

M.Ed. Programme

Preamble:

The M.Ed Programme is a two year professional programme in the field of teacher education which aims at preparing teacher educators and other education professionals including curriculum developers, educational policy analyst planners, administrators, supervisors, school principals and researchers. The completion of the programme shall lead to M.Ed. degree with specialization in elementary education (up to class VIII) or in secondary (classes VI - XII)

Duration:

The M.Ed. programme will be of duration of two academic years including field attachment for a minimum of four weeks and research dissertation. Students shall be permitted to complete the programme requirements of the two year programme within a maximum period of three years from the date of admission to the programme.

Working days:

There will be at least two hundred working days each year, exclusive of the period of admission and inclusive of classroom transaction, practicum, field study and conduct of examination. The institution will work for a minimum of thirty six hours in a week (five days) during which faculty and students concerned with the conduct of the programme will be available for interaction, dialogue, consultation and mentoring students.

The minimum attendance of students will be 80% for Theory Courses and Practicum, and 90% for field attachment.

Eligibility Criteria:

- (a) Candidates seeking admission to the M.Ed. programme should have obtained at least 50% marks an equivalent grade in the following programmes:
 - (i) B.Ed.
 - (ii) B.A.,B.Ed., B.Sc.B.Ed.
 - (iii) B.El.Ed.
 - (iv) D.El.Ed. with an undergraduate degree (with 50% marks in each)
This is relaxable by 5% for SC/ST/PH candidates
- (b) Reservation and relaxation for SC/ST/OBC/PWD and other applicable categories will be as per the rules of the Central Government. (One seat is reserved for physically handicapped candidate)
- (c) Eligibility of the candidate from a state will be determined based on the location of the university from where the candidate has passed B.Ed. or equivalent examination.

Admission Procedure

Admission will be made on merit prepared on the basis of marks obtained by the candidate in the qualifying examination.

Curriculum:

The M.Ed. programme is designed to provide opportunities for students to extend as well as deepen their knowledge and understanding of Education, specialize in selected areas and also develop research capacities, leading to specialization in Education. The curriculum of the two year M.Ed. programme will comprise of the following components:

- I) A Common Core that includes Perspective Courses, Tool Courses, Teacher Education Courses, and a Self Development component.

- II) Specialization branches where students choose to specialize in the area of Education.
- III) Research leading to dissertation, and
- IV) Field immersion/attachment/internship. There will be Core Courses (which will have about 60% of total marks) and specialized courses in education and dissertation with about 40% of total marks.

(a) Theory (Core and Specialization) Courses

The Theory Courses are divided into Core Courses and Specialization Courses. The main core courses shall comprise perspective courses, tool courses, and teacher education courses.

Perspective Courses shall be in the areas of Philosophy of Education, Sociology, History, Political Economy of Education, Psychology of Education, Education Studies, and Curriculum Studies.

Tool Courses will comprise of those in basic and advanced level education research, academic/professional writing and communication skills, and educational technology, including workshops/courses in ICT, Teacher Education courses which are also linked with the field internship/ immersion/ attachment in a teacher education institution will also be included in the core.

The Specialization component/branches will offer to students a specialization either in the elementary school stage (upto VIII) or secondary school stage (IX-X). The courses within the school stage specializations will represent/cover selected thematic areas pertinent to that stage such as curriculum pedagogy and assessment, policy, educational management and administration, education for differently abled children, etc. A field internship attachment relevant to the area of specialization will be organized during the programme.

(b) Practicum

Organization of workshops, activities and seminars to enhance professional skills and understanding of the students will be part of the teaching modality of the various papers.

(c) Internship and Attachment

Field attachments/internships/immersions will be facilitated with organizations and institutions working in elementary/secondary education. These would aim at engaging students with field-based situations and work in elementary/ secondary education to provide an opportunity for reflection and writing on the same. Systematically planned field internship/attachment in teacher education institution, and in the specialization areas chosen by the student will be organized during the course.

Close mentorship by faculty in relevant area will be provided for the internship and attachment in the form of tutorials, guided reading groups, field attachment and guided research dissertation.

Learning outcomes of the Programme:

The proposed M.Ed. programme will enable the trainees to:

- (i) reflect on the issues and concerns of education and devise appropriate strategies;
- (ii) gain insight into philosophical and sociological bases of education;
- (iii) gain insight into process of learners' development and learning at different stages;
- (iv) develop competencies in the techniques of educational research and statistics;
- (v) practice the processes involved in the development and evaluation of curriculum and materials;
- (vi) enable the trainees to make use of educational technology and ICT/e-Learning to

- improve the quality of curriculum transaction;
- (vii) enable the trainees to develop competencies in formulating in-service education programmes; and
- (viii) enable the trainees to develop competencies in educational planning, supervision and administration.

Foundation Courses:

The objectives of the Foundation Courses are to make trainee understand the philosophical roots of education and their applications for different processes of education like curriculum development, methods of teaching, pupils' assessment, etc. The study of these courses will enable the trainees to understand the problems of education, the linkages between education and various social systems and the role of education in changing the social system and vice-versa. These will also help the trainees to understand the processes of children's learning and development. Further, these will also help the trainees to understand and use methods of educational research, procedure of gathering empirical evidences, techniques for analyses and interpretations of data and report writing.

Specialized Courses related to Education:

Since it will be a professional course meant for preparation of teacher educators and educational administrators at the elementary/secondary stage of education, it will have strong input of specialization in elementary/secondary education. The purpose of this course will be to equip the trainees to perform the task expected from a teacher educator in a DIET or other teacher education institutions or from a faculty member of SCERT. The SCERT personnel are also expected to engage in the development of curriculum, instructional material and evaluation tools, organization on in-service teacher education programmes, involvement in planning and management of elementary/secondary education in general and teacher education of elementary/secondary level in particular. Therefore, educational technology, curriculum and instruction, teacher education, educational planning and management, pedagogy of teaching various school subjects at elementary/secondary/senior secondary level are offered as courses under specialized category.

Dissertation:

As the elementary/secondary teacher educators and elementary/secondary stage educational administrators and supervisors may have to undertake some sort of research to find solutions to their day-to-day problems and to provide research support to various policy decisions. It would be desirable for them to acquire practical experience by undertaking research. However, the research to be undertaken by the students of this professional programme must be drawn from the area of elementary/secondary education.

Sessional Work:

There are many occasions for undertaking practical work relating to various courses included in the curriculum. The trainees will be assigned projects which will involve comprehensive evaluation of students' ability manifested in different aspects of planning, preparation of models and teaching aids, evaluation of textbooks, preparation of plans for organization of different days/ celebrations, collection of material relating to different topics in the syllabus etc., as part of sessional work. Field interaction with DIETs and IASEs, CTEs, Elementary/Secondary/Senior secondary schools may be provided as one of the optional under this component.

SCHEME OF EXAMINATION

The examination for the degree of Master of Education shall be held in all the Theory Course/ papers.

Course/Paper-wise scheme of examination: Theory

Courses/Papers with External weight-age of 100 Marks (3 hours duration)

- I. There will be ten questions covering 5 units in each theory course/ papers. One question from each unit will be compulsory. One essay type (with a word limit of 400 words) question will be set from each unit carrying 20 marks. There will be an internal choice of attempting two questions of short answer type (with a word limit of 150 words) from the same unit. Each short answer type question will carry 10 marks.
- II. Internal weight-age of 50 will be divided as under:
Assessment in the papers with internal weight-age of 50 marks will be divided in 3 parts. Internal test I and II 15 marks each and sessional work/practicum 20 marks.

Award of Division:

- (i) The successful candidates will be awarded the following division based on the aggregate marks:
 - i) First division 60%
 - ii) Second division 48%Minimum pass marks in each theory paper, practicum/project work/ and dissertation will be 40%.
- ii) An examinee who has failed in the examination or a candidate who was duly admitted, on completion of regular course of study as enumerated according to this ordinance, to the examination but could not appear in it on account of illness or a similar bonafide reason, may reappear at a subsequent examination as an ex-student without undergoing regular course of study again in the institute.
- iii) In the case of a candidate who has been declared 'failed' in the dissertation shall be required to prepare and submit a revised dissertation on the earlier subject or a new dissertation on a fresh problem as assigned by the head of education department in the institute.
- iv) A candidate who has failed in examination in one paper only would have option for admission to course and to reappear in that paper only in the examination to be held in the next subsequent year. If he/she fails further, the candidate will be treated as ex-student.
- v) A candidate who has failed in examination may reappear in that examination held in the next subsequent year. The candidate shall be allowed to exercise an option for retaining the marks obtained by him/her in the dissertation.
Provided that the advantages under the provision of this paragraph shall be admissible to a candidate for a period of three subsequent years, to the year when she/he appeared at the examination for the first time as a regular candidate.
- vi) A candidate seeking re-admission to a subsequent examination under the provision of foregoing paras shall submit his/her application in prescribed form through the principal of the institute indicating clearly the part or full examination in which he/she has to reappear, together with fees required by ordinances and a copy of statement of marks obtained earlier attested by the principal, so as to reach the registrar by such date preceding the examination as fixed by him for the purpose.
- vii) Comply with provisions of and be governed by the conditions laid down in this and such other ordinances as are applicable to him/her.
- viii) Notwithstanding the provisions of paragraphs above the vice chancellor may, if a candidate is failing or missing a division by not more than one mark, condone the deficiency of one mark, which however, shall not be added anywhere.

Transaction & Evaluation Techniques:

- (A) Dissertation/ Research Guidance on individual basis (as far as possible not more than five students should be allotted to a teacher educator for supervision of dissertation work)
- (B) Curriculum transaction techniques: Lectures, Tutorials, Discussion, Laboratory work, Library study-based assignments. Review of literature, writing research paper/articles, seminar, etc.
- (C) Internship experiences – Lectures, discussions, observations, supervision, assessment, feedback, etc.
- (D) Evaluation Techniques- Continuous internal assessment, Test, Assignments, Seminars, Presentations.
- (E) For external assessment one external (to be appointed by the University) and one internal examiner (who is guide of the particular student) will work as the members of the committee.

M.Ed. First Year**Core Foundation Courses:**

Theory papers	Internal*	External	Total Marks
CC1: Philosophy and Sociology of Education	50	100	150
CC2: Psychology of Learner	50	100	150
CC3: Methods of Educational Research and Data Analysis	50	100	150

Specialization Courses/papers 4&5: (One course from Group A and One course from Group BI or BII)

Title of the specialization Courses/ paper	Internal	External	Total Marks
GROUP A (Any one of the following)			
SC4(i) ICT in Education	50	100	150
(ii) Inclusive Education	50	100	150
GROUP : B (Any one from Group BI or B II)			
Pedagogy and Assessment of school subject :			
GROUP BI Elementary Education	50	100	150
SC5A(i)(a) Pedagogy and Assessment of Languages-Hindi	50	100	150
(i)(b) Pedagogy and Assessment of Languages-English			
(ii) Pedagogy and Assessment of Mathematics	50	100	150
(iii) Pedagogy and Assessment of EVS/Science	50	100	150
(iv) Pedagogy and Assessment of EVS/Social Science	50	100	150
GROUP BII Pedagogy and Assessment of school subject : Secondary Education			
SC5B (i) Pedagogy and Assessment of Language	50	100	150
(ii) Pedagogy and Assessment of Mathematics	50	100	150
(iii) Pedagogy and Assessment of Science	50	100	150
(iv) Pedagogy and Assessment of Social Science	50	100	150

*Internal Of 50 marks will include i. Practical related with theory paper-15marks, ii. Internal test-15marks, iii. Tutorial-20marks

Practicum for Enhancing Professional Skills

- (i) **Advanced Technology Lesson (two):** 10x2=20 marks
- (ii) **Periodical Colloquium /Seminar on:**
- (a) Trends in research on pedagogy and assessment 25 marks
- (b) Write up on contemporary issues in School Education 25 marks
- (c) Seminar Reading on Internship Programme 30 marks
- Total 100 marks
- (iii) Workshop on Yoga, Art and Aesthetic will be an integral part of the programme for which grade will be awarded on the basis of assessment. Grade Point Average will be as follows:

Letter Grade (Marks) - A+ =(90-99), A= (80-89), B+= (70-79), B= (60-69), C=(50-59), P = (40-49), F= Below 40, Ab (Absent).

Internship and Attachment**

(iv) Internship (for two weeks) 50 Marks

(v) Field work (for two weeks)* 50 Marks

Research Projects: Related to specialization courses i.e. Elementary/Secondary Teacher Education, Pedagogy Process (Internal Assessment)*

Total 100 Marks

Research Projects/Activities(Internal Assessment)***

(vi) Preparation of synopsis(Dissertation) 25 marks

(vii) Viva of the research 25 marks

Total 50 Marks

Grand Total 1000 Marks

** Students will be attached to the elementary/secondary/sr. secondary schools for systematically planned field internship/attachment for working in the specialization area chosen by them.

*** Committee of three faculty members including head and internal subject expert will be constituted by the Principal for assessment.

M.Ed. Programme Second Year**Core Foundation Courses**

Theory papers	Internal*	External	Total Marks
CC6:Qualitative Educational Research	50	100	150
CC7:Quantitative Educational Research	50	100	150
CC8: Psychology of Learning	50	100	150

Specialization Courses /papers (paper 9&10): (Any two courses from Group A or Group B)

Specialization Courses/papers	Internal	External	Total Marks
Group-A Elementary Education			
SC9EE (i) Preparation of Elementary Teacher: Pre-service and in-service	50	100	150
SC10EE (ii)Planning and Management of Elementary Education	50	100	150
Group-B Secondary Education			
SC9 SE (i) Preparation of Secondary and senior- secondary teachers: Pre-service and In-service	50	100	150
SC10 SE (ii) Curriculum and Evaluation at Secondary and Senior Secondary level	50	100	150

*Internal of 50 marks will include i. Practical related with theory paper-15marks, ii. Internal test-15 marks, iii. Tutorial-20marks

Practicum for Enhancing Professional Skills**(i)Advanced Technology Lesson (two):**

10x2=20 marks

(ii) Periodical Colloquium /Seminar on:

- (a) Write up on recent trends in educational research in specialisation area 25 marks
 (b) Contemporary issues in School Education 25 marks
 (c) Seminar Reading on Internship Programme 30 marks
 Total 100 marks

- (iii) Workshop on Yoga, Art and Aesthetic will be an integral part of the programme for which grade will be awarded on the basis of assessment. Grade Point Average will be as follows:
Letter Grade (Marks) - A+ =(90-99), A= (80-89), B+= (70-79), B= (60-69), C=(50-59), P = (40-49), F= Below 40, Ab (Absent).

Internship and Attachment**

- (iv) Internship (for two weeks) 50 Marks
 (v) Field work (for two weeks)* 50 Marks

*Research Projects: Action Research/ Survey/ Case Study/Tool development Related to specialization courses Planning & Management, ET and ICT, Curriculum and Evaluation,, Inclusive Education,

Total 100 Marks

Dissertation

Dissertation work will be commenced in Ist year and will be completed by the end of 2nd year.

150 marks*****Grand Total 1100 Marks****Total Marks: First year (1000) + Second year (1100) = 2100**

**Students will be attached to the teacher education institutions such as DIETs/CTEs/IASEs for systematically planned field internship/attachment for working in the specialization area chosen by them

*** (i) The dissertation is to be completed by every candidate by the end of the session. A candidate shall carry out research/project work on a problem allotted to him/her by head of the department under the supervision of a teacher of the institute.

(ii) The candidate shall prepare dissertation on the research/project work done by him/her which must be characterised either by the discovery of facts or by fresh approach towards the interpretation of established facts, capable, in the either case, to advance knowledge in the subject.

- (i) The candidate shall submit three copies printed or typed of his/her dissertation to the Head, Department of Education. The principal will forward one copy of the dissertation to the office of the registrar at least two weeks before the date of commencement of the written examination by the University.
- (ii) Declaration by him/her that the dissertation embodies result of his/her own work.
- (iii) A certificate from the supervisor to the effect that the dissertation is candidate's own work.
- (iv) The scheme of examination consists of maximum marks, duration of the examination, type of questions etc..
- (v) The scope of the study in different papers and practical training (Practicum) shall be prescribed by the academic council on the recommendation of the board of studies in education and the faculty of education. The syllabus so prescribed would be printed in the prospectus for the year or published by a notification.
- (vi) Each candidate shall submit three copies of record of Practicum of each paper at least one month before the university examination.
- (vii) Practicum will be evaluated by a committee constituted by the Principal in consultation with Head, Education Department on the basis of record and viva-voce.
- (viii) The written examination in theory papers shall be held ordinarily at the end of session in each year at Regional Institute of Education, Ajmer. The Registrar shall notify the exact date of commencement of the examination of a year after fixing it in consultation with principal.
- (ix) The university would allow preparatory leave to students appearing in the examination as per rules.
- (x) The registrar shall appoint external examiner for viva-voce. Principal shall, in consultation with the Head of the Department in the institute and the external examiner fix a date for the viva-voce to be conducted in the institute and assessment of dissertation, which shall be ordinarily within 10 days from the last day of written examination.
- (xi) The viva-voce shall be conducted by a team of External Examiner, Principal, Head of education department and research supervisor.
- (xii) The principal shall forward the statement of marks so awarded duly signed by him/her in a sealed cover, to the registrar.

M.Ed. Programme -Curriculum Transaction

1. Number of Working Days per Year	200 days
2. Number of Teaching Days	190 Days (31 Weeks)
3. Time Table Based Instruction	27 weeks
3.1 Theory and Practicum Based Instructions	24 Weeks
3.2 Internship Experience Pre-service Teacher based	3 Weeks
4. Field Work Related To Dissertation And Practicum	4 Weeks

Total Teaching hours in a 05 Days Week– 36 Hrs.

Analysis of Weekly Time Table (For both the years separately)

1.	Theory Papers (5Periods per paper)	25 Periods
2.	Consultation regarding Dissertation Work	4 Periods
3.	Tutorials	4Periods
4.	Seminar	5 Periods
5.	Library Based Self Directed Study	8 Periods
6.	Internship (Planning & Guidance)	2 Period
TOTAL		48 Periods

M. Ed. First Year
Theory Courses
CC- I PHILOSOPHY AND SOCIOLOGY OF EDUCATION

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Understanding the nature and functions of philosophy of education.
- Logical analysis, interpretation and synthesis of various concepts, propositions and philosophical assumptions about educational phenomena.
- Understanding and use of philosophical methods in studying educational data.
- Critical appraisal of contributions made to education by prominent educational thinkers-both Indian and Western.
- understand and relate philosophical theories with educational practices.
- understand and relate philosophical traditions with educational practice.
- enable the student to explain and reflect on- Gender ideology, Relationship between education and social change with special reference to modernization and globalization,
- understand relationship between concepts and processes of sociology and education, Theories and characteristics of sociological analysis and its relation to education.
- Understand and explore the meaning, aims, purposes of education
- Develop understanding of sociological dimension of education.
- Understand Peace education and Gender sensitization.

b) Course Content

Unit - I Nature and Modern Concept of Philosophy

- (A) The Nature of Philosophy : Use of Philosophy, Branches of Philosophy, metaphysics, epistemology and axiology and their implications for education, Philosophical redirection of educational research in recent times.
- (B) Modern concept of Philosophy and Contributions of Thinkers: Analysis-Logical analysis, Logical empiricism and Positive relativism- (Morris L. Prigge) Contributions of Vivekananda, Tagore, Gandhi, Dewey, Krishnamurti, Montessori and Gijubhai to educational thinking.

Unit - II Indian Philosophical Foundation Of Education

- (A) Indian Philosophical Foundation of Education; Characteristics of Indian Philosophy.
- (B) Education as conceived in Vedic times.
- (C) Nature of the Learner, goals of life theory of knowledge and ethical values as advocated in the following philosophies : Buddhism, Jainism, Nyaya, and Vedanta (Upanishad and Advaita Vedanta only)
- (D) Teacher student relationship as manifested in Upanishad and Vedanta

Unit – III Western Philosophical Foundations Of Education:

- (A) Naturalism: Its metaphysics and epistemology, aims of education educative process, freedom and discipline in education according to Naturalism.
- (B) Idealism : Its metaphysics and theories of knowledge, the nature of learner, aims of equation, teacher-pupil relationship, method of education, freedom of and discipline values in education and curriculum according to idealism.
- (C) Realism: Its metaphysics and theories of knowledge, aims of education, nature of the learner and educative process according to Realism.
- (D) Pragmatism: Its metaphysics and theories of knowledge, the nature of the learner aim of education, teacher-pupil relationship, method of education and curriculum according to Pragmatism.
- (E) Existentialism: Its development with special reference to Sartre and its implications for education.

Unit – IV Social Determinants of Education

- (A) Education as a Social sub-system. Concept of social system, Specific characteristics of education as a social sub-system, Education and its relationship with other social sub-systems i.e. family, caste and state.
- (B) Education as a Social Process.
- (C) Socialization- Meaning, Agencies, Theories of Socialization, Process of socialization, social, economic and cultural differences in socialization: implications for inclusion.
- (D) Culture- Concept, Meaning, Characteristics, Role of family, caste and state in preservation, transmission and enrichment of culture; acculturation and its Process.
- (E) Meaning and importance of peace education to address social issues.

Unit - V Changing Dimensions Of Education In Reference To Society

- (A) Change and Education, Concept of change and planned change, Process of planned change, Functions and qualities of change agent,
- (B) Social mobility,
- (C) Modernization and Indianization of education,
- (D) Education and Gender, Gender ideology in society. Role of religion, constitution and law in gender ideology. Gender differentiation, stereotyping and inequality in society in reference to gender discrimination.
- (E) Present status of women’s education in India.
- (F) Social Dimension of Indian Education, Approaches to religious and moral education Humanistic and Spiritualistic Approaches, Socialistic pattern of society and education, existing educational disparities.

(c) Sessional /Practicum/Field work (Any one of the following)

- One term paper and three abstracts of articles published in some Educational Standard Journals.
- Visit a school to study the philosophical ideology of the school; and prepare a report based on your observations and experience.
- Analyze the contribution of Giju Bhai in the light of child centered Education
- Study the dialogic conversation of Upanishads in Reference to teacher child relationship and education management.
- Socio-metric study of a class consisting of not less than 25 students.
- Prepare a questionnaire on different aspects of socialization and administer it on at least 30 students (homogeneous group) to find out the most influencing aspect. Prepare a report on entire activity.

(d) References-

1. Adam, S.D.: Education Modernization in Asia, Addition Wiley Publishing Co. Philosophies, 1970
2. Altekar, A.s.: Education in Ancient India, Book Shop, Varanasi, 1934.
3. Aurobindo and Mother: On Education, Shri Arubindo Ashram, Pondichery, 1969
4. Brown, F.: Educational Sociology
5. Butler, I.D.: Four Philosophies (3rd ed.), Harper & Bros, New York, 1969
6. Core, N.S. Desai, I.P. and Simon Chitnis (ed.): Papers in Sociology of Education, N.C.E.R.T., New Delhi, 1967
7. Dent, H.C. British Education, Longmans Press, London, 1961
8. Educational Commission Report (1964-66): Government of India, New Delhi, 1966
9. Griffin and Pareek, U.: Planned Change in Education, Somaiya Publications Pvt. Ltd., Bombay, 1970
10. Hussain, Zakir: Educational and Cultural Foundation, Education and National Development, 1975, A Report on Symposium organized by the Foundation, New Delhi
11. Johnson, Herbart: A Philosophy of Education, McGraw Hill Book Co., Inc., New York, 1963.
12. Kneller, G.F.: Existentialism and Education, John Wiley & Sons, Inc., New York 1958
13. Max Muller, F.: The Six Systems of Philosophy, Sushill Gupta, Calcutta, 1955
14. Morris, V.C.: Modern Movements in Educational Philosophy, Miffine Co., Bastor, Houghton, 1969.

15. Mukerjee, R.K.: Ancient Indian Education, Macmillan & Co., London, 1947
16. Munshi Ram: Vaidiki, Granthan, Kanpur, Samvat 2059 (In Hindi)
17. Oad, L.K.: Shiksha ki DarshnikPrasthabhumi, Rajasthan Hindi Granth Academy, Jaipur, 1973 (In Hindi)
18. Ramkrishan Mission Institute of Culture: The Cultural Heritage of India, Vol.II, Calcutta, 1969
19. Russel, F.: On Education, Alien and Unwin, London, 1962
20. ViyogiHari: AryaJeevanDarshan, Bihar Hindi Granth Academy
21. Shab, A.B.: Social Context of Education, Allied Publications, 1978
22. Young, C.A.D.: Introduction to American Public Education McGraw Hill Book Co., Inc., New York, 1957

Theory Courses

CC 2: Psychology of Learner

Maximum Marks: 150

Internal: 50

External: 100

- (a) Learning Outcomes:** After completion of the course, student-teachers will be able to:-
- conduct scientific study of the growing child through the discipline of educational psychology;
 - understand the type and processes of learners' development —physical, cognitive, language and personality;
 - develop understanding of individual differences among the learners and related educational treatments including remediation; and
 - develop the competencies to administer psychological tests and interpret their results.

(b) Course Content

Unit I: Educational Psychology and Growing Child

- 1.1 Concept of educational psychology and recent developments.
- 1.2 Behaviourist and cognitive perspectives.
- 1.3 Significance of educational psychology in terms of the learners, teachers, teaching-learning process and school effectiveness.

Unit II: Learners' Development and Implications for Teaching

- 2.1 Psychomotor development of the child.
- 2.2 Erickson's stages of psycho-social development; implications for teaching.
- 2.3 Cognitive development of the learner: Piaget on cognitive development; Sternberg's Information-processing approach to cognitive development; Implications of these approaches for teaching.
- 2.4 Self-concept and Moral Development: Development of self concept; Kohlberg's stages of moral development.
- 2.5 Language Development: Early formation of words, sentences, Reading: (decoding, meaning access, sentence integration, comprehension and vocabulary); Schema theory—prior knowledge, using prose structure and meta cognitive knowledge; writing: planning, translating and reviewing processes.
- 2.6 Developmental delays in the above dimensions of development.

Unit III: Personality Development and the Learner

- 3.1 Personality—Concept and meaning.
- 3.2 Allport's concept of trait and Eysenk's type theories; implications.
- 3.3 Maslow's Humanistic theory and Roger's Phenomenological theories, Implications for EFA.

- 3.4 Measurement of child's personality—Rating Scales, Check-lists, Inventories, Sociometry, Children's Apperception Test, Implications for comprehensive evaluation.

Unit IV: Cognitive Abilities, Nurturing and Assessment

- 4.1 Intelligence, Abilities and Aptitudes : meaning, nature and measurement based on Psychometric approaches, information-processing views of intelligence (Hunt's approach and Sternberg's triarchic theory), concept of abilities—British Ability Scales.
- 4.2 Creativity: meaning, creative abilities, methods of identifying creative and talented children, strategies for fostering creativity.
- 4.3 Current practices for the identification and promotion of creative talent.

Unit V: Individual Differences

- 5.1 Meaning and basic dimensions.
- 5.2 Demographic characteristics
- 5.3 Cognitive and affective dimensions: intelligence, aptitude, creativity, cognitive styles, domain specific knowledge, interest, attitude and self-concept.
- 5.4 Children with special needs, types and their education.
- 5.5 Instructional strategies to meet individual differences

(c) Sessional /Practicum/Field work (Any one of the following)

- One term paper and three abstracts of articles published in some Educational Standard Journals.
- Visit a school to study the psychological environment of the school; and prepare a report based on your observations and experiences.
- Prepare any one topic from the given units and initiate group discussion in the classroom
- Administer a basic skill test (adjustment inventory, emotional intelligent questionnaire, specific ability test and achievement test) and Interpret these test results, prepare group/individual profile and write down its implication for teaching learning.
- Prepare a diagnostic test in any topic from elementary school subjects, administer it and prepare a plan of instruction on the basis of test results.
- Develop a psychological profile (case study) of a learner.

(d) Suggested Readings

1. Ambron, S. R. (1981). *Child Development*, Holt, Rinehart and Winston, New York.
2. Anand, S. P. (1996). *ABC's of Educational Psychology*, Pathankot Unique Publication.
3. Atkinson, Richard, C., et. al. (1983). *Introduction to Psychology*. Harcourt Brace Joranson Inc. New York.
4. Barry and Johnson (1964). *Classroom Group Behaviour*, New York: Macmillan.
5. Bhargava, Mahesh (1964). *Introduction to Exceptional Children*: Sterling Publishers, Pvt. Ltd., New Delhi.
6. Bhatnagar, Dr. A.B. Bhatnagar Dr. Meenakshi Bhatnagar, Dr. Anurag psychology of Teaching & Instruction (2007) International publishing house, Meerut.
7. Bourne, L. E. (1985). *Psychology : Its Principles and Meaning*. Holt, Rinehart and Winston, New York.
8. C Kaur, S.S Advanced Education Psychology (2008) Vikas Publishing House Pvt. Ltd. A-22 Sector -4 Noida
9. Christian, Jyoti (1984). *Classroom Group Dynamics*. Meerut: Anu Books.
10. Cruickshank, W. M. (1980). *Psychology of Exceptional Children and Youth*: N. J. Prentice Hall.
11. Dececco, John P. (1977). *The Psychology of Learning and Instruction*. Prentice Hall of India, Pvt. Ltd., New Delhi.

12. Gessel, A. L. and Allagh, F. H. (1946). *The Child from Five to Ten*. New York : Harper and Brothers.
13. Hurlock, E. B. (1964). *Child Development*, New York : McGraw Hill Book Co.
14. Klausmeier, Herbert. J. (1985). *Educational Psychology*. Harper and Row, Pub. New York.
15. Lingren, H. C. (1980). *Educational Psychology in the Classroom* (Sixth ed.) New York : Oxford University Press.
16. Owen, Steven V, Blount, S. Parker and Mascow, Hoenry (1978). *Educational Psychology: An Introduction*. Little, Brown and Company.
17. Shukla, K.C. and Tarachand, *Practical Psychology* (2005) Commonwealth publishers. Ansari Road, Daryaganj. New Delhi.
18. Smith, Ronald E, Sarason, I. G, and Sarason, Barbara, R. (1982). *Psychology, The Frontiers of Behaviour*. Harper and Row Pub. New York.
19. Srivastava, G. N. P. (1995). *Recent Trends in Educational Psychology*. Agra Psycho Research Cell, Agra, India.
20. Srivastava, G. N. P. (1986). *Recent Approaches to Personality Study*, APRC, Agra.
21. Travers, R. M. W. (1963). *Essentials of Learning*.
22. Mathur, Dr. S.S (2008). *Development of learner and teaching Learning Process*, Agrwarl Publications. Agra
23. माथुर, एस.एस. शिक्षा मनोविज्ञान (1986) पुस्तक मन्दिर , रागेय राधव मार्ग आगरा
24. भाई योगेन्द्रजीत बाल मनोविज्ञान : बाल विकास (1997) विनोद पुस्तक मन्दिर , रागेय राधव मार्ग आगरा
25. मिश्रा महेन्द्र कुमार किशोर मनोविज्ञान (2007) यूनिवर्सिटी बुक हाउस प्रा. लि. 79, चौडा रास्ता जयपुर
26. अरोड़ा प्रो. रीता एवं मारवाहा, डॉ सुदेश शिक्षण एवं अधिगम मे मनोसामाजिक आधार (2007) शिक्षा प्रकाशन 23 भगवान दास मार्केट चौडा रास्ता जयपुर
27. शर्मा, डॉ एस.एन. शिक्षा में मनोविज्ञान(2007) एच.पी. भार्गव बुक हाउस 4/230. कचहरी घाट आगरा
28. Dutt,Vibha (2006),”Bhartiya Manovigyan” Madhya Pradesh Granth Academy, Bhopal

Theory Courses

CC3: Methods of Educational Research and Data Analysis

Maximum Marks: 150

Internal: 50

External: 100

- (a) **Learning Outcomes:** After completion of the course, student-teachers will be able to:-
- understand the meaning and process of research in education;
 - select suitable research problem after consulting various sources;
 - understand the various methods of sampling;
 - understand the characteristics and use of different tools and techniques for data collection;
 - understand the various methods and techniques in educational research; and
 - prepare a research proposal, dissertation abstract and research article.
 - interpretation of results obtained through different techniques of analysis of data.
 - appreciate the role of research methodology in the present context.

b) Course Content

Unit I: Research Problems, Variables and Hypotheses in Education

- 1.1 Meaning, need, importance (purposes), scope, dimensions and history of research in education, types of research—basic, applied and action in education, methods, special characteristics and steps.
- 1.2 Sources, criteria and selection of research problem and statement of problem in different forms.
- 1.3 Meaning, characteristics and types of variables and interrelationship among different variables.
- 1.4 Meaning, importance, characteristics, types and forms of hypothesis.
- 1.5 Research blue print—components.
- 1.6 Purpose and need at different stages of research, sources and types.

Unit II: Methods of Research in Education

- 2.1 *Historical*: Need and significance of historical research, characteristics and steps in historical research, techniques used in historical research, source collection, criticism and interpretation of data.
- 2.2 *Descriptive*: Characteristics and steps in descriptive research, surveys, correlation and causal comparative studies, case and developmental studies—nature and use, steps and interpretation.
- 2.3 *Experimental*: Need and significance, characteristics and steps in experimental research, Nature of quasi experimental research. Validity—internal and external, Role of control, Designs—single group, parallel groups and rotation groups.

Unit III: Sampling Techniques and Tools for Data Collection

- 3.1 Population, Concept and need of sampling, Selection of adequate and representative sample characteristics of a good sample.
- 3.2 Sampling Methods: random, stratified, cluster and multistage, quota and purposive.
- 3.3 Sampling errors and its minimization, Table of random numbers types and uses
- 3.4 Characteristics, types, construction and uses of (a) observation (b) Questionnaire (c) Interview (d) Rating Scales (e) Attitude scales (f) Projective Techniques (g) Schedules (h) Socio-metry Validity and reliability of various tools and technique?
- 3.5 Format, cauterization and characteristics of a good research report.

Unit IV: Descriptive Statistics in Research

- 4.1 Quantitative Data Scales of measurement Nominal Ordinal: Interval and Ratio.
- 4.2 Tabular representation of data.
- 4.3 Graphical representation of data: Histogram Frequency polygon. Ogive, Pie and Bar diagrams.
- 4.4 Measures of central tendencies - computation and uses of Mean. Median, Mode, Percentile and standard deviation.
- 4.5 Normal Distribution - characteristics of Normal distribution curve.

Unit V: Inferential statistics

- 5.1 Correlation - concept, types, assumptions, computation, uses and interpretation of rank order, product moment, Bi-serial, Point, Bi-serial, partial and multiple correlation.
- 5.2 Concept of regression and regression equations.
- 5.3 Concept of degree of freedom and level of significance one tailed and two tailed tests
- 5.4 Significance of the difference between Means - t- test and critical ratio. Concept assumptions and uses of analysis of variance.
- 5.5 Concept and uses of non- parametric techniques: Chi-square.

(c) Sessional /Practicum/Field work (Any one of the following)

- Review of two research papers, one quantitative and the other qualitative
- Observation and analysis of five lesson plans of students during internship and preparing its Report.
- Construction of one tool for data collection following standard procedure
- Selection of a problem and developing a research proposal for M.Ed. dissertation and its seminar presentation

(d) Suggested Readings

1. Best, J. W. (1986). *Research in Education*, New Delhi: Prentice Hall of India Pvt. Ltd.
2. Borg, W. R. and Gall, M. D. (1983). *Educational Research-An Introduction*, New York, Longman, Inc.
3. Christensen, L. (2007). *Experimental Methodology*. Boston: Allyn & Bacon.
4. Clive Opie (2004). *Doing Educational Research- A Guide for First time researchers*. New Delhi: Vistar Publications.
5. Garret, H.E. 1967. *Statistics in Psychology and Education*, Bombay Vakils.
6. Guilford. J.P. and B. Fruchter. 1987 *Fundamental Statistics in Education and Psychology* Tokyo: McGraw Hill (Student-Sixth edition.)
7. Kaul. Lokesh. 1984. *Methodology of Educational Research*, New Delhi; Vikas Publications.
8. Kerlinger. F.N, 1973. *Foundations of Behavioural Research*, New York: Holt. Rinehart and Winston.
9. Fraenkel, J. R., Wallen, N. E. (1983). *How to Design and Evaluate Research in Education*, Singapore; McGraw Hill, Inc.
10. Fogelman, (1977). *Piagetian Tests for Primary Schools*, NFER of UK.
11. Good, Carter, V. *Methodology of Educational Research*, New York: Appleton Century Crafts.
12. Gupta, Santosh. (1983). *Research Methodology and Statistical Techniques*, New Delhi: Deep and Deep Publisher.
13. Jill Porter & Penny Lacey (2005). *Researching Learning Difficulties- A Guide for Practitioners*. Paul Chapman Publishing.
14. Kaul, Lokesh. (1984). *Methodology of Educational Research*, New Delhi: Vikas Publications.
15. Kerlinger, F. N. (1973). *Foundations of Behavioural Research*, New York: Holt, Rinehart and Winston.
16. Kirkpatrick, D.L. (2005). *Evaluating training Programmes: The four Levels*. San Francisco: Brrett-Kochler.
17. Raizada. B. S. "Shaikshik and Anusandhan ke Mool Tatva" Hindi Sahitya Granth Academy, Jaipur.
18. Shank, G.D. (2002). *Qualitative Research*. Columbus, ott: Merill, Prentice Hall.
19. Sharma, Bharti (2004). *Methodology of Educational Research*. New Delhi: Vohra Publishers and Distributors.
20. Sharma, S.R. (2003). *Problems of Educational Research*. New Delhi: Anmol Publications Pvt. Ltd
21. Sidhu, K. S. (1987). *Methodology of Research in Education*, New Delhi: Sterling Publishers Pvt. Ltd.
22. Srivastava, G. N. P. (1994). *Advanced Research Methodology*, New Delhi: Radha Publications.

23. Sukhia, S. P., Mehrotra P. V. and Mehrotra R. N. (1966). *Elements of Educational Research*, New Delhi: Allied Publications.
24. Travers, R. M. W. (1969). *An Introduction to Educational Research*, New Delhi: Sterling Publishers Pvt. Ltd.
25. Tuckman, B. W. (1969). *An Introduction to Educational Research*, New York: The MacMillan Company.
26. Van, Dalen, Debonald, B-and Meyer, William, J. (1979). *Understanding Educational Research: An Introduction*, New York: McGraw Hill Co.

SPECIALIZATION COURSES/PAPERS

GROUP A

SC 4(i) - ICT in Education

Max. Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- understand the scope of ICT and its applications in teaching learning.
- understand the means of ICT integration in teaching learning.
- understand the computer components and software and hardware approach in education.
- know the instructional applications of Internet and web resources.
- understand the process of using the application software for creating documents, database, presentation and other media applications.
- develop awareness about uses of computer technology in teaching learning training and research, develop understanding about the various aspects of data analysis software, develop various skills to use computer technology for sharing of information and ideas through the Blogs and Chatting groups,
- understand the process of locating the research studies available in the Internet and use of on-line journals and books,
- understand the utility of professional forums and professional associations in use of computer technology.
- understand the concept of courseware and various formats of courseware,
- understand the process of preparation of courseware, understanding the technical aspects of courseware, understanding the courseware management system in Intranet and Internet environments,
- understand the evaluation procedure of on-line courseware and off-line courseware.

b) Course Content

Unit I-Information and Communication Technologies – an Introduction

- 1.1 Information and Communication Basics: Nature and scope of a communication system – sender, receiver, message and the medium; one-to-one, one-to-many, and many-to-many communication;
- 1.2 broadcast and non-broadcast applications – technologies and prospects; Information and Communication Technologies in Teaching Learning: Teaching learning contexts and the need for ICT devices and applications;
- 1.3 Critical analysis of Teaching aids and their applications in instruction and learning;
- 1.4 Applications of Information and Communication Technologies: Classroom and ICT;
- 1.5 Professional development and ICT; School management and ICT.

Unit II-Computer Fundamentals, Internet and the World Wide Web

- 2.1 Introduction to a personal computer: Functional overview of a computer (Personal Computer/Laptop/Palmtop) and its parts and functions;

- 2.2 Standard computer accessories – their configurations, connections and functioning; common malfunctions of computer connections and accessories – their identification, troubleshooting and rectification.
- 2.3 The Internet and the World Wide Web: Information, services and functions of the Internet and the Web; Connecting to and using the web. Using search engines and Web Utilities: Keywords and search strategies;
- 2.4 Synchronous and asynchronous communication on the web: e-mail, chat, newsgroups and forums. Security Concerns Related to Interactive Content: Viewing, disabling and managing interactive content; Securing the computer from viruses, worms and other internet attacks; Safe internet content.

Unit III-ICT Applications in Education

- 3.1 Word Processors and Word Processing, Spreadsheets, Databases, Presentations. Digital media, Graphics, photographs, animation, audio and video in the digital context; Sourcing, digitizing and using; Educational applications of digital media.
- 3.2 Multimedia Content: Multimedia packages – installation and use; Critical analysis of multimedia content, educational implications of media use and interactivity.
- 3.3 Websites with educational content: Search, locate and maintain lists of educational web sites; critically examine the content of websites; using the web as a teaching-learning resource. Academic and Research content on the web: Online journals and abstraction services; Online Learning, online courses and learning management systems.
- 3.4 Communication through the web: Audio and video applications on the Internet; Interpersonal communication through the e-Mail, Web forums and chatting groups.

Unit-IV: Courseware Design

- 4.1 Courseware – Design Patterns- procedure of development and validation of courseware: Need assessment, Stating the Objectives, Identification of Resources, Limitations, Selection of Learning activities and Criteria for learning organization, Alternative methods of attaining the objectives, field testing, feedback and evaluation. Introducing the Interactivity and Making a courseware outline.
- 4.2 Barriers in the preparation of courseware. Technical Aspects of courseware Development Courseware Management System: Introduction to courseware Management Systems- LMS and LCMS software for Courseware Management, Standards for ICT enabled courseware, Use of Wikipedia, Wikieducator and other web based technologies for online courseware. Courseware Evaluation: Different Methods of Courseware Evaluation;
- 4.3 Designing a rubric for evaluating the Courseware. Criteria for Courseware evaluation. Designing of Evaluation Criteria for assessment of online and off-line courseware.

Unit V- Use of ICT In the conduct of Research and Research Communication

- 5.1 Use of ICT in Research, including on-line research Use of ICT for reporting in the form of theses, journal articles, and presentations in seminars and conferences.
- 5.2 Downloading of international standards for writing a research report Downloading of references, and biography new books/journals from internet.
- 5.3 Data analysis and interpretation by using database software: Spread sheet Access ,SPSS and other equivalent in Open Office Creating graphs and charts, creating a table by using wizard, Creating queries and using queries, data filtering in access by using queries.
- 5.4 Web Resources for research Blog and Professional Forum

(c) Sessional /Practicum/Field work (Any one of the following)

The students may undertake any one of the following activities:

- Critical analysis of Teaching aids and their applications in instruction and learning

- Critical analysis of a computer based media packages with reference to its use in learning process.
- Critical analysis of the different instructional packages developed by different agencies/institutions.
- Interventions of educational technology in the current practices of teacher training programmes in India.
- Preparation of Learning Object Repository (LOR).
- Preparation and presentation of slides for teaching any topic at the school level.
- Critical analysis of database software including open source.
- Critical analysis of the different research reports based on data analysis and interpretation.
- Preparation and presentation of research report based on empirical data.

d) Suggested Readings:

1. Adam, D.M. (1985) *Computers and Teacher Training: A Practical guide*, The Haworth Pren, Inc., N.Y.
2. Alexey Semenov, UNESCO, (2005): *Information and Communication Technologies in Schools: A Handbook for Teachers*.
3. Bose K Sanjay (1996): *Hardware and Software of Personal Computer*.
4. Conrad, Kerri (2001) *Instructional Design for web – based Training* HRD Press. *Intl Teach to the Future –beginner’s Curriculum*. 2000.
5. Mallik, Utpal et al. (2001): *Leaning with Computers Level – III*. NCERT New Delhi.
6. Lee, William W; Diana L Owens (2001) *Multimedia – Based Instructional Design: Computer – Based Training*.
7. Jossey – Bass. P K Sinha. (1990): *Computer Fundamental*.
8. Conrad, Kerri (2001), *Instructional Design for Web – Based Training* HRD Press.
9. Gagne, RM, Leslie J.B.; & Walter W.W. (1987) *Principles of Instructional Design* Wodworth Publishing Co.
10. Horton, W (2001): *Designing web-based Training* John Wiley & Sons.
11. Lee, William W; Diana L Owens (2001) *Multimedia – Based Instructional Design: Computer – Based Training*.
12. Jossey – Bass. Phillips. R (1997) *Interactive Multimedia* London: Kogan Page.
13. Morey, D; Maybury M & Bhavani, Th. (2001) *Knowledge Management* University Press (India) Ltd: Hyd.
14. Rosenberg, M.J. (2001) *e-learning* New York: McGraw Hill.
15. Schank, R.C. (2001) *Virtual Learning* McGraw Hill.
16. Sallis, E & Jones, G (2002) *Knowledge Management in Education* London: Kogan Page Ltd.
17. T.M. Srinivasan (2002), *Use of Computers and Multimedia in Education* Horton.
18. Vaughan, T. (1999) *Multimedia making it work*, New Delhi: Tata McGraw Hill [Fourth Edition].
19. Gupta Vikas, Comdex Computer Course Kit, Dream Tech publications, New Delhi (2001). Hillma David, *Multimedia Technology of Applications*.
20. Mayer Richard E(2001); *Multimedia Learning*, Cambridge University Press, UK.
21. Norton Peter (2000), *Introduction to Computers*, Tata McGraw Hill Publications, New Delhi.
22. Schwatz & Schultz (2000).*Office 2000*, BPB publications, New Delhi.
23. Sinha P K (1992).*Computer Fundamentals*, BPB Publication, New Delhi.
24. Sportack M A(1998) *Networking Essentials*, TechMedia, New Delhi Vaughan Tay, *Multimedia – Making it work*.

Web-addresses:

<http://www.libraries.psu.edu/>

<http://www.searchenginewatch.com>, (ALTA VISTA, EXCITE, HOTBOT, INFOSEEK).

<http://www.teacher.net>

Specialization Group-A
SC 4 (ii): Inclusive Education

Maximum Marks: 150

Internal: 50

External: 100

- (a) **Learning Outcomes:** After completion of the course, student-teachers will be able to:-
- understand the global and national commitments towards the education of children with diverse needs,
 - appreciate the need for promoting inclusive practice and the roles and responsibilities of all concerned personnel,
 - develop critical understanding of the recommendations of various commissions and committees towards teacher preparation for inclusive education,
 - understand the nature of difficulties encountered by children and prepare conducive teaching learning environment in inclusive schools,
 - analyze special education, integrated education, mainstream and inclusive education practices,
 - identify and utilize existing resources for promoting inclusive practice.
 - developing an understanding of the needs and magnitude of the challenges faced by children and persons with diverse needs,
 - appreciating the need for promoting inclusive practice and understanding the roles and responsibilities of all concerned,
 - developing a positive attitude and sense of commitment towards actualizing the right to education of all learners,
 - preparing a conducive teaching learning environment in varied school settings for children with diverse needs
 - develop the ability to conduct and supervise action research activities,
 - identifying and utilizing existing support services for promoting inclusive practice,
 - seeking parental and community support for utilizing available resources for creating a right based inclusive society for children with Special Needs.

b) Course Content

Unit I- Introduction to Inclusive Education

- 1.1 Difference between special education, integrated education and inclusive education.
- 1.2 Advantages of inclusive education for the individual and society.
- 1.3 Recommendations of Education Commissions and Committees on restructuring policies and practices to respond to diversity in educational situations
- 1.4 National and International initiatives for inclusive education
- 1.5 Current Laws and Policy Perspectives supporting Inclusive Education for children with diverse needs

Unit II- Children with diverse needs and utilization of resources

Concept and meaning of diverse needs

- 2.1 Definition and characteristics of children with sensory(hearing, visual and others intellectual (gifted, talented and children with mentally challenged), developmental disabilities (autism, cerebral palsy, learning disabilities), social and emotional problems, scholastic backwardness, underachievement, slow learners, children with

special health problems, environmental/ ecological difficulties and children belonging to other marginal groups.

- 2.2 Importance of early detection, functional assessment for development of compensatory skills.
- 2.3 Role of teachers working in inclusive settings and resource teacher in developing and enriching academic skills for higher learning.
- 2.4 Adaptations in instructional objectives, curriculum and co-curricular activities for meeting diverse needs of children from sensory, intellectual, learning disabled, rural, tribal, girls, SC ST and linguistic and other minority groups.
- 2.5 Role of technology for meeting diverse needs of learners in the inclusive school
- 2.6 Creating conducive environment in inclusive schools: material resources and human resources, changing the attitude of the significant people, exploring and utilizing the services and resources available in the community.
- 2.7 Role of teachers, parents and other community members for supporting inclusion of children with diverse needs.

Unit III- Assessment and Teaching

- 3.1 Importance of functional assessment of children with special needs.
- 3.2 Techniques for identification and assessment of children with various types of disabilities.
- 3.3 Individualised Education programme.
- 3.4 Various teaching strategies - Collaborative instruction, peer tutoring, cooperative learning, multisensory approach, CAI, and Reinforcement.
- 3.5 Role of assistive and adoptive devices to support inclusive practices.

Unit IV -Curriculum adaptations and evaluation for children with diverse needs

- 4.1 Concept meaning and need for curriculum adaptations for children with sensory (hearing, visual) intellectual (gifted, talented and children mentally challenged children), developmental disabilities (autism, cerebral palsy, learning disabilities), Locomotor problems, social and emotional problems, scholastic backwardness, underachievement, slow learners, children with special health problems, environmental/ecological difficulties and children belonging to other marginal groups.
- 4.2 Guidelines for adaptation for teaching/ practicing science, mathematics, social studies, languages, physical education yoga, heritage arts theatre, drama in inclusive settings.
- 4.3 Importance of preparation and maintenance of records/ case profiles for identification, assessment, and intervention for inclusive classrooms.
- 4.4 Techniques and methods used for adaptation of content, laboratory skills and play material

Unit V-Teacher Preparation for Inclusive Education

- 5.1 Review of existing educational programmes offered in school (general and integrated) on inclusive schools.
- 5.2 Skills and competencies of teachers and teacher educators for inclusive schooling.
- 5.3 Curriculum for teacher preparation and transaction modes.
- 5.4 Roles, responsibilities and professional ethics of an inclusive education teacher and teacher educators.
- 5.5 Evaluation and follow up programmes for improvisation of teacher preparation programmes in inclusive education.
- 5.6 Role of different national and international agencies {national institutes, universities and NGO's} in promoting inclusive education.
- 5.7 Planning and conducting research activities :Selecting appropriate areas of research, types of research needed for enhancement of learning in children with diverse needs,

steps involved in planning and supervising research activities, recent trends in research - national and international level with respect to children with diverse needs.

(c) Sessional /Practicum/Field work (Any one of the following)

- Preparation of status report on school education of children with diverse needs.
- Evaluation of text books from the perspective of differently abled children.
- Field visit to school/institutions promoting inclusive practices and discussion with teachers and observation and analysis of teaching learning practices.
- Analysis of policy document (national, international) related to diversity.
- Survey the locality for early identification of children with disabilities.
- Critical review of policy and practice and panel discussion by a group of students.
- Visit to special, integrated and inclusive classrooms in the locality.
- Review of literature related to education of children with diverse needs, presentation of reports in a seminar.
- Make a list of existing resources in the local area and discuss their use and limitations based on survey for five inclusive schools.
- Planning and conducting multi level teaching in the DMS (two classes).
- Critical analysis of existing teacher education programmes for preparing quality teacher in inclusive school.
- Identify suitable and quality research areas in inclusive education by reviewing the existing journals in the field.
- Conduct a survey in the local area to ascertain the prevailing attitudes/ practices toward social, societal, emotional and academic inclusion of children with diverse needs.
- Conduct a survey on the type of supportive service needed for inclusion of children with any disability of your choice and share the findings in the class.

d) Suggested Readings:

1. Ainscow, M., Booth. T (2003): The Index for Inclusion: Developing Learning and Participation in Schools. Bristol: Center for Studies in Inclusive Education.
2. Ahuja. A, Jangira, N.K. (2002): Effective Teacher Training; Cooperative Learning Based Approach: National Publishing house, 23, Daryaganj, New Delhi 110002.
3. Arora, K, Dave, P & Sinclair, S. (1987) Detection and prevention of mentally Handicapped, New Delhi, NCERT
4. Arthur E. D., Orto, Paul W. P (2007) The Psychological and Social Impact of Illness and Disability.
5. Chadha, A. (1999) A Handbook for Primary School Teacher of Children with learning Disabilities. Education Consultant of India Limited, New Delhi
6. Farrell, M. (2004) Special Educational Needs: A Resource for Practitioners, New Delhi, Sage Publications.
7. Gavin R., Gad E., John E (2015). Assessing Children with Specific Learning Difficulties. A teacher's practical guide. Routledge publication
8. Hallahan & Kanffman J.M. (1984) Exceptional children, Prentice Hall
9. Hegarty S. & Mithu Alur (2002) Education and children with Special need, New Delhi, Sage Publication
10. Jangira N.K. and Mani, M.N.G. (1990): Integrated Education for Visually Handicapped, Gurgaon, Old Subjimandi, Academic Press.
11. Jha. M.(2002) Inclusive Education for All: Schools Without Walls, Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
12. Koul,V.(1993) Early Childhood Education Programme . New Delhi, NCERT

13. Lindsay Peer & Gavin Reid (2012). **Special Educational Needs**. A Guide for Inclusive Practice, Sage publication
14. Mallett, R., Runswick-Cole, K (2014). Approaching Disability Critical issues and perspectives Routledge publication
15. Muralidharan, R. (1990) Early Stimulation Activities for Young Children, New Delhi, NCERT
16. Panda, K., C. (1990) Education of Exceptional Children, New Delhi, Vikas Publications
17. Planning and Managing Inclusive Education in the Indian Context. Department of Education of Groups with Special Needs, NCERT and UNESCO, 2004.
18. Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs N. C. E R T Publication.
19. Sharma P.L (2003) Planning Inclusive Education in Small Schools, R .I E. Mysore
20. The persons with Disability Act (1995). Ministry of Social Justice and empowerment, Government of India, India, MSJE
21. UNESCO (1994). The Solamanca Statement and Framework for Action on Special needs Education, Paris, UNESCO

GROUP B

B(I) :PEDAGOGY AND ASSESSMENT OF SCHOOL SUBJECTS : ELEMENTARY EDUCATION SC5(A)(i)a हिंदी भाषा शिक्षण

कुल अंक 150
बाह्य मूल्यांकन – 100
आंतरिक मूल्यांकन – 50

- अ) पाठ्यक्रम के विशिष्ट उद्देश्य
- भाषा के स्वरूप और विकास की व्यवस्था को समझना।
 - प्रारंभिक स्तर पर मातृभाषा के महत्व को समझना और हिंदी भाषा शिक्षण में उसका उपयोग करना।
 - भाषा की विभिन्न भूमिकाओं को जानना और समझना।
 - हिंदी भाषा के विविध कौशलों (सुनना, बोलना पढ़ना लिखना) में दक्षता प्राप्त करना।
 - भाषा शिक्षण की विभिन्न विधियों से परिचित होना और उनका सफलतापूर्वक प्रयोग करना।
 - भाषा के मूल्यांकन की प्रविधियों को जानना उनका प्रयोग और अभ्यास।

ब) Course Content

इकाई-I भाषा की प्रकृति

- 1.1 भाषा, भाषा की प्रकृति, भाषा की विशेषताएं, भाषा के प्रकार
- 1.2 (मौखिक और लिखित) तथा कार्य।
- 1.3 मातृभाषा
- 1.4 प्रथम भाषा, द्वितीय भाषा, तृतीय भाषा
- 1.5 भाषा और अधिगम

इकाई II भारत में हिंदी की स्थिति और भाषा शिक्षा नीति

- 2.1 हिंदी प्रथम द्वितीय और तृतीय भाषा के रूप में
- 2.2 हिंदी पढ़ने और पढ़ाने की चुनौतियाँ
- 2.3 त्रिभाषा सूत्र की विशेषताएं और इसके व्यावहारिक प्रयोग की चुनौतियाँ

2.4 राष्ट्रीय शिक्षा नीति 1986 पी ओ ए 1992 राष्ट्रीय पाठ्यचर्या 2005

इकाई III भाषायी दक्षताएँ

- 3.1 सुनना और बोलना :कहानी कथन, संवाद बातचीत, भूमिका निर्वाह
- 3.2 पढ़ना : मुखर और मौन वाचन, व्यापक और गहन पठन पठन दोष और उनका निराकरण
- 3.3 लिखना – लिखने के चरण, सर्जनात्मक लेखन, औपचारिक और अनौपचारिक लेखना।
- 3.4 हिंदी उच्चारण शिक्षण
- 3.5 उच्चारण अवयव/स्थान
- 3.6 अशुद्ध उच्चारण के कारण उनके प्रकार एवं सुधार के उपाय।

इकाई IV भाषा शिक्षण की प्रचलित विधियाँ / प्रणालियाँ

- 4.1 व्याकरण अनुवाद प्रणाली/विधि
- 4.2 प्रत्यक्ष प्रणाली, ढांचागत प्रणाली
- 4.3 संप्रेषणात्मक प्रणाली, निर्मितवादी प्रणाली
- 4.4 पाठ योजना: प्रकृति उद्देश्य और आवश्यकता विभिन्न पाठ योजनाएं (गद्य पद्य कहानी नाटक व्याकरण)

इकाई V मूल्यांकन— इसकी भूमिका और महत्व

- 5.1 भाषा विकास की प्रगति और मूल्यांकन
- 5.2 सतत और व्यापक मूल्यांकन
- 5.3 मूल्यांकन की प्रविधियाँ – मौखिक, लिखित, स्व मूल्यांकन आपसी मूल्यांकन, समूह मूल्यांकन
- 5.5 प्रश्नों का स्वरूप – खुले प्रश्न, बहुविकल्पीय प्रश्न, सत्य असत्य प्रश्न इत्यादि
- 5.6 क्रियात्मक अनुसंधान (मातृभाषा और हिंदी भाषा शिक्षण के संदर्भ में)

स) सत्रीय कार्य – निम्नलिखित में से केवल एक परियोजना/प्रयोगात्मक कार्य करने हैं –

- 1 कक्षा 1 से 8 तक की हिंदी की दो राज्यों की किसी एक पाठ्य पुस्तक की तुलना करना।
- 2 विद्यालय पत्रिका की रूपरेखा बनाना।
- 3 कक्षा 1 से 8 के हिंदी के प्रश्न पत्र की समीक्षा करना। कक्षा 1 से 8 तक किसी एक कक्षा के हिंदी प्रश्न पत्र का निर्माण करना।
- 4 विद्यालयी अनुभव कार्यक्रम के दौरान भाषा शिक्षण को लेकर आने वाली कठिनाइयों पर क्रियात्मक शोध/समकालीन बाल साहित्य की समीक्षा करना।
- 5 एक प्रश्नावली तैयार करें तथा दस व्यक्तियों का साक्षात्कार करें और साक्षात्कार के आधार पर हिंदी की स्थिति पर एक रिपोर्ट तैयार कीजिए।
- 6 संविधान में भारतीय भाषाओं संबंधी अनुसंधान तथा राष्ट्रीय शिक्षा नीति पी ओ ए (प्रोग्राम ऑफ एक्शन) द्वारा संस्तुत भाषा संबंधी सिफारिशों पर एक रिपोर्ट तैयार कीजिए।
- 7 सुनने और बोलने में असमर्थ बच्चों को ध्यान में रखते हुए हिंदी शिक्षण की दो गतिविधि तैयार कीजिए।
- 8 नशा मुक्ति, जल, पर्यावरण संरक्षण, राष्ट्रीय स्वच्छता अभियान जैसे आंदोलनों को भाषों के पाठों द्वारा किस प्रकार प्रचारित करेंगे कुछ एक्टिविटी तैयार कर एक रिपोर्ट प्रस्तुत कीजिए।

द) संदर्भ साहित्य

- 1 राष्ट्रीय पाठ्यचर्या 2005 की रूपरेखा, एन सी ई आर टी., प्रकाशन
- 2 भारतीय भाषाओं का शिक्षण आधार पत्र, एन. सी. ई. आर. टी. प्रकाशन
- 3 समझ का माध्यम एन.सी.ई.आर.टी. प्रकाशन
- 4 नई शिक्षा नीति 1986 मानव संसाधन विकास मंत्रालय
- 5 निरंजन कुमार सिंह, माध्यमिक विद्यालयों में हिंदी शिक्षण, राजस्थानी ग्रंथ अकादमी, जयपुर
- 6 व्यापक एवं सतत मूल्यांकन, एन.सी.ई.आर.टी. प्रकाशन

- 7 भोलानाथ तिवारी, भाषा विज्ञान किताब महल, इलाहाबाद
8 एम एम भाटिया और सी एल नारंग, आधुनिक हिंदी शिक्षण विधियां प्रकाश ब्रदर्स लुधियाना

SC 5(i)b - Pedagogy and Assessment of Languages (English)

Total Marks: 150

External Assessment: 50

Internal Assessment: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- understand the nature and resources of language and issues related to language acquisition, language learning and multilingualism.
- acquire knowledge about the role, status, objectives and problems of teaching English as a second language in India
- improvise and use appropriate aids for teaching English
- know, compare and analyse various methods and approaches of teaching English as a second language
- plan and teach lessons in English prose, poetry, grammar and composition at Elementary level.
- use various techniques for the evaluation of learner's achievement in English identify and analyse errors and plan and execute remedial instruction

b) Course Content

Unit I: Language and Language Learning

- 1.1 Nature of language
- 1.2 Characteristics of language
- 1.3 Forms of language (oral and written)
- 1.4 Functions of language
- 1.5 Language Acquisition and Language Learning: Types and process: L1, L2 and FL.
- 1.6 Language and learning: Language Across Curriculum
- 1.7 Multilingualism as a Resource

Unit II: Position of English in India

- 1.1 Role and Position of English language in India
- 1.2 Challenges of teaching and learning English in India
- 1.3 NCF-2005 (Language Education)
- 1.4 Objectives of teaching English in India
- 1.5 Description and classification of speech sounds in English: Vowels and Consonants
- 1.6 Segmental features: Phoneme and allophone
- 1.7 Supra-segmental features: accent, stress, intonation and rhythm
- 1.8 Phonemic transcription

Unit III: Acquisition of Language Skills

- 3.1 *Receptive skills: listening and reading skills*
Developing listening skills through storytelling, dialogues, situational conversations, role plays etc. Developing reading skills through Reading Aloud and Silent reading, Intensive & Extensive Reading, Skimming and Scanning
- 3.2 *Productive Skills: speaking and writing*
Developing speaking and writing skills through storytelling, dialogues, situational conversations, role plays etc. Developing writing skills, process, mechanics and steps

of writing: brainstorming, note-making, organizing thoughts, preparing first draft, editing and improving, finalizing. Writing and teaching of letters, applications, reports, stories, e-mails, paragraphs, CV/resume, précis, summary, notes, dialogues etc.

Unit IV: Approaches, Methods and Techniques

- 4.1 Various types of Approaches: Structural-Situational Approach Communicative Approach, Constructivist Approach and Eclectic Approach.
- 4.2 Various types of Methods: Grammar-Translation Method, Bilingual Method, Direct Method etc.
- 4.3 Teaching Different Forms of English Literature: Prose, Poetry and Drama
- 4.4 Lesson planning: Nature, objectives and needs; Lesson planning in prose, poetry and drama at school level.

Unit V: Assessment, Evaluation and Action Research

- 5.1 Concept, Scope and Importance
- 5.2 Types of Assessment and Evaluation
- 5.3 Difference between Assessment and Evaluation
- 5.4 Assessment of Language Skills(LSRW) and Language Content (Sounds, Vocabulary, Structure and Grammar)
- 5.5 Assessment in Poetry, Prose and Drama
- 5.6 Continuous and Comprehensive Evaluation: Concept, Scope and Process
- 5.7 Techniques of evaluation—oral, written, portfolio; cloze test, Self-evaluation; Peer evaluation; Group evaluation.
- 5.8 Type of questions and test items: Assessment Activities and tasks
- 5.9 Action Research-its need, importance, objectives and steps of preparing action research plan related to teaching of English at Elementary level

Language across the Curriculum Activities: As an integral part of teaching-learning process, relevant activities should be carried out to enhance and promote language skills (LSRW) and proficiency based on the rationale of *Language across Curriculum*. The activities in this regard are language centered and, therefore, the focus of learning and teaching activities should be on language skills not necessarily on the content. The activities in this regard may be designed/improvised according to the context. Some of the exemplar activities may include:

- Presentation (Oral and Written) based on themes from the content area
- Debate on themes from the content area
- Panel discussion/Seminar/ discussion etc.
- Group discussion/group work
- Question-answer sessions
- Role play/dramatization
- Extempore speech/Elocution
- Organization of reading/reflection activities beyond the textbooks

(c) Sessional /Practicum/Field work (Any one of the following)

- Observation and recording of practical difficulties in the teaching of English at Elementary level
- Preparing a small dictionary of the difficult words used in the Elementary textbooks.
- Preparing different visual-aids for teaching.
- Framing suitable exercises on a given topic /passage.

- Development of language games
- Preparation of 20 test items (5 each on the LSRW skills).
- Analysing errors committed by Primary students.
- Analysis and categorisation of exercises on grammar as given in the prescribed textbook of the school.
- A write-up on the problems faced by the school students in relation to the acquisition of the receptive (listening and reading) or productive (speaking and writing) skills in English.
- A write-up on the comparison between English and mother tongue/home language in terms of sounds and word-order.
- Selection of materials for writing in English from the newspapers, comics, magazines, advertisements and preparation of an outline for teaching language items.

(d) Suggested Readings:

1. Bansal, R.K. and Harrison, J.B. (1972). *Spoken English for India*. Madras: Orient Longman Ltd.
2. Baruah, T.C. (1985). *The English Teachers' Handbook*. New Delhi: Sterling Publishing Pvt. Ltd.
3. Bright, J. A. and McGregor, G. P. (1970). *Teaching English as Second Language*. London: Longman.
4. Brown, H. Douglas. (2007). *Principles of Language Learning and Teaching*. New York: Pearson Education.
5. Brumfit, C.J. (1984). *Communicative Methodology in Language Teaching*. Cambridge: Cambridge University Press.
6. Doff, A. (1988). *Teaching English*. Cambridge: Cambridge University Press.
7. Freeman, Diane-Larsen. (2000). *Techniques and Principles in language Teaching*. Oxford: Oxford University Press.
8. Gimson, A.C. (1980). *An Introduction to the Pronunciation of English*. London: Edward Arnold.
9. Harmer, Jeremy. (2007). *How to teach English*. Harlow: Pearson Education Limited.
10. Hornby, A.S. (1968). *A Guide to Patterns and Usage in English*. Oxford: Oxford University Press.
11. Krishnaswamy, N. and Krishnaswamy, Lalitha. (2008). *Story of English in India*. New Delhi: Foundation Books.
12. Lado, R. (1971). *Language Teaching*. New Delhi: Tata McGraw Hill Publishing.
13. Mishra, A. K. et al. (2013). *Issues in Education at Elementary Level*. New Delhi: Lakshi Publishers.
14. Paliwal, A.K. (2011). *Methodology of Teaching English as a Second Language*. Jaipur: Kalpana Publication.
15. Palmer, H.L. (1965). *The Principles of Language Study*. London: Oxford University Press.
16. Quirk, R. and Greenbaum, S. (1973). *A University Grammar of English*. London: Pearson Longman.
17. Raimes, Ann. (2010). *Techniques in Teaching Writing*. Oxford: Oxford University Press.
18. Richards, J.C. and Rodgers, T.S. (2014). *Approaches and Methods in language Teaching* Cambridge. Cambridge University Press.
19. Roach, Peter. (1991). *English Phonetics and Phonology*. Cambridge: Cambridge University Press.
20. Sinclair, John. (2000). *Collins Cobuild English Grammar* London: Harper Collins.

21. Yadav, Saryug. (2014). *Challenges of Teaching English Language and Literature in the Age of Globalisation*. New Delhi: Lakshi Publishers.

SC5(ii) -Pedagogy and Assessment of Mathematics

Maximum Marks: 150

Internal: 50

External: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- appreciate the abstract nature of mathematics
- distinguish between science and mathematics
- distinguish between the roles of pure and applied mathematics
- develop the skill of solving real-life problems through mathematical modeling as an art
- develop the understanding of using constructivist approach in mathematics
- develop the skill of using various methods of teaching mathematics
- develop problem solving skills
- highlight the significance of mathematics laboratory
- enable to distinguish between induction and mathematical induction
- develop the skills required for action research in mathematics

b) Course Content

Unit I: Nature, Scope and Objectives of Teaching-learning Mathematics

- Nature and scope of elementary school Mathematics: aims and general objectives of teaching. Mathematics at the elementary school level using instructional objectives in teaching Mathematics/Minimum levels of learning in Mathematics at elementary stage.

Unit II: Psychological Bases and Strategies of Teaching learning Mathematics

- 2.1 Application of learning theories in teaching-learning process of Mathematics.
- 2.2 Learning Processes in Mathematics-implications of the studies of Piaget and Bruner to classroom instruction in Mathematics.

Unit III: Approaches to Teaching-learning Mathematics

- 3.1 Concept formation in Mathematics, Strategies of teaching Mathematical concepts.
- 3.2 Expository and guided-discovery strategies for teaching of Mathematical generalizations.
- 3.3 Strategies of teaching Mathematics through child centered approach-heuristic methods, joyful learning through play way method, development of computation and drawing skills.
- 3.4 Designing mastery learning strategy for teaching based on different units in Arithmetic, Geometry and Mensuration.
- 3.5 CAI Computer Assisted Instruction

Unit IV: Evaluation of Students' Learning in Mathematics

- 4.1 Role of evaluation in the teaching-learning process, evaluation techniques associated with pupils' learning outcomes-observation, oral work, analysis of written work. Testing-types of tests-planning and construction of learning outcome-based achievement tests, criterion referenced test, diagnostic test.
- 4.2 Formative and summative evaluation.

Unit V: Content and Process Enrichment in Elementary School Mathematics

The following topics must be dealt in an integrated way highlighting teaching-learning processes

- 5.1 Sets of numbers and numerals, concept of number, cardinality and ordinality of numbers, sets of number operations and their properties associated with whole numbers, integers and rational numbers, fractions, decimals and their conversion.
- 5.2 Informal geometry: basic concepts in informal geometry-point, line, curve, line segment, ray, angle etc. Concept of perpendicularity and parallelism, circles-radius, diameter, arc. Segment and chord, polygons-classification of polygons.
- 5.3 Measurement of concepts and skills-linear measurements area, volume and weight, metric system, activities for development of skills in measurement.

(c) Sessional /Practicum/Field work (Any one of the following)

- 1. Analysing learning tasks in any one topic in developing diagnostic test items.
- 2. Designing a Mathematical game, puzzles.
- 3. Practical use of Mathematical kits.
- 4. Preparation of five lesson for multi-grade teaching.
- 5. Review of mathematics text book at Primary/Upper Primary level.

(d) Suggested Readings

- 1. Alice F. Art and Eleanor Armaer Thomas. *Becoming a Reflective Mathematics Teacher*.
- 2. Ashlock, R.B. and Herman Jr. W.L. 1970. *Current Research in Elementary School Mathematics*, New York: Macmillan.
- 3. Baur, G.R. and George, L.U. 1976. *Helping Children Learn Mathematics-A Competency Based Laboratory Approach*, California: Commings Publishing Co.
- 4. Baw, G.R. and George, L.U. (1976). *Helping Children Learn Mathematics-A Competency Based Laboratory Approach*. California, Cummings Publishing Co.
- 5. Bhanumurthy, I.S. (1992). *Ancient Indian Mathematics*. Wiley Eastern Ltd, New Delhi.
- 6. Gronlund, N.E., (1990) *Measurement and Evaluation in Teaching*. New York; Macmillan.
- 7. Heimer, R.T. and Trueblood, C.R. (1970) *Strategies for Teaching Children Mathematics;Reading*. Massachusetts: Addison Wesley Publishing Comp.
- 8. Kidd, Kenneth, P. et. al. 1970. *The Laboratory Approach to Mathematics*. Chicago: Science Research Associates.
- 9. Kenneth, Kidd P, et al. (1970). *The Laboratory Approach to Mathematics*. Chicago, Science Research Associates.
- 10. Lieback, Pamela (1984). *How Children Learn Mathematics*. Penguin Books.
- 11. Meimer, R.T. and Trueblood, C.R. 1977. *Strategies for Teaching Children Mathematics*. Reading, Massachusetts: Addison Wesley Publishing Co.
- 12. NCERT 1991, 1995. *Minimum Levels of Learning at Primary Stage*. NCERT, New Delhi.
- 13. NCERT 2000, *National Curriculum Framework for School Education*.
- 14. NCERT 2005, *National Curriculum Framework*, New Delhi
- 15. Resnick, L.B. and W.W. Ford. 1980. *The Psychology of Mathematics for Instruction*. New Jersey: Lawrence Erlbaum Associates.
- 16. Polya, G (1957). *How to Solve it*. 2nd edition, Garden City, N.Y.: Doubleday and Company.
- 17. Polya, G *Mathematical Discovery on Understanding, Learning and Teaching Problem Solving*. John Wiley & Sons.
- 18. Resnick, L.B. and W.W. Ford (1980). *The Psychology of Mathematics for Instruction*. New Jersey: Lawrence Erlbaum Associates.
- 19. Sawyer, W.W. *Mathematics in Theory and Practice*. Udhams Press Ltd, London.

SC5(iii) -Pedagogy and Assessment of EVS/Science

Maximum Marks: 150

Internal: 50

External: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- understand the nature of science as a dynamic, expanding body of knowledge and as a social endeavour;
- understand the difference and complementarity between Science and Technology;
- understand the need to evaluate curricula and evaluate the same on the basis of different validities;
- know about and critically study innovative curricular efforts in India and abroad;
- understand diversity of instructional materials, their role and the need for contextualization in science education;
- appreciate the role of co-curricular activities in science education;
- understand the constructivist approach to science instruction;
- understand the role of assessment in the teaching –learning process in science;
- familiarize with innovative trends in assessment;
- analyze issues in Science education pertaining to equity and access, gender, special groups and ethical aspects.

b) Course Content

Unit I: Nature and Objectives of Teaching Science

- 1.1 Nature of modern science and education.
- 1.2 Trends in teaching science at elementary stage, Integrated Science-conceptual process and environmental approach.
- 1.3 Different approaches adopted for defining educational outcomes – taxonomical approach, product versus process approach, problem solving approach.

Unit II: Curricular support and Resources for Elementary Science

- 2.1 Instructional materials for teaching primary science- text book, activity book, work book, teachers' handbook and reference books.
- 2.2 Resources for teaching primary science-use of environment and community resources.
- 2.3 Construction and use of low-cost, improvised teaching-learning materials (models, charts, pictures, flash cards, A.V. aids etc.), Use of kit and computers.

Unit III: Instructional strategies for Teaching Learning Science

- 3.1 Strategies for teaching elementary science through local specific materials, play-way, enquiry approach, activity, concept mapping.
- 3.2 Project work in science learning
- 3.3 Use of co-curricular activities for science learning.
- 3.4 Instructional strategies for dealing with the gifted children, strategies for dealing with low achievers.

Unit IV: Evaluation of Educational Outcomes

- 4.1 Continuous and Comprehensive Evaluation (CCE) in primary science- its meaning, evaluation based on learning outcomes, Multi-grade set up, summative and formative evaluation.
- 4.2 Art of questioning, role of question in classroom teaching, oral methods of testing, objective based test items.

- 4.3 Diagnostic testing and remedial teaching.
- 4.4 Grading in evaluation

Unit V: Content and Process

The following topics must be dealt in integrated way highlighting teaching-learning processes.

- 5.1 Our body, nutrition and health.
- 5.2 The solar system
- 5.3 Measurement
- 5.4 Important resources-conservation and preservation (water, air, minerals, energy, forest and animals).

(c) Sessional /Practicum/Field work (Any one of the following)

1. Conducting a survey in the neighbour hood school and preparation of a brief report on resources available for teaching EVS/Science.
2. Preparation of an Album/Scrap book on a particular topic/unit.
3. Preparation of five lessons of multi-grade teaching.
4. Reviews of text-book at Primary/upper Primary level.
5. Preparation of diagnostic test on any topic.

(d) Suggested Readings:

1. Anderson, H.O. and Kaushik Paul G 1972 : Towards More Effective Science Instruction in Secondary Education. The MacMillan Co., New York.
2. Anderson, Devito et. al. 1970. Developing Children's Thinking through Science.
3. Arthur, A. Carin, Robert, B. Sund. 1970. Teaching Science through Discovery (2nd Ed.)
4. B.L. Young. 1979. Teaching Primary Science
5. Brown, J. Cooper et. al. (eds.). 1986. Exploring the Curriculum: Science in Schools, The Open University Press.
6. Das, R.C. (1985) Science Teaching in Schools : Sterling Publication, New Delhi
7. D.L. Williams and W.L. Horman. 1971. Current Research in Elementary school Science.
8. Ditte, J. Delgiorno; N.B. Tissair. 1975, Environmental Science Activities-Handbook for Teachers, (Units 2.3, 5.1 etc.).
9. Donald P. Kouchak and Paul D. Baggen. 1989. Learning and Teaching: Research-based Methods.
10. H. Clerk, Hubler. 1974. Science for Children.
11. Kenneth D. George et. al. 1974. Elementary School Science-Why and How?
12. Minkoff, E.C.& Baker, P.J. (2004). *Biology Today: An Issues Approach, garland science*. New York. Pp.1-32. Biology: Science & Ethics.
13. Minkoff, E.C. and Pamela J. Baker (2004). *Biology Today: An issues Approach*. Garland Science New York pp. 1-32, Biology: Science and Ethics.
14. NCERT 1988. National Curriculum for Elementary and Secondary Education-A Framework, New Delhi.
15. NCERT 1991. Minimum Levels of Learning at Primary Stage, New Delhi.
16. NCERT 2000, National Curriculum Framework for School Education.
17. NCERT, *National Curriculum Framework- 2005*, NCERT. New Delhi.
18. NCERT, '*Focus Group Report*' *Teaching of Science* (2005). NCERT New Delhi.
19. Steve Alsop & Keith Hicks (2003). *Teaching Science*. Kogan Page India Private Limited.
20. UNESCO 1980. Handbook for Science Teachers, Paris.

SC5(iv)- Pedagogy and Assessment of EVS/Social Science

Maximum Marks: 150

Internal: 50

External: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Develop an understanding about the meaning, nature, scope of evs/ social sciences.
- Understand the role of various methods and approaches of teaching evs/social sciences
- Effectively use different media, materials and resources for teaching social sciences
- Construct appropriate assessment tools for teaching-learning of social sciences and undertake evaluation.

b) Course Content

Unit I: Nature, Scope and Objectives of Teaching EVS-Social Studies

- 1.1 Meaning, nature and scope of EVS/social studies,
- 1.2 Importance in school curriculum, Modern approaches to social studies-environmental studies.
- 1.3 Aims and objectives of teaching social studies.

Unit II: Instructional Material and Resources for Teaching Elementary EVS/social studies.

- 2.1 Instructional material for teaching elementary EVS/social studies-activity book work book teachers' handbook and self learning material, tryout and improvement of learning material.
- 2.2 Resources for teaching-use of environment, community resources and use of low cost improvised teaching-learning material suiting to different learners and age groups.

Unit III: Approaches of Teaching EVS-Social Studies

- 3.1 Teaching techniques of EVS/social studies-environmental approach, project method, field trip and child centered approach, problem solving, role play, dramatization.
- 3.2 Effective use of technological media and audio-visual aids for teaching environmental studies. Characteristics of an effective social studies/EVS teacher.
- 3.3 Role of co-curricular activities for joyful learning. Organization and management of co-curricular activities like quiz on social issues, exhibitions and fairs, pupils' Parliament, field- trips and excursions.
- 3.4 Promotion of Peace and Harmony, organization of activities.

Unit IV: Evaluation

- 4.1 Importance of evaluation in EVS/social studies, tools and techniques.
- 4.2 Learning outcome-based evaluation-formative and summative evaluation, criterion-referenced tests. Diagnostic tests in social studies/EVS and remedial measures`

Unit V: Content and Process

The following topics must be dealt in an integrated way highlighting teaching-learning processes.

- 5.1 Family, Neighbourhood -physical and human resources, community resources, available, teaching-learning processes

- 5.2 Health and sanitation, basic amenities available, social, cultural and geographic diversities, local crops, vegetation and agriculture system.
- 5.3 Salient features of Indian Constitution, Fundamental Right, Local self-government, human rights of the child, composite culture.
- 5.4 Map reading skills.

(c) Sessional /Practicum/Field work (Any one of the following)

1. Conducting a survey in the neighbourhood and preparation of a brief report on resources available for teaching social studies.
2. Preparation of five lessons for multi-grade teaching.
3. Organization of goal-oriented activities like-quiz, mock parliament, field trip, exhibitions, or any other co-curricular activity in a school.
4. Analysis of a textbook according to the modern criteria.
5. Preparation of an album/scrap book on a particular unit/topic.

(d) Suggested Readings:

1. Arora, G.L. 1988. Curriculum and Quality in Education, NCERT, New Delhi.
2. Ashley Kent, (2001) *Reflective Practice in Geography Teaching*, Paul Chapman Educational Publishing, Ltd.
3. Avijit Pathak, (2002) *Social Implications of Schooling: Knowledge, Pedagogy and Consciousness*, Rainbow Publishers, New Delhi.
4. Avil Robert. 1983. *Man and Environment*, Penguin Books.
5. Binning and Binning. 1952. *Teaching of Social Studies in Secondary Schools*, McGraw Hill, New York.
6. Ferris, J.Pamela (2003), *Elementary and Middle School Social Studies: An Interdisciplinary instructional approach*, McGraw Hills, New York.
7. Jack Zevin, (2000) *Social Studies for the twenty-first century: Methods and materials for teaching in Middle and secondary schools*, Lawrence Erlbaum Associates, Mahwah, New Jersey.
8. James Hemming. 1953. *The Teaching of Social Studies in secondary school*, Longman Green & Co., London.
9. Kochar, S.K. 1970. *Methods of Teaching Social Studies*, New Delhi, Sterling Publishing.
10. Michaelis. 1958. –*Social Studies for Children in a Democracy*, Prentice Hall.
11. NCERT. 1972. *Teaching Units in Social Studies*.
12. NCERT. 1970. *Preparation, Evaluation and Production of Textbooks in Social Studies*.
13. NCERT (1988), *National Curriculum for Elementary and Secondary Education: A Framework*, Revised Edition, National Council of Educational Research and Training, New Delhi.
14. NCERT (2001), *National Curriculum Framework for School Education*, Reprint Edition, National Council of Educational Research and Training, New Delhi.
15. NCERT (2005a) *National Curriculum Framework Review 2005 National Focus Group Position Papers Vol.II, Systemic Reforms (Position Paper on Curriculum, Syllabus and Textbooks)*, National Council of Educational Research and Training, New Delhi.
16. NCERT (2005a) *National Curriculum Framework Review 2005 National Focus Group Position Paper on Curriculum, Syllabus and Textbooks*, National Council of Educational Research and Training, New Delhi.

17. NCERT (2005a) National Curriculum Framework Review 2005 National Focus Group Position Paper on *Teaching of Social Science*, National Council of Educational Research and Training, New Delhi.
18. NCERT (2005b), *National Curriculum Framework 2005*, National Council of Educational Research and Training, New Delhi.
19. NCERT (2006a), *Syllabi for Secondary and Higher Secondary Classes*, National Council of Educational Research and Training, New Delhi.
20. NCERT (2006b), *Syllabus for Classes at the Elementary Level*, National Council of Educational Research and Training, New Delhi.
21. Rajni Kumar, Anil Sethi and Shalini Sikka, (2005) *School Society and Nation: Popular Essays in Education*, Orient Longman, Delhi.

Websites

- www.ncert.nic.in
- <http://www.history.org.uk> (for accessing e-version of teaching history).
- www.epw.in (for accessing e-version of journal of economic and political weekly).
- www.geographyteachingtoday.org.uk
- <http://www.indiana.edu/~econed/> (for accessing e-version of journal of economic education).

Specialization

Group B(II) Pedagogy and Assessment of School Subjects : Secondary Education

5B(i) - Pedagogy and Assessment of Language

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- gain an understanding of the nature, functions and the implications of planning for teaching language/languages
- understand the psychology of language learning
- gain an understanding in the pedagogy of language learning
- study and analyze different approaches, methods and techniques for differentiating between teaching language and teaching literature in the context of first language and second language
- examine various areas of research in language education
- survey various problems with respect to language learning
- identify and reflect on factors affecting language policy.

b) Course Content

Unit I- Conceptual Issues Language Learning

1. Language acquisition and communication -- factors affecting language learning and language acquisitions and communication
2. Linguistic, psychological and social processes involved in learning of languages.
3. Models of Language Acquisition: Chomsky-Language Acquisition Device, Piaget-Cognitive constructivism and Language, recent theorization: intentionality; application of these theories to development of methodologies of teaching-learning of language.

4. Development of language curriculum and the syllabus: dimensions, factors that influence the curriculum, selection and sequencings of content, contexts, transaction and evaluation techniques
5. Development of basic language skills as well as advanced language skills at secondary and senior secondary levels.
6. Innovative techniques for teaching grammar, reading comprehension and written expression
7. Discourse Analysis: Theories of discourse analysis including speech acts, conversational maxims, conversational analysis, ethno-methodology, text analysis, and critical discourse analysis.
8. met linguistic awareness with a focus on listening, speaking, reading, comprehension and writing.

Unit II-Individualization of Language Learning

- Need, techniques, viz. differential assignments, classroom tasks, personalized system of instruction

Unit III- Pedagogy of Languages

- First language
- Second language
- Third language

Unit IV- Teaching Learning of Languages

- Teaching Learning of Languages at secondary and higher secondary level.
- Pedagogical study of languages.

Unit V- Contextual Problem in Language Learning

- Multilingual class room- problem of curriculum text above development. three language for rule constitution provision regarding language, Medium of instruction- recommendations, recommendation of NPE 1986/1992, NCF (2005) preservation of heritage language, home language & school language-problem of tribal dialects

(c) Sessional /Practicum/Field work (Any one of the following)

- The students may undertake any one of the following activities:
- A study of letters, news articles and narratives in the first language to study its organization in terms of both coherence and cohesion of content. Comparison with writings in English.
- Identification of minority languages within their states and discussion of government plans and policies for their preservation and development.
- Seminar on L.1 and L.2 research and theories
- Preparation and execution of action research proposal in any area relevant to improvement of teaching-learning language.
- Preparation and execution of five lessons on multi-grade teaching
- Organization of goal-orientated activities like- quiz, exhibition or any other co-scholastic activity in a school.

d) References

1. Bennett, W.A. (1969). *Aspects of Language and Language Teaching*. Cambridge University Press: London.
2. Braden, K (2006). *Task Based Language Education: From Theory to Practice*. Cambridge University Press.
3. Britton, James (1973). *Language and Learning*. Penguin Books, England.
4. Byrnes, Heidi (2006). *Advanced Language Learning: The Contribution of Halliday and Vygotsky*. Continuum International Publishing Group.
5. Hodges and Rudolf (1972). *Language and Learning to Read – What language teachers should know about language*. Houghton Mifflin Co, Boston.
6. Joyce and Banks (1971) *Teaching the Language Arts to Culturally Different Children*. Addison – Wesky, Pub Co., London.
7. Krashen, Stephen (1988). *Second Language Acquisition and Second Language Learning*. Prentice Hall International.
8. Martinovic, Tic (2004). *Discourse Across Languages and Cultures*. John Benjamins Publishing Company.
9. Ornstein, Jacob (1971). *Programmed Instruction and Education Technology in Language Teaching Field - New Approaches to Old Problems*. The Centre for Curriculum Development Inc, Philadelphia.
10. Osherson, N Daniel & Howard Lasnik (1990). *Language an Introduction to Cognitive Science: - Vol.1*, Massachusetts Institute of Technology, USA.
11. Pavelenko. Aneta et al (2001). *Multilingualism, Second Language Learning and Gender*. Walter de' Gruyter GmbH & Co. KG, Berlin.
12. Schiffrin, Deborah. et. al.(2001). *The Handbook of Discourse Analyses*. Blackwell Publishing.
13. Vygotsky, L.S. (1985). *Thought and Language*. Cambridge, MA: The MIT Press.
14. Wilkinson, Andrew. (1971). *The Foundations of Language*. Oxford University Press: London.

5B(II) - PEDAGOGY AND ASSESSMENT OF MATHEMATICS

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- appreciate the abstract nature of mathematics
- distinguish between science and mathematics
- distinguish between the roles of pure and applied mathematics
- develop the skill of solving real-life problems through mathematical modelling as an art
- develop the understanding of using constructivist approach in mathematics
- develop the skill of using various methods of teaching mathematics
- develop problem solving skills
- highlight the significance of mathematics laboratory
- enable to distinguish between induction and mathematical induction
- develop the skills required for action research in mathematics

b) Course Content

Unit I- Nature, Development and Significance of Mathematics

- Abstractness of mathematics; Distinction between mathematics and science; Distinct roles of pure and applied Mathematics; mathematization ; aesthetic aspect of mathematic; historical development of mathematical concepts with some famous anecdotes such as Gauss, Ramanujan, etc.; teaching of mathematical modelling

Unit II- Objectives and Strategies of Teaching-learning mathematics Aims and

- Objectives of teaching mathematics at various school levels, Instructional objectives in teaching mathematics; constructivist approach in teaching of mathematics; methods of teaching Mathematics- inductive and deductive methods, analytic and synthetic methods; problem solving skills- stages in problem solving techniques to improve problem solving skills (Polya method); competence based approach in teaching mathematics; teaching gifted/Slow learners in mathematics, pedagogical analysis of mathematics, reflective discussion Recreational aspect of mathematics- mathematical games, puzzles and amusements; computer aided learning and computer based instructions; Use and preparation of teaching aids; mathematics Laboratory and mathematics club

Unit III- Curriculum of Mathematics

- Principle for curriculum development in mathematics Education.
- Mathematics curriculum at different stages of school education-at secondary, senior secondary.
- Instructional materials including textbook: contextualization, criteria and concerns.
- Integrating Co-curricular activities with mathematics education.
- Approaches to organization of mathematics curriculum at various stages of school education.

Unit IV- Structure of Mathematics

- Undefined terms and axioms; proofs and verification in mathematics and distinction between them; types of theorems such as existence and uniqueness theorems etc.; types of proofs- direct proofs, indirect proofs, proof by contradiction, proof by exhaustion, proof by mathematical induction and distinction between induction and mathematical induction; role of examples, counter examples and non-examples in mathematics; conjectures; scope and limitations of Intuition in mathematics; Sets and Venn diagrams as a representative of mathematical properties and their relations

Unit V- Evaluation in Mathematics

- Concept of evaluation in teaching- learning process (formative, summative, criterion, diagnostic); Types of mistakes in mathematics, their identification and analysis with a purpose of preventing and remedial measures; Types of test items in mathematics such as long answer type, short answer type, very short answer type and objective type; planning and construction of such items and precautions taken while constructing test items; action research in mathematics

(c) Sessional /Practicum/Field work (Any one of the following)

- Assignment on construction of test items
- Analysis of famous quotations on mathematics Class Test
- Organization of Group puzzles activities and preparation of its report

- Preparation and demonstration of teaching aids

d) References

1. Alice F. Art and Eleanan Armaer Thomas. *Becoming a Reflective Mathematics Teacher*.
2. Baw, G.R. and George, L.U. (1976). *Helping Children Learn Mathematics-A Competency Based Laboratory Approach*. California, Cummings Publishing Co.
3. Bhanumurthy, I.S. (1992). *Ancient Indian Mathematics*. Wiley Eastern Ltd, New Delhi.
4. Gronlund, N.E., (1990) *Measurement and Evaluation in Teaching*. New York; Macmillan.
5. Heimer, R.T. and Trueblood, C.R. (1970) *Strategies for Teaching Children Mathematics; Reading*. Massachusetts: Addison Wesley Publishing C
6. Kenneth, Kidd P, et al. (1970). *The Laboratory Approach to Mathematics*. Chicago, Science Research Associates.
7. Lieback, Pamela (1984). *How Children Learn Mathematics*. Penguin Books.
8. Polya, G (1957). *How to Solve it*. 2nd edition, Garden City, N.Y.: Doubleday and Company.
9. Polya, G *Mathematical Discovery on Understanding, Learning and Teaching Problem Solving*. John Wiley & Sons.
10. Resonik, L.B. and W.W. Ford (1980). *The Psychology of Mathematics for Instruction*. New Jersey: Lawrence Erlbaum Associates.
11. Sawyer, W.W. *Mathematics in Theory and Practice*. Udams Press Ltd, London.

5B(iii) PEDAGOGY AND ASSESSMENT OF SCIENCE

Maximum Marks: 150

Internal: 50

External: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- understand the nature of science as a dynamic, expanding body of knowledge and as a social endeavor;
- understand the difference and complementarity between Science and Technology;
- understand the need to evaluate curricula and evaluate the same on the basis of different validities;
- know about and critically study innovative curricular efforts in India and abroad;
- understand diversity of instructional materials, their role and the need for contextualization in science education;
- appreciate the role of co-curricular activities in science education;
- understand the constructivist approach to science instruction;
- understand the role of assessment in the teaching –learning process in science;
- familiarize with innovative trends in assessment;
- analyze issues in Science education pertaining to equity and access, gender, special groups and ethical aspects.

b) Course Content

Unit I - Nature of Science

- Evolution of science as a discipline, science as a dynamic expanding body of knowledge; development of scientific knowledge; scientific methods explanations.
- Science and technology, complementarities between science and technology; Science and Mathematics and their complementarities, role of mathematics in Science.
- Common misconceptions of pupils about the nature of science; characteristics of different disciplines of science, their interrelationship and integration.

Unit II -Curriculum of Science Education

- Trends in science education from the beginning of the nineteenth century to the present- at national and international level;
- Criteria of validity of science curriculum: content, ethical environmental, process, cognitive, historical
- Taxonomy for curriculum development in Science Education.
- Science curriculum at secondary and senior secondary stages.
- Instructional materials including textbook: Internet, contextualisation, criteria and concerns including all stakeholders in their development.
- Integrating scholastic activities with science education.

Unit III- Approaches to Teaching-Learning of Science

- Approaches to concept learning, conceptual change model (reconstructing alternative concepts in science).
- Constructivist paradigm and its implications for science learning:
- Constructivist approaches to science learning: inquiry method, Heuristic method problem solving strategies, concept development investigatory approach, guided discovery approach; inductive method, project based learning, planning different types of projects, cooperative, collaborative learning, learner centred activity-based participatory learning, role of experiments in science, integration of theories and experiments in science: development of laboratory design, planning and organisation of laboratory work reporting skills, procedural knowledge, improvisation in the laboratory and low cost science experiments, Encouraging and respecting children responses, introducing alternative approaches in science learning, integrating science across different disciplines and with real life situations. Reflective enquiry. Metacognitive strategies-giving space to pupils to think, organize their knowledge and express teacher as a reflective practitioner.
- Use of ICT in teaching-learning of science pedagogical analysis of science at secondary level.

Unit IV-Assessment and Evaluation in Science Education

- continues and comprehensive evaluation in science
- Assessment of affective measures in science: use of tools and techniques such as observation, rating scale, check-list, anecdotal records, attitude scales, interest inventories and interviews.
- Self-assessment by students and by teachers, peer assessment, assessment of teachers by students.
- Planning and assessment of portfolios in science learning.
- Assessment of curricular activities; assessment of content knowledge through activities and experiments, assessment of laboratory skills.

Unit V- Contemporary Issues in Science Education

- Contribution of women in science
- Scientific and technological Literacy.
- Ethical aspects of science.
- Innovations and Creativity in Science.

(c) Sessional /Practicum/Field work (Any one of the following)

- A critical study of any two discoveries selected from different areas of science to illustrate the importance of history of science i.e. discovery of the electron; the development of electromagnetism, theory of evolution, Newtonian calculus and its importance to Physics, thermodynamics.
- Development of a unit plan:
- Develop an action plan on an experiment for development of physical science concept.
- Development of a Vee map for a selected experiment in Physics, Chemistry or Biology and using it to conduct practicals in the laboratory;
- Development of a concept map of a selected topic in Physics/Chemistry/Biology;
- Development of a lesson design based on constructivist approach in a collaborative mode;
- Preparation of low-cost and no cost teaching aids and studying their effectiveness in a classroom transaction
- Prepare and experiment on an action plan for use of ICT multimedia in teaching concepts of physics.
- Development of criteria for evaluation of laboratory work and using it in the laboratory.
- An action plan for adopting a multisensory approach to teach science to students with special needs.
- Seminar on contribution of women to science and their implications to women empowerment.
- Visit to science centre/science museum and presenting the report
- Development of an action plan for organization of a science exhibition at different levels, framing guideline on a selected theme and various sub-themes.

□

d) References

1. Alan J. McCormack. *Trends and Issues in Science curriculum in Science Curriculum Resource Handbook: A practical guide to k12 science curriculum*. Kraus International Publications
2. Bhanumathi, S. (1994) *Small Scale Chemical Techniques – Chemistry Education* (April-June) 20-25.
3. Black, P (1998). *Testing: Triend or Foe? Theory and practice of Assessment and Testing*. Falmer Press, London.
4. Carey, S. (1986). *Cognitive Science and Science Education*. American Psychologist. 41 (10), 1123-1130
5. Chalmers, A. (1999). *What is the thing called Science*.3rd Ed. Open University Press, Buckingham.
6. Driver. R, Leach. J, Millar. R and Scott, P. (1996). *Young Peoples' Image of Science*. Open University Press, Buckingham.
7. Gipps, C.V. (1994). *Beyond Testing*. Falmer Press, London.
8. International Journal of Science Education.

9. Journal of Research in Science Teaching (Wiley-Blackwell).
10. Minkoff, E.C.& Baker, P.J. (2004). *Biology Today: An Issues Approach*, garland science. New York. Pp.1-32. Biology: Science & Ethics.
11. Minkoff, E.C. and Pamela J. Baker (2004). *Biology Today: An issues Approach*. Garland Science New York pp. 1-32, Biology: Science and Ethics.
12. NCERT, *National Curriculum Framework- 2005*, NCERT. New Delhi.
13. NCERT, '*Focus Group Report Teaching of Science* (2005). NCERT New Delhi.
14. Novak, J.D. & Gown, D.B. (1984). *Learning how to learn*; Cambridge University Press.
15. Science & Children (NSTA's peer reviewed journal for elementary teachers).
16. Science Teacher (NSTA's peer reviewed journal for secondary science teachers).
17. Steve Alsop & Keith Hicks (2003). *Teaching Science*. Kogan Page India Private Limited.
18. Sutton, C. (1992). *Words, Science and Learning*. Open University Press, Buckingham.

5B(iv) - PEDAGOGY AND ASSESSMENT OF SOCIAL SCIENCE

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Develop an understanding about the meaning, nature, scope of social sciences and social science education
- to find out the distinction and overlap between social sciences, humanities and liberal arts
- Understand the role of various methods and approaches of teaching social sciences
- Employ appropriate for transaction of social science curriculum.
- Effectively use different media, materials and resources for teaching social sciences
- Construct appropriate assessment tools for teaching-learning of social sciences and undertake evaluation

b) Course Content

Unit I – Conceptualisation of Social Science Education

- Concept, nature, and scope of social sciences: existing approaches of teaching-learning of social sciences;
- Epistemological frame proposed in educational policy documents and various national curriculum frameworks concerning teaching-learning of social sciences.
- Place of social sciences in school curriculum; aims and objectives of teaching social sciences at various stages of school education
- Research perspectives in pedagogy of social science education.

Unit II –Social Science Curriculum

- Approaches to organisation of social science curriculum; social science curriculum at various stages of school education
- Methodology of development of curricular materials viz., textbooks, workbooks, teacher handbooks, teacher's education manuals, other content enrichment materials – their conceptualization and processes;

Unit III – Approaches to Pedagogy of Social Science

- Critical appraisal of approaches to teaching learning social sciences – behaviourist approach; constructivist approach; inter disciplinary approach, integrated approach; child-centred approach; environmental approach; the overlap between these approaches
- Critical appraisal of various teaching learning strategies viz., lecture cum-discussion, project method, investigative project, field survey problem solving, role-play, appraisal, field visits and case studies; action research etc.
- Critical appreciation of various learning-strategies - SQ3R (Survey, Questioning, Reading, Recite and Review), RAFT (Role, Audience, Format and Topic), Discussion and graphic organizers; cooperative learning
- pedagogical analysis of social science

Unit IV- Media, Materials and Resources for Teaching-Learning of Social Science.

- Effective use of e-media, print media and audio-visual materials for social science;
- Integration of ICT in teaching-learning of social science. development of teaching-learning materials; workbook; activity book and self instructional materials.
- Effective utilization of resources for teaching social science textbooks and supplementary materials; literature and biographies, environment and community resources;
- Development of low cost improvised teaching aids.

Unit V – Assessment and Evaluation in Social Science Education

- Competency based evaluation, continuous and comprehensive evaluation; formative and summative evaluation, diagnostic test and remediation; assessment tools; construction of achievement test
- Alternative assessment: rubrics, portfolios and projects
- Typology of questions as related to different subject areas viz., History, Geography, Political Science, Economics and Commerce etc.
- Evaluation of attitudes, values, and its disposition etc.

(c) Sessional /Practicum/Field work (Any one of the following)

- Assignment / term paper on selected themes from the course and presentation in the seminar.
- Application of specific methods of teaching-learning during field experience
- Development of questions and achievement tests in social science subjects
- Preparation and teaching two lessons using integrated approach of teaching social science.
- Conducting a survey in the neighbourhood and preparation of a brief report on the resources available for teaching social science and presentation
- Organization of activities like quiz, mock-parliament, field trips, exhibitions and any other co-curricular activities in schools
- Analysis of a social science syllabus or a textbook of a stage/class

d) References

1. Alan J Singer (2003), *Social Studies for Secondary Schools: Teaching to learn, learning to teach*, Lawrence Erlbaum Associates, Mahwah, New Jersey.
2. Arora, GL (1988), *Curriculum and Quality in Education*, NCERT, New Delhi.

3. Ashley Kent, (2001) *Reflective Practice in Geography Teaching*, Paul Chapman Educational Publishing, Ltd.
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5. Binning and Binning (1952), *Teaching Social Studies in Secondary Schools*, McGraw Hills, New York.
6. David Lambert and David Balderstone (2000), *Learning to Teach Geography in Secondary School: A Companion to School Experience*, Routledge Falmer, London.
7. Digumarti Bhaskara Rao (ed.), *Techniques of Teaching Social Sciences*, Sonali Publications, Delhi.
8. Digumarti Bhaskara Rao and Ranga Rao (2007), *Techniques of Teaching Economics*, Sonali Publications, New Delhi.
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10. GOI (1993), *Learning Without Burden: Report of the National Advisory Committee appointed by the Ministry of Human Resource Development, Department of Education*, New Delhi.
11. GOI (2005), *Regulatory Mechanisms for Textbooks and Parallel Textbooks Taught in Schools Outside the Government System: A Report*, Committee of the Central Advisory Board of Education, Ministry of Human Resource Development, New Delhi.
12. Indian Economic Association Trust for Research and Development (1991), *Teaching of Economics in India*, Interest Publications, New Delhi.
13. Jack Zevin, (2000) *Social Studies for the twenty-first century: Methods and materials for teaching in Middle and secondary schools*, Lawrence Erlbaum Associates, Mahwah, New Jersey.
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15. Krishna Kumar, (2002), *Prejudice and Pride*, Penguin Books India, Delhi.
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19. NCERT (1988), *National Curriculum for Elementary and Secondary Education: A Framework*, Revised Edition, National Council of Educational Research and Training, New Delhi.
20. NCERT (2001), *National Curriculum Framework for School Education*, Reprint Edition, National Council of Educational Research and Training, New Delhi.
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23. NCERT (2005a) *National Curriculum Framework Review 2005 National Focus Group Position Paper on Teaching of Social Science*, National Council of Educational Research and Training, New Delhi.

24. NCERT (2005b), *National Curriculum Framework 2005*, National Council of Educational Research and Training, New Delhi.
25. NCERT (2006a), *Syllabi for Secondary and Higher Secondary Classes*, National Council of Educational Research and Training, New Delhi.
26. NCERT (2006b), *Syllabus for Classes at the Elementary Level*, National Council of Educational Research and Training, New Delhi.
27. Rajni Kumar, Anil Sethi and Shalini Sikka, (2005) *School Society and Nation: Popular Essays in Education*, Orient Longman Delhi
28. Williams E. Becker, Michael Watts and Suzanne R. Becker (2006) *Teaching Economics: More alternatives to chalk and Talk*, Edward Elgar Publishing, Northampton, USA.

M.ED. SECOND YEAR

CC 6: Qualitative Educational Research

Maximum Marks: 150

Internal: 50

External: 100

Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Understand concept, Characteristics & Themes of Qualitative Research.
- Examine different types of qualitative research and their characteristics.
- Examine the concept of Qualitative Research.
- Develop a tool which allows for the evaluation and data collection of Qualitative Research
- Design a framework or outline of Qualitative Research.
- Investigate appropriate methods of data analysis.
- Explain the processes of Qualitative Research
- Explain how to plan the research project of Qualitative Research.

b) Course Content

Unit I: Introduction to Qualitative Research

- Meaning, concept and types of Qualitative Research.
- Qualitative Research: Characteristics, issues, concerns & major approaches
- Relevance of Qualitative Research in education.
- Qualitative Research in education: Retrospect and prospect.
- Themes of Qualitative Research & research question.

Unit II- Methods of Qualitative research

- Content & Trend analysis: Meaning, concept, assumption, and steps.
- Issues of reliability and validity of Discourse analysis.
- Case Study: Meaning, concept, assumption, and steps.
- Historical Research-Meaning, significance, steps, elementary and secondary sources of information, external and internal criticism of the source.

Unit III : Approaches of Qualitative research

- Qualitative research approaches- Ethnography, Case studies and Grounded theory
Ethnography : Meaning, types, purpose, steps and common terms used by Ethnographers
Grounded theory : Goals, perspectives, Methods and steps of Ethnography theory.
- Phenomenology : Meaning, concept, assumption, and steps

Unit IV- Data Analysis in Qualitative Research

- Characteristics and applications
- Criticism of historical data
- Coding of qualitative data – Axial coding, Selective coding
- Methods of qualitative data analysis—content analysis, logical and inductive analysis, illustrative method; analogies.
- Meta analysis & Triangulation of data.

Unit V- Reporting and Evaluation in Qualitative Research

- Concept and Meaning of Evaluation or Analysing of Data in Qualitative Research
- Strategies of data Interpretation in Qualitative Research
- Concept and meaning of reporting of the data in Qualitative Research
- Steps of preparing a report of the data in Qualitative Research

(c) Sessional /Practicum/Field work (Any one of the following)

- Identify five qualitative research problems and prepare at least five research questions for each with clear research title.
- Make a research strategy. Decide the types of questions you will be asking. You might add your own, based on another source. Also, you might use more than one in order to cover your topic.
- Make a chart or diagram of the different threads to your research considering the different perspectives you will be using to study them.(use three perspectives i.e. Strategies, data collection/analysis, and approaches.)
- A critical analysis of the scope, merits and limitations of various approaches of research in Elementary Education /Secondary Education.
- Review the sort of data you will be collecting and the type of analysis you will want to subject them to. Do they fall into one or the other category? Recognize the difference and explain, how can you recognize the difference?
- Make a list of the likely skills that you will need to learn and practise before you can carry out various stages in your research plan.
- Selection of a problem and developing a research synopsis.
- Plan & preparation of Qualitative Research proposal.
- Review of research report with regard to - Title or statement of the problem - Approach/Design - Research Hypothesis/Research Questions - Sampling - Tools - Statistical Techniques.

d) References

1. Anfara, Vincent & Mertz Norma T. (2006). Theoretical Frameworks in Qualitative Research. SAGE Publication.
2. Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd. Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.
3. Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.
4. Elliott, Jane (2005).Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.
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10. Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi : Vikas Publications.
11. Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall
12. Lichtman, Marilyn (2006). Qualitative Research in Education-A User Guide. SAGE Publication.
13. Srivastava, G.N.P. (1994) Advanced Research Methodology, New Delhi : Radha Publications.
14. Sidhu, K.S. (1987) Methodology of Research in Education, New Delhi: Sterling Publishers Pvt. Ltd.
15. Travers, R.M.W. (1969) An Introduction to Educational Research, New Delhi: Sterling Publishers Pvt. Ltd.
16. Van, Dalen, Debonald, B. and Meyer, William J. (1979) Understanding Educational Research: An Introduction, New York: McGraw Hill Co.
17. Salkind, N.J. (2006). Exploring Research (Sixth Edition) NJ: Pearson Prentice Hall.
18. Wiersma, W.(2000). Research Methods in Education. (7th edition) Allyn & Bacon.
19. Willis, Jerry W. (2007). Foundations of Qualitative Research: Interpretive and Critical Approaches. SAGE Publication.

CC7 : Quantitative Educational Research

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Understand concept, Characteristics & Themes of Quantitative educational Research.
- Examine different types of Quantitative educational Research and their characteristics.
- Examine the concept of Quantitative educational Research.
- Develop a tool which allows for the evaluation and data collection of Quantitative educational Research.
- Design a framework or outline of Quantitative educational Research.
- Investigate appropriate methods of quantitative data analysis.
- Explain the processes of Quantitative educational Research.
- Explain how to plan the research project of Quantitative educational Research.

b) Course Content

Unit I: Introduction to Quantitative Research

- Quantitative Research: Meaning, concept, steps and characteristics.
- Nature, scope and trends of quantitative research
- Relevance of Quantitative Research in education.

Unit II : Research Data: Sources and Collection.

Sources of educational data: Individual, Institutions, Documents, Census, Journals, Books, Schools of thought etc.

Sampling techniques: Concept, need, probability and non-probability samples, sampling errors and their control.

Techniques and Tools of data collection: Observation, interview, questionnaire, scale, inventory, checklist, content analysis.

Unit III- Quantitative Methods of Research

- Experimental Research: Meaning, concept, Nature of experimental research, Variables in experimental research independent, dependent and confounding variables; ways to manipulate an independent variable, purpose and methods of control of confounding variables.
- Descriptive studies: assessment, evaluation, and research.
- Follow-up study and The post Hoc fallacy
- Action Research: Meaning, concept, importance and strategies.

Unit IV- Quantitative Research Designing:

- Experimental Research designs: Single-Group Pre-test-Post-test Design, Pre-test-Post-test Control-Group Design, Post-test only Control-Group Design, and Factorial Design
- Quasi-Experimental Designs: Non-equivalent Comparison Group Design, and Time-Series Design
- Internal and external validity of results in experimental research
- Non- Experimental Research
- Steps in Non- Experimental Research
- Simple cases of Casual-Comparative and Correlational research; necessary conditions for causation
- Techniques of control: matching, holding the extraneous variable constant and statistical control
- Classification by Time: Cross-sectional, Longitudinal (Trend and Panel studies), and Retrospective; and classification by research objectives Descriptive, Predictive and Explanatory.

Unit V- Data Analysis in Quantitative Research

- Student's Distribution & homogeneity of variances
- Analysis of Variances: Concept and procedure.
- Partial and multiple Correlation
- Multiple regression and their use in educational research.
- Research report of Quantitative Research

(c) Sessional /Practicum/Field work (Any one of the following)

- Identify five quantitative research problems and prepare at least five research questions for each with clear research title.
- A critical analysis of the scope, merits and limitations of various approaches of Quantitative research.

- Make a chart or diagram of the different threads to your research considering the different perspectives you will be using to study them. (Use three perspectives i.e. Strategies, data collection/analysis, and approaches.)
- Identify an experimental educational research problem and prepare their research designing with justification□
- Review of Quantitative research report with regard to - Title or statement of the problem - Approach/Design - Research Hypothesis/Research Questions - Sampling - Tools - Statistical Techniques.
- Preparation, administration and interpretation of any one tool i.e. observation, interview, questionnaire etc.
- Select any one classroom based action research problem and prepare an action plan of its resolution.
- Workshop on Data Analysis in Quantitative Research.

d) References

1. Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd.
2. Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.
3. □Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.
4. □ Elliott, Jane (2005).Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.
5. □Fraenkel, J.R., Wallen, N.E. (1983) How to Design and Evaluate Research in Education, Singapore: McGraw Hill, Inc.
6. Gravetter. F.J. & Wallanau, C.B. (2002). Essentials of Statistics for the Behavioural Sciences (4th edition) Australia, Wodsworth.
7. Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi: Deep and Deep Publisher.
8. Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York: Holt, Rinehart and Winston.
9. Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi: Vikas Publications.
10. Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall
11. Srivastava, G.N.P. (1994) Advanced Research Methodology, New Delhi: Radha Publications.

Theory Courses

CC 8: Psychology of Learning

Maximum Marks: 150

Internal: 50

External: 100

- (a) Learning Outcomes: After completion of the course, student-teachers will be able to:-
- develop an understanding of the learning process and its implications for teaching;
 - develop the concept that motivation (intrinsic and extrinsic) is basic to all teaching-learning processes;
 - examine the implications of learning principles for classroom management; and
 - develop skill in the interpretation of data gathered under 'sessional work'.

(b) Course Content

Unit I: Theories of Learning

- 1.1 Meaning of learning—behaviouristic and cognitive views.
- 1.2 Conditioning: operant conditioning—behaviour modification principles.
- 1.3 Social learning—social behaviour and role modelling, role of reinforcement (motivation) in learning.
- 1.4 Lewin's cognitive field theory.
- 1.5 Bruner's discovery learning.
- 1.6 Gagne's conditions of learning.

Unit II: Motivation

- 2.1 Meaning and concept of motivation.
- 2.2 Mclelland's concept of achievement motivation; Rotter's attribution theory.
- 2.3 Factors affecting motivation for learning and teaching.

Unit III: Instructional Strategies

- 3.1 Ausubel's advance organizer model.
- 3.2 Task analysis, mastery learning.
- 3.3 Adjunct questions, chunking, concept mapping and cooperative learning.

Unit IV: Theories of Learning

- 4.1 Meaning of learning- behaviouristic and cognitive views, factors affecting learning, Lewin's field theory.
- 4.2 Social learning-social behaviour and role modelling.
- 4.3 Self regulated learning: metacognition and its importance in learning.
- 4.4 Constructivism and learning.

Unit V: Classroom Management

- 4.1 Principles of classroom management; social climate of the class.
- 4.2 Behavioural approach and Glasser's approach to classroom management.
- 4.3 Management of deviant behaviour, token economy, group behaviour, group and individual contracts and home based contingencies managing children with learning difficulties.

(c) Sessional /Practicum/Field work (Any one of the following)

- Each student is required to submit one term paper based on review of studies or data gathered using psychological tests on any one unit dealt in the paper. It should be an original work and need not exceed 20 pages.

(d) Suggested Readings

1. Anand, S. P. (1994). *ABC's of Guidance in Education*. Pathankot : Unique Publishers.
2. Bigge, M. L. (1982). *Learning Theories for Teachers*. (4th Edn.). Harper and Row, New York.
3. Bower, G. H. and Hilgard, E. R. (1981). *Theories of Learning*. Prentice Hall, Inc. Englewood Cliffs, New-Jersey.
4. Bruner, R. F. (1978). *Psychology Applied to Teaching*. Bosten: Houghton Mifflin.
5. Chauhan, S.S. (2002). *Advanced Educational Psychology*.
6. Dandapani, S. (2001) *Advanced educational psychology, (2nd edition)*, New Delhi, Anmol publications pvt Ltd.
7. Dececo, J. P. (1977). *The Psychology of Learning and Instruction*. Prentice Hall, Delhi.
8. Engler, B. *Personality Theories: An Introduction*. Houghton Mifflin Company, Boston.
9. Eson, M. E. (1972). *Psychological foundation of Education*. N. Y. Holt, Rinehart and Winston, Inc.

10. Gagne, R. M. *The Conditions of Learning* (4th Edn.). New York: Holt, Rinehart and Winston.
11. Grammage, P. (1990). *Teacher and Pupil: Some Socio-Psychological Principles and Applications* (3rd Edn.). Illinois: Scott, Epressman Little, Brown Higher Education.
12. Grammage, P. (1971). *Teacher and Pupil: Some Socio Psychological Aspects*. Pcutledge and Kegan.
13. Guilford, J. P. (1967). *Nature of Human Intelligence*. New York : McGraw Hill.

Specialization Group A - Elementary Education

SC 9EE (i): Preparation of Elementary Teacher : Pre-service and In-service

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- gain insight into the need and objectives of elementary teacher education;
- understand the development of elementary teacher education in post-independent India;
- gain insight into the existing pre-service teacher education programmes and their organizational aspects;
- develop understanding of the needs, importance and existing practices of in-service education of teachers and functionaries associated with elementary education;
- develop understanding of status of elementary teachers and the problems and issues related to professional growth; and
- reflect on the trends of research in elementary teacher education.

b) Course Content

Unit I: Objectives and Development of Elementary Teacher Education

- 1.1 Teaching as a profession; role and functions of elementary school teachers in the present context.
- 1.2 Development of Elementary Teacher Education (ETE) during the post-independence period and its future.
- 1.3 Need, concept and objectives of ETE.
- 1.4 Role, functions and networking of different organizations/ agencies involved in Elementary Teacher Education: (a) NCERT (b) NUEPA (c) NCTE (d) SCERT (e) DIET:

Unit II: Pre-service Elementary Teacher Education

- 2.1 Need, importance and objectives of Pre-service ETE.
- 2.2 Various organizational aspects of pre-service ETE — duration of the course, admission criteria, enrolment building and equipment, examination and certification.
- 2.3 Structure of ETE curriculum and bases of its construction.
- 2.4 School Experience Programme- concept, objectives, prevalent practices and modern trends; organization, supervision and evaluation of school experience programme.
- 2.5 Alternative modes of pre-service ETE-one year, two\year and four year integrated: course structure, and efficacy.

Unit III: In-service Elementary Teacher Education

- 3.1 Need, importance and modes of in-service ETE in India.

- 3.2 Centrally sponsored schemes for in-service education of elementary teachers—PMOST, SOPT: course structure, mode of transaction, monitoring and evaluation.
- 3.3 Training models: three, two and single tier models—merits and demerits.
- 3.4 Emerging structures for in-service elementary teachers—block resource centres, cluster resource centres, their need and functions.

Unit IV: Problems and Issues of Elementary Teacher Education

- 4.1 Admission policies and procedures.
- 4.2 Integration of theory and practice.
- 4.3 Relationship of ETE institutions with the school and community.
- 4.4 Preparation of teachers for special subjects such as art, craft, music and physical education and teachers for differently abled children.
- 4.5 Issues related to professional development of teacher educators and teachers.
- 4.6 Issues related to professional ethics of teachers and its observance.
- 4.7 Issues related to updating teacher competence.

Unit V: Research in Elementary Education and Teacher Education

- 5.1 Discussion of a few recent research studies in elementary education and elementary teacher education with reference to: need, theme, design, findings and policy implications.

(c) Sessional /Practicum/Field work (Any one of the following)

Each student is required to submit one term paper based on critical review or field study on any topic dealt in the paper.

(d) Suggested Readings

1. Adaval, S. B. and others (1984). *An Analytical Study of Teacher Education in India*, Amitabh Parkashan, Allahabad.
2. Buch, M. B. and Palsane, M. N. (1968). *Readings in In-service Education*, Vallabh Vidyanagar, Sardar Patel University.
3. Buch, M. B. (Ed.) (1974). *First Survey of Research in Education*, CASE, Baroda.
4. CASE, (1978). *Second Survey of Research in Education*, 1978-83.
5. Chopra, R. K. (1992). *Status of Teachers in India*, NCERT.
6. Chopra, R. K. (ed.) (1991). *Ubherte Bhartiya Samaj Mein Shikshak Aur Shiksha*, NCERT.
7. Chaurasia, G. (1967). *New Era in Teacher Education*, Sterling Publication, Delhi.
8. Govt. of India (1992). *National Policy on Education (Revised)*, MHRD, New Delhi.
9. Jangira, N. K. (1979). *Teacher Training and Teacher Effectiveness : An Experiment in Teacher Education*, National Publishing House, New Delhi.
10. Jangira, N.K. (1984). *Professional Enculturation: Innovative. Experiments in Teaching and Training*, Bookwork of India, New Delhi.
11. Jangira, N. K. and Ajit Singh (1982). *Core Teaching Skills : Micro Teaching Approach*, NCERT, New Delhi.
12. NCERT (1987). *Third Survey of Research in Education*.
13. NCERT (1991). *Fourth Survey of Research in Education*, 1983-88.
14. NCERT (1991). *Elementary Teacher Education Curriculum-Guidelines and Syllabi*.
15. NCERT (1988). *Teacher and Education in the Emerging Indian Society. A Textbook for Elementary Teacher Education*.
16. NCERT (1977). *Second National Survey of Teacher Education at Elementary Level*, New Delhi.

17. NCERT (1986). Report of the Working Group on Inservice Education of Teachers, NCTE.
18. NCERT (1988). Inservice Teacher Education Package Vol. New Delhi.
19. NCERT (1995). SOFT—Self Instructional Package for Special Orientation Programme for Primary School Teachers.
20. NCERT (1989). Admission Procedure for Teacher Education Institutions, NCTE.
21. NCERT (2005): National Curriculum Framework, New Delhi.
22. NCTE, (2004): Teacher Education Curriculum, New Delhi.
23. NCERT (2005): Position paper on Teacher Education for Curricular Renewal, New Delhi.
24. Naik, J. P. (1975). Elementary Education in India: A Promise to Keep.
25. Pandey, B. N. and D. N. Khosla (1974). Student Teaching and Evaluation, NCERT, New Delhi.
26. Shukla, R. S. (1978). Emerging Trends in Teacher Education, Chugh Publication, Allahabad.
27. Singh, L. C. (1995). Teacher Education and the Teacher, Vikas Publishing House, Maszid Road, Jangpura, New Delhi.
28. Singh, L. C. Multiple Models of Teaching for Educators: Vikas Publishing House, Maszid Road, Jangpura, New Delhi
29. Srivastava, R. C. and Bose, K. (1978). Theory and Practice of Teacher Education in India, Allahabad: Chugh Publications.
30. UNESCO (2006): Teachers and Educational Quality: Monitoring Global Needs for 2015. UNESCO Publication. Montreal.

Specialization

Paper 10EE (ii): Planning and Management of Elementary Education

Maximum Marks: 150

Internal: 50

External: 100

(a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- concept and process of planning and management, and the emerging thrust areas in elementary education;
- understanding about different agencies working in the field of elementary education and the current projects in elementary education;
- develop the necessary competencies for planning and management, and for formulating strategies to meet the emerging issues on elementary education; and
- develop research insight in the field of planning and management of elementary education.

(b) Course Content

Unit I: Planning

- 1.1 Concept and need of educational planning.
- 1.2 Levels of planning—macro and micro levels.
- 1.3 Issues related to planning at national, state, district, block and lab area levels.

Unit II: Management of Elementary Education

- 2.1 Basics of educational management—principles of educational management process (a) responsibility (b) delegation of authority (c) span of control (d) decision making; and (e) communication, Organizational structures and functions of national, state and

district level Institutions i.e. MHRD, NCERT, RIE, SCERT and DIET and their networking.

- 2.2 Management Information System (MIS). Role and functions Monitoring of the elementary education programmes at different levels.

Unit III: Policy and Issues in Elementary Education: Strategies and Programmes

- 3.1 Universalization of elementary education—policy and issues related to enrolment, retention, updating teacher competencies and achievement; Role of government and non-government organizations in UEE. (Discussion using Kothari Commission, NIE, POA and Ramamurthy Committee reports)
- 3.2 Minimum Levels of Learning (MLLs)—need, concept and strategies for their implementation and the emerging issues.
- 3.3 Equity perspective—education of girl child, disadvantaged group and working children and the emerging policy concerns.

Unit IV: Projects and Researches in Elementary Education

- 4.1 District Primary Education Programme (DPEP), Lokjumbhish, Shiksha Karmi, Manila Samakhaya and Basic Education Project UP and Bihar Primary Education Project, SSA-their organisational structures, programmes, targets attained and emerging issues.

Unit V: Researches in Elementary Education

- 5.1 Researches in elementary education including other ongoing projects. Discussions based on recent research studies in terms of themes, research questions, design, findings and policy implications.

(c) Sessional /Practicum/Field work (Any one of the following)

- Each student is required to submit one term paper based on critical review or field study on any topic dealt in the paper.

(d) Suggested Readings

1. Alien, L. A. (1995). *Management and Organization*. McGraw Hill, Auckland.
2. Aram M. (1989), *Micro Planning at Village Level*, NIEPA, New Delhi.
3. Azia, A. (1983). *Studies in Block Planning. Concept*, New Delhi.
4. Bell, L. (1988). *Management Skills in Primary Schools*, Routledge, U. K.
5. Dubhashi, P. R. (1963). *Crammer of Planning*, Indian Institute of Public Administration, New Delhi.
6. Education Commission (1966). *Education and National Development*, Report, NCERT, New Delhi.
7. Government of India (1986). *National Policy on Education*, MHRD, New Delhi.
8. Government of India (1987). *Programme of Action*, MHRD, New Delhi.
9. Government of India (1990). *Report of the Committee for Review of National Policy on Education*, 1986 Chairman, Ramamurti, MHRD, New Delhi.
10. Hooja, R. and P. C. Mathur (eds.) (1991). *District and Decentralised Planning*, Rawat, Jaipur.
11. Jha, Jyotsna, Saxena, K.B.C. & Baxi, C.V. (2001): *Management Processes in Elementary Education: A Study of Existing Practices in Selected States in India*. New Delhi, the European Commission.
12. Kabra, K. M. (1977). *Planning Process in a District*, Indian Institute of Public Administration, New Delhi.
13. Kapoor, M. M. and K. Premi (1988). *Development and Maintenance of School Facilities*, Concept, New Delhi.
14. Koontz, Harold et. al. (1981). *Management*, McGraw Hill, Auckland.
15. Koontz, O'Dennell and Weihrich (1982). *Essentials of Management*, Tata McGraw Hill, New Delhi.

16. Kurrian, J. (1993). *Elementary Education in India*. Vikas, New Delhi.
17. Mathur, S.P. (2001): *Financial Administration and Management*. The Indian Publications, India.
18. Mishra, G. K. J. and J. S. Sodhi (1987). *Block Level Planning*, Rawat, Jaipur.
19. Mukhopadadyay, Mamar & Tyagi, R.S. (2005): *Governance of School Education in India*. New Delhi, NIEPA.
20. Newman, W. H. et. al. (1974). *The Process of Management Concepts, Behaviour and Practice*, Prentice Hall of India, New Delhi.
21. Ramcharan Padma & R. Vasantha (2005): *Education in India*. New Delhi, National Book Trust.
23. Singhal, R. P. (1983). *Revitalizing School Complexes in India*, Concept, New Delhi.
23. Srivastava, U. K. et. al. (1983). *Qualitative Techniques for Managerial Decision Making*, Wiley Eastern, New Delhi.
24. Tilak, J. B. (1992). *Educational Planning at Grass Roots*, New Delhi.

Specialization Group B : Secondary Education
SC 9 SE(i) PREPARATION OF SECONDARY AND SENIOR SECONDARY
TEACHERS: PRE-SERVICE AND IN-SERVICE

Maximum Marks: 150

Internal: 50

External: 100

Learning Outcomes: After completion of the course, student-teachers will be able to:-

- understand the nature-scope and systems of secondary and senior secondary education
- understand the problem and challenges related to secondary and senior secondary education
- understand the interventions to solve the problems and issues related to alternative schooling at secondary schools.
- identify the problems issues of secondary school teachers
- Visualize the impact of Rights of children to free and Compulsory Education Act, 2009 to universalization of Secondary Education
- Understand the nature of education for multiple intelligence
- Understand the modalities of secondary education management information system
- examine the nature and objectives of teacher education
- critically examine the growth and development of teacher education in the country
- appraise the existing teacher education curriculum from the standpoint of its relevance to the demands of present day school curriculum
- use various methods and techniques for transaction of curriculum, identification of training needs, the evaluation of in-service teacher education programmes,
- develop understanding regarding organization and supervision School Experience Programme
- critically examine the role and contribution of various Regulatory Bodies and support institutions for improving quality of Teacher Education.
- develop understanding of various strategies of teachers' professional development
- gain insight into the status of teachers in-service education in the country
- develop understanding of the process of in-service teacher education,
- reflect on issues, concerns and problems of teacher in-service education of the teachers.
- appreciate the use of ICT for the professional development of the teachers.

b) Course Content

UNIT-I: Secondary And Senior Secondary Education- Introduction

- (A) Nature, Scope, function and systems of Secondary and Senior Secondary Education
- (B) Exposure to integrated and subject specific streams guidelines ; and counselling strategies to meet changing physiological and sociological requirements.
- (C) Education for Multiple Intelligence.

UNIT-II: Problems And Challenges Of Secondary Education

- (A) Problems and challenges related to universalization of Secondary Education
- (B) Problems and Strategies of Alternative Schooling at Secondary Stage
- (C) Problems / challenges / strategies / intervention in relation to access enrolment, dropout, achievement equality of Educational opportunities, Problems of education for girls, disadvantaged and differently abled children and slow learners and interventions to solve the problem
- (D) Classroom problems- discipline, under achievement, lack of motivation, slow learners, delinquency and maladjustment
- (E) Issues of quality management in secondary and senior secondary education
- (F) System of secondary education- State and District Level.

UNIT-III: Teacher Education In India At Secondary And Senior Secondary Level

- (A) Pre-Service and In-service Teacher Education: concept, nature, objectives and scope.
- (B) Development of teacher education in India at secondary and senior secondary level, recommendations of various commissions and committees concerning teacher education system. Impact of NPE1986 and its POA on teacher education system.
- (C) The Centrally Sponsored Scheme for the Reconstructing and Strengthening of Teacher Education Institutions at secondary level:
- (D) Issues, concerns and problems of pre-service and in-service teacher education at secondary and senior secondary level.

UNIT-IV: Secondary Education Management Information System (Semis)

- (A) Structure of MIS School mapping at secondary level
- (B) Course- mapping at senior secondary level
- (C) Interactive technologies-teleconferencing, e-learning, designing of e-content.
- (D) EDUSAT for teacher professional development programme.
- (E) Challenges and limitations of interactive technologies for INSET.

UNIT-V: Role of Various Agencies

- (A) Roles and functions of IASEs, CTE.
- (B) Roles, functions and networking of institutions like UGC, NCERT. NCTE. NUEPA, CABE, etc.
- (C) RBSE and CBSE

(c) Sessional /Practicum/Field work (Any one of the following)

- Preparing status report on secondary education in a chosen block/district with reference to enrolment, equity and achievement
- Preparing a report on the existing status of the teachers, method of recruitment and salary structure
- Visits of different types of secondary schools and preparation of school profiles

- Conduct interview with teachers/students/parents of different schools and prepare a report on problems of secondary education.
- Observation of in-service teacher education programme at secondary level and preparation of a report

d) References-

1. Beck, Clive & Clark Kosnik Albany (2006): Innovations in Teacher Education: A Social Constructivist approach. State University of York.
2. Cohen Louis, Minion Lawrence & Morrison, Keith (2004). A Guide to Teaching Practice (5th edition). Rout ledge Falmer. London and New York.
3. Day, C. & J. Sachs, J. (Ed.) (2004): International Handbook on the Continuing Professional Development of Teachers. Maidenhead, Brinks Open University Press
4. Govt. of India, MHRD (2005). Universalisation of Secondary Education : Report of the CABE Committee, New Delhi References
5. Herne Steve, Jessel John & Griffith, Jenny (2000). Study to Teach: A Guide to Studying in Teacher Education. Rout ledge Falmer. London and New York.
6. Korthagen, Fred A.J.et al; (2001): Linking Practice and Theory: The Pedagogy of Realistic Teacher Education. Lawrence Erlbaum Associates.
7. Linda Darling, Harmmond & John Bransford (2005): Preparing Teachers for a changing World. John Wiley & Son Francisco.
8. Loughran, John (2006): Developing a Pedagogy of Teacher education : Understanding Teaching and Learning about Teaching. Routledge: New York.
9. Mohammad Miyan (2004). Professionalisation of Teacher Education. Mittal Publications. New Delhi.
10. National Curriculum Frameworks for Teacher education, 2009
11. National Policy of Education 1986/1992.
12. National Curriculum Framework on school education, 2005
13. NCTE (1998). Competency Based and Commitment Oriented Teacher Education for Quality School education: Pre-Service Education. New Delhi.
14. NCTE. (1998). Policy Perspective in Teacher Education- Critique and Documentation. NCTE New Delhi.
15. NCERT (2005): Position paper on Teacher Education for Curricular Renewal, New Delhi.
16. Rao, Digumarti Bhaskara (1998). Teacher Education in India. Discovery Publishing House. New Delhi.
17. Reimers, Eleonora Villegas (2003): Teacher Professional *development: an international review of the literature*. UNESCO: IIEP, Paris.
18. Report of the Education Commission (1964-66).
19. Report of the National Commission on Teachers (1983-85).
20. Report of the Delors Commission, UNESCO, 1996
21. Siddiqui, M.A. (1993). *In-Service Education of Teachers*. NCERT. New Delhi.
22. The Reflective Teacher: Organization of In-service Training of the Teachers of Elementary Schools under SSA, Guidelines, 2006 by NCERT.
23. UNESCO (2006): Teachers and Educational Quality: Monitoring Global Needs for 2015. UNESCO Publication. Montreal.
24. Yadav, M.S. & Lakshmi, T.K.S. (2003): Conceptual inputs for Secondary Teacher Education: The instructional Role. India, NCTE.

SC 10 SE (ii) Curriculum and Evaluation at Secondary and Senior Secondary Level

Maximum Marks: 150

Internal: 50

External: 100

a) Learning Outcomes: After completion of the course, student-teachers will be able to:-

- develop an understanding of underlying principles of curriculum development and evaluation at Secondary and Senior Secondary Stage
- Understands the role of ICT in transaction.
- develop research insight for curriculum development in Secondary and Senior Secondary education.
- understand the nature and uses of different types of tools and techniques of evaluation in education
- acquire the skill to construct the achievement and diagnostic tests administer the tests and interpret the best scores and its implication to students and parents
- undertake action research and interpret the results

b) Course Content

UNIT- I: Principles Of School Curriculum Development At Secondary And Senior Secondary Level

- (A) Concept, components and determinants of curriculum; principles of curriculum construction, criteria for selection and organisation of content and learning activities; designing integrated and interdisciplinary learning experiences at different levels
- (B) Perspectives to curriculum transaction and their synthesis – behaviouristic, cognitive and constructivist; evaluation of curriculum – formative and summative; its relevance to NCF, 2005 and autonomy in developing curriculum with regard to local specific issues and challenges

UNIT-II: Teachers And Curriculum Transaction Strategies

- (A) Thematic & Constructivism base of curriculum
- (B) Joyful learning, Teachers and Pedagogical Attributes
- (C) Research in curriculum
- (D) Life skill education & creativity
- (E) Analysis of Secondary Education Curriculum
- (F) Role of I.C.T.
- (G) Research Trends in Secondary and Senior Secondary Education.
- (H) Critical appraisal of present Secondary School curriculum in the state.

UNIT- III: Assessment And Evaluation At Secondary School Level.

- (A) Meaning nature and functions of evaluation & assessment, difference between assessment and evaluation, testing, appraisal and examination, Types of assessment - formative, diagnostic and summative assessment.
- (B) New trends in evaluation – grading , internal assessment, CCE
- (C) Critical appraisal of the present evaluation system at secondary school level.

UNIT- IV : Tools Of Evaluation

- (A) Testing and Non-testing tools of evaluation-essay type, short answer and objective types of achievement test, observation, interview, rating scale, check list, attitude scale, interest inventories, socio-metric techniques, anecdotal records, question bank, grading.

- (B) Characteristics of good test-objectivity, reliability, validity, usability, written, oral and observation, planning of tests; content-analysis, writing objective in behavioural terms; construction of blue-print of test writing of test items; assembling the test items and writing directions; planning key/scheme of evaluation; tryout and item analysis, difficulty value and discrimination power, construction of a diagnostic test-steps and guidelines
- (C) Construction of Achievement test, objective types, short answer type, multiple choice type, essay, interpretation of test results - norm-referenced and criterion-referenced, use of tests.

UNIT- V : Assessment Process

- (A) Pupil Assessment Techniques
- (B) Concept of Evaluation & CCE
- (C) Types of evaluation
- (D) Diagnostic testing& remedial teaching
- (E) Student records
- (F) Cumulative records
- (G) Progress reports, grading system,
- (c) **Sessional /Practicum/Field work** (Any one of the following)
- Evaluation of assessment process in any school and write about its merit and demerits
 - Construct an Achievement test, administer it and analyse the items.
 - Critical analysis of a curriculum of any one subject Curriculum of your own choice.
 - Visit CTE/IASE of your district to review on types and trends of research, actual practices in the institution and prepare a report on variation, between national or international trend (if any)
 - Conduct continuous and comprehensive evaluation in scholastic and non-scholastic areas and write your experiences.

d) References-

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SYLLABUS

**SCHEME OF EXAMINATION
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FACULTY OF EDUCATION

M.Ed. PROGRAMME

FIRST YEAR EXAMINATION - 2017

SECOND YEAR EXAMINATION - 2018

(Regional Institute of Education, NCERT, Ajmer)

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