

D.ED. SPECIAL EDUCATION
(VISUAL IMPAIRMENT)

NORMS

&

GUIDELINES

REHABILITATION COUNCIL OF INDIA

(Statutory Body Under Ministry of Social Justice & Empowerment)

B-22, Qutab Institutional Area

New Delhi – 110 075

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www.rehabcouncil.nic.in

D.ED. SPECIAL EDUCATION (VISUAL IMPAIRMENT)

Preamble

Manpower development is one of the major objectives of Rehabilitation Council of India. Diploma in Special Education is a major step towards generating teachers across the country to teach children with special needs from pre-school to primary level. It aims at generating quality teachers who could meet the challenges of all round development of the children. The course is geared towards developing knowledge, skills and desirable attitudes in teachers to facilitate the differently abled children to blossom to their fullest by providing a barrier free environment and achieving the goal of universal primary education.

General Objective

The Diploma Course in Special Education aims to develop professionals for special education within a broad framework of education in the current millennium. The course will enable pre-service teachers to acquire knowledge, develop competencies and practice skills to impart education to children with special needs.

The general objective of the course is to prepare special teachers at pre-primary (Nursery, Kindergarten etc.) and primary (I to IV - lower primary and V to VII – upper primary) levels to serve in the following settings:

- i) Special schools
- ii) Integrated \ Inclusive setup
- iii) Itinerant programmes

Knowledge Related Objectives

To build adequate knowledge in the following areas:

- 1) Various aspects of disability, its impact and management
- 2) Key aspects of education like goals, function, technology and emerging trends
- 3) Educational needs of the children with disability and their management
- 4) Details of planning and executing curricular and co-curricular activities
- 5) Methods and techniques of teaching school subjects
- 6) Various areas of child development and the relevant mental processes
- 7) To be able to see the above mentioned aspects in the light of Indian context

Skill Related Objectives

To develop skills and competencies in the following areas:

- 1) Personal, professional and social competencies and skills required in teachers
- 2) Subject teaching as per requirement

- 3) Development and adaptation of instructional materials
- 4) Evaluation of the students, teacher and the educational programme
- 5) Planning and executing lessons (individualized and group)
- 6) Classroom management techniques
- 7) Individual and group parent interaction

Attitude Related Objectives

To develop desirable attitudes towards following issues:

- 1) Role and need of education in the modern world
- 2) Teaching profession and role of teachers in changing society
- 3) Guiding children and solving their academic/behavior problems

General Framework of the Course

The diploma course consists of 4 core papers and additional papers pertaining to specific disability areas. Though the number of papers pertaining to disability specialization may vary, the core papers are common across the specialization areas. Each paper will have a total of 90 hours for curriculum transaction.

Duration of the Course

The duration of the course will be 220 days consisting of 1320 hours each year thus having a total of 2640 hours for theory and practicum.

Eligibility

Students who have passed Plus 2 examination / Junior College are eligible for the course.

Medium of Instruction

The medium of instruction will be English / Hindi / State language

Methodology

The methodology of the course includes lectures, demonstration, project work, discussions, exposure visits to different schools / rehabilitation projects, participation in community meetings, medical camps and community development programmes, practice-teaching and internship in the disability intervention programmes at grassroots level.

Course Pattern

The course will be offered through semester or any other pattern as directed by RCI from time to time.

Staff Requirements

The course should have 2 lecturers for each year of the course and one will assume the charge of course coordinator / head, thus requiring a total teaching staff of 4. In addition to this core faculty, guest lecturers may be invited to handle specific topics.

Qualifications of the teaching staff

The lecturers should have Post Graduate degree with M.Ed. (Special Education) / B.Ed (Special Education) / Diploma in Special Education in the specialized area with minimum two years of experience in teaching children with disabilities in that specific disability specialization.

Intake capacity

The intake for each year of the course will be 25 maximum.

Minimum Attendance

Eighty per cent minimum attendance is required both in theory and practical to be eligible to appear in the semester end examination.

Examination Scheme

As per RCI's Scheme of Examination.

Certification as Registered Personnel

It is mandatory for every rehabilitation professional / personnel to obtain a “Registered Personnel / Professional Certificate” from the Rehabilitation Council of India to work in the field of special education in India. As continuous professional growth is necessary for the renewal of the certificate, the rehabilitation professional / personnel should undergo in-service programme periodically to update their professional knowledge.

Library Material

Books related to course curriculum (initially 200 titles)
Minimum 5 periodicals including 2 journals on disability.

PAPERS WISE HOURS AND MARKS DISTRIBUTION

THEORY

Sl.No	Name of the paper	Hours	Internal marks (40%)	External marks (60%)	Total
Semester -I					
I	Introduction to Disabilities	90	30	45	75
II	Implications of Visual Impairment	90	30	45	75
III	Teaching of Plus Curricular Activities	90	30	45	75
IV	Teaching Social Studies - Content-cum-Methodology	90	30	45	75
		360	120	180	300
Semester -II					
V	Educational Psychology	90	30	45	75
VI	Education of Children with Low Vision	90	30	45	75
VII	General Science Content-cum- Methodology	90	30	45	75
		270	90	135	225
Semester -III					
VIII	Education in the Emerging Indian Society	90	30	45	75
IX	Education of Visually Impaired Children with Additional Disabilities	90	30	45	75
X	State Language and English – Content-cum-Methodology	90	30	45	75
		270	90	135	225
Semester -IV					
XI	Planning and Management of Education for Children with Disabilities	90	30	45	75
XII	Integrated and Inclusive Education	90	30	45	75
XIII	Teaching of Mathematics for Visually Impaired Children – Content-cum-Methodology	90	30	45	75
		270	90	135	225
	Total	1170	390	585	975

PRACTICALS

Sl.No	Name of the paper	Hours	Internal marks (60%)	External marks (40%)	Total
Semester -I					
I	Braille—Hindi/State language	90	60	40	100
II	Orientation and Mobility	60	30	20	50
III	Use of Special Appliances	75	45	30	75
IV	Practice Teaching	45	60	40	100
V	Information and communication technology	30	30	20	50
	Total	300	225	150	375
Semester –II					
I	Braille	105	60	40	100
II	Orientation and Mobility	90	60	40	100
III	Preparation of low cost TLM	135	60	40	100
IV	Practice Teaching	60	60	40	100
	Total	390	240	160	400
Semester –III					
I	English Braille	90	60	40	100
II	Orientation And Mobility	60	45	30	75
III	Preparation of Teaching Aids	75	36	24	60
IV	Practice Teaching	60	36	24	60
V	Project Work	75	45	30	75
VI	Preparation of Tactile Maps	30	18	12	30
	Total	390	240	160	400
Semester -IV					
I	Practice Teaching	60	60	40	100
II	Teaching of ADL Skills	95	60	40	100
III	Braille	90	60	40	100
VI	Teaching of Appliances	100	30	20	50

VII	Community Work	45	30	20	50
Total		390	240	160	400

SEMESTER WISE HOURS AND MARKS DISTRIBUTION

	Semester I			Semester II			Semester III			Semester IV			Grand total
	Theo	Prac	Tot.	Theo	Prac	Tot.	Theo	Prac	Tot.	Theo	Prac	Tot.	
Hours	360	300	660	270	390	660	270	390	660	270	390	660	2640
Marks	300	375	675	225	400	625	225	400	625	225	400	625	2550

1st Year—Semester I

THEORY

PAPER I

INTRODUCTION TO DISABILITIES

90 Hours

(Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

After studying this paper, the learner is expected to:

1. Understand the differences between impairment, disability and handicap.
2. Enumerate the educational needs of various categories of persons with disabilities.
3. Know the common causes and preventive aspects of the different kinds of disabilities
4. Describe the general methods to be adopted for early identification and intervention strategies in the case of children with disabilities
5. Understand the importance of human resource development in the disability sector and list the stakeholders in the field.

Unit 1:

Understanding the Disabilities (15 Hours)

- 1.1. Concept and Definition of Impairment, Disability and Handicap.
- 1.2. Historical and National developments and Constitutional obligations for children with disabilities.
- 1.3. Categories of Disability as per the PWD Act 1995.
- 1.4. Prevalence and Incidence in India.
- 1.5. Social and Educational needs of children with disability.

Unit 2:

Definition, Types and Characteristics (15 Hours)

- 2.1. Hearing Impairment: Definition, types and characteristics.
- 2.2. Visual Impairment: Definition, types and characteristics
- 2.3. Mental Retardation: Definition, types and characteristics.
- 2.4. Neuro–muscular and Locomotor Disabilities (CP): Definition, types and characteristics.
- 2.5. Autism, Mental Illness and Multiple Disabilities: Definition, types and characteristics.

Unit 3:

Causes and Prevention (15 Hours)

- 3.1. Causes: Pre-natal, Natal, Post-natal.
- 3.2. Prevention: Primary, Secondary, Tertiary.
- 3.3. Immunization, Nursing care and First aid.

- 3.4. Hygiene, Nutrition, Diet and Childhood diseases.
- 3.5. Genetic Counseling.

Unit 4:

Identification and Early Intervention (15 Hours)

- 4.1. Need for early Identification and Intervention.
- 4.2. Tools for Screening and assessment procedures for educational placement.
- 4.3. Intervention of late identified children.
- 4.4. Early Intervention strategies.
- 4.5. Differential Diagnosis and Referrals.

Unit 5:

Human Resource in Disability Sector (15 Hours)

- 5.1. Concept of Human Resource in disability – Global and national perspectives
- 5.2. Policies and programmes for development and training of human resource
- 5.3. Meaning, need and scope of quality education in HRD
- 5.4. Age-linked care and health services in India

- Changing health services and geriatric rehabilitation
- Impact of health services on disability

- 5.5. Stakeholders and Schemes in disability services

* Information in brief (4 to 5 lines) on what the following are and their main functions:

- AAW – Aanganwadi Workers
- DSNPA – National Disabled Services Plan of Action
- FCS – Family Care Services
- IEDC – Integrated Education of the Disabled Children
- MSJE – Ministry of Social Justice and Empowerment
- MOH – Ministry of Health
- MHRD – Ministry of Human Resource Development
- NCERT – National Council of Educational Research and Training
- NPPA – National Policy and Plan of Action
- NSSO – National Sample Survey Organisation
- PHC – Primary Health Centre
- RCI – Rehabilitation Council of India
- VRC – Village Rehabilitation Committee
- WHO – World Health Organization
- AYJNIHH – Ali Yavar Jung National Institute for the Hearing Handicapped
- NIVH – National Institute for the Visually Handicapped
- NIMH – National Institute for the Mentally Handicapped
- NIOH – National Institute for the Orthopaedically Handicapped

- NIEPMD - National Institute For The Empowerment of Persons with Multiple Disabilities

Experiential Learning (15 Hours)

The 15 hours earmarked for each paper may be used for providing hands on practical experiences to the students to enrich their learning.

(e.g.. The students are expected to visit at least 2 institutes for disabilities and observe children with disabilities learning, and submit a report of their observation)

Reference material:

1. Madhavan, T. Kayla, M. Naidu, S. Peshawaria, R & Narayan, J (1989) Mental Retardation – A Manual for Psychologists
2. Wallace, P.M. & Goldstein, J.M. (1944) An Introduction to Psychology (3rd Edition) Madison: Brown & Benchmark Publishing
3. Lindgren H (1988) Educational Psychology in the Classroom, Harper & Raw
4. Panda, KC (1997) Education and Exceptional Children, Vikas Publishing House, New Delhi
5. Smith, D.D, and Luckasan, R.(1992), Introduction to Special Education, Allyn and Bacon, Boston
6. Alan H. and Ravic R. (1998). Best and promising Practices in Developmental Disabilities, Texas, PRO – ED, Inc
7. Hegarty S. (2002). Education and Children with Special Needs in India: Sage Publications, India Pvt. Ltd.
8. Myron G. Eisenberg, Robert L. Glueckauf, Herbert H. Zaretsky (1999) Medical Aspects of Disability: A Handbook for the Rehabilitation
9. Arthur E. Dell Orto, Paul W. Power (2007) The Psychological and Social Impact of Illness and Disability
10. Vicki L. Schwean, Donald H. Saklofske (1999) Handbook of Psychosocial Characteristics of Exceptional Children
11. Seamus Hegarty, Mithu Alur (2002) Education and Children with Special Needs: From Segregation to Inclusion
12. S.S. Chauhan (2002) Education of Exceptional Children

Paper 2 : Implications of Visual Impairment

Total hours: 90

(Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

On completion of this Paper, the pupil-teachers will be able to:

1. Describe perspectives of the education of children with visual impairment in India and abroad in the context of historical and contemporary developments.
2. Narrate clearly the process of concept formation and development among children with visual impairment
3. Demonstrate an understanding of the implications of visual impairment on teaching-learning, co-curricular activities and creative arts.
4. Bring out clearly an understanding with reference to the functions of various parts of the eye and eye-diseases.
5. Describe clearly psycho-social perspectives and implications of blindness
6. Discuss attitudes towards persons with visual impairment.

Unit 1: Historical perspectives

(15 hours)

1.1. Origin of educational facilities for visually impaired children in: France, UK, USA and India.

1.2. Pre-Braille tactile scripts and origin and development of the Braille script

1.3. Evolution of Bharti Braille

1.4. Special contributions to the education of the visually impaired of some Eminent Personalities in India and abroad – An Overview:

India -

1. Neelkanth Ray Chhatrapati
2. R.M. Alpaiwala
3. Lal Bihari Shah
4. Clutha Mckenzie
5. Lal Advani

West -

1. Dedimus
2. Louis Braille
3. Nicholas Saunderson
4. Charles Armitage
5. Helen Keller

Unit 2: Educational Perspectives

(15 hours)

2.1. Aims and objectives of education of visually impaired children

2.2. Principles of teaching visually impaired children-concreteness, individualization and self activity

- 2.3. Early Childhood Education
- 2.4. Educational technologies – conventional devices : Braille-writing, computing, mobility
- 2.5. Electronic devices – Talking calculator, diary and watches, screen reading software, reading machine, note-taking devices, Braille embossers and mobility devices

Unit 3: Concept Formation (05 hours)

- 3.1. Meaning and Definition
- 3.2. Stages of Concept Formation
- 3.3. Implications of loss of vision in concept formation
- 3.4. Development of concepts amongst blind children

Unit 4: Teaching of co-curricular activities to visually impaired children (10 hours)

- 4.1. Physical education and yoga
- 4.2. Indoor and outdoor games
- 4.3. Performing arts-music, dramatics, dance
- 4.4. Creative arts- clay modeling, sculpturing & origami
- 4.5. Literary arts - elocution, debate, creative writing

Unit 5 : Eye and eye care (15 hours)

- 5.1. Structure and functioning of the human eye
- 5.2. Errors of refraction and muscle imbalance
- 5.3. Common eye diseases in India – Cataract, Glaucoma, Trachoma, ROP, Retinal detachment, Optic atrophy, Conjunctivitis, Xerophthalmia
- 5.4. Classroom implications of various eye conditions
- 5.5. Prevention and eye care

Unit 6 : Psychological perspectives (15 hours)

- Losses/Limitations
- Effects of early and adventitious blindness on personality development
- Classroom implications of psychological assessment and testing
- Psychological problems of visually impaired adolescents
- Adjustment and coping mechanisms

Unit 7: Social perspectives (15 hours)

- 7.1. Attitudes - Concept, process of formation and implications
- 7.2. Myths and stereo-types about the visually impaired
- 7.3. Parental attitudes
- 7.4. Community-attitudes
- 7.5. Attitudes of visually impaired persons towards themselves
- 7.6. Attitude modification

Books Recommended

- Kitchlu, T.N. (1991) A Century of Blind Welfare in India. Delhi: Penman Publishers
- Kundu, C.L (ed.) (2003), Disability Status India, Rehabilitation Council of India: New Delhi
- Lowenfeld, B. (1973) The visually handicapped child in school. John Day Company: New York
- National Institute For The Visually Handicapped (1990). Handbook for Teachers of the Blind: Dehradun.
- Scholl, G. T. (1986). Foundations of the education for blind and visually handicapped children and youth: Theory and Practice. AFB Press: New York.
- Warren D.H (1983). Blindness and Early Childhood Development. AFB Press: New York.

Paper 3: Teaching of Plus Curricular Activities

Total hours: 90

(Total marks: 75 – 45 for External, 30 for Internal)

Objectives : On the completion of this paper, the pupil-teachers will be able to:

1. Describe clearly the concept and importance of plus curriculum.
2. Acquire and use information about the methods of teaching Braille to visually impaired children.
3. Orient the students in note taking skills.
4. Understand and utilize the procedures, principles and methods of sensory training.
5. Demonstrate an understanding of tactile, auditory, olfactory and kinesthetic discrimination.

Unit 1: Plus Curriculum

(10 hours)

- 1.1 Concept
- 1.2 Importance
- 1.3 Components
- 1.4 Modifications /adaptations in curriculum presentation

Unit 2: Teaching of Braille

(20 hours)

- 2.1 Pre-requisite skills for Braille reading
- 2.2 Braille reading readiness – preparation of worksheets
- 2.3 Methods of teaching Braille reading (letter, word, sentence method) Use of flash cards
- 2.4 Introduction of Braille writing
- 2.5 Techniques of rapid reading and note taking skills

Unit 3: Sensory Training

(20 hours)

- 3.1 Meaning and Importance
- 3.2 Tactile discrimination
- 3.3 Auditory discrimination
- 3.4 Olfactory and Gustatory discrimination
- 3.5 Kinesthetic discrimination
- 3.6 Visual discrimination (use of residual vision)
- 3.7 Special skills and competencies of the teacher with reference to sensory training
- 3.8 Inter-sensory co-ordination/sensory integration for concept formation

Unit 4: Use of Assistive Devices

(10 hours)

- 4.1. Taylor Frame and Abacus
- 4.2. Braille Writing Devices
- 4.3. Geometry Devices
- 4.4. Low cost/No cost Teaching – Learning material and tactile maps and diagrams and three dimensional models

Unit 5 : Teaching of Orientation and Mobility**(15 hours)**

- 5.1. Definition and importance
- 5.2. Techniques of teaching orientation
- 5.3. Techniques of teaching indoor and outdoor mobility – sighted guide, pre-cane, cane techniques
- 5.4. Significance and use of clues and landmarks
- 5.5. Tactile and auditory maps and Echo-location

Unit 6: Teaching of daily living activities and social skills**(15 hours)**

- 6.1. Meaning and importance
- 6.2. Age appropriate classification of daily living skills
- 6.3. Techniques of teaching daily living skills
- 6.4. Personal hygiene, grooming and social etiquette
- 6.5. Performing household tasks (cooking, cleaning, washing etc.)

Books Recommended

- Kundu, C.L (ed.) (2003), Disability Status India, Rehabilitation Council of India: New Delhi
- Mani. M.N.G (1992). Techniques of Teaching Blind Children. New Delhi : Sterling Publishers.
- Pandey, R.S. and Advani, Lal (1995) Perspectives in Disability and Rehabilitation. Vikas Publishing House: New Delhi
- Punani, B., and Rawal, N. (1993). Handbook : Visual Impairment. New Delhi : Ashish Publishing House.
- Radha Bai. Et al. (Ed.) (1995). All Colors are there. Trichy : Holy Cross Service Society.

Paper (IV)

Teaching Social Studies - Content-cum-Methodology (Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

On completion of this Paper, the pupil-teacher will be able to:

Narrate the objectives and methods of teaching Social Studies

Understand and apply skills of teaching Social Studies

Use various techniques and devices involved in teaching Social Studies

Carry-out evaluation properly

Demonstrate an understanding of environment

Acquire basic knowledge and information with regard to history, civics and geography

Unit 1 : Objectives of teaching Social Studies (10 hours)

1.1. Meaning of social science and social studies

1.2. Aims and values of teaching social studies

1.3. Behavioral specifications of the objectives of teaching social studies

1.4. Concept of social studies – some basic ideas

1.5. Classifying instructional procedures

Unit 2 : Methods of teaching Social Studies (10 hours)

2.1. Source method

2.2. Discovery method

2.3. Project method

2.4. Problem solving

2.5. Play way method

Unit 3: Skills of teaching Social Studies (10 hours)

3.1. Dramatization

3.2. Narration

3.3. Explanation

3.4. Story telling

3.5. Organizing excursions

Unit 4: Use of Devices in Social Studies (7.5 hours)

4.1. Techniques of preparing embossed maps

4.2. Guidelines for improvising aids and models for teaching social studies to the visually impaired

4.3. Development of relevant teaching-learning materials

4.4. Preparation of adapted instructional material in teaching social studies

4.5. Different types of maps useful for the visually impaired children

Unit 5: Evaluation**(7.5 hours)**

- 5.1. Objectives of evaluation
- 5.2. Types of evaluation
- 5.3. Construction of test items for evaluating learning of social studies by pupils
- 5.4. Diagnosing pupil difficulties in learning social studies
- 5.5. Designing remedial teaching

Unit 6: Environment and education**(10 hours)**

- 6.1. Environment and importance of environmental education
- 6.2. Factors leading to environmental degradation – population explosion, urbanization, poverty, deforestation
- 6.3. Extinction of flora and fauna
- 6.4. Role of government and non-government agencies

Unit 7: History**(15 hours)**

- 7.1. Rise of various dynasties through early and Middle Ages
- 7.2. Establishment and expansion of the British Empire
- 7.3. India's first freedom struggle of 1857
- 7.4. National Renaissance from 1885 to 1919
- 7.5. Struggle for independence under Gandhiji's leadership

Unit 8: Civics**(10 hours)**

- 8.1. Salient features of the Constitution
- 8.2. National goals and aspirations
- 8.3. Concept of democracy, secularism and socialism
- 8.4. Relationship between union, state and local self-government
- 8.5. Road safety, consumer education

Unit 9: Geography**(10 hours)**

- 9.1. Types of maps
- 9.2. Use of latitudes and longitudes
- 9.3. Representation of map
- 9.4. Concept of regions and continents
- 9.5. National symbols, national festivals, national flag, national anthem and national emblem

Books Recommended:

Kochhar, S.K. , Teaching of Social Studies (1984); Sterling Publishers Private Limited - New Delhi

Y K Singh - Teaching of Social Studies (2004); APH Publishing Corporation, New Delhi

Scholl, G. T. (Ed.) Foundations of the education for blind and visually handicapped children and youth: Theory and Practice; (1986).. AFB Press: New York.

Practicum

Braille—Hindi/State language

Total marks 100 - 90 Hours

Unit 1: Reading and Writing

- 1.1. Alphabets
- 1.2. Reading Words
- 1.3. Writing Words
- 1.4. Various signs used in literature (Separation, Composition and numeric indicators)
- 1.5. Punctuation signs
- 1.6. Reading and Writing Passage

Unit 2: Preparing Braille Calendar

Unit 3: Hindi/State language Braille Formats

- 3.1. Paragraphs
- 3.2. Poems
- 3.3. Poetry in Prose Format
- 3.4. Poetry in verse format
- 3.5. Making a short lesson plan in Braille
- 3.6. Making a mark sheet

Orientation and Mobility

Total marks 50

60 Hours

Unit 1: Sensory Training Under Blind-fold Condition

- 1.1. Auditory — Sound Localization, Discrimination, Masking Sound -Echo Location and Sound Shadow.
- 1.2. Touch
- 1.3. Olfactory
- 1.4. Gustatory
- 1.5. Kin aesthesis

Unit 2: Identification of clues and landmarks in in-door and out-door environment and their use.

3. Use of Special Appliances **Total marks 75 - 75 Hours**

Unit 1: Mathematical Devices

1.1. Abacus—

- 1.1.1. Setting up of numbers
- 1.1.2. Addition and Subtraction
- 1.1.3. Multiplication and division

1.2. Taylor Frame—

- 1.2.1. Writing of numbers and digits
- 1.2.2. Writing of various mathematical signs like plus etc.
- 1.2.3. Writing and solving various mathematical operations such as: plus, minus, multiplication and division

1.3. Tactile geometry kit and its use for drawing tactile diagrams

Unit 2: Braille devices:

- 2.1. Braille and Braille slates
- 2.2. Thermoform Machine

4. Practice Teaching

Total Marks 100 - 45 Hours

Each pupil-teacher is expected to plan and deliver 20 lessons in the concerned subject.

5. ICT

Total Marks 50 - 30 Hours

Objectives

At the end of the course, the learners will be able to

- 1. Understand the difference between educational technology and technology in education
- 2. Define the uses of information and communication technology with examples
- 3. Demonstrate skills in the basic operations of MS Office
- 4. Use internet for basic teaching and learning purposes
- 5. Use E-mail for exchange of information

Unit 1: Nature of Information and Communication Technology (6 Hours)

Meaning of information and communication technology
Educational technology and technology in education
Enabling technologies – Need and nature
Technological inputs to reduce handicapping conditions

Technological devices enhancing cognitive abilities

Unit 2:Basic Computer applications (6 Hours)

- 2.1 Keyboard operations
- 2.2 Using application software – MS Office, Windows
- 2.3 Preparing word documents
- 2.4 Preparing powerpoint files
- 2.5 Creating spread sheets

Unit 3:Internet applications (6 Hours)

- 3.1 Google search operations
- 3.2 E-mail
- 3.3 Use of speech synthesizers
- 3.4 Adaptive devices for persons with disabilities
- 3.5 Using internet for learning and teaching purposes

Unit 4:Hands on Practical experience for unit 2 (6 Hours)

Unit 5:Hands on Practical experience for unit 3 (6 Hours)

**1st Year Semester II
THEORY
PAPER–(I)**

EDUCATIONAL PSYCHOLOGY

(90 Hours)

(Total marks: 75 – 45 for External, 30 for Internal)

Objectives

After studying this paper, the students are expected to:

1. Describe the meaning of educational psychology and its applications in special education.
2. Understand the process of human growth and explain its impact on various disability conditions.
3. Know the biological and environmental influences on child growth and learning process.
4. Enumerate the factors contributing to the personality development of individuals.
5. Know the techniques of behavior modification and its application in the field of disability.

Unit 1:

1. Psychology and Theories of Learning (15 Hours)

- 1.1. Educational Psychology – Nature, Importance and Scope.
- 1.2. Individual differences and methods of dealing with the differences
- 1.3. Importance of principles of psychology for the educators of children with disabilities.
- 1.4. Theories of Learning: Association, Social Learning, Cognitive Learning.
- 1.5. Impact of information processing on learning patterns: Planning, Attention, Successive Processing, Simultaneous Processing, Application.

Unit 2:

Nature and Patterns of Human Growth and Development (15 Hours)

- 2.1. Concept of Growth and Development.
- 2.2. Theories of Development – Jean Piaget and Erickson.
- 2.3. Concept of Developmental Delay.
- 2.4. Characteristics of Developmental tasks and Deviations.
- 2.5. Role of Heredity and Environment.

Unit 3:

Types of Growth and Development (15 Hours)

- 3.1. Physical and Motor.
- 3.2. Cognitive, Language and Communication.
- 3.3. Social and Emotional.
- 3.4. Factors influencing all aspects of growth and development – Biological, Environmental, Parenting and Family.
- 3.5. Challenges of Adolescence.

Unit 4:

Personality and Intelligence (15 Hours)

- 4.1. Personality – Meaning and Definition.
 - 4.2. Intelligence – Meaning and Definition.
 - 4.3. Theories of Personality – Trait and Type.
 - 4.4. Theories of Intelligence – One factor, Two factors, Multi – factor.
- Intelligence and Assessment of Personality.

Unit 5

Behavior Problems and Management (15 Hours)

- 5.1. Definition of Common Behavior Problems in children
- 5.2. Maladaptive Behavior
- 5.3. Functional Analyses
- 5.4. Behavior Management Program (Punishment and Non – punishment Techniques)
- 5.5. Evaluation of Behavior Management Programme

Experiential Learning (15 Hours)

The student learner is expected to apply behaviour modification technique with a child with disability and write a report on the process.

Books Recommended

1. Kaul, V (1993) Early Childhood Education Programme, New Delhi, NCERT
2. Madhavan, T. Kalyan, M. Naidu, S. Peshawaria, R & Narayan, J (1989) Mental Retardation – A Manual for Psychologists,
3. Muralidharan R (1990) Early Stimulation Activities for Young Children, New Delhi NCERT
4. Panda, KC (2001) Elements of Child Development (Sixth Revised Edition), Ludhiana Kalyani Publishers.
5. Sharma, P (1995) Basics on Development & Growth of a Child. New Delhi: Reliance Publishing House.
6. Sharma, R and Sharma, R (2002) Child Psychology Atlantic: New Delhi.
7. Mohan Mathew (1972) Child Psychology in Indian Perspective
8. Jan Borms (1984) Human Growth and Development
9. Madhavan, T. Kayla, M. Naidu, S. Peshawaria, R & Narayan, J (1989) Mental Retardation – A Manual for Psychologists
10. Wallace, P.M. & Goldstein, J.M. (1944) An Introduction to Psychology (3rd Edition) Madison: Brown & Benchmark Publishing
11. Lindgren H (1988) Educational Psychology in the Classroom, Harper & Raw
12. Panda, KC (1997) Education and Exceptional Children, Vikas Publishing House, New Delhi
13. Arthur E. Dell Orto, Paul W. Power (2007) The Psychological and Social Impact of Illness and Disability
14. Vicki L. Schwean, Donald H. Saklofske (1999) Handbook of Psychosocial Characteristics of Exceptional Children

Paper II : Education of Children with Low Vision
(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives : On the completion of this paper, the pupil-teachers will be able to:

1. Understand and apply the definition and terminologies of low vision.
2. Develop necessary competence in low vision assessment.
3. Be able to plan, prepare and use low vision aids.
4. Understand and describe the educational implications of low vision.

Unit 1: Definitions, Causes and Characteristics (20 hours)

- 1.1. Definitions as per the PWD Act and WHO
- 1.2. Visual Deficits: types and causes of vision loss
- 1.3. Special needs of Low Vision Children
- 1.4. Prevalence and incidence of low vision
- 1.5. Visual acuity and Visual efficiency
- 1.6. Use of different terminologies – low vision, visual impairment, partially sighted and legal blindness

Unit 2: Identification and assessment (15 hours)

- 2.1 Importance of early identification and intervention
- 2.2 Clinical assessment
- 2.3. Functional assessment
- 2.4. Commonly used adapted tests for assessment

Unit 3: Vision Training Programme (15 hours)

- 3.1. Meaning and importance
- 3.2. Visual Stimulation : concept and procedure
- 3.3. Procedure for increasing visual efficiency
- 3.4. Factors affecting visual efficiency training programme
- 3.5. Use of aspheric lenses and electronic equipments in vision training

Unit 4: Educational and Psychological Implication (20 hours)

- 4.1. Identity crisis of low-vision children
- 4.2. Selection of an appropriate medium of reading and writing for low vision children
- 4.3. Programme for developing reading and writing skills
- 4.4. Use of appropriate low vision aids for low vision children
- 4.5. Orientation and mobility for low vision children

Unit 5: Low vision devices and environmental modifications (20 hours)

- 5.1. Optical aids
- 5.2. Non-optical aids
- 5.3. Electronic devices
- 5.4. Classroom management – seating arrangement, adjustable furniture, illumination, non-reflecting surfaces and color contrast.

5.6.Environmental modifications at home, school, public places, means of transport and communication, common utility items, etc.

Books Recommended

Barraga, N.C., Visual handicaps and learning. Belmont, CA : Wadasworth Publishing Co., Inc., Inc., 1976.

Fernandez,G., Koenig, C., Mani M.N.G., and Tesni, S. (1999). See with the Blind. Bangalore : Books for Change and CBM International.

Jangira, N.K. Mukhopadhyay, M., Mani M.N.G., & Roychoudary. Source book for Teaching of Visually disabled children. New Delhi : NCERT, 1988.

Julka, A. (2000). Low Vision Children : A Guide for Primary School Teachers. NCERT, New Delhi – 1999. Both in English (1999) and Hindi (2001).

Kelly, L.J. & Vergason, G.A. (1978). Dictionary of Special Education and Rehabilitation. Denver: Love Publishing Company.

Mani, M.N.G., (2001). Reading Preference Test (REPT) for Children with Low Vision. Coimbatore : International Human Resource Development Centre for the Disabled.

Randall T Jose (1983). Understanding the Low Vision. New York : American Foundation for the Blind.

Warren, D.H. (1977). Blindness and early childhood development. New York: American Foundation for the Blind.

World Health Organization (1993). Management of Low Vision in Children. Geneva.

Paper (III): General Science Content-cum- Methodology
(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

On completion of this Paper, the pupil-teachers will be able to:

1. Understand and describe the objectives of teaching Science
2. Use methods of teaching science
3. Conduct practical work
4. Make use of various aids and instructional material
5. Carry-out evaluation properly
6. Acquire basic knowledge of various science concepts, principles and material
7. Understand and apply information about elementary physics, chemistry and biology.

Unit 1: Objectives of teaching science (7.5 hours)

- 1.1. Objectives of teaching science at elementary stage
- 1.2. Instructional objectives
- 1.3. Objectives and learning experience
- 1.4. Social, cultural, ethical, vocational and utilitarian values of science
- 1.5. Behavioral specifications and objectives of teaching science concepts to VI children

Unit 2: Methods of teaching science at elementary stage (7.5 hours)

- 2.1 Discovery method
- 2.2 Project method
- 2.3 Problem solving method
- 2.4 Inductive-deductive method
- 2.5 Preparing lesson plan

Unit 3: conducting practical work (10 hours)

- 3.1. Determining the nature of practical work and apparatus requirements for the class
- 3.2 Preparation of lesson plan for practical to be performed
- 3.3 Instructions for carrying out practical work
- 3.4 Actual performance of the practical work and interpreting results and drawing conclusions
- 3.5 Group interaction in practical work

Unit 4: Use of aids (7.5 hours)

- 4.1 Techniques of adapting available teaching aids for children with visual impairment
- 4.2 Techniques of preparing new teaching aids
- 4.3 Techniques of preparing embossed diagrams and charts
- 4.4 Preparation of adapted instructional material in teaching science
- 4.5 Techniques of using multi sensory approach

Unit 5: Evaluation (7.5 hours)

- 5.1 Objectives of evaluation
 - 5.2 Types of evaluation
 - 5.3 Construction of test items for evaluating learning of science by pupils
 - 5.4 Diagnosing pupil difficulties in learning science
- Designing remedial teaching

Unit 6: Knowledge about universe (10 hours)

- 6.1 Solar system and Lunar system
- 6.2 Planets, Satellites, concept of full moon and new moon
- 6.3 Weather conditions and different seasons
- 6.4 Characteristics of living and non-living things
- 6.5 Kinds of rocks, soils and materials

Unit 7: Chemical Concepts (10 hours)

- 7.1 Atomic structure
- 7.2 Bonding of chemicals
- 7.3 Role of science in everyday life
- 7.4 Material around us, separation of mixtures
- 7.5 Properties of water, purification of drinking water

Unit 8: Concepts dealing with physics (10 hours)

- 8.1 Mechanics and Hydrostatics
- 8.2 Forms and transformation of energy
- 8.3 Forms and transformation of heat and sound
- 8.4 Concept of gravitation force
- 8.5 Learning through laboratories

Unit 9: Biological concepts (10 hours)

- 9.1 The human body system and their functions
- 9.2 Diversity of living organisms
- 9.3 Organization of plants, kitchen garden
- 9.4 Algae and Fungi
- 9.5 Viruses and bacteria

Unit 10: Environmental concepts (10 hours)

- 10.1 Domestic animals and classification of wild life
- 10.2 Significance of conservation of nature
- 10.3 Preservation of water, forests, soils, Global warming
- 10.4 Home maintenance, proper food habits

Books Recommended:

Das R C, Science Teaching in Schools (1985); Sterling Publishers Private Limited, New Delhi

Joshi, S.R., Teaching of Science (2005)- APH Publishing Corporation, New Delhi.

Rao V K.; Science Education (2004) - APH Publishing Corporation, New Delhi

Siddiqui, M H ; Teaching of Science (2005) - APH Publishing Corporation, New Delhi

Practicum

1. Braille

Total marks 100

105 Hours

Unit 1: Mathematical Braille

- 1.1. Writing Numeral (Numeric Indicator, Math, Comma, Decimal Point, Punctuation Indicator)
- 1.2. Signs of operation (+, -, X, ÷)
- 1.3. Brackets (Round, Curly, Square)
- 1.4. Fractions - (i) Simple fraction (ii) Mixed fraction
- 1.5. Units of Currency Measurements
- 1.6. Roman Numerals
- 1.7. Omission & Cancellation
- 1.8. Shape Signs – Basic Shapes (Angle, Triangle, Circle, Square, Rectangle, Quadrilateral, Rumbas)
- 1.9. Run over Indicator
- 1.10. Dash & Ellipsis
- 1.11. Recurring Indicator
- 1.12. Miscellaneous - (At Check Mark, Ditto Mark, Percentage, Ratio of Proportion, since, therefore)

Unit 2: Letters

Format of different types of letters

Unit 3: Transcription of a 20-page Hindi / State Language Book

2. Orientation and Mobility

Total Marks: 100

Hours: 90

Unit 1: Walking alone by using safety techniques —

- 1.1. Trailing
- 1.2. Protective Techniques (Upper arm, Lower arm and Both arms Techniques)
- 1.3. Squaring off
- 1.4. Locating and picking dropped objects/articles

Unit 2. Sighted Guide/Human Guide Techniques —

- 2.1. Walking in narrow ways
- 2.2. Changing sides
- 2.3. Ascending and descending stairs
- 2.4. Getting in to cars and other automobiles, doorways
- 2.5. Sitting in chairs

3.Preparation of low cost TLM

Total marks: 100 Hours: 135

Each teacher-trainee will be required to prepare at least two low cost / no cost teaching-learning material in the concerned subjects and present the same for evaluation along with one 3D model.

4. Practice Teaching

Total marks: 100 Hours : 60

20 lessons in the concerned subject

2nd Year—Semester III

THEORY
PAPER – (I)
EDUCATION IN THE EMERGING INDIAN SOCIETY
(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

After studying this paper, the students are expected to:

1. Understand the different facets of education in India.
2. Describe various schools of thoughts in India and its implications
3. Enumerate the sociological aspects of education in India and its impact on the normalization process in the lives of persons with disabilities
4. Describe the needs for special initiatives in education to address human rights and gender equity
5. Knowing the changing trends in special education services.

Unit 1:

1. Nature and Scope of Education **(15 Hours)**

- 1.1. Meaning, Definition and Scope of Education.
- 1.2. Aims and Objectives of General Education and Special Education.
- 1.3. Aims and Objectives of Pre-primary and Primary Education.
- 1.4. Priorities of General and Special Education.
- 1.5. Existing Scenario of Special Education.

Unit 2:

2. Philosophies and Educational Implications **(15 Hours)**

- 2.1. Idealism
- 2.2. Naturalism
- 2.3. Pragmatism
- 2.4. Humanism
- 2.5. Educational Philosophies of Gandhi and Tagore

Unit 3 : Agencies of Education

(15 Hours)

- 3.1. Formal – Special and Regular Schools.
- 3.2. Informal – Family, Community, Mass Media.
- 3.3. Open and Distance Education with reference to Special Education.
- 3.4. Role of Governmental and Non-Governmental Agencies in General and Special Education.
- 3.5. Equalization of Educational Opportunities.

Unit 4:
Significant Educational Initiatives

(15 Hours)

- 4.1. Human Rights Education.
- 4.2. Value Education.
- 4.3. Inclusive Education.
- 4.4. Work and Education, Community Based Education.
- 4.5. Gender Equity (Women Education).

Unit 5:
Contemporary Trends in Special Education

(15 Hours)

- 5.1. Technology advancement and its application in the field of special education.
- 5.2. Use of innovative and improvised aids in classroom teaching.
- 5.3. Basic elements relevant to special education – Computer, Internet literacy and Programmed learning.
- 5.4. Changing role of special schools and school readiness.
- 5.5. Changing trends in identification, assessment, education and vocational placement.

Experiential Learning (15 Hours)

The student is expected to take up one of the special initiatives such as gender equity, human rights, community based education, etc., and develop a review of literature.

Books Recommended:

1. Ashok Kumar (1991) Current Trends in Indian Education. New Delhi: Ashish Pub. House
2. Garg, V.P. (1990) Development of Perspectives in India education. New Delhi: Metropolitan Pub.
3. Agrawal, S.P. & J.C. (1994) Third Historical Survey of Educational Development of India. New Delhi: Concept Pub. Co.
4. Sharma, S.N. (1995) Philosophical and Sociological Foundation of Education. New Delhi: Kanishka.
5. Smt, D.D. & Luckasson (1992) Introduction to Special Education. Boston: Allyn & Bacon.
6. Nanda, V.K Education Emerging Indian Society
7. B.N. Dash (2004) Theories of Education and Education in the Emerging Indian Society

Paper (II): Education of Visually Impaired Children with Additional Disabilities
(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives : On the completion of this paper, the pupil-teachers will be able to:

1. Know and describe the curricular adaptations of materials and presentation.
2. Be able to deal with the visually impaired retarded children.
3. Understand and narrate the educational needs of deaf-blind children.
4. Understand and apply the teaching techniques of visually impaired children with cerebral palsy.
5. Be able to deal and teach effectively visually impaired children with locomotor disability.

Unit 1: Visually impaired children with additional disabilities (18 hours)

- 1.1. Concept and definition of multiply disabled child
- 1.2. Types of additional disabilities
- 1.3. Current status of education of visually impaired child with additional disabilities
- 1.4. Challenges of teaching Visually impaired child with additional disabilities
- 1.5. Early intervention and its significance in education of the visually impaired with additional disabilities

Unit 2: Visually impaired children with cognitive deficits (18 hours)

- 2.1. Slow learner – concept and educational implications
- 2.2. Learning disability – concept and educational implications
- 2.3. ADHD – concept and educational implications
- 2.4. MR – concept and educational implications
- 2.5. Autism - concept and educational implications

Unit 3: Visually impaired children with neuromuscular and locomotor disabilities (18 hours)

- 3.1. Visually impaired children and cerebral palsy - concept and educational implications
- 3.2. Visually impaired children and polio melitus - concept and educational implications
- 3.3. Visually impaired children and epilepsy - concept and educational implications
- 3.4. Architectural modifications
- 3.5. Special aids and equipment

Unit 4: Teaching of deaf blind children (18 hours)

- 4.1. Assessment – hearing, vision and age of onset
- 4.2. Teaching communications skills – verbal and non-verbal
- 4.3. Using vibratory devices for communication
- 4.4. TADOMA Method, Braille and Large Print
- 4.5. Manual alphabet and Total Communication

Unit 5: Individualized teaching (18 hours)

- 5.1. Objectives of IEP
- 5.2. Curricular adaptations in context

- 5.3. Teaching strategies in the context of disability
- 5.4. Family and community Involvement
- 5.5. Behavioral modification

Books Recommended:

Blake, K.A., *The Mentally Retarded : An educational psychology*, Englewood Clifs, NJ : Prentice-Hall, 1976.

Fernandez,G., Koenig, C., Mani M.N.G., and Tensi, S. (1999). *See with the Blind*. Bangalore : Books for Change and CBM International.

Rehabilitation Council of India (2000). *Status Report on Disability 2000*.

Murickan S.J.J, and Kareparampil, G. (1995). *Persons with Disabilities in Society*. Trivandrum: Kerala Federation of the Blind.

Punani, B., and Rawal, N. (1993). *Handbook : Visual Impairment*. New Delhi : Ashish Publishing House.

Paper (III) :
State Language and English – Content-cum-Methodology

Part A: State Language

(Total hours: 45, Total marks : 40 – 25 for External, 15 for Internal)

(The course content for this paper needs to be formulated by the concerned training centre on the basis of the language of the given State).

Part B : English

(Total hours: 45, Total marks : 35 – 20 for External, 15 for Internal)

Objectives:

After completing this part of the paper, the pupil-teacher will be able to:

1. Realize and relate to life the significance of English as a second language.
2. Understand and apply various maxims, approaches and methods of language-teaching
3. Appreciate and make use of the basic skills of teaching English.
4. Understand and utilize while teaching various facets of spoken English
5. Appreciate and carry-out evaluation in a constructive manner.

Unit 1: Significance of role of language in curriculum and life (9 hours)

- 1.1. Importance of language
- 1.2. Language learning in multi-lingual society
- 1.3. Objectives of teaching language at primary level
- 1.4. Pre-requisite skills for language development
- 1.5. Approaches in teaching English language - Structural , functional and communicative

Unit 2: Language Teaching (9 hours)

- 2.1 Readiness of Language
- 2.2 Maxims of teaching language
- 2.3 Approaches to teaching language - language experience, phonetics, multi-sensory
- 2.4 Methods of language teaching - Translation, direct, grammar
- 2.5 Activities of language teaching- language grammar games, drill, tactile and audio aids, role play, music etc

Unit 3: Teaching basic skills of English (9 hours)

- 3.1 Word recognition skills
- 3.2 Decoding unfamiliar / unknown sound
- 3.3 Reading with global comprehension and making inferences
- 3.4 Whole and part relationship with the text
- 3.5 Free and creative writing

Unit 4: Spoken English**(9 hours)**

- 4.1. Organs of speech, the classification and description of speech sounds- consonants, vowels
- 4.2. Introduction to transcription
 - Syllable division
 - Stress I : Word level II : Sentence level
 - Intonation, accent and rhythm in connected speech

Unit 5: Evaluation**(9 hours)**

- 5.1 Objectives of evaluation
- 5.2 Tools of evaluation
- 5.3 Types of evaluation- formative, summative, continuous and competency based
- 5.4 Construction of test items for evaluating language problems of children
- 5.5 Designing remedial teaching

Books Recommended:

Baruah, T C, The English Teachers Hand Book (2006), Sterling Publishers Private Limited: New Delhi
Paul Varghese, C., Teaching English as a Second Language (1989), Sterling Publishers Private Limited: New Delhi
Prem Shankar, Teaching of English (2004), APH Publishing Corporation: New Delhi
Singh, Y K, Teaching of English (2005), APH Publishing Corporation: New Delhi.

Practicum**English Braille:****Total Marks: 100 Hours: 90****Unit 1: Beginnings**

- 1.1. English alphabets
- 1.2. Seven-line Braille system
- 1.3. Different ways of embossing dots arrangements
- 1.4. Various signs used in English literature - punctuation capital italic and numeric and numerals
- 1.5. Reading and writing English Braille – Grade I

Unit 2: English Braille Grade II

- 2.1. English contractions and abbreviation
- 2.2. Writing poems
- 2.3. Reading and writing English Grade II Braille

Unit 3: Transcribing of a 20 page English Book in to English Grade II Braille.

Orientation And Mobility

Total Marks : 75 Hours: 60

1. Use of cane techniques – Grip, Rhythm, Swing, Gate, Arc, Taking Direction using Cane.
2. Two point touch technique - Three points touch technique -Trailing, Shoreline :Both inside and outside the campus, Ascending and descending stairs with cane
3. Using cane with sighted guide
4. Preparing tactile/auditory maps
5. Indoor and outdoor travel with long and folding canes.

Preparation of Teaching Aids

Total marks: 60 Hours: 75

Each teacher-trainee will be required to prepare at least 2 low cost / no cost teaching – learning material in the concerned subject and present the same for evaluation along with one 3-D model.

Practice Teaching

Total marks: 60 Hours: 60

Each pupil-teacher is expected to plan and teach 20 lessons—10 in English/Hindi and 10 in State language

Project Work

Total Marks: 75 Hours: 75

Each student-teacher is expected to plan, execute and present a report on a project related to the elementary education of children with visual impairment.

Preparation of Tactile Maps

Total Marks: 30 Hours: 30

Objectives:

To enable the student-teacher to acquire skills of preparing tactile maps and demonstrate the same in preparing the maps and the charts.

Each student-teacher is expected to prepare 2 tactile maps and present the same for evaluation.

2nd Year—Semester IV

PAPER –(I)

PLANNING AND MANAGEMENT OF EDUCATION FOR CHILDREN WITH DISABILITIES

(Total marks: 75 – 45 for External, 30 for Internal)

(90 Hours)

Objectives:

After studying this paper, the students are expected to:

1. Understand various approaches to school management and institutional planning.
2. Describe the different service delivery options available for persons with disabilities in India.
3. Define the roles and responsibilities of different functionaries of disability related services.
4. List the process of effective documentation in educational programmes dealing with disabled children.
5. Enumerate the policies and welfare programmes available for persons with disabilities in India.

Unit 1:

Organization of Special Education and Administration (15 Hours)

- 1.1. UN Convention on the Rights of Persons with Disabilities.
- 1.2. National Policy for Persons With Disabilities (2006)
- 1.3. Principles of School Management.
- 1.4. Planning Institutional Environment.
- 1.5. Creation of rights based, barrier free and inclusive society.

Unit 2:

Service Delivery Models in Special Education (15 Hours)

- 2.1. Role and relevance of Special schools.
- 2.2. Integrated education – Nature and models – resource plan, itinerant plan, cooperative plan, combined plan and context specific integrated model, Roles of corresponding teaches.
- 2.3. Inclusive education – Need, nature and models.
- 2.4. Education For All– SSA – Its components.
- 2.5. Partnership with other Educational Agencies, Community Resource Mobilization.

Unit 3:

Roles and Responsibilities of Different Functionaries

(15 Hours)

- 3.1. Role and Responsibilities of Head of the Institution.
- 3.2. Special Teacher
- 3.3. Resource Teacher, Itinerant Teacher.
- 3.4. Regular School Teacher.
- 3.5. Aanganwadi/ Balwadi Workers/ Pre-School Teachers.

Unit 4:**Schedule and Record Keeping****(15 Hours)**

- 4.1. Types of Schedules – Yearly, Monthly, Weekly, Daily.
- 4.2. Factors affecting preparation of time table.
- 4.3. Planning of Curricular and Co-curricular Activities.
- 4.4. Educational Record – Progress Report and Cumulative Record.
- 4.5. Other Records – Case Histories, Medical and Attendance Records.

Unit 5:**Welfare Programmes and Policies in Special Education****(15 Hours)**

- 5.1. Parent Teacher Association, Special Teachers Association, self-help movements of Persons With Disabilities.
- 5.2. National Policy on Education (1986), Programme of Action (1992), Integrated Education of Disabled (IED), District Primary Education Programme (DPEP), Sarva Shiksha Abhiyan (SSA).
- 5.3. Provisions of RCI Act, PWD Act, National Trust Act, National Policy For Persons With Disabilities 2006.
- 5.4. Plan of Action for Education as per 11th Five Year Plan.
- 5.5. Concessions and Facilities for the Disabled by Central and State Governments concerned.

Experiential Learning (15 Hours)

(eg. The students are expected to visit one special school and one integrated / inclusive education settings and observe the education planning of these settings, and submit a visit report.)

Books Recommended

- 1) Desai, AN (1990) Helping the Handicapped: Problems & prospects, New Delhi, Ashish Publishing House.
- 2) Dyson (1987) Mental Handicap: Dilemmas of Parent-Professional Relations, London, Croon Helm.
- 3) Mann, P.H. Suiter P.A. & Mc Laughlin R.M. (1992) A Guide for educating mainstreamed students, Boston: Allyn & Bacon
- 4) Bennett, T. Lingerfelt, V & Nelson, D.E. (1990) Developing Individual and Family Support Plans – A Training Manual, Cambridge M.A. Brookline Books.
- 5) Panda, K.C (1997) Education of Exceptional Children, Vikas Publishing House, New Delhi.
- 6) Jone, V.F. and Jones, L.S.(1981) Comprehensive Classroom Management, Allyn and Bacon Boston.
- 7) Madhumita Puri, George Abraham (2004) Handbook of Inclusive Education for Educators, Administrators and Planners
- 8) Seamus Hegarty, Mithu Alur (2002) Education and Children with Special Needs: From Segregation to Inclusion
- 9) S.S. Chauhan (2002) Education of Exceptional Children

Paper (II) : Integrated and Inclusive Education
(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives : On the completion of this paper, the pupil-teachers will be able to:

1. Understand and narrate the concept of integrated education
2. Appreciate and list-out various models of integrated education for visually impaired children.
3. Gain knowledge about the concepts of inclusive education.
4. Gain and apply knowledge about the roles and responsibilities of resource and itinerant teachers.
5. Be familiar with the process of integrated / inclusive education.
6. Gain and apply knowledge about various governmental schemes for integrated/inclusive education
7. Understand and describe the process of promoting conducive social environment for integration/inclusion

Unit 1: Integrated Education **(20 hours)**

- 1.1. Concept and definition
- 1.2. Historical background – Emergence of integrated education in the West and in India
- 1.3. Objectives
- 1.4. Different models and their relative merits and demerits -
Resource model
Itinerant plan
Dual teacher plan
Cooperative plan
Combined plan
Cluster model

Unit 2: Inclusive Education **(20 hours)**

- 2.1. Concept and definition
- 2.2. Need and relevance in Indian context
- 2.3. Difference between integrated and inclusive education
- 2.4. Approaches to Inclusive Education
- 2.5. Strengthening general education system for facilitating inclusion
- 2.6. Classroom Management and Teaching Strategies – Cooperative Learning and Peer Tutoring

Unit 3: Administrative planning **(20 hours)**

- 3.1. Identifying visually impaired children
- 3.2. Selecting educational placement services
- 3.3. Preparation of the child for inclusion
- 3.4. Role of resource teacher, itinerant teacher and regular teacher
- 3.5. Developing resource room and resource facilities
- 3.6. Periodic evaluation of visually impaired child
- 3.7. Maintenance of records

Unit 4: Introduction to Government of India Schemes of Inclusive Education

(15 hours)

- 4.1. Salient features of the Govt. of India scheme/Revised scheme including procedure for obtaining support
- 4.2. Comprehensive Action Plan for Inclusion of Children & Youth with Disabilities in Education
- 4.3. Inclusive Education under the Sarva Shiksha Abhiyaan

Unit 5: Promotion of a conducive social environment for integration/inclusion

(15 hours)

- 5.1. Family counselling
- 5.2. Sensitization of school authorities
- 5.3. Peer group acceptance
- 5.4. Sensitization of local bodies and government officials
- 5.5. Mobilization of community resources and community participation
- 5.6. Role of NGOs in promotion of inclusive education

Books Recommended:

1. Fernandez, G., Koenig, C., Mani M.N.G., and Tensi, S. (1999). See with the Blind. Bangalore : Books for Change and CBM International.
2. ICEVI (1995). Proceedings of the Asia Regional Conference on “Reaching the Unreached”. Organized by the International Council for Education of People with Visual Impairment at Ahmedabad, India.
3. Jangira, N.K. and Mani, M.N.G. (1990). Integrated Education for the Visually Handicapped: Management Perspective. Gurgaon: Academic Press.
4. Rehabilitation Council of India (2000). Status Report on disability 2000.
5. Mani, M.N.G. (2001). Inclusive Education in Indian Context. Coimbatore, IHRDC
6. Murickan S.J.J, and Kareparampil, G. (1995). Persons with Disabilities in Society. Trivandrum: Kerala Federation of the Blind.
7. Mukhopadhyay, S. and Mani. M.N.G. (1999). Education of Children with Special Needs, Country Report, New Delhi : National Institute of Educational Planning and Administration.
8. Punani, B., and Rawal, N. (1993). Handbook : Visual Impairment. New Delhi : Asish Publishing House.
9. Awareness Package for Upper Primary teachers : NCERT, New Delhi, 2003
10. Inclusive Education : An Orientation Package for Teacher Educators. Department of Education of Groups with Special Needs, NCERT, New Delhi, 2002 (both in Hindi & English).
11. Planning and Managing Inclusive Education in the Indian Context. Department of Education of Groups with Special Needs, NCERT and UNESCO, 2004.
12. Assessment of Needs for Inclusive Education : Report of the First Regional Workshop of NCERT and UNESCO, 2000.

Paper (III)

Teaching of Mathematics for Visually Impaired Children – Content-cum-Methodology

(Total hours: 90, Total marks: 75 – 45 for External, 30 for Internal)

Objectives:

After completion of this paper, the pupil-teachers will be able to:

1. Describe the role and functions of Mathematics
2. List out the objectives of teaching Mathematics
3. Understand and make use of methods of teaching Mathematics
4. appreciate and relate to education various contributing factors in learning Mathematics
5. carry-out evaluation effectively
6. be familiar with and make use of basic arithmetic concepts
7. be able to comprehend and teach advanced arithmetic
8. be able to teach basic geometry and algebra as also polynomials

Unit 1: Role and functions of Mathematics (7 hours)

- 1.1. Role of Mathematics in day-to-day living
- 1.2. The place and importance of Mathematics in the school curriculum for children with visual impairment
- 1.3. Problems encountered by teachers in teaching Mathematics
- 1.4. Values of teaching Mathematics
- 1.5. Relationship of Mathematics with other subjects

Unit 2: Objectives of teaching Mathematics (7 hours)

- 2.1. Objectives of teaching Mathematics – General and specific
- 2.2. Behavioral specification of objectives of teaching Mathematical subjects to children with visual impairment
- 2.3. Writing of instructional objectives
- 2.4. Preparing lesson plan
- 2.5. Principles of methods of organization -Topical, concentric and Spiral

Unit 3: Methods of teaching Mathematics (7 hours)

- 3.1. Inductive-deductive procedures
- 3.2. Analytic-synthetic procedure
- 3.3. Problem solving
- 3.4. Need for improvisation of teaching aids available for Mathematics
- 3.5. Teaching aids – Taylor frame, Geo board, Abacus, Geometry kit

Unit 4: Contributing Factors in Learning of Mathematics (7 hours)

- 4.1. Adapted Instructional materials in Maths
- 4.2. Preparing constructions and diagrams

- 4.3. Preparing Mathematical Braille Text material
- 4.4. Mathematical Braille Code
- 4.5. Mental Arithmetic

Unit 5: Evaluation (7 hours)

- 5.1. Objectives of evaluation
- 5.2. Types of evaluation
- 5.3. Construction of test items for evaluating learning of Mathematics of pupils
- 5.4. Diagnosing pupil difficulties in learning Mathematics
- 5.5. Designing remedial teaching

Unit 6: Basic Arithmetic (10 hours)

- 6.1. Types of numbers – natural, whole, integers, rational and irrational numbers, real numbers, number line
- 6.2. Properties of numbers and basic Arithmetic operations – addition, subtraction, multiplication and division
- 6.3. Prime and composite numbers, laws of divisibility, LCM, HCF
- 6.4. Ratio and proportion
- 6.5. Practical Arithmetic – problems related to Time and work, percentage, profit & loss, simple & compound interest, average

Unit 7: Advanced Arithmetic (10 hours)

- 7.1. Fractions – Simple fractions, decimal fractions, conversion of simple fractions into decimal fractions and vice-versa
- 7.2. Weights and measures – length, distance, weight, mass, areas, volume metric system, measurement of time
- 7.3. Indices – square and square root, cube and cube root

Unit 8: Geometry (15 hours)

- 8.1. Point, line, segment, rays, angles, perpendiculars, Perimeters
Parallels, properties of parallel lines and types of angles
- 8.2. Concept and types of triangles, quadrilaterals
- 8.3. Circle – parts of a circle, circumference, area
- 8.4. Polygons - interior and exterior angles, convex and concave polygons
- 8.5. Concept of congruent, equivalent and lateral, lateral axis
- 8.6. Theorems

Unit 9: Algebra (10 hours)

- 9.1. Simple equations
- 9.2. Presenting arithmetic principles in algebraic formulae, addition, subtraction, multiplication and division of algebraic expression
- 9.3. Expansion formulae
- 9.4. Equations – simple, quadratic, binomial

Unit 10: Polynomials**(10 hours)**

- 10.1 Polynomials – concept and definition
- 10.2 Addition of polynomials
- 10.3 Subtraction of Polynomials
- 10.4 Multiplication of Polynomials
- 10.5 Division of polynomials

Books Recommended:-

Rani T.S., Teaching of Mathematics (2007), APH Publishing Corporation : New Delhi
Scholl, G. T. (Ed.) Foundations of the education for blind and visually handicapped children and youth: Theory and Practice; (1986).. AFB Press: New York.

Sharan, Ram, Teaching of Mathematics (2006), APH Publishing Corporation: New Delhi
Siddique, M.H., Teaching of Mathematics (2005), APH Publishing Corporation : New Delhi
Sidhu Kulbir Singh, Teaching of Mathematics (2006), Sterling Publishers Private Limited: New Delhi

Practicum**Practice Teaching****Total Marks: 100 Hours: 60****Objectives:**

Each student-teacher is expected to plan and teach 20 lessons.

Teaching of ADL Skills**Total Marks: 100 Hours: 95**

Each student-teacher is expected to plan and teach at least 10 ADL skills to children with visual impairment.

Braille**Total Marks: 100 Hours: 90**

1. Braille Maths Code:

- 1.1 Fraction—Complex and Hyper-Complex
- 1.2 Shape signs
- 1.3 Superscript and subscript
- 1.4 Radicals
- 1.5 Greek letters
- 1.6 Menstruation and Logarithm
- 1.7 Reference signs
- 1.8 Negation signs
- 1.9 Degree, infinite, prime, English letters

- 1.10 Compounded shape signs
- 1.11 Spatial arrangement of fractions

2. Transcription of a 20-page Maths text in to Braille of the last class of primary /elementary education.

Teaching of Appliances

Total Marks: 50 Hours: 100

Objectives:

- 1. Abacus _ Addition, Subtraction, multiplication and division of decimal fraction on Abacus
- 2 Abacus continued _ Fraction, square root and percentage on abacus—calculation
- 3. Thermoform machine / Other duplicating devices _ Using thermoform machine / other duplicating devices for tactile maps/diagrams/other tactile material.

Community Work

Total Marks: 50 Hours : 45

Each pupil-teacher is expected to work with visually impaired children and their parents in the community.
