Taalim al Lugha Khartoum(Sudan) 1978 Mahmum K. al Arabic li Ghair al-Arab, (in Arabic). ALESCO International Institute of Araqbic Language
- 3. Kohli A.L. Techniques of Teaching Dhanpat Rai & Sons English Delhi, 1990
- 4. Lado R. Language Teaching: A McGraw Hill New Scientific Approach Delhi, 1983

METHODS & TECHNOLOGY OF TEACHING HISTORY-A Paper Code (EDY410)

LTP

3 1 0

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam Duration: 03 Hrs. Theory: 75 Marks

Sessional: 25 Marks

Objectives:

• To acquaint the students with the concept and importance of History in secondary school curriculum.

- To make the students know about aims and objectives of teaching History.
- To acquaint the students with significance of lesson planning in History
- To develop among students competencies in teaching of History at secondary level.

- To enable the students apply appropriate method and techniques for teaching of History at secondary level.
- To enable the students acquire Knowledge of various evaluation technique in History.

Unit – I: Meaning nature and significance of History:

- Meaning, nature and scope of History, Traditional and modern concept of History.
- Distortion in history, Relation of History with other subjects,
- Importance of teaching history at secondary school curriculum

Unit- II: Aims & Objectives of Teaching History:

- Aims and objectives of teaching with particular reference to Indian History
- Instructional objectives: Taxonomy of instructional objectives
- Developmental objectives Social objectives,
- Developing critical thinking about History

Unit- III: Methods of Teaching History:

- Story telling Method
- Source Method
- Discussion Method
- Question answer Method

Unit- IV: Lesson planning in History:

- Meaning and significance
- Characteristics of a good lesson plan
- Steps of a lesson plan in History
- Planning for instruction- Annual, Unit and Daily
- Planning for mixed ability group

Unit- V: Evaluation in History:

- Developing an effective evaluation program
- Technique of evaluation
- Essay type Test
- Short answer type Test
- Objective type test
- Designing a good achievement test in History

Suggested Readings:

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

Aggarwal, J.C. (2003), Teaching of Social Studies: A Practical Approach, Vikas Publishing House, Pvt. Ltd. New Delhi

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

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

Sharma, Seema (2004), Modern Teaching of History, Anmol Publication Pvt. Ltd. New Delhi

METHODS & TECHNOLOGY OF TEACHING CIVICS-A

Paper Code (EDY411)

3 1 0

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam. Duration: 03 Hrs Theory: 75 Marks

Sessional: 25 Marks

Objectives:

After completing this course, the students' teacher will be able to:

Understand the basic concept of the subject and their wide applicability.

identify instructional objectives in behavioural terms.

 apply appropriate methods in teaching particular topics at different levels and to select and use relevant teaching aids to make lerning meaningful

understand the meaning and concept of lesson planning.

Unit- 1:

Meaning and importance of civics as a discipline and its relation with other disciplines,

 Scope of civics at high school stage, nature of civics at school level, place of civics in school curriculum, principles for designing civics curriculum, critical evaluation of civics curriculum at the school level.

Unit 2:

Indian constitution: fundamental right and duties

- Government at the state and central level.
- India as a nation: Indian democracy at work
- Challenges before the country, Indian and world peace
- Human right and education.

Unit -3-Aims, Objectives and presentation:

- Difference between aims and objectives.
- Classification of objectives (Bloom-Taxonomy).
- Need of writing objectives behavioural terms.
- Presentation of subject matter in civics at high school stage.
- Content analysis & text book /books of civics.
- Method of writing objectives in behavioural terms.

Unit 4-Teaching Methods:

 Discussion Method, Lecture Method, Project Method, Assignment Method, Problem solving Method.

Unit 5- Lesson Planning:

- Meaning, concept & importance of lesson planning.
- General Steps in lesson plan.
- Preparation of lesson plan.
- Various approaches to lesson planning: Herbart approach, the evaluation approach, & Morrison approach.
- Characteristics of a good lesson plan.

Recommended books:

- 1. Teaching of civics in India: Hari-kari.
- 2. Education For Democratic citizenship: Crary Ryland W
- 3. The curriculum for the ten years school :NCERT, New Delhi
- 4. Teaching of civics: Agarwal, J.C.
- 5. Teaching of civics: Kochhar, S.K.

METHODS & TECHNOLOGY OF TEACHING GEOGRAPHY-A

Paper Code (EDY412)

LTP

310

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam. Duration: 03 Hrs. Theory: 75 Marks

Sessional: 25 Marks

Objective:

After completing this course, the students' teacher will be able to:

- understand the basic concepts of Geography and their wide applicability.
- understand the importance of Geography its scope and relationship with other school subject.
- understand objectives of Geography at high school level.
- select appropriate methods and techniques for teaching Geography at high school level.
- understand the concept of lesson planning and its various approaches.

Unit-I

- Modern concept of Geography and its importance as a school subject.
- Environment: Biosphere, Lithosphere, Hydrosphere and atmosphere.
- Ecology and Ecosystem.
- Environmental Pollution and its control.
- Role of Geography teacher for preservation and conservation of the resources and environment.
- Critical evaluation of Geography curriculum at the school level.

Unit-II Geography of India:

- Location and situation –Size, shape, relief and physiographic division of India.
- Climate Factors affecting Indian climate system, characteristic of monsoon system.
- Natural Vegetation Distribution of different types of natural vegetation in India.
- Land and soil types and distribution of major soils in India.
- Resources Types of resources', Mineral and power. Water and agriculture resources.
- Human Recourses- factors of population growth, distribution of population, problems arising by an even distribution of population in India.

Unit-III Aims and objectives:

- Aims and objectives of teaching Geography at high school stage
- Differentiate between Aims and objectives
- Classification of objectives (Blooms Taxonomy)
- Need of writing objectives in behavioural terms
- Methods of writing objectives in behavioural terms.
- Content analysis of text-book/books of Geography.
- Presentation of subject matter in Geography at high school level.

Unit-IV Methods and techniques

- Methods of teaching Geography.
- Method :- (a) Regional Method
- (b) Project Method (c) Laboratory Method
- (d) Lecturer Method (e) Excursion Method (f) Problem Solving Method,

Teaching Techniques:

- a) Question Answer Techniques
- b) Simulation

Unit-V Lesson planning:

- Meaning, concept, need and importance
- Characteristics of good Lesson plan
- Various steps involved in lesson planning
- Approaches of lesson planning
- Preparation of model lesson plan in Geography.
- Unit planning Meaning, concept, need and importance.

Recommended books:

- Binning and Binning: Teaching the Social Studies in Secondary Schools, Mc. Graw Hill, Book Company, New York.
- 2. Hemming: The Teaching of Social studies in Secondary Schools: Langman's Green & company, London.
- 3. Rao, M.S. Teaching of Geography.
- 4. Teaching of Geography, O.P. Verma.
- 5. Teaching of Social Studies, B.D. Shaida.
- 6. Moffat, M.P., Social Studies Instruction, Prentice Hall. Ing. New York.
- 7. Agarwal .D.D. (2000), Modern Methods of Teaching Geography, New Delhi, Sarup & Sons.

METHODS & TECHNOLOGY OF TEACHING ECONOMICS-A Paper Code (EDY413)

LTP

410

Max. Marks: 100 Marks

Theory: 75 Marks

Sessional: 25 Marks

Objectives:-

After completing this course, the student teacher will be able to:

- know the aims and objectives of teaching Economics at school level.
- formulate instructional objectives in behavioral form.
- be acquainted with different methods of teaching Economics.
- draw lesson plan for teaching Economics.
- Construct an achievement test in Economics.

Unit - I

- 1. Meaning, scope and importance of Economics.
- 2. Types of Economy on the basis of- i) Ownership ii) Occupation iii) Growth
- 3. Basic Functions of an Economy: Production, Distribution, Consumption and Exchange.

Unit - II

- 1. Aims and objectives of teaching Economics at secondary and senior secondary school.
- 2. Bloom's Taxonomy of instructional objectives.
- 3. Writing instructional objectives in behavioural form.

Unit-III

- 1. Lecture Method: Merits & Demerits, suggestions for improvement.
- 2. Project Method: Steps, Merits & Demerits, suggestions for improvements.
- 3. Problem solving Method: Steps, Merits & Demerits, suggestions for improvements.
- 4. Discussion Method: Steps, Merits & Demerits, suggestions for improvements.
- 5. Case study, Survey Method and Computer Assisted Instruction.

Unit - IV

- 1. Lesson Planning: Meaning, Need and Format
- 2. Unit Planning: Meaning, Need and Preparation
- 3. Teaching Aids: Importance and types
- 4. Economics Classroom: Equipments and Materials

Unit- V

- 1. Meaning and concept of Measurement and Evaluation:
- 2. Meaning of an Achievement Test and its types.
- 3. Criteria of a good Achievement Test.
- 4. Construction of an Achievement Test in Economics.

Suggested Reading:-

- Binning and Binning: Teaching the Social Studies in Secondary Schools, Mc. Graw Hill, Book Company, New York.
- 2. Hemming: The Teaching of Social studies in Secondary Schools: Langman's Green & company, London
- 3. Tyagi, Gurusarandas: Economics Teaching, Vinod Pustak Mandir, Agra-5
- 4. Arora, P.N (1985) Evaluation in Economics, New Delhi, NCERT.
- 5. Moffat, M.P., Social Studies Instruction, Prentice Hall. Ing. New York.
- Bawa, MS (1995): Teaching of Economics, IASE, Delhi University, New Delhi.
- 7. Bawa, MS (1995): Evaluation in Economics IASE, Delhi University, New Delhi
- 8. Kanwar. B.S. (1973) Teaching of Economics, Prakash Brothers., Ludhiana
- 9. Olive, J M (1973) The Principles of Teaching Economics, Heinemann Educational Books.
- 10. Siddiqui M.H. (1993) Teaching of Economics, Ashish Publishing House, New Delhi.

METHODS & TECHNOLOGY OF TEACHING **COMMERCE-A**Paper Code (EDY414)

L T P 3 1 0

Contact hours: 4 period/week MAX. MARKS: 100

Exam. Duration: 3 hours THEORY: 75

SESSIONAL: 25

Objectives:

After completing this course, the students' teacher will be able to:

- understand the basic concepts of commerce and their wide applicability.
- understand the importance of commerce, its scope and relationship with other school subject.
- understand objectives of commerce, at higher secondary stage.
- select appropriate methods, audio –visual aids and techniques for teaching commerce at higher secondary stage.
- critically analyse the syllabus and textbooks of commerce at higher secondary stage.
- Understand the meaning and concept of lesson planning.

Unit -1- Commerce and its development:

- Meaning and importance of commerce as a discipline and its relation with other disciplines,
- Scope of commerce at higher secondary stage, history of commerce at school level, place of commerce in school curriculum, principles for designing commerce curriculum, critical evaluation of commerce curriculum at the school level.

Unit -2- Trade, Management and Business organization:

- Trade: Meaning, concept, importance, & functions of trade.
- Management: Meaning, importance & principles of management.
- Business organization: Meaning, concept, characteristic & types of business organization.
- Postal Services: Meaning, Types, & Applications of Postal services in daily life.
- Planning: Meaning, Definition, types, and steps involved in planning.

Unit -3-Aims, Objective and presentation:

- Difference between aims and objectives.
- Classification of objectives (Bloom-Taxonomy).
- Need of writing objectives behavioural terms.
- Presentation of subject matter in commerce at senior secondary stage.
- Content analysis & text book /books of commerce.
- Method of writing objectives in behavioural terms.

Unit 4-Teaching Methods:

 Discussion method, Lecture method, Team Teaching, Project method, Seminar, Assignment Method and Problem solving method.

Unit 5- Lesson Planning:

- Meaning, concept & importance of lesson planning.
- General Steps in lesson plan.

- Preparation of lesson plan.
- Various approaches to lesson planning: Herbart approach, the evaluation approach, & Morrison approach.
- Characteristics of a good lesson plan.

Books Recommended:

- 1 Agrawal, A.N. Business methods and machinery, kitab mahal, Allahabad, 1981
- 2. Bhusham , Y. K. Fundamental of business organization and management, sultan Chand & sons, Darya Ganj,New Delhi-1991
- 3. Haradway ,M. Testing and Evaluation in business education ,Cincinnati, south western publishing co, 1966.
- 4. kapoor ,N.D.principles and practice of accountancy ,pitamber publishing co ,new Delhi, 1990.
- 5. Khan M,S. commerce Education ,sterling publishers, pvt. Ltd. New Delhi, 1982.

METHODS & TECHNOLOGY OF TEACHING SOCIAL STUDIES-A

Paper Code (EDY415)

LTP

3 1 0

Contact Hrs: 04 Pds/week Max. Marks: 100 Marks

Exam. Duration: 03 Hrs Theory: 75 Marks

Sessional: 25 Marks

Objectives:

After completing this course, the students' teacher will be able to:

- understand the meaning, scope and structure of social studies.
- understand the place of social science in the secondary school curriculum.
- select and apply appropriate methods and techniques of teaching social studies.
- critically examine the social studies syllabus and text books.
- understand the meaning, concept and approaches of lesson planning.

Unit-I

1. The need for teaching the subjects under Social Science/Social Studies (History, Geography, Civics, sociology, and economics) in schools; Concepts of Social studies and how it differs from other social sciences; Present perception about social studies; Rational for including these are as in school curriculum; The integrated section of the specialized approach in social science teaching. Principles of designing a social studies curriculum.

Unit 2:

- Indian constitution: fundamental right and duties.
- Economic planning- meaning, needs and objectives.
- India as a nation: Indian democracy at work.
- Challenges before the country, Indian and world peace.
- Human right and education.
- First world war: Causes and consequences.

Unit -3-Aims, Objectives and presentation:

- Difference between aims and objectives.
- Classification of objectives (Bloom-Taxonomy).

- Need of writing objectives behavioural terms.
- Presentation of subject matter in social studies at high school stage.
- Content analysis & text book /books of social studies.
- Method of writing objectives in behavioural terms.

Unit 4-Teaching Methods:

 Discussion Method, Lecture Method, Project Method, Assignment Method, Problem solving Method.

Unit 5- Lesson Planning:

- Meaning, concept & importance of lesson planning.
- General Steps in lesson plan.
- Preparation of lesson plan.
- Various approaches to lesson planning: Herbart approach, the evaluation approach, &
 Morrison approach.
- Characteristics of a good lesson plan.

Books Recommended:

- 1. Agrawal ,JC."Teaching social studies" Vikas publishing house ,pvt. Ltd, Delhi, 1989.
- 2. Bining ,A.C. &Bining ,A.H. "Teaching the social study in secondary school",Mc Graw Hill Company ,New York ,1952.
- Kaushik ,vijay kumari "teaching of social studies in elementary school ,"Anmol publication ,Delhi,1992.
- 4. Sharma B.L., "samajik Adhyayan shikshan ,surya publication ,meerut,1998
 - 5. Yagnik ,K.S."Teaching of social studies in india ",Orient Longamans ,Bombay,1966.

METHODS & TECHNOLOGY OF TEACHING MATHEMATICS-A

Paper Code (EDY416)

LTP 310

Contact Hours-4 Periods/Week

Max. Marks: 100

Examination Duration-3 Hours

Theory: 75

Sessional: 25

Objectives-

After completion of the course the student teacher will be able to:

- understand the Meaning and Concept of Mathematics
- know about the Contribution of Indian Mathematician in development of Mathematics
- study the aims and objectives of teaching Mathematics at Secondary stage
- formulate instructional objectives for different topics of Mathematics
- use of Mathematics to solve the problems in daily life
- know the different types of Correlation of Mathematics with other subjects
- know about the learning resources in Mathematics
- methods and techniques for teaching Mathematics at school level
- be acquaint students about Lesson and Unit planning in Mathematics
- understand the Measurement and Evaluation in Mathematics

Unit-I -Concept, Objectives and Utilitarian value of teaching Mathematics

Meaning, Concept and Definitions of Mathematics, Purpose of teaching Mathematics in Present Scenario, Nature of Mathematics, Utilitarian value of Mathematics in daily life, Aims and Objectives of Teaching Mathematics at school level, Writing objectives in behavioural form, Correlations of Mathematics with other school subjects

Unit-II -History, Unit and Lesson Planning in Mathematics

Contribution of Indian Mathematician Aryabhatta, Bhaskaracharya, Sriniwas Ramanujan, Brahmagupta and Shridharacharya: Life and contribution, Meaning and Definitions of Unit Planning, Need and Importance of Unit Planning for a teacher, Steps for preparation, Concept, Meaning and Definitions of Lesson Planning, Need and Importance of Lesson Planning, Steps for preparation, Sample lesson plan for teaching of Arithmetic, Algebra, Geometry and Trigonometry

Unit-III -Learning Resource and Instructional Planning and Material Development

Importance and Organization of Mathematics Club, Excursions, Mathematics Exhibitions and Fairs, Need of setting up of Mathematics Laboratory. Preparation of Micro Lesson Plan, Simulated Lesson Plan in Mathematics, Application of I.C.T in Teaching of Mathematics.

Unit-IV - Methods and Techniques of teaching Mathematics

Various approaches of Teaching Mathematics, Meaning and Definitions of Methods, Strategies and Tactics of teaching mathematics, Meaning, definitions, Merits and Demerits of Analysis-Synthesis Method, Induction-Deduction Method, Project Method, Problem Solving Method of teaching Mathematics

Unit-V -Evaluation in Mathematics

Meaning and Definitions of Measurement and Evaluation in Mathematics, Need and Importance of Evaluation in Mathematics. Techniques of Evaluation in Mathematics: Oral, Written, Drill-work, Home Assignment, Self-study. Characteristics of a Good Measuring Tool: General Criteria and technical Criteria, Construction of Achievement Test in Mathematics: Steps and procedure of construction

Reference Books

- 1. Kulshreshtha, A.K. (2006). "Teaching of Mathematics" R. Lall Book Depot, Meerut
- 2. Bhatnagar, A.B. (2010). "Teaching of Mathematics" R. Lall Book Depot, Meerut
- 3. Arora, S.K. (1998). "How to teach Mathematics" Shanti Publishers, Bhiwani
- 4. Kumar, K.L.((1987). "Educational Technology" New Age Publishers, New Delhi
- 5. Rawat, M.S. "Teaching of Mathematics" Vinod Pustak Mandir, Agra
- 6. Sidddhu, K.S. "Teaching of Mathematics" Sterling Publication, New Delhi
- 7. Davis, D.R. (1951). The Teaching of Mathematics. London: Addison Wesclyh Press.
- Kapur, J.N. (1991). Suggested Experiments in School Mathematics. New Delhi: Arya Book
 Depot
- 9. Jain, S. L. (1973). Ganit Shikshan. Jaipur: Hindi Granth Academy
- 10. Kapoor, J. N. (1988). Vidyalaya Ganik ke Liye San Prayog. New Delhi: Arya Book Depot

- 11. Shankaran & Gupta, H. N. (1984). Content-cum-Methodology of Teaching Mathematics. New Delhi: NCERT
- 12. Thomas, A. S. (1993). Mathematics for Elementary Teachers (An Interactive Approach), Florida: HBJ Publishers.

METHODS & TECHNOLOGY OF TEACHING Home Science-A Paper Code (EDY417)

L T P 3 1 1

Contact Hours-5 Periods/weak Examination Duration-3 Hours

Max. Marks: 100 Theory: 60

Sessional: 15 Practical: 25

OBJECTIVES:

After completing the course the student-teacher will be able:

• to understand the terms and concepts of teaching Home Science and their use in class room situations

- to develop understanding of the aims and objectives of teaching Home Science
- to know the meaning, need and steps of Lesson Planning
- to acquire competence in various methods, strategies and techniques of teaching Home
 Science at secondary level
- to develop skill and competence for effective Evaluation in Home Science

Unit-I - Content of Teaching Home-Science:

- Balanced Diet & Nutrition deficiency diseases.
- Food Preservation and its importance
- Meal Planning- Meaning, importance & factors affecting, Meal planning.
- Home-Management Meaning and importance.

Unit-II - Aims and Objectives of Teaching Home Science:

- The Modern concept of Home Science Education & its relevance.
- Meaning, scope and importance of Home-Science.
- Aims and Objectives of teaching Home-Science at secondary level.
- Classification of Objectives with reference to Bloom's Taxonomy.

Unit-III - Unit planning and Lesson Planning:

1. Unit Planning:

- Meaning and importance
- Steps of unit Planning
- Features of a good unit.
- A Model of unit plan of Home Science.

2. Lesson Planning:

- Meaning and Importance
- Steps of Lesson Planning
- Quality of a Good Lesson Plan
- A Model of Lesson Plan of Home Science.

Unit-IV - Methods and Techniques of Teaching Home Science:

- Lecture Method: Guidelines for effective lecture. Merits and Demerits of Lecture method.
- Lecture Cum- Demonstration method: Merits and Demerits Preparation for effective demonstration.
- Laboratory method: Merits and Demerits.
- Project method: Meaning and the main features of a project. Advantages and
- disadvantages of Project method.

Unit-V - Evaluation:

- Its meaning, Objectives, Need, importance & its relationship with other variables of teaching & learning
- Characteristics of a good evaluation tool: Reliability & Validity.
- Essay type tests: Characteristics Merits & Demerits.
- Short answer type Tests: Characteristics Merits & Demerits.
- Objective type Tests: Types, Characteristics Merits & Demerits.
- Preparation of Blue Print.

REFERENCES:

- Bansal Suraksha & Maheswari Sudha, (2010), Teaching of Home Science, Meerut, International Publishing House.
- 2. Sheri G.P & Saran D.P (2008) Teaching of Home Science , New Delhi: Vinod Pustak Mandir
- 3. Yadav Seema (2001) Teaching of Home Science, New Delhi: Anmol Publication.
- 4. Sahni Madhu, (1998), Indian Home Science, Varanasi: Hindi Prakashak Publications.
- 5. Moorthy Gayatri, (1998), Home Management, New Delhi, Arya Publishing House.

METHODS & TECHNOLOGY OF TEACHING PHYSICAL SCIENCE-A
Paper Code (EDY418)

LTP 311

Max. Marks: 100

Theory: 60 Marks Sessional: 15 Marks Practical: 25 Marks

Objective:

After completing this course, the students' teacher will be able to:

- understand the nature of Science.
- understand the aims and objectives of teaching Science at secondary level.
- discuss topic in science effectively by adopting appropriate teaching strategy.
- apply the principle of learning process in the teaching of science.
- use effectively the teaching aids in teaching science.

Course:

Unit-I – Meaning, Concept of Teaching Science:

- Meaning, Nature, Scope of teaching science.
- Aims and Objectives of Teaching Physical Science . Writing objectives In behavioral forms.
- Rationale of including/Physical Science as a subject of study in curriculum at secondary stage.

Unit-II - Unit Planning and Physical Science:

- Unit Planning in Physical Science, Importance, merits and demerits, Preparation.
- Lesson planning in physical science, Need, importance and preparation of lesson plan.
- Factors affecting lesson plan: Class size, Laboratory facilities, Time and resources.
- Preparation of sample lesson plan on Physics/Chemistry topic.

Unit-III- Methods of Teaching Physical Science:

- Lecture Method: Nature, Its merits and demerits. Guidance for effective Lecture in science teaching.
- Lecture-cum-Demonstration method: Nature. Its merits and demerits.
- Laboratory method: Nature, Its merits and demerits.
- Heuristic method
- Observation method

Unit-IV - Teaching Aids:

- Importance and Types of teaching aids.
- Preparation and use of teaching aids.
- Stock Registers and their maintenance.

Unit-V - Evaluation:

- Meaning and importance of evaluation in physical science;
- Characteristics of good measuring techniques in Physical Science.
- Essay type test
- Objective type test
- Blue Print.

Practical:-

- 1. To find the Density of a given block using Vernier Calipers.
- 2. To find the radius of curvature of a watch glass using Spherometer.

- 3. To find the radius of given wire using Screw Gauge.
- 4. To find the graph between the variation of angle of deviation and angle of incidence using a glass prism and to determine μ of glass prism.
- 5. Standardization of 0.1 N NaOH by using the primary standard 0.1 N Oxalic acid (Acid Base Titration)
- To detect Organic Compound-Element detection, functional group, specific test from the given sample.
- 7. Alcohols (-OH), Aldehyde (-CHO), Carboxylic acid (-COOH), Phenols (-OH).
- 8. To determine strength in gm/L of unknown Ferrous Ammonium Sulphate solution by titrating it against 0.05 N KMnO4.

References:-

- 1. Das, R.C., curriculum and evaluation, NCERT.
- 2. Kulshreshtha, S.P. Teaching of science, Meerut.
- 3. Deepak Dayal, Modern methods of teaching physics, New Delhi.
- 4. Martin Wenham and Peer ovens, Understanding Primary Science, Science knowledge for teaching Washington DC.
- 5. R.M. Kalra & Vandana Gupta, Teaching of Science, MVC, Delhi University, New Delhi.
 - 6. Sonika Rajan, Methodology of teaching Science, Pearson.

Paper Code (EDY419)

Contact Hours-5 Periods/weak Examination Duration-3 Hours

L T P 3 1 1

Max. Marks: 100

Theory: 60 Sessional: 15 Practical: 25

OBJECTIVES:

After completion of the course the student teacher will be able to:

- develop awareness about development in the area of teaching and learning of Biological science
- develop skill and competencies in the pupil teacher related to biological science at Secondary level.
- learn appropriate teaching technique.
- understand various approaches and methods of teaching biological science.
- get acquainted with the Evaluation techniques in biological science.

Unit-I

- Impact of Biological Science on Modern Indian Society
- Aims and objectives of teaching Biological Sciences at Secondary School level.
- Need and Importance of teaching Biological Science at secondary school level
- Bloom's Taxonomy of Educational objectives.
- Biological Science Curriculum at different stages of appraisal.

Unit-II

- Eco-Systems, Components of Ecosystem, Food Chain and Food Web.
- Environmental Pollution: Air and Water Pollution: Their sources, prevention and Effects on human Health.
- Vegetative Propagation in plants.

Unit-III

- Unit Planning: Meaning, Importance and steps of unit planning.
- Lesson planning: Need, Importance and steps of lesson planning.
- A Model of Lesson Plan and unit plan of Biological Science.

Unit-IV - Methods of Teaching Biological Science:

- Lecture Method: Guidelines for effective lecture. Merits and Demerits of Lecture method.
- Lecture Cum- Demonstration method: Merits and Demerits Preparation for effective demonstrations.
- Laboratory method: Merits and Demerits.
- Project method: Meaning and the main features of a project. Advantages and disadvantages of Project method.

Unit-V - Evaluation:

Its meaning, objectives and importance & its relationship with other variables of teaching and learning.

- Characteristics of a good evaluation tool: Reliability and validity.
- Essay Type Test- Characteristics Merits and Demerits
- Objective type test: Characteristics Types, Merits and Demerits.
- Preparation of Blue Print.

REFERENCES:

- 1. Ahmad Jasim, (2011), Teaching of Biological Sciences, New Delhi, PHI, Learning Pvt. Ltd.
- 2. Kulshrestha S. P., (2006), Teaching of Biology, Meerut, R. Lal book Depot.
- 3. Kumar Bandre, (2007), A text book of Practical Botony, Meerut, Rastogi Publications.
- 4. Mangal S.K (2005): Teaching of Life Sciences, New Delhi, Arya Book Depot.
- 5. Gupta V.K (1994): Life Sciences Education Today, Arun Publishing House.

Biological Science Practical Paper

List of Practicals:- Max. Marks:- 25

1. A Study of Microscope

- 2. Animal Physiology-Identification by tests of Glucose and Starch
- 3. General Survey of Animal Kingdom with special reference to following specimens-

Hydra

Tapeworm

Earthworm

Starfish

Sycon

Sponge

Naja naja

Cockroach

4. Classification and Description of part s of flower (Hibiscus Rosa - sinensis)

Plant Physiology:

- 1 To demonstrate that oxygen is evolved during photo synthesis by inverted funnel method.
- 2 Transpiration by Bell jar method.
- Study of various stages of Mitosis in a permanent slide of root tip of Onion.

LT P 101

Max. Marks: 50 Marks

Practical: 50 Marks

Objectives:

After completing this course, the students' teacher will be able to:

- develop right concept about health and factors influencing health.
- indentify his/her role and responsibilities in the total school health programme.
- justify the need of physical education programme, and contribution of physical education towards the holistic development of students.
- understand the significance of play for school children.
- design play activities for different groups of students.
- organizing and conducting of sports competitions in school.
- acquire knowledge of recreational activities and be able to design recreational programme for school children.

Unit 1: Health Education

- Health: Meaning, definition, dimension,
- Health Education: Meaning, definition, aim and objectives, scope, principles, and importance.
- Personal Hygiene: Meaning of Personal Hygiene, Importance of Personal Hygiene and Cleanliness

Unit 2: Physical Education

- Physical Education: Meaning, definition, aim & objectives, and scope.
- Relationship of physical education with general education.
- Importance of physical education programmes in schools.
- Modern trends of physical education.

Unit 3: Organisation and Administration in Sports

- Sports Competitions: Meaning, types, need and importance in school.
- Organisation of athletic meet or annual sports competition at school.
- Play: Meaning, theories of play, significance of play in the child's education.
- Recreation: Meaning, definition, aim and objectives, and significance.

Suggested Readings:

- 1. Agashe, S.R. (2013). Introduction to health education. New Delhi, India: Khel Sahitya Kedra.
- 2. Agashe, S.R. (2013). Introduction to physical education, fitness & sports. New Delhi, India: Khel

- Sahitya Kedra.
- 3. Bucher, C.A. (1979). Foundations of physical education (8th Ed). St. Louis: The C.V. Mosby Co.
- 4. Chelladurai, P. (2001). Managing organizations for sport and physical activity: A systems perspective. Scottsdale, Ariz.: Holcomb Hathaway Publishers.
- 5. Chelladurai, P. (2001). Managing organizations for sport and physical activity: A systems perspective. Scottsdale, Ariz.: Holcomb Hathaway Publishers.
- 6. Gupta, M.C. (2012). Physical fitness and health. New Delhi, India: Khel Sahitya Kedra.
- 7. Human Kinetics (2012). Introduction to recreation and leisure (2nd Ed.). Champaign, IL: Human Kinetics.
- 8. Jackson, A.W. (2003). Physical activity for health and fitness. Champaign, IL: Human Kinetics.
- 9. Kamlesh, M.L. (2014). Fundamental elements of physical education. New Delhi, India: Khel Sahitya Kedra.
- 10. Kilander, H.F. (1971). School health education. New York McMillian Copany.
- 11. Navdeve, B.K. (2013) Health education and recreation in physical education. New Delhi, India: Khel Sahitya Kedra.
- 12. Richard F. Mull, Brent Beggs, Mick Renneisen, (2015). Recreational family management. Champaign, IL: Human Kinetics.
- 13. Singh, A., Bains, J., Gill, J.S., & Barar, R.S. (2012). Physical education and olympic movement. New Delhi, India: Kalyani Publishers.
- 14. Singh, A., Bains, J., Gill, J.S., Barar, R.S. & Rathee, N.K. (2005). Essentials of physical education. New Delhi, India: Kalyani Publishers.
- 15. Thomas, J.P. (1964). Organisation of physical education. Madras, India: Gnanodaya.

B.Ed Second Year

SECONDARY EDUCATION IN INDIA – STATUS, ISSUES& PROBLEMS PAPER CODE (EDY501)

LTP

310

Contact Hours : 4 periods/week Max. Marks : 100 Exam Duration: 3 Hours Theory : 75

Assignment : 10 Sessional : 15

OBJECTIVES: - On completion of this paper student teacher will be able to:

- * Understand the concept, objectives and nature of secondary education.
- * Development of secondary education in India after Independence.
- * Understand different types of schools and their related issues.
- * Identify the problems and issues of secondary school teachers.
- * Identify the challenges, concerns, issues and problems of secondary education efforts towards solution.

UNIT-1: CONCEPT AND OBJECTIVES OF SECONDARY EDUCATION

- * Concept and meaning of secondary education in India and its place in the education system thereof.
- * Linkages with elementary and senior secondary stage.
- * Aims and objectives functions, scope and basics
- * Quantitative and Qualitative development after independence with reference to schools, students and teachers.

UNIT- 2: STATUS AND CONCERNS OF SECONDARY EDUCATION

- * Recommendations of secondary education commission (1952-53), Education Commission (1964-66), NPE (1986) and POA (1992) on various aspects.
- * Present situation- access, structure, facilities and National Curriculum Framework.
- * Major concerns as enrolment, retention, dropouts and equity, achievement in relation to sex and caste.
- * Major shift in curriculum development of secondary school curriculum 2000 and 2005.

UNIT- 3: VARIETY IN SECONDARY SCHOOLS IN INDIA

- * Types of secondary schools and related issues like functions, selection of students and student's service.
- * Working conditions of teachers.
- * Resources, utilization, autonomy, medium of instruction, and organizing co-curricular activities.
- * Transactional strategies, evaluation, community and parents involvement.

UNIT- 4: SECONDARY SCHOOL TEACHER IN INDIA

- * Status and professional preparation of competency and commitment oriented secondary school teacher through Pre- service and Inservice programmes.
- * Teacher organizations and their role.
- * Code of professional ethics for teachers their role in curriculum development of classroom teaching.

UNIT- 5: CHALLENGES AND PROBLEMS OF SECONDARY EDUCATION IN INDIA

- * Open schooling- national and state open schools, Alternative school
- * Vocationalization of secondary education.
- * Education of special group disadvantages, disabled and minorities.
- * Student unrest.
- * Regional imbalances in educational standards.

REFERENCES:-

- * Ayyar RVV (1996) Educational Policy, Planning and globalisation, ElserjerSc.Ltd. Britai
- * Govt. of india National policy on education, 1986 (with modifications undertaken in 1992) MHRD, Deptt of Education.
- * R.P. Singh (Ed.) Teacher Training in India, Looking Ahead Federation of management and Educational Institution.
- * Brook, Colin (Ed) (1984) Global Perspetives on Teacher Education, Trianglo Book, Willingford, U.K.
- * Kundu, C.L. (Ed.) (1984) Indian Year Book on Teacher Education, Sterling Publication Pvt. Ltd., New Delhi.
- * Chopra R.K. (1993) Status of teachers in India, NCERT, New delhi.
- * Murthy K. Sachidanand, (1991) Ethics, Education, Indian Unity and Culture, Ajata Pub. Delhi.
- * Peters, R.S. (1971) Ethics and Education, George allen Unwin Ltd. London.
- * NCERT, (1992) Fifth All India Education survey.
- * NCERT (1997) Code Of Professional ethics for Teachers.
- * MHRD (1953) Seconday Education Commission, Report GOI, New Delhi.
- * MHRD Indian Education Commission (1964-66), Report, GOI, New Delhi. 1996.
- * NCTE, 'Compentency Based and commitment Oriented Teacher Education for uality School Education'.
- * NCTE, 1998 'Poicy Perspective in Teacher Education', New Delhi.

SCHOOL MANAGEMENT PAPER CODE (EDY502)

Contact Hours-03 Periods/weak Examination Duration-2 Hours

LT P
2 1 0
Max. Marks: 50
Theory: 35
Sessional: 10
Assignment: 05

OBJECTIVES:

On completion of the course the student teacher will be able to:

- understand the concept of educational management, school organisation and school administration.
- acquaint with the basic principal of school management
- develop skills for optimum utilisation of resource available
- identify factor conducive to the effective implementation of various school activities.

UNIT I: EDUCATIONAL MANAGEMENT AT THE SCHOOL LEVEL

- Concept and function of educational management : Basis of management planning, organizing, control, direction and financing
- Centralisation v/s Decentralisation in education planning- District Level planning its extension to school lavel planning function, financial as well as administrative decentralization.
- Concept of Democrative Decentralisation with Monitoring.
- Concept of multi- Level Planning and school Management.
- School as a unit of Decentralised Planning.
- Monitoring and Evaluation in term of Modern Management Techniques- Case study, Man Power surveys
- Educational management Information System (EMIS)

UNIT -II- MANAGEMENT OF TIME AND RESOURCES

- Time Management- Time schedules for various activities of schools weekly, monthly and yearly calendar of activities
- Preparation of daily, weekly, monthly and yearly plans for the individual and the school.
- Management of Material Resources
- School building, library, laboratory, hostels, playground etc.
- Procurement and optimum use of equipment, furniture, books, physical facilities etc.
- Management of Human Resources Analyzing inter- personal inter group relation, teacher taught relations teacher teacher relationships, head teacher- Teacher relation. Relationship with management and administration, group dynamics.

• Management of financial Resources- Developing and monitoring budgets at school level.

Unit-III- Managing the school Activities:

- Establishment of a secondary school, Managing committee, school campus, Building & infrastructure.
- Qualities of a Principal/Head Master, Role and responsibilities of principal: Administration & supervisory and leadership role. Interaction with community, parents, students, staff, management committee and department.
- School Staff: Role and duties. Essential qualities of a good teacher. Teacher's relation with principal, Students and Parents.
- Role of a teacher in administration work-admission, classification, maintenance of office and school records.
- Managing the examination and evaluation.
- Organization of Health Programme:- Health Instructions, Healthful living and Health services in Schools.

Recommended Books:

- 1 Getzeb, Lipham & Campbell Educational Administration as Social Process, Harper & Row.
- 2 Williams, W. Stanley, Educational Administration in Secondary School, Holt Rinehart & Winston.
- 3 Banghman, Anderson, Smith, Wiltse Administration & Supervision of Modern Secondary School-Parker Publishing Co.
- 4 Sears, J.B., Public School Administration-Ronald Press.
- 5 Moehlman, A.B., School Administration, Houghton & McGraw Hill.
- 6 Mort, P.B., Principles of School Administration, McGraw Hill.
- 7 Reader, W.G., The Fundamentals of Public School Administration.
- 8 Halpin, Andrew W.(e.), Administrative Theory in Education- Macmillan Co., London.
- 9 Kimbrough, Ralph B. Nunney, Michael Y., Educational, Administration an Introduction, Macmillan Publishing Co., Inc.
- 10 Immegart, GlenL. Pilechi Francis J., An introduction to Systems for the Education Administrator, Addison-Wesley Publishing Co.
- 11 Sergiovain, Thoman J. Fred D. Carver, the Newschool executing A theory of Administrator, Harper & Row, London.
- 12 Sharma, Motilal (Dr.), Schools in Context, the Indian Ambala.
- 13 Dubin Robert, Human Relations in Administration Prentice Hall of India.

CURRENT TRENDS AND PROBLEM IN VALUE EDUCATION. PAPER CODE (EDY503)

Contact Hours-03 Periods/week
Examination Duration-2 Hours

2 1 0 Max. Marks: 50 Theory: 35 Sessional: 10 Assignment: 05

LT P

OBJECTIVES:

On completion of the course the student- teachers will be able to:

- understand the concept and type of values.
- get and insight in to the strategies inculcation of values among children.
- Develop awareness about the different agencies working in the sphere of value education.
- develop skills and techniques needed to teach value education.
- give reasons for role of the teacher in value education.

UNIT 1- INTRODUCTION TO VALUES:

- Values: Concept, nature and significance.
- Classification of values: Personal and social, Intrinsic and instrumental
- Contemporary values- scientific Temper, intellectual Honesty, social service and Protection of Environment.
- Constitutional or National Values
- Role of teacher in value education.

UNIT 11- METHOD OF IMPARTING VALUE EDUCATION:

- Traditional methods: Storytelling, Ramleela, Tamasha, street play and folk songs.
- Practical methods: Survey, role play, value clarification, intellectual discussions.
- Role of school teacher: Every teacher as teacher as teacher of values, school curriculum as value laden.

UNIT 111- CRISIS AND CURRENT TRENDS IN VALUE EDUCATION:

- Causes of value crisis: material, social, economic, religion evils and their peaceful solution.
- Identification and analysis of emerging issues involving value conflicts
- Current trends in value education
- Design and development of instructional material for nurturing values.

Reference:

- 1. Bagchi, jyoti Prakash and Teckchandani, Vinod, (2008). Value Education, jaipur, University Book
- 2. Better Your self-Books
- 3. Dhokaia, R.P. 2001. External human values and World Religions, New Delhi:NCERT
- 4. Gawande. EN- "Value Oriented Education"- Vision for better living.
- 5. Gupta, K.M. 1989. Moral Development of school children gurgaon: Academic Press.
- 6. Grose. D.N.- "A text book of value Education' New DElhi (2005).
- 7. Pullock Basu, (2010). Universal Decleration of Human right Law Related to Human Right,
- 8. Ruhela S.P.- "Human value in Education" New Delhi-
- 9. Shrimali K.L- A search for Value in Education DElhi (1974)
- 10. Singh Y.K., Ruchika Nath, (2005). Value Education, Delhi: APH Publishing Co.

POPULATION EDUCATION Paper Code (EDY504)

LTP 210

Contact Hours - 03 Periods/Week

Max.

Marks: 50

Examination Duration- 2 Hours

Theory

: 35

Sessional: 10

Assignment: 05

OBJECTIVE:-

on completion of the course the student teacher will be able to:

- Develop understanding of population concept and reconceptualisation of population education.
- Analyse the role of population in development.
- Develop instructional material and evaluate performance
- understand population issues in India in the world perspective.
- Understand Adolescence education and it's important in schools.

UNIT-1- POPULATION EDUCATION AND WORLD PERSPECTIVE

- Meaning and definition, scope, need and importance of population education.
- Role and purpose of population education as in integral part of education.
- Structure and dynamic trends of Indian population, national health and population policy, over population, under population, growth distribution and density of population with demographic data of India in world perspective.

UNIT- 11: TEACHER OF POPULATION EDUCATION AND EDUCATIONAL ACTIVITIES

• Preparation qualities, role of teacher, educational activities for population education and their Organization, extension lectures, debates, survey, camps, exhibition, dramas, meeting with parents, Preparation of teaching aids.

UNIT-III: EMERGENCE POPULATION EDUCATION

- Action taken for population education (historical background).
- Introduction of population education in school, college and teacher education institution.

• Role of different Agencies and organization: home, school, community, Govt. (Policy and Programmes. Voluntary agencies, mass media).

Reference Books:

- 1. Agrawal S.N. (2004), "India's Population Problem", Tata McGraw-Hill, New Delhi.
- 2. Agrawal S.N. (1995), "Population", National Book Trust, New Delhi.
- 3. Bhenda, A.A. & Kavitkar Tava (1985), "Principles of Population Studies", Himalaya Publishing House, Bombay.
- 5. Jain S.P., (1971), "India-Population Situation", NCERT, New Delhi.
- 6. Kuppuswamy B. (1995), "Population and Society in India", Popular Prakashan, Bombay.
- 7. Kuppuswamy B. (1993), "Population Education Research", K.R., & Kantha, New Delhi.
- 8. Yadav Saroj (1999), "Population Education", Shree Publishing House, New Delhi.

TEACHER EDUCATION IN INDIAN PROSPECTIVE PAPER CODE (EDY505)

LTP

2 1 0

Contact Hours- 03 Periods/Week

Marks-50

Examination Duration- 2 Hours

Theory - 35

Max.

Sessional-10

Assignment: - 05

Objectives:

On completion of the course the student teacher will be able to:

- To acquaint the learners with the historical development of teacher education in India.
- To familiarize the learners with existing teacher education programmes in India.
- To enable the learners to understand about pre-service and in-service education for teacher.
- To enable the learners to develop an understanding about agencies for teacher education.

Unit I- Teacher Education: A historical development

- Meaning, nature and need of teacher education.
- Objectives of teacher education at various levels: Pre–Primary, Elementary and Secondary.
- A Brief Review of development of teacher education in ancient, medieval and British India.
- A study of recommendations of various committees, and commissions in British India and Post independence Era, NPE-1986, and its revised formulation 1992 regarding Teacher Education.

Unit II- Pre-service and In-service Education for Teacher

- Concept of pre service teacher, conceptual framework-Pre service Teacher Preparation, Pre-service Teacher evaluation.
- Concept, need and Importance of In-service Education for Teachers, Development of In-service Programme for Teachers, Institution for In-service Education, Problems related to In-service Education, Qualities of good teacher.

Unit III-Agencies of teacher Education

- Central Level Agencies-University Grand Commission (UGC), NCERT, National council for Teacher education (NCTE), National institute of educational planning and administration (NIEPA)
- Regional Level Agencies-Regional Institute of education.
- State Level Agencies-State Board of Teacher education (SBTE), University Department of Teacher education (UDTE).

Recommended Books:

- 1. APEID, Innovations and Initiatives in teacher education in Asia and the pacific region. Vol. I, Overview, Bangkok, UNESCO Principal regional office for Asia and the Pacific 1990
- 2. APEID, Innovations and Initiatives in teacher education in Asia and the pacific region Vol. II, Case studies, Bangkok, UNESCO Principal regional office for Asia and the Pacific 1990
- 3. Buch, M B (Ed) Surveys of research in education (4Nos) Trend reports on teacher education, Baroda and New Delhi
- 4. Dove, L Teachers and Teachers Education in developing countries, London: Croom helm, 1986
- 5. GOI, National Council for Teacher Education (NCTE) Act, MOLCA, 1993
- 6. GOI, National Policy on Education, 1986, New Delhi : Government of India, 1986
- 7. Goyal, J C and Chopra, R K Profile of an ElementaryTeacher, New Delhi NCERT 1990
- 8. Goval, JCet.Al, Tools for B.EdAdmission, NewDelhiNCERT 1980
- 9. Mehra, CNational Survey of Elementary Education in India, New Delhi NCERT 1990
- 10. Menon, TKNandKaul,GN, Experiments in Teacher Training, New Delhi, Ministry of Education NCERT 1990

PEACE EDUCATION PAPER CODE (EDY506)

LTP 210

Contact Hours - 03 Periods/Week Examination Duration - 2 Hours Max. Marks: 50 Theory : 35

Sessional: 15 OBJECTIVES:

On completion of the course the student teacher will be able to:

- Understand the importance of peace education.
- Analyse the factor responsible for disturbing peace.
- Familiarise themselves with the pedagogy of peace.
- Develop understanding about strategies for peace education.
- Appreciate the role of peace in life

UNIT 1: INTRODUCTION OF PEACE

- Aims, objective and importance of peace education
- Barries- psychological, cultural, political
- Factor responsible for disturbing peace: Unemployment, terrorism, Exploitation, suppression of individuality, complexes.
- Characteristics of good text book, Evaluation of text book, analysis of text book from peace
- education and environmental education perspective

UNIT 11: EMPOWERMENT FOR PEACE AND DEVELOPMENT PERSPECTIVES: ADOLESCENCE

- Justice Social economics, culture and religions
- Equality Egalitarianism, education for all, equal opportunity
- Critical thinking: Reasoning and applying wisdom Cooperation
- Learning to be and learning to live together
- Cognitive, moral, social reasoning and wisdom.
- Bad habits: drug, abuses, theft, indiscipline.

UNIT III: PEDAGOGY OF PEACE AND STRATIGIES FOR PEACE

• Conflict resolution, Brain storming, problem solving model, Activity performance

- Emotional integration: Rapprochement, storytelling, narration of scenario with zest
- Understanding background: survey, action researches
- violence in school, home and society
- Negotiation persuasion, rapprochement, co-existence.

REFRENCES:-

- Delors, jackques (1996) learning the treasure within. Report of international commission on education for the 21 century. Paris: london.
- Dhan, H, (2000). Teaching Human Right. A hand book for teacher Educator, Asian Institute of
- Human Right Education, Bhopal.
- Galtung, J and ikeda, D.(1995) Choose peace. London: Pluto press.
- Government of India (1948-49) Report of the university education commission, New Delhi, ministry of education.

EDUCATION OF CHILDREN WITH SPECIAL NEEDS PAPER CODE (EDY507)

LTP 210

Contact Hours- 03 Periods/Week

Max.

Marks-50

Examination Duration- 2 Hours

Theory - 35

Sessional-10

Assignment: - 05

Objectives:

On completion of the course, the Student teacher will be able to-

- Identify the children of special needs.
- Understand the nature of special needs, their psycho educational characteristics and functional limitation.
- Familiarize with assessment and placement procedure for children with special needs.
- Develop understanding about accommodating special needs in regular classroom.
- Appreciate the education of children with special needs.

Unit- I: Special Needs and education

Concept and types of special needs

- Education of children with special needs and its implication for universalization Of elementary education.
- Understanding and respecting diversity
- Trends of education for children with special needs in India
- Policies, schemes and legislations about the education of children with special educational needs.

Unit- II: Nature, Types and Characteristics of children with special needs

Psycho -social and educational characteristics. Functional limitations with reference to-

- Locomotor Impairment
- Hearing Impairment
- Visual Impairment
- Learning Disability
- Gifted and Disadvantaged children
- Mental retardation and slow learners

Unit-III: Identification and Assessment of children with Special Educational Needs

- Concept and techniques of Assessment
- Identification and functional assessment of children with special needs
- Implication of Assessment for Instructional Planning and Curriculum.

References:

- 1. Hegarty S and Mithu Alur (2002) education and children with Special needs. Sage Publication India Pvt. Ltd, New Delhi
- 2. Nind M, Qik J, Sheehy R and Simmons K (2005), Curriculum and Pedagogy in Inclusive Education values and Practice, London, Routledge Folmer
- 3. Blackhurst, A.E., An Introduction to Special Little Brown & Co., & Befdin W.H Education Toronto (1981)
- 4. Punani, B & Handbook Visual Ashish Publishing Rawal, N 1993 Handicap House, New Delhi
- 5. Cecil R. Reynolds Encyclopedia of Special John Wiley & Sons & Elain Fletcher- Education 2nd Edition New York Janzen Vol. 1 2 & 3
- 6. Disabilities & Impairment Akshant Publication An Interdisciplinary Research Journal New Delhi.

MODERN MEASUREMENT & EVALUATION PAPER CODE (EDY508)

LTP

210

Contact Hours - 03 Periods/Week
Marks-50
Examination Duration - 2 Hours

Theory-35

Max.

Sessional-15

Objectives-

After completion of this course student teachers will be able to-

- understand the concept, importance of Measurement & Evaluation, Levels of Measurement
- familiarize with new trends and innovations in Measurement & Evaluation
- know the public examination system and use of computer in examination
- understand the characteristics of good measuring tool
- use the different types of tool for measurement and evaluation

Unit - I- Nature of Modern Measurement and Evaluation

• Meaning and Concept of Measurement and Evaluation, need, scope, functions, role and importance of measurement and evaluation in education, difference among Measurement, assessment and Evaluation, nature of Measurement and Evaluation, Principles and aspects of Evaluation, Levels of Measurement

Unit - II- Innovations in Measurement and Evaluation

• Formative and Summative measurement, Normative and Ipsative measurement, Criterion-referenced and Norm Referenced measurement, Continuous and Comprehensive evaluation, Grading, Question Bank, Semester system, Credit system, Examination on demand, Scaling of marks, Use of

Computer in examination, Public examination, Standardization of Objective test

Unit- III- Tools and Techniques of Measurement and Evaluation

 Need and Importance of tools and techniques in measurement and evaluation, Characteristics of good measuring instruments: practical and technical, Tools and Techniques- Observation, Projective, Sociometry, Test, Interview, Questionnaire, Schedule, Rating scale

Reference Books

- 1. Anastasi, A. (1968). Psychological Testing. The Mc Millan Company New Yark
- 2. Garrett H. E.(1967). Statistics in Psychology and Education, Vakils, Feffer and Simons Pvt. Ltd, Mumbai
- 3. Gupta, S.P. (2015). Modern Measurement & Evaluation, Sharada Pustak Bhawan Allahabad
- 4. Singh, A.K. (2012). Test, Measurement and Research Methods in Behavioural Siences, Bharti Bhawan, Patna.
- 5. Asthana, Bipin. (2009) Measurement and Evaluation in Psychology & Education, Agarwal Publication, Agra.
- 6. Bhatnagar, A.B. and Bhatnagar Minaxi (2010) Measurement and Evaluation in Psychology & Education, R. Lall Book Depot, Meerut.

EDUCATIONAL GUIDANCE AND COUNSELLING PAPER CODE (EDY509)

LTP

2 1 0

Max.

Theory: -

Marks:-50

Examination Duration- 2 Hours

Contact Hours - 03 Periods/Week

35

Sessional:-10

Assignment:-05

Objectives: To enable the student teacher:-

- to understand the concept, need and importance of guidance & Counselling.
- to get acquainted with the principles, issues, problems and procedure of guidance & Counselling.
- to enable the students to understand the concept of Testing in Guidance and counseling.

Unit-I- Basics of Guidance

- Concept, need and importance of Guidance.
- Principles of Guidance, Procedure of Guidance (steps).
- Issues and problems of Guidance.
- Personal, Educational and Vocational Guidance.

Unit-II- Basics of Counselling

- Concepts, need and importance of counselling.
- Principles of counselling, counselling process and role.
- Directive, non-directive and eclectic counselling.
- Individual counselling and group counselling.
- Lectures, discussions and Dramatics as techniques in Counselling.

Unit-III-Psychological Testing in Guidance & Counselling

- Use of Tests in Guidance and Counseling: Intelligence Test, Creativity Tests,
- Achievement Tests, Aptitude Tests; Interest Inventories, Personality Measures.
- Administering, Scoring, Interpretation and Analysis of Test Scores and
- Communication of Test Result as relevant in context of Guidance Programme.

Reference:

Dave I, The Basic Essentials of Conselling. New Delhi: Sterling publishers Pvt. Ltd. 1984. Crow, LD and Grow, A, An Introduction to Guidance, New Delhi: Eurasia Publishing House Pvt. Ltd. Rao, S.N., Counselling Psychology, New York Tata Mc Graw Hill 1981

METHODS & TECHONOLOGY OF TEACHING ENGLISH-B PAPER CODE (EDY510)

LTP 310

Contact Hours - 04 Periods/Week Marks - 100 Examination Duration - 3 Hours Max.

Theory - 75

Sessional-25

Objectives:-

To enable the student teacher to understand:

- The nature and characteristics of a language and its use.
- The required skills for mastering a language.
- The various approaches to successful language teaching.
- Approaches/Methods of teaching different aspects of language.

- The importance teaching aids and other technological devices used for language teaching.
- Evaluation and testing techniques for obtaining feedback.

UNIT – I: Teaching of English methods and approaches:

- Dr. West's Method of teaching English, types of reading ability, merits, demerits and criticism
- Deductive and inductive approaches, The mother tongue in the class
- Meaning, concept and uses of Bilingual Method, assumptions, charactistic and conclusion.
- Meaning, concept of Translation Method, procedure of teaching, types of translation, charactistics of method, merit and demerit, suggestion for improvement and use of translation method.
- Deference between Bilingual Method and Translation Method

UNIT – II: Pedagogical analysis and Material for teaching English:

 Meaning and concept of Pedagogical Analysis, Utility of Pedagogical Analysis for English teacher, Selecting and Developing learning experiences/ Activities, Supplementary Readers in English, Formulation of specific teaching objectives of the content, Language laboratory in English, Co-curricular activities: Objectives and various types.

Unit-III- Teaching Skills:

- Teaching of oral skills, characteristics, objectives of oral skills, Specific techniques for oral expression.
- Teaching of reading skills, characteristics s, objectives of teaching reading Intensive and extensive reading, Silent reading and reading aloud with expression.
- Teaching of writing skills, characteristics, style of writing, methods of writing, summaries, essay writing.
- Teaching of spellings, characteristics, method of teaching spelling, roles of good spelling and exceptions.

UNIT – IV: Text and supplementary books for teaching English:

- Textbook: Its characteristics, limitation of existing text-books, importance of English Text-books, advantage of English Text-books.
- Supplementary books reading material, characteristics, limitation of existing supplementary, advantage
- .• Characteristics of a good textbook, analysis and evaluation of textbook.
- Preparation of good text books in English, Selection and Gradation of Vocabulary.
- Comparison of supplementary and Text-books

UNIT - V: Audio - Visual and Technological Aids and Language Laboratory:

- Meaning and importance of teaching aids, Audio, Visual Aids, kinds and uses.
- Language Laboratory and Its importance in teaching English.
- Need and importance
- Technological aids as Language Laboratory, CAI

UNIT – VI: Evaluation:

- Meaning and purpose of evaluation, Formative and Summative evaluation, Characteristic of good achievement test, Construction of achievement test in English,
- Preparation of model question paper along with its Blue print from text book of English, Continuous comprehensive internal evaluation.
- Objective type tests, Essay type tests, Short answer type tests and the construction of the test items.

BOOKS RECOMMENDED:

- 1 Allen B. Harold Campbell N: Teaching English as a second language, Tata-Mac-graw Russel Hill publishing Co. Ltd, Bombay-New Delhi (1972)
- 2 Bright, G.A.& McGregor G.P.: Teaching English as a Second Language, Longmans (1972)
- 3 Brumgit C.J., Johnson, K.: The Communicative Approach to Language Teaching: ELBS; Oxford University Press, Hong-Kong, 1979.
- 4 O'Connor, J.D.: Better, English Pronunciation: ELBS, Cambridge University Press, Great Britain, 1977.
- 5 French, F.G.: Teaching English as an International Language; Oxford University Press, London, 1975.
- 6 Hornby, A.S.: The Teaching of structured words and Sentence Pattern, Stage I-IV: Oxford University Press, London, 1991.
- 7 Jain, R.C. Sharma, C.K.: Essentials of English Teaching: Vinod Pustak Mandir, Agra.
- 8 Kohli, A.L.: Techniques of Teaching English: Dhanpat Rai & Sons, Delhi, 1996.
- 9 Lado, Robert: "Language Teaching: A Scientific Approach, McGraw Hill, Inc., New York
- 10 Lado, Robert: Language Testing: The Construction and use of Foreign Language Test, Language, 1961.
- 11 Pandey, K.P. & Amita: The Teaching of English in India, Vishwavidyalaya Prakashan, Varanasi,

METHODS & TECHONOLOGY OF TEACHING HINDI-B PAPER CODE (EDY 511)

LTP 310

Contact Hrs: 04 Pds/week Exam. Duration: 03 Hrs

Max. Marks: 100 Marks Theory: 75 Marks Sessional: 25 Marks

Objectives:

After completing this course, the student teacher will be able to:

- know and formulate the aims and objectives of teaching Hindi Language at different levels of school education.
- Know the concept of language learning, function of language.
- Know Hindi scripts, alphabets, qualities of good handwriting
- Know and understand various types of reading.
- Know and understand the meaning and importance of pedagogical analysis.
- Know and understand the meaning and importance of evaluation.
- Constructed achievement test in Hindi.

Unit-I- Remedial and Enrichment Content:

• Concept of language learning and acquisition, Functions of language-Communication, Transmission of

culture and medium of instruction, Multilingualism as a resource, the qualities of a good language teacher, Role of Hindi teacher in formation of clubs and organizing different activities such as debate, essay writing,-quiz competition exhibition-and wall magazine etc.

Unit-II- Writing skill in Hindi:

 Writing: Elementary knowledge of Hindi scripts, Teaching of alphabets and their shapes and nomenclatures, Punctuation, Qualities of good hand writing, Letter writing (formal and Informal), Essay writing, Activities related to writing competency.

Unit-III - Reading skills in Hindi:

Reading-Its importance, Concept and meaning, Types of reading –Silent and Loud reading, Extensive
and Intensive reading, Reading comprehension, Reading defects and their cure, Activities for
developing reading competency.

Unit-IV- Pedagogical analysis and Material for teaching Hindi:

• Meaning and concept of Pedagogical Analysis, Utility of Pedagogical Analysis for Hindi teacher, Selecting and Developing learning experiences/ Activities, Supplementary Readers in Hindi, Formulation of specific teaching objectives of the content, Language laboratory in Hindi, Co-curricular activities: Objectives and various types.

Unit-V- Evaluation in Hindi:

• Meaning and purpose of evaluation, Formative and Summative evaluation, Characteristic of good achievement test, Construction of achievement test in Hindi, Preparation of model question paper along with its Blue print from text -book of Hindi, Continuous comprehensive internal evaluation.

Suggested Readings:-

- 1. Mangal Uma (1991), (2006) Hindi Shikshan, Agra Book Depot, Delhi.
- 2. Wilkins D. A (1983): Linguistics and Language Teaching, Edvard Anod, London.
- 3. Singh, Savitri (1992); Hindi Shikshan, Loyal Book Depot, Meerut.
- 4. Bhai Yogendrajeet (2005): Hindi Nhasha Shikshan, Vinod Pustak Mandir, Agra.
- 5. Pandey, R.S. (1992); Hindi Shiakshan, Vinod Pustak mandir, Agra.
- 6. Srivastava, R. P. (1979): Teaching of reading, Bahri Publication, New Delhi.
- 7. Prasad, Keshar (1991): Teaching of Hindi, Dhanpat Rai & sons

METHODS & TECHONOLOGY OF TEACHING URDU-B PAPER CODE (EDY512)

LTP 310

Max. Marks: 100 Marks Theory: 75 Marks Sessional: 25 Marks

Objectives:

Contact Hrs: 04 Pds/week

Exam. Duration: 03 Hrs

- To acquaint the students with meaning, concept and nature of Urdu Language.
- To make the students know the function of Urdu Language.
- To make the students able to understand the importance of Urdu Language in secondary school curriculum.
- To enable the students to know the aims and objectives of teaching Urdu language at secondary level.
- To enable the students to be aware about various methods of teaching Urdu language.
- To make the students able to understand the characteristics a good text-book in Urdu.

• To make the students able to explore the various techniques of evaluation.

Unit-I- Language:

- Principle of Language Teaching.
- The Origin and development of Urdu Language.
- History of Urdu Literature and out line.
- Contribution of Urdu as a language in National Development.
- Dabistan a Lucknow and Delhi.

Unit-II- Lesson Planning:-

- Lesson Planning: Meaning, Format, why and how.
- Format: Prose, Poetry and Drama, Grammar
- Importance of questioning and use of black board

Unit-III- Methods of Teaching:

- · Reading and its importance
- Teaching of Drama
- Teaching of Ghazals
- Mechanics of Reading:
- Reading for Appreciation and pleasure
- Reading Interest
- Supplementary Reading

Unit-IV- Text Books and teaching aids:

- Children's literature, Aims and Objectives, Content form and style.
- Teaching aids in Urdu
- Audio Visual Aids
- Importance and need of curricular activity: Organizing Debate, Poetic Symposium, Editing Wallpaper and Magnizines.

Unit-5 Urdu teacher and Evaluation in Urdu:

- Essential qualities of an Urdu teacher.
- Meaning and purpose of evaluation, Formative and Summative evaluation, Characteristic of good achievement
 test, Construction of achievement test in Urdu, Preparation of model question paper along with its Blue print
 from text book of Urdu, Continuous comprehensive internal evaluation,
- Essay Type Test.
- Short Answer type test.
- Objective type test.

Recommended Books:

- 1. Ansari, Akhtar Ghazal Aur Ghazal, Taragi-e-Urdu-Board, ki Taleem New Delhi, 1979.
- 2. Ansari, Akhtar, Ghazal aur Dares-Ghazal, Anjuman Tarikhi-e- Urdu, Aligarh
- 3. Ansari, Akhtar, Studies in Language and Language Teaching, Friends Aligarh, 1962

- 4. Ahmad Hasan Tadrees on Urdu, Marathzara Collage of Education, Aurangabad, 1973.
- 5. Saiyadin, K.G.Zindagi, Zaban aur Taleem, Anjuman Tariq-e- Urdu, Aligarh, 1971
- 6. Moinduddin Urdu Zaban ki Tadrees, Tarikhi-Urdu Bureau, New Delhi, 1983
- 7. Gurrey, P. Teaching the Mother Tongue in Secondary Schools, Longamans London 1958.

METHODS & TECHONOLOGY OF TEACHING ARABIC-B PAPER CODE (EDY513)

LTP 310

Contact Hrs: 04 Pds/week Exam. Duration: 03 Hrs

Max. Marks: 100 Marks Theory: 75 Marks Sessional: 25 Marks

Objectives:

After completing this course, the student teacher will be able to:

- know and formulate the aims and objectives of teaching Arabic Language at different levels of school education.
- Know the concept of language learning, function of language.
- Know Arabic scripts, alphabets, qualities of good handwriting
- Know and understand various types of reading.
- Know and understand the meaning and importance of pedagogical analysis.
- Know and understand the meaning and importance of supplementary reading material.

Unit 1- Remedial and enrichment Contens

- Elements of Arabic language Phonology, morphology syntax and semantics
- Strategies for the removal of errors in spelling, pronunciation. Grammar, comprehension and other aspects as "remedy" to common errors.
- contrastive and errors analysis of Arabic. Against Urdu and English particularly in against Urdu and English particularly in report of phonemes and sentence forms.

Unit 11- Pedagogical Aspect In Respect Of Teaching Prose (Including Applied Grammar) And Poetry

- Curriculum development in Arabic: basic principal of curriculum construction, defeats in the present school curriculum.
- Arabic test books and supplementary reading material their importance and criteria for selection,
- Criteria of good text books and critical evaluation of any school text book of Arabic.
- Edgar Dale core of experience.
- Short story of development of language skills.

Unit 111- Transactional Strategies

- appertain of lesson plan in Arabic: Poetry, Prose, and grammar
- Writing teaching objectives in behavioral terms.
- Various approaches to lesson planning with special reference to Herbart.
- Ensuring interactive environment in the class room.

Unit (1v)- writing skill in Arabic.

- writing: elementary knowledge of Arabic scripts, Teaching of alphabets and their shapes and nomenclatures, Punctuation, Qualities of good hand writing, (formal and informal)
- Essay writing, Activities related to writing competency.

Unit (V)- Reading Skill In Arabic

- Reading- Its importance, Concept and meaning, Type of reading- silent and loud reading,
- Extensive and Intensive reading, Reading comprehension, Reading defects and their cure, activities for developing reading competency.

Reference:

- 1. Allen H.B. Teaching of Arabic as a Mc Graw Hill Co. New Foreign Language York, 1965
- 2. Al-Naqa, Asasiyat Taalim al Lugha Khartoum(Sudan) 1978 Mahmum K. al Arabic li Ghair al-Arab, (in Arabic). ALESCO International Institute of Araqbic Language
- 3. Kohli A.L. Techniques of Teaching Dhanpat Rai & Sons English Delhi, 1990
- 4. Lado R. Language Teaching: A McGraw Hill New Scientific Approach Delhi, 1983

METHODS & TECHONOLOGY OF TEACHING HISTORY-B PAPER CODE (EDY514)

LTP 310

Contact Hours - 04 Periods/Week Marks-100 Examination Duration - 3 Hours Max.

Theory - 75

Sessional-25

Objectives:

At the end of teaching learning process the student Teacher will be able to

- Understand the different methods of teaching History
- analyse the curriculum in History at Primary and Secondary level
- Be acquainted with approaches to curriculum organization
- Know the importance of teaching aid and media support in teaching History
- Explore the need of History classroom, Library and Museum in teaching History
- Understand the qualities of good history Teacher
- Analyse the good history Text book on its prescribed criterias

Unit -I: Methods of Teaching History:

- Teaching History through monuments
- Text book method
- Lecture method
- Project method

Unit- II: Construction of Curriculum in history:

- Principles of curriculum construction in history
- Sallybus of history at Primary Level
- Sallybus of history at Secondary Level
- Approaches to curriculum organization: chronological, concentric, topical and correlation,
- Teacher and curriculum planning, hidden curriculum Evaluation of curriculum Analysis of Text books,

Unit -III: Teaching aid and media support in History:

- Meaning and significance of teaching aids
- Different types of teaching aids- audio, visual and Audio-visuals

- Edgar Dales Cone of experience
- Development of teaching aid- Map, Chart, Time-Table, Multi mediate
- Problems in use of teaching aids

Unit - IV: History room, library and Museum:

- History room: its need and importance
- Equipments in History room
- History Library: essential equipment in history library
- History museum and its equipments

Unit -V: History Text book and History teacher:

- Essential qualities of a history teacher
- Teaching controversial issues in History: Communalism, partition etc
- Characteristics of a good History Text book
- Critical analysis of History text book for secondary classes\

Suggested Readings:

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

Aggarwal, J.C. (2003), Teaching of Social Studies: A Practical Approach, Vikas Publishing House, Pvt. Ltd. New Delhi Ghate, V.D. (1956), Teaching of History (English & Hindi) Bombay, Oxford University, Press. Dixit, U. Bughela (1972), Itihas Shikshan, Jaipur, Hindi Granth Academy.

Sharma, Seema (2004), Modern Teaching of History, Anmol Publication Pvt. Ltd. New Delhi

Dhanija, Neelam. (1993), Multimedia approaches in Teaching Social Studies. New Delhi, Harman Publishinh House.

Dash, B.N. (2006), Teaching of History. Hydrabad: Neel Kamal,m Publishing Pvt. Ltd.

Johnson, Henry. (1915), Teaching of History in Elementry and Secondary Schools: New York, The Macmillan Company

METHODS & TECHONOLOGY OF TEACHING CIVICS-B PAPER CODE (EDY515)

LTP 310

Contact Hours - 04 Periods/Week Marks-100 Examination Duration - 3 Hours Max.

Theory - 75

Sessional-25

Objectives:

After completing this course, the students' teacher will be able to:

- understand the basic concept of the subject and their wide applicability.
- identify instructional objectives in behavioral terms.
- apply appropriate methods in teaching particular topics at different levels and to select and use relevant teaching aids to make learning meaningful
- understand the meaning and concept of evaluation.
- Construct the achievement test in Civics.

Unit-1 Enrichment and Remedial contents:

Role of Judiciary, Socialism-Meaning and concept, Role of education in promotion of socialistic
pattern of society in India, Secularism-Meaning and concept, Role of education in promotion of
secularism in India, Panchayati Raj in India, Meaning of citizen and citizenship, Need of education for
citizenship, Qualities of a good citizen, Political parties- Meaning and concept, functions and
characteristics.

Unit -2 Aids to Teaching in Civics:

Meaning and concept of teaching aids, Need and importance of teaching aids in civics, Principles in
the selection of teaching aids, Classification of teaching aids, Cone of experience proposed by Edgar
Dale, Preparation of teaching aids in Civics, Characteristic of good Audio-Visual Aids, Some important
Audio-Visual Aids in Civics teaching-Black Board, Charts, Models, Over Head Projector (OHP),
Television.

Unit-3 Resources Supplementing Teaching Learning and Co-curricular Activities:

• Supplementary Reading Material-their importance and criteria of selection, Use of community resources for civics teaching at secondary level, Civics Room: Need and Importance, equipment and material, Maintenance of class room environment, factors affecting class room environment, Selecting and developing learning experiences, Co-curricular activities: Objectives and various types.

Unit 4- Civics teacher, innovative experiences and Action Research:

 Role of commerce teacher in formation of clubs and organizing different activities such as debate, essay writing, quiz competition exhibition, fair, wall magazine etc., Qualities of civics teacher, Practices of improvement of teaching, Meaning and importance of action research, Development of action research in Civics.

Unit-5 Evaluation in Civics:

• Meaning and purpose of measurement and evaluation, Principles of evaluation, Characteristic of good achievement test, Construction of achievement test in civics, Preparation of model question paper along with its Blue print from text book of civics, Continuous comprehensive internal evaluation.

Recommended books:

- 1. Teaching of civics in India: Hari-kari.
- 2. Education For Democratic citizenship: Crary Ryland W
- 3. The curriculum for the ten years school: NCERT, New Delhi
- 4. Teaching of civics: Agarwal, J.C.
- 5. Teaching of civics: Kochhar, S.K.

METHODS & TECHONOLOGY OF TEACHING GEOGRAPHY-B PAPER (EDY516)

LTP 310

Contact Hours - 04 Periods/Week Marks-100

Max.

Examination Duration- 3 Hours

Theory-75

Sessional-25

Objective:

After completing this course, the students' teacher will be able to:

- understand the basic concepts of population, occupation, Global warming and Green House Effect and their wide applicability.
- understand the relationship of Geography with other school subject.
- analyze the course content of Geography.
- understand the meaning and importance of Co-curricular activities.
- understand the meaning and purpose of evaluation.

Unit-1 Enrichment contents

• Population: Distribution, growth and density of population, Occupation: Primary and secondary occupation, Nature and scope of Geography, Co-rrelation of Geography with Political science and Economics, Study of home region and local Geography in teaching, Man's intervention: Need and efforts to improve the quality of environment, Major natural regions of the world, Global Warning and Green House Effect, Depletion of Ozone Layer.

Unit-2 Pedagogical Analysis of Geography

• Pedagogical analysis of a unit from the enrichment content, Identification and Classification of the concept from units, Objectives, Teaching-learning Experiences, Evaluation, Definition, Types of resources, Climate-factors affecting Indian climate system.

Unit-3 Transactional Analysis

Preparation of Theme-based Plan, Teaching Aids- Meaning and concept of teaching aids, Need and
importance of teaching aids in Geography, Principles in the selection of teaching aids, Classification of
teaching aids, Cone of experience proposed by Edgar Dale, Preparation of teaching aids in Geography,
Designing a Geography Laboratory, Development of Map reading skills-diagnosis of weaknesses in
maps drawing skills and its remedial measures.

Unit-4 Co-curricular activities in Geography

• Excursion-Meaning and concept, Need and importance, Bulletin Board- Meaning and concept, Need and importance, Geography exhibition, Use of Community Resources for Geography teaching at secondary level, Role of Geography teacher in formation of clubs and organizing different activities such as debate, assay writing, quiz competition, Fair, Wall magazine.

Unit-5 Evaluation in Geography

• Meaning and purpose of measurement and evaluation, Principles of evaluation, Characteristic of good achievement test, Construction of achievement test in Geography, Preparation of model question paper along with its Blue print from text book of Geography, Continuous comprehensive internal evaluation.

Recommended books:

- 1. Binning and Binning: Teaching the Social Studies in Secondary Schools, Mc. Graw Hill, Book Company, New York.
- 2. Hemming: The Teaching of Social studies in Secondary Schools: Langman's Green & company, London.
- 3. Rao, M.S. Teaching of Geography.
- 4. Teaching of Geography, O.P. Verma.
- 5. Teaching of Social Studies, B.D. Shaida.
- 6. Moffat, M.P., Social Studies Instruction, Prentice Hall. Ing. New York.
- 7. Agarwal .D.D. (2000), Modern Methods of Teaching Geography, New Delhi, Sarup & Sons.

METHODS & TECHONOLOGY OF TEACHING ECONOMICS-B PAPER CODE (EDY517)

LTP 310

Contact Hours – 04 Periods/Week Marks-100

Max.

Examination Duration- 3 Hours

Theory - 75

Sessional-25

Objectives:

- To enable the students to know about core elements and basic values of India
- To enable the students of Economics to analyse the contents of Economics in the light of constitutional obligations.
- To enable the students of Economics to construct the curriculum of the subjects in the light of its principles
- To acquaint the students with instructional media and co-curricular activities in teaching of Economics.
- To make the students able to explore the current burning issues related to economis with their solutions

Unit – I: Core elements, values & Economics content

 Core elements: 1 History of India's Freedom Movement 2 Constitutional Obligation 3 Content Essential to Nurture National outlook: 4 India's common cultural heritage 5 Egalitarianism, Democracy & Secularism 6 Equality of sexes 7 Protection of Environment 8 Removal of social barriers 9 Observance of small family norms 10 Inculcation of Scientific temper.

Analysis of Economics content according to the core elements: - 1 Patriotism 2 National Integrity 3
 Tolerance towards all religions 4 Gender Equality 5 Dignity for labour 6 Scientific Attitude 7 Modesty 8 Sensitivity 9 Punctuality 10 Neatess

Unit – II: Curriculum Construction in Economics

- Methods for construction of curriculum of Economics
- Analysis of Economics curriculum (Std. 9th to 12th)
- Relationship between syllabus and text book
- Characteristics of good Economics text book and its evaluation

Unit- III: Content analysis of Economics (one specific unit)

- Need of analysis of Economics content
- Objectives of the unit selected
- Place of the selected unit in structure of Economics
- Content analysis of the unit
- Generalizations

Unit- IV: Instructional Media & Co-curricular Activities ·

• Instructional Media: Concept, Importance and types of instructional media and their use in teaching of economics. · Co-Curricular Activities: Type, role and significance of co-curricular activities in teaching of Economics · Micro Teaching,

Unit- 5: Related issues in Economics

 \cdot Fear of Economics dealing with dynamic and complex issues – overpopulation and its consequences, slow pace of industrialization and unemployment, rural – urban immigration rapid urbanization, price – hike and standard of living \cdot Uncertainty about professional openings \cdot Greater tendency among urban learners for taking up economics as specialisation over rural learners

Suggested Readings:

- 1. Arora, P.N. (1985). Evaluation in Economics. New Delhi: NCERT.
- 2. Arora, P.N. And Shorie, J.P. (1986), Open Book Examination Question in Economics, New Delhi, NCERT. · Assistant Masters Association (1974), The Teaching of Secondary School Examinations, London Cambridge University Press.
- 3. Bawa, M. S. (ed.) (1995), Tendering of Economics: Contemporary Methods and Strategies for Secondary and Senior Secondary
- 4. levels, IASE, Deptt. of Education, Delhi University.
- 5. Chakravorty, S. (1987), Teaching of Economics in India, Bombay, Himalaya Publishing.
- 6. Hicks, J.R. (1960), The Social Framework- An introduction to Economics, London: Oxford University Press.
- 7. Hodkinson, Steve, Whitehead and David J. (ed) (1986), Economics Education: Research and Development Issues, London, New York: Longman.
- 8. Kanwar, B.S. (1973), Teaching of Economics, Ludhiana; Prakash Brothers.
- 9. Khan, R.S., Teaching Economics (In Hindi), Kota Open University, BE-13. Lee, N. (ed) (1975), Teaching Economics, London: Heinemann Educational Books, Prentice Hall.
- 10. NCERT (1974), Teaching Units in Economics for High and Higher secondary Stage, New Delhi.
- 11. Oliver, J. M. (1977), The principles of Teaching Economics within the curriculum, London Routledge &

METHODS & TECHONOLOGY OF TEACHING COMMERCE-B PAPER CODE (EDY518)

LTP 310

Contact Hours - 04 Periods/Week
Marks-100
Examination Duration - 3 Hours

Max.

Theory-75

Sessional-25

Objectives:

After completing this course, the students' teacher will be able to:

- understand the basic concepts of insurance stock, demand and supply and their wide applicability.
- select appropriate methods, audio –visual aids and techniques for teaching commerce at higher secondary stage.
- critically analyse the syllabus and textbooks of commerce at higher secondary stage.
- understand the meaning and concept of evaluation.
- construct the achievement test in Commerce
- know the meaning and importance of co-curricular activities.

Unit-1 Remedial and Enrichment content:

• Insurance: Meaning, Concept, Need and Importance types, Principles of Insurance, Stock Exchange: Meaning, concept, Need and Importance, Function, Types, Demanded Supply: Meaning and Concept of demand and supply, Law of demand and supply, Determinants of demand and supply, Factors influencing demand and supply, Capital: Meaning, concept, classification function and importance, Entrepreneur: Definition, Functions qualities of an entrepreneur, Importance of entrepreneur.

Unit -2 Aids to Teaching in Commerce:

• A Meaning and concept of teaching aids, Need and importance of teaching aids in commerce, Principles in the selection of teaching aids, Classification of teaching aids, Cone of experience proposed by Edgar Dale, Preparation of teaching aids in commerce.

Unit- 3 Resources Supplementing Teaching Learning and Co-curricular Activities:

• Field Trips—importance, preparation and criteria for selecting trips, Use of community resources for commerce teaching at higher secondary level, Commerce Room: Need and Importance, equipment and material, Maintenance of class room environment, factors affecting class room environment, Selecting an Developing learning experiences, Co-curricular activities: Objectives and various types.

Unit-4 Contents and its Pedagogical Analysis:

 Meaning and concept of Pedagogical Analysis, Utility of Pedagogical Analysis for Commerce teacher, Behavioural out comes, Selecting and Developing learning experiences/ Activities, Definition, Types of Bank, Double entry system.

Unit-5 Evaluation in Commerce:

• Meaning and purpose of evaluation, Formative and Summative evaluation, Characteristic of good achievement test, Construction of achievement test in commerce, Preparation of model question paper along with its Blue print from text book of commerce, Continuous comprehensive internal evaluation.

Books Recommended:

- 1 Agrawal, A.N. Business methods and machinery, kitab mahal, Allahabad, 1981
- 2. Bhusham , Y. K. Fundamental of business organization and management, sultan Chand & sons, Darya Gani, New Delhi-1991
- 3. Haradway ,M. Testing and Evaluation in business education ,Cincinnati, south western publishing co, 1966.
- 4. kapoor ,N.D.principles and practice of accountancy ,pitamber publishing co ,new Delhi, 1990.
 - 5. Khan M,S. commerce Education, sterling publishers, pvt. Ltd. New Delhi, 1982.

METHODS & TECHONOLOGY OF TEACHING SOCIAL STUDIES-B Paper Code (EDY519)

LTP 310

Contact Hours – 04 Periods/Week Marks-100 Examination Duration – 3 Hours Max.

Theory - 75

Sessional-25

Objectives:

After completing this course, the students' teacher will be able to:

- understand the meaning, scope and structure of social studies.
- understand the place of teaching aids in social science teaching.
- select and apply appropriate supplementary reading material for improving learning in social studies.

- Understand the meaning, concept and importance of co-curricular activities.
- Understand the meaning, Concept and purpose of evaluation and methods of text construction.

Unit-1 Enrichment Contents:

• Natural environment: The atmosphere –Factors determining weather and climate, Resources and classification, Types of Economy- Capitalism, Socialism and Mixed Economy, Indian Economy-its features, Beginning of modern age: Renaissance, Government at local level.

Unit -2 Aids to Teaching in social studies:

• A Meaning and concept of teaching aids, Need and importance of teaching aids in social studies, Principles in the selection of teaching aids, Classification of teaching aids, Cone of experience proposed by Edgar Dale, Preparation of teaching aids in social studies.

Unit- 3 Resources Supplementing Teaching Learning and Co-curricular Activities:

• Supplementary Reading Material-their importance and criteria of selection, Use of community resources for social studies teaching at high school level, Social studies Room: Need and Importance, equipment and material, Maintenance of class room environment, factors affecting class room environment, Selecting and developing learning experiences, Co-curricular activities: Objectives and various types.

Unit-4 Pedagogical Analysis and Action Research:

• Meaning and concept of Pedagogical Analysis, Utility of Pedagogical Analysis for social studies teacher, Behavioral out comes, Selecting and Developing learning experiences/ Activities, Concept and meaning of action research, Importance and utility of action research, objectives of action research, Steps involved in action research in Social studies.

Unit-5 Evaluation in Social Studies:

• Meaning and purpose of evaluation, Techniques of evaluation, Characteristics of good achievement test, Construction of achievement test in social studies, Preparation of model question paper along with its Blue print from text book of social studies, Continuous comprehensive internal evaluation.

Books Recommended:

- 1. Agrawal ,JC."Teaching social studies" Vikas publishing house ,pvt. Ltd, Delhi, 1989.
- 2. Bining ,A.C. &Bining ,A.H. "Teaching the social study in secondary school",Mc Graw Hill Company ,New York ,1952.
- 3. Kaushik ,vijay kumari "teaching of social studies in elementary school ,"Anmol publication ,Delhi,1992.
- 4. Sharma B.L., "samajik Adhyayan shikshan ,surya publication ,meerut,1998
 - 5. Yagnik ,K.S."Teaching of social studies in india ",Orient Longamans ,Bombay,1966.

METHODS & TECHONOLOGY OF TEACHING MATHEMATICS-B

PAPER CODE (EDY520)

LTP 310

Contact Hours-4 Periods/Week Marks-100 Examination Duration-3 Hours Max.

Theory-75

Sessional-25

Objectives-

After completion of this course student teachers will be able to-

- understand the teaching aids in mathematics teaching
- Edgar Dale cone of Experience
- design the Mathematics curriculum and text book
- appreciate the role of mathematics in day-to-day life, pose and solve meaningful problems
- develop ability to use the concepts of mathematics life skills
- stimulate curiosity, creativity and inventiveness in mathematics
- develop competencies for teaching mathematics through various measures

- understand the professional competencies, ethics, commitments and expectations mathematics teacher
- explore the concept and need of CCE, Examination system

UNIT-I- Teaching Aids in Mathematics

Meaning and concept of Teaching aids, definitions, Need & importance of teaching aids, principles, characteristics of teaching aids, types of aids—audio-visual, projected, classification and selection of aids, Cone of experience (Edgar Dale), audio-visual aids in Mathematics, Models, film strips, Overhead Projector (OHP), Radio, Television, Computers and Internet, Effective use of teaching aids in Mathematics.

UNIT-II- School Curriculum in Mathematics

• Objectives of mathematics curriculum, principles for designing curriculum, designing curriculum at different stages of school, vision of school mathematics, main goal of mathematics education, core areas of concern in school mathematics, curricular choices at different stages of school mathematics education, construction of syllabi in various disciplines of mathematics for example, Arithmetic, trigonometry, Algebra, Geometry etc. Mathematics text book, need and importance, Characteristics of text book in Mathematics.

UNIT-III- Mathematics Education for All

Activities enriching mathematics learning - assisting learning, supplementary text material, summer
programmes, Using community resources for mathematics learning, pooling of learning resources in
school complex/home and other learning situations, handling hurdles in utilising resources,
developing mathematics laboratory and its effective use, recreational activities—games, puzzles in
mathematics, cooperative learning ensuring equal partnership of learners with special needs,
stimulating creativity and inventiveness in mathematics.

UNIT-IV- Professional Development & Ethics of Mathematics Teachers

• Types of inservice programme for mathematics teachers, Role of mathematics teacher's association, Journals and other resource materials in mathematics education, Professional growth & development of Mathematics Teachers- participation in conferences/seminars/workshops, Professional ethics: need & importance for good teacher.

UNIT-V- Continuous & Comprehensive Evaluation in Mathematics

• Meaning and concept of CCE, objectives of continuous and comprehensive evaluation, Need of CCE, Limitations, Present examination system in school, Defects of existing examination system, Suggestions for improvement, Examination Reforms with reference to different commissions.

- 1. Butler and Wren (1960) The Teaching of Secondary Mathematics, Tokyo; McGraw Hill Book Company
- 2. Kuppuswamy Ayyangar, N. (1988) The Teaching of Mathematics in New Education, Bangalore
- 3. Mangal, S. K. (1989) Teaching of mathematics. Ludhiana: Prakash Brothers Publishers
- 4. Sidhu, K. S. Teaching of Mathematics, Sterling Publishers, New Delhi
- 5. Wren (1973). Basic Mathematical concepts, New York, McGraw Hill
- 6. Kulshreshtha, A.K. (2013). Teaching of Mathematics, R.Lall Book Depot, Meerut
- 7. Shankaran & Gupta, H.N. (1984) Content cum Methodology of Teaching Mathematics, New Delhi: NCERT
- 8. Dave, R.H. and Saxena, R.C. (1970). Curriculum & Teaching of Maths in Secondary Schools. A Research Monograph, Delhi: NCERT.

METHODS & TECHONOLOGY OF TEACHING HOME SCIENCE-B PAPER CODE (EDY521)

Contact Hours-5 Periods/week Examination Duration-3 Hours

LT P 31 1

Max. Marks: 100

Theory: 60 Sessional: 15 Practical: 25

OBJECTIVES:

After completing the course the student-teacher will be able to:

- understand the terms and concepts of teaching Home Science and their use in class room situations.
- develop skill and competencies in the pupil teacher related to Home Science at Secondary level.

- learn the concept of Home Science curriculum
- understand the use of various teaching learning materials in Home Science.
- recognize the relative advantages of resources for teaching Home Science.
- acquaint with the professional competencies of good Home Science teacher.
- explain the importance of correlation in Home Science teaching.
- describe the importance of First Aid.
- Understand the various elements and principles of art used in interior decoration.

Unit-I - Content of Teaching Home-Science:

- Interior Decoration- Concept, meaning and importance of Interior Decoration, Basic principles of interior decoration. The Elements of Art and Design, Planning Colour Schemes for specific areas in the House.
- Disinfection and Pest Control- Concept of Disinfection, Some common house hold pests and Pest control
 measures
- Food Adultration-meaning, concept and effects of Food Adultration, Health Hazards resulting from Adultrants, Malpractices of Food dealers.

Unit-II - Curriculum Organization in Home Science

- Curriculum: courses of study in Home Science
- Factors affecting Curriculum organization
- Principles of curriculum construction.
- Place of Home science in school curriculum
- Criteria of a good Home Science Curriculum
- A critical appraisal of existing syllabus in Home Science, suggestions for improvement

Unit-III Nature, Need and Correlation in Home Science Teaching

- Nature of Home Science.
- Home Science Teaching in context of family and Group.
- Need of Home Science teaching for Boys.
- Concept and types of correlation
- Correlation of Home Science with other school subjects.
- Advantages and limitations of correlation.

Unit-IV Instructional Aids In Home Science Teaching

- Meaning, concept and need of Instructional Aids
- Different types of Instructional Aids (visual and audio –visual) for Home Science teaching.
- Principles for using Instructional t aids.
- Steps for effective use of Instructional aid s.
- Importance and use of Instructional aids

Unit-V - Evaluation of Home Science Text Book

- Criteria of a good text book in Home Science.
- Merits and Demerits of Text Book
- Need and Importance of text books in Home Science
- Evaluation of Home Science Text Book .
- Critical appraisal of the present text book in Home science, suggestions for improve ment.

REFERENCES:

1. Bansal Suraksha & Maheswari Sudha, (2010), Teaching of Home Science, Meerut, International

Publishing House.

- 2. Sheri G.P & Saran D.P (2008) Teaching of Home Science ,New Delhi: Vinod Pustak Mandir
- 3. Yadav Seema (2001) Teaching of Home Science, New Delhi: Anmol Publication.
- 4. Sahni Madhu, (1998), Indian Home Science, Varanasi: Hindi Prakashak Publications.
- 5. Moorthy Gayatri, (1998), Home Management, New Delhi, Arya Publishing House.

HOME SCIENCE- PRACTICAL

List of Practical's MM-25

- 1) Preparation of different Recipes
- 2) Diet planning
 - a) Diet plan for a 6 months baby
 - b) Diet plan for an adolescent girl
 - c) Diet plan for a 30 year old lady
 - d) Diet plan for a Pregnant woman
- 3) A table Cover with different embroidery stitches.
- 4) Samples of Plain Stitches
 - a) Hemming
 - b) Back Stitch
 - c) Blanket Stitch
 - d) Basic Stitch
 - e) Running Stitch
 - f) Long and Short Stitch
- 5) Samples of Pleats
 - a) Simple Pleats

- b) Box Pleats
- c) Fixed Pleats
- d) Inverted Box Pleats
- 6) Samples of Lines and Checks
 - a) Vertical lines
 - b) Horizontal lines
 - c) Diagonal lines
 - d) Zig Zag lines
 - e) Wavy lines
 - f) Circular lines
 - g) Rectangular lines
 - h) Triangular lines
- 7) Samples of embroidery stitches
- 8) Description of colours and Colour Schemes

Warm colours

Cool colours

Neutral colours

Warm colour scheme

Cool colour scheme

Neutral colour scheme

Primary colour scheme with neutral colour

Mono Chromatic colour scheme

Di chromatic colour scheme

Poly chromatic colour scheme

Complimentary colour scheme

Double complimentary colour scheme

Adjacent colour scheme

METHODS & TECHONOLOGY OF TEACHING PHYSICAL SCIENCE-B PAPER CODE (EDY522)

Contact Hrs: 05 Pds/week 311

Exam. Duration: 03 Hrs

Max. Marks: 100
Theory: 60 Marks

Sessional: 15 Marks Practical: 25 Marks

Objective:

After completing this course, the students' teacher will be able to:

- Understand the nature of Science.
- Understand the aims and objectives of teaching Science at secondary level.
- Discuss topic in science effectively by adopting appropriate teaching strategy.
- Apply the principle of learning process in the teaching of science.
- Use effectively the teaching aids in teaching science.

Unit-I —: Activity base teaching:

- Science Exhibition: Objectives, Planning and Organization.
- Quiz Competition: Planning and Organization.
- Science Faire: Planning and Organization.
- Science Club: Concept, Its necessity, Objectives Organization, executive body & activities.
- Field Trip: Concept, objectives, planning, preparation, organization, execution and evaluation
- Science Room: Concept, objectives, planning and organization.

Unit-II -: Identification of exceptional children in teaching physical science

- Gifted Learner:- Concept, Identification, Characteristic, Method of their teaching
- Slow Learner:- Concept, Identification, Characteristic, Method of their teaching

Unit-III-: Scientific attitude: Believing in intellectual integrity

- Development of scientific temper and scientific attitude.
- Professional education of science teacher.
- Need for recurrent education.

Unit-IV – Curriculum organization in Science Teaching:

- Principal of curriculum construction.
- Factors affecting curriculum organization.
- Co-relation of teaching of science.

Unit-V – Planning and managing physical science laboratory:

• Objective, Planning, Guide Line for Laboratory Teachers, Common Library Accidents and their remedies.

Evaluation of text-book:

• Basic concept, Criteria for good text-book.

Evaluation:

• Function and types: Placement, formative, diagnostic, summative and difference between formative and summative evaluation

Practicals:-

- 1. To find the focal length of a convex lens by plotting graphs between u and v.
- 2. To map the magnetic lens of force due to earth and bar magnet placed its north pole towards geographical north and local position of neutral point and hence calculated pole strength and magnetic movement of given bar magnet (Bh=0.32 Gauss.)
- 3. To verify the laws of reflective with the help of a glass slab and also to fined the refractive index of glass slab.
- 4. To analyze acidbase radicals from the given samples. (Cuso4, CaCo3, BaCl2, PbCH3 CooH, FeS).
- 5. To determine strength in gram per ltr. Of unknown oxalic acid solution by titration it against 0.05 N Kmno4 (Oxidation ------Redaction Titration.)

References:-

- 1. Das, R.C., curriculum and evaluation, NCERT.
- 2. Kulshreshtha, S.P. Teaching of science, Meerut.
- 3. Deepak Dayal, Modern methods of teaching physics, New Delhi.
- 4. Martin Wenham and Peer ovens, Understanding Primary Science, Science knowledge for teaching Washington DC.
- 5. R.M. Kalra & Vandana Gupta, Teaching of Science, MVC, Delhi University, New Delhi.
 - 6. Sonika Rajan, Methodology of teaching Science, Pearson.

METHODS & TECHONOLOGY OF TEACHING BIOLOGICAL SCIENCE-B PAPER CODE (EDY523)

Contact Hours-5 Periods/week Examination Duration-3 Hours

3 1 1 Max. Marks: 100

LT P

Max. Marks: 100 Theory: 60 Sessional: 15

Practical: 25

OBJECTIVES:

After completion of the course the student teacher will be able to:

- develop awareness about development in the area of teaching and learning of Biological science
- develop skill and competencies in the pupil teacher related to Biological science at Secondary level.
- learn the concept of Biological science curriculum
- understand the use of various teaching learning materials in Biological science.
- get acquainted with the adaptations in various animals.
- recognize the relative advantages of resources for teaching Biological science.
- appreciate the importance of conservation of natural resources.
- Differentiate the relative advantages of various co curricular and non formal approaches.

Unit-I Curriculum Organization in Biological Science:

- Concept and importance curriculum
- Place of Biological science in school curriculum
- Principles of curriculum construction.
- Factors affecting curriculum organization.
- Criteria of good Biological science curriculum.

Unit-II Teaching of Gifted and Backward students in Biological Science:

- Gifted Students-Need of classification, Problems of gifted students, Identification of Giftedness in Biological Science, Characteristics of gifted children, special Enrichment Programmes and General Activities for Gifted Children.
- Backward Students-Identification and Problems of Backward Children, Characteristics of Backward Children in Biological Science, Role of Teachers, Adjustment of syllabus, Teaching Methods, Curricular Activities and Parent-Teacher Co operation

Unit-III Professional Development of Biological Science Teacher:

- Qualification and Essential Qualities of Biology Teacher
- General Skills and Competencies required in Biological Science Teacher
- Professional Development of Biological science teacher
- Recruitment Procedures, Need for Inservice Training and professional Growth

Unit-IV – Instructional Aids In Biological Science Teaching:

- Meaning, concept and need of Instructional Aid
- Different types of Instructional Aids (visual and audio –visual) Biological Science teaching.
- Aids through Activity
- Principles for using teaching aids.
- Steps for effective use of teaching aids.
- Importance and use of teaching aids

Unit-V – Co curricular and Non Formal Approaches:

Activity approaches and non formal methods of science teaching in terms of field trips, science club. Visits to science museums and organization of science fairs.

REFERENCES:

- 1. Ahmad Jasim, (2011), Teaching of Biological Sciences, New Delhi, PHI, Learning Pvt. Ltd.
- 2. Kulshrestha S. P., (2006), Teaching of Biology, Meerut, R. Lal book Depot.
- 3. Kumar Bandre, (2007), A text book of Practical Botony, Meerut, Rastogi Publications.
- 4. Mangal S.K (2005): Teaching of Life Sciences, New Delhi, Arya Book Depot
- 5. Aggarwal D.D (2001): Modern Methods of Teaching Biology. Sarup Teaching Series. Sarup & Sons, New
- 6. Delhi.
- 7. Bhaskara Rao, D (2000): Teaching of Biology, Nagarjuna Publishers, Gunter
- 8. Gupta V.K (1994): Life Sciences Education Today, Arun Publishing House.

Biological Science Practical Paper

List of Practical's: - Max. Marks: - 25
Zoology

- 1. General Survey of Animal Kingdom with special reference to following specimens-
 - Leech
 - Locust.
 - Centipede

- Crab
- Millipede
- Unio
- Toad
- Ascaris
- Cray Fish
- 2. Study of prepared slides
 - Earth worm Tphlosolar region (T.S)
 - Seminal vesicle region(T.S)
 - Pharyngeal region(T.S)
 - Prostate gland(T.S)
 - Spermatheca

Botany

- Section cutting.
- Glycerin mount of stained transverse section of monocot and dicot stems.

Plant Physiology:

- To demonstrate the phenomenon of osmosis by potato osmoscope.
- To demonstrate the phenomenon of plasmolysis by cells of beet root.