GYAN PRAKASH COLLEGE OF EDUCATION

(UNDER THE AEGIS OF GYAN PRAKASH EDUCATIONAL SOCIETY, GAYA)

AT.-CHIRAILA, P.O.-KHARHARI (MANPUR), DIST.-GAYA (BIHAR) PIN-805131

Recognised by NCTE (Govt. Of India) & Permanent Affiliated Of Magadh University, Bodh -Gaya(Bihar)

Ref. No	Date
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Gyan Prakash College of Education



Program learning outcomes (PLOs)

After completion of the B.Ed. program, the student teacher will be able to-

- PLO 1 Acquire conceptual tools of sociological analysis and hands-on experience of engaging with diverse communities, children and schools
- PLO 2 Apply knowledge of various aspects of development of learner for planning learning experiences
- PLO 3: Understand basic concepts and ideas of educational theory.
- PLO 4: Build understanding and perspective on the nature of the learner, diversity and learning.
- PLO 5: Comprehend the role of the systems of governance and structural functional provisions that support school education.
- PLO 6: Develop understanding about teaching, pedagogy, school management and community involvement.
- PLO7: Build skills and abilities of communication, reflection, art, aesthetics, theatre, self-expression and ICT.
- PLO 8 Develop skills regarding various role of teacher in facilitating learning
- PLO 9 Develop a conceptual understanding about issues of diversity, inequality and Marginalization in Indian society and the implications for education
- PLO 10 Apply constructivist and cooperative learning principles for teaching-learning process



- > PLO 11 Analyze contexts and the relationship between school curriculum, policy and learning
- ▶ PLO 12 Apply knowledge of the cultures, policies and practices that need to create an inclusive school
- > PLO 13 Use information and communication technology for enhancing learning-teaching process
- ▶ PLO 14 Use drama and art for development of personality of learners
- ▶ PLO 15 Relate knowledge about gender, school and society with learning
- ▶ PLO 16 Acquire basic understanding about new trends in education
- ➤ PLO 17 Develop professional attitude towards teaching



Course Learning Outcomes (CLOs)

SYLLABUS AND SCHEME OF EXAMINATION ORDINANCES FOR TWO-YEAR B. Ed. (SECONDARY)

I. Scheme of Study:

1st Year ANNUAL DISTRIBUTION OF THE COURSES

Course No.	Course Name	Credit	Theory	Practicum	Full
					Marks
Course 1	Childhood and Growing Up	4	80	20	100 marks
Course 2	Contemporary India and Education	4	80	20	100 marks
Course 3	Learning and Teaching	4	80	20	100 marks
Course 4	Language across the Curriculum	2	40	10	50 marks
Course 5	Understanding Disciplines and Subjects	2	40	10	50marks
Course 6	Gender, School and Society	2	40	10	50 marks
Course 7a	Pedagogy of a School Subject –Part I	2	40	10	50 marks
Course EPC 1	Reading and Reflecting on Texts	2	40	10	50 marks
Course EPC 2	Drama and Art in Education	2	40	10	50 marks

Course EPC 3	Critical Understanding of ICT	2	40	10	50 marks
	Total-	26			650 marks

^{*} Engagement with the Field: Tasks and Assignments for Courses 1-6 & 7a.



2nd Year ANNUAL DISTRIBUTION OF THE COURSES

Course No.	Course Name	Credit	Theory	Practicum	Full
					Marks
Course 7b	Pedagogy of a School Subject –Part II	2	40	10	50 marks
Course 8	Knowledge and Curriculum	4	80	20	100 marks
Course 9	Assessment for Learning	4	80	20	100 marks
Course 10	Creating an Inclusive School	2	40	10	50 marks
Course 11	Optional Course*	2	40	10	50 marks
Course EPC 4	Understanding the Self	2	40	10	50 marks
School Interns	hip	10			250 marks
Total-		26			650 marks

^{*} Engagement with the Field: Tasks and Assignments for Courses 7b & 8-10.

Note:

- a. 1/2 indicates a half paper which is allocated both half the time of effective hours per week and also half the marks assigned to a full paper.
- b. *Optional Courses can be from among the following Vocational/Work Education, Health and Physical Education, Peace Education, Guidance and Counseling, etc. and can also be an Additional Pedagogy Course**(for a school subject other than that chosen for Course 7(a & b) at the secondary level, or the same school subject at the higher secondary level).
- **Teacher Education institutes/university departments can make arrangements to offer an additional pedagogy course for:
- (i) A second school subject at the secondary level for interested student-teachers who have undertaken adequate number of courses in that subject during their graduation or
- (ii) The same school subject as in Course 7 but at the higher secondary level for student-teachers with a post-graduate degree in that subject.

II. Examination:



^{*} One credit is equal to 16hours for theory and for practicum 32hours.

- To be permitted to appear in the examination for the Degree of the Bachelor of Education (B.Ed.) a candidate must have :
 - I. Completed the courses of study prescribed for the B.Ed. Programme.
 - II. Registered with Magadh University as a student.
 - III. Having completed 80% attendance in theory classes and 90% in school internship and practicum of the total classes held.
 - IV. The course must be completed in a maximum of three years from the date of admission to the programme.
- A candidate for Bachelor of Education degree shall be examined in eighteen paper carrying total of 1300 marks.
 - (a) There shall be four core papers carrying 100 marks each (80 marks for Theory & 20 marks for Internal assessment)
 - (b) There shall be ten core papers carrying 50 marks each (40 marks for Theory & 10 marks for Internal assessment)
 - (c) There shall be two papers of pedagogy of School subject (PSS), carrying 50 marks each (40 marks for Theory & 10 marks for Internal assessment)
 - (d) There shall be one optional course to be offered in areas such as Vocational/
 Work Education, Health and Physical Education, Peace Education, Guidance and
 Counseling or an additional pedagogy course carrying 50 marks (40 marks for
 Theory & 10 marks for Internal assessment)
 - (e) There shall be School Internship programme for 250 marks. The marks shall be awarded on the basis of overall performance of the student-teachers in the school during Internship programme. The institution shall maintain cumulative record of activities of each student-teacher during Internship programme for the assessment of overall performance.
- The written examination in each of the theoretical core papers, pedagogy of School subject & elective papers shall be of three hours duration.



- For the evaluation of School Internship programme there shall be provision of one external examination to be conducted by the University after completion of School Internship programme.
- The medium of examination of course shall be Hindi/English/Urdu.
- Courses of study for Bachelor of Education examination shall be the same as prescribed by the Academic Council of Magadh University.
- A candidate who having completed the course, fails to appear at the examination or fails to pass the examination shall be allowed to take subsequent examination on payment of prescribed examination fee without being required to complete the course again. However, this opportunity shall be given only in one more examination, within a period not exceeding three years from the date of admission.
- A candidate shall be allowed to appear in the final examination of Bachelor of Education course only if he/she clears the 1st, 2nd & 3rd semester examination. If he/she fails to clear the 1st, 2nd & 3rd semester examination within the stipulated period of three years from the date of admission he/she will not be allowed to appear in the final (4th semester) examination.

Award of Degree:

Those who complete the programme successfully shall be awarded Bachelor of Education degree by Magadh University, Bodh Gaya in prescribed format specifying the Class/Division/ Grade in which he/she was placed.



1st Year COURSE 1: CHILDHOOD AND GROWING UP

Course Credit: 4 Full Marks: 100

Exam Duration: 3 Hours : 80

Practicum: 20

Objectives:

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

- To develop understanding about children of different age groups through close observation and interaction with children from diverse socio-economic and cultural background.
- To enable student teacher to arrive at an understanding of how different socio-political relation construct different childhoods & Community.
- To bring together theories of child development and crucial aspects from the construct of childhood, which has political, social & cultural dimensions?
- To interact with children using activities as a base to establish rapport.
- To critically understand how students and teacher observations relate to the theories they have learned & also to situate their learning s in realistic frames.
- To interpose how gender, caste and social class may impact the lined experiments of children.

Course Content:

UNIT 1: Childhood

- Childhood: Historical and contemporary perspectives, Theoretical perspectives on childhood stages.
- Study childhoods in family, schools, neighborhoods and community.



- Theories of childhood in different social economic and cultural setting. Growing up in rural and urban setting, growing up as a girl and growing up in marginalized community.
- Gender development: Meaning of gender roles; influences on gender roles, stereotypes, gender in the play-ground.
- Assumption of notions of childhood with special focus on Bihar: children in difficult circumstances, Reading about childhood from diverse contexts and engaging with children, engage the children with lived realities in various mean (Bio-graphic, Stories, narration of different cultures).
- Looking at ideas of work and childhood: child Rights and related debates.

<u>UNIT 2: Child Development & Adolescence</u>

- Meaning, principles, characteristics of growth and development of physical, mental social and emotional aspects during early childhood.
- Growing up in different cultures.
- Adolescence in different cultures, impact of urbanization and economic change in his experience.
- Growing up as Adolesents impact religion socio-cultural context, media of gender, class and in poverty media.
- Childhood and adolescence. Problems of Indian adolescents and role of teacher, family and community.

UNIT 3: Perspectives in Development

- Introduction to development: concept and introduction to perspectives in development, humanistic psychology and developmental theory.
- Enduring themes in the study of development: development as multidimensional and plural;



Development as continuing through the life span; ways in which development is continuous/discontinuous; sociocultural contexts influencing development.

• Gathering data about children from different contexts: naturalistic observations; interviews; reflective journals about children; anecdotal records and narratives; clinical methods with reference to Piaget.

UNIT 4: Social, Emotional & Language Development

- Social development:
 - Role of family, peers and school in social development
 - Role of competition, discipline, reward and punishment in social development
- Development of emotions, functions of emotions
- Development of Speech and Language
 - Stages of language development
 - Factors in language development
 - Uses of language: Turn taking, interactions, and conversations, listening.
 - Socio-cultural variations in language: accents, differences in communication,
 - Linguistic variation, implications for a multicultural classroom.
 - Bilingual or multilingual children: implications for teachers- multilingual
 - Classrooms; storytelling as a pedagogic tool.

UNIT 5: Children in Their Natural Settings



- Observation about children by Parent and Teacher.
- Impact of urbanization & economic change in his construction and experience.
- Children in their natural settings; (Play, Community Setting) using activities as a base to establish rapport children and childhood, their growth up in a realistic context, observation.
- Impact of gender caste, social class, urbanization and economic change for the lived experience of children.
- Concept and processes of socialization: Ecological theory of Bronfen Brenner.
- Individual difference among children: socio-cultural and economic context: process of socialization; creativity.
- Relationships with peers: friendships and gender; competition and cooperation, competition and conflict; aggression and bullying during childhood.

Mode of Transaction:

- Classroom discussions for developing conceptual understanding.
- Close reading of text material/research papers.
- Individual and group presentations of issues and concerns raised in assignments, and Theoretical and practical activities/exercises/investigations; analysis interpretation of collated observations, systematic data.



COURSE 2: CONTEMPORARY INDIA AND EDUCATION

Course Credit : 4 Full Marks :100

Exam Duration: 3 Hours : 80

Practicum: 20

Objectives:

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

— To enable student teachers to engage with studies on Indian society & education.

 To acquire conceptual tools of sociological analysis and hands on experience of engaging with diverse communities, children & schools.

 To respect diversity and at the same time establish frameworks for collective living and resolution of tensions peacefully & justly.

— To understand critically the constitutional values related to the aims of education.

— To make them understand the policy frameworks for public education in India.

Course Content:

UNIT 1: Diversity Inequality and Marginalization

- Diversity inequality and Marginalization in the society and the implications for education.
- Concept of social diversity and its enrichment in life challenges for universal education (NCERT 2006, 2006b, 2006c, 2006d).
- Diversity at the level of individual of regions, languages, religions, caste, tribes etc.
- Spread of modern education in colonial and post-independence periods.
- Diverse communities and individuals Education and Role in grooming children to



respect diversity.

- Establish frameworks for collective living and resolution of tensions peaceful and justly.
- Education of marginalized groups like women Dalit s and tribal people.

UNIT 2: Universalization of Secondary Education

- Constitutional provisions
- Policies and programmes for realizing the constitutional obligations
- Right to education and its implications for universalization of secondary education (USE).
- Impact of realizing the UEE on secondary education: access, enrolment, participation and Achievement; status of USE.
- USE: issues and concerns.
- Lessons from implementation of UEE.
- Strategies for realization of targets.

UNIT 3: Study of Constitution & Education

- Study of Constitution especially the preamble for the fundamentals Rights, Duties of citizens and the directive principles of state policies.
- Constitutional values related to aims of education.
- Concepts relating to inequality, discrimination marginalization in universalization of Education.
- Nationalist critique of colonial education and experiments with alternatives.
- The fulfillment of the constitutional promise of freedom, justice, equality and



fraternity.

- Currency Research on multilingual education, medium of schooling, Development of three language formulae.
- Constitutional provisions and the colonial debates on school language Policies.

UNIT 4: Quality in Education

- What is "quality education" ?
- Indicators of quality: related to learning environment, Student Outcomes.
- Outcome improvement through: Setting standards for performance; supporting inputs known to improve achievement, Adopting flexible strategies for the acquisition and use of inputs, and Monitoring performance.
- Envisioning school management and organization for quality Education: school building, classroom practices role of Educational institution.

UNIT 5: Study of Different Commissions and Policies

- Wardha commission 1937: Basic Education.
- Kothari commissions (1966) recommendations and their implementation Mudaliar commission (1951-53).
- National Policy of Education (NPE), 1986 & its review, 1992.
- Liberalization & Globalization of Indian economy.
- Review of mid-day-meal programme & the role of legislative action to ensure nutrition.
- Different policies implementation and shaping of school education: NCF 2005,
 BCF -2008, NCFTE -2010.



- RMSA and Sarva Shiksha Abhiyan towards enrolling and retaining marginalized children.
- The role of agency of teachers in the content of universal and inclusive education.
- Common school system report: (chapter on teacher).

Mode of Transaction:

- Teachers should incorporate discussions, projects, documentaries, movies and fields based projects
- Close and critical reading, as well as analysis of various articles, policy documents, texts, documentaries, movies should be developed
- In a group, student-teacher should conduct field based projects, and be able to analytically document their findings
- Dialogue and discussions has to be the key for the transaction of this course.



COURSE 3: LEARNING AND TEACHING

Course Credit : 4 Full Marks : 100

Exam Duration: 3 Hours : 80

Practicum: 20

Objectives:

- To reflect on and critique notions of learning and teaching that they have formed from their own experience, and to move beyond them.

- To understand learning socio-cultural & cognitive process.
- To understand the learner, learning in and out of school.
- To understand culturally responsive teaching approaches they support learning.
- To enable them to realize values, personal relationships between teacher and learners, relationship among the learner themselves, autonomy, self-esteem & freedom experienced by them.
- To appreciate that all teaching is directed at learning and they the learner is out the heart of the teaching.
- To explore the activity of teaching in a formal setting, and appreciate it as a contextually located, highly complex enterprise that cannot be reduced to techniques.

Course Content:

A. LEARNING

UNIT 1: Understanding the learner and Learning Process

- Understanding the learner, knowledge, skills, values, belief, attitudes and habits of learning.
- Learning as a process and learning as an outcome.
- Learning from Psychology, philosophy, sociology and languages, learning from



own experiences and move beyond them.

- Socio cultural & Cognitive Processes of learning.
- Autonomy, self- esteem and freedom experience by learners.



UNIT 2: Learning in and out of School

- Types of learning: Factual, Associations, conceptual, procedural, generalisation, principles and rules, attitude values and skills.
- Current theories of learning (Piaget, vigotsky, 1977 Erlwanger, 1973).
- Curiosity, interest, active engagement and inquiry in learning at all levels.
- Learning as construction of knowledge learning in school & outside of school.
- Notion of learning as construction of knowledge (NCERT, 2005).
- Relationship between teachers & learners and learning themselves.

UNIT 3: Learning and Motivation

Learning: Meaning, factors influencing learning related to learner, teacher, process and task. Concepts of learner, Teaching, Learning, Instruction freedom and Autonomy.

Learning Theories: Trial and Error, Conditioned-response, Insight and their educational implications. Transfer of learning meaning, theories, transfer of learning from classroom to actual life situations. Pedagogic principles of organizing learning; Behavioristic, cognitive and Humanistic.

Motivation: Concept of motivation, Theories of motivation, teaching of motivating children in classroom situations. Attention, motivation and readiness as factors influencing scholastic learning.

UNIT 4: Understanding Teaching

- Teaching as a planned activity elements of planning.
- Assumptions underlying teaching and their influence on the planning for teaching.
- Phases of teaching: pre-active, interactive and post-active.



- Proficiency in teaching meaning and place of awareness, skills, competencies and commitment.
- The general and subject related skills and competencies required in teaching.
- Impact of one's own socialization processes, awareness of one's own shifting identities as "student, "adult, and "student teacher, and their influences on becoming a teacher.
- Teacher s professional identity-what does it entail?
- An analysis of teacher roles and functions in the three phases: pre-active phase- visualizing; decision-making on outcomes, preparing and organization; interactive phase-facilitating and managing learning; post-active phase-assessment of learning outcomes, reflecting on pre-active, interactive and post-active processes.

UNIT 5: Teaching as a Profession

- Teaching as a complex activity.
- Analyzing teaching in diverse classrooms.
- Teaching approaches that support learning (Ladson Billings, 1995, Plato, 2009).
- Activity of teaching informal setting (carr, 2005 chapter; Lampest, 2001).
- Teaching as a Profession.
- Teaching on their beliefs & practices.
- Multiple responsibilities in institution alised setting.
- Need & opportunities for professional growth of teacher.



COURSE 4: LANGUAGE ACROSS THE CURRICULUM

Course Credit : 2 Full Marks : 50

Exam Duration: 1 hrs. 30 min. Theory: 40

Practicum: 10

Objectives:

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

- To enable them to understand students language background and know how oral and written language can be used in the classroom to ensure optimal learning of the subject area.
- To be familiar with theoretical issues, and to develop competence in analyzing current school practices and coming up with appropriate alternatives.
- To create sensitivity to the language diversity that exists in the classrooms.
- To understand multilingualism in the classroom.
- To understand the nature of classroom disclosure and develop strategies for using oral language in the classroom in a manner they promote learning in the subject area.
- To understand the nature of reading comprehension in the content areas (informational reading) and writing specifier content areas.
- To analyze children s writing to understand their concepts; writing with a sense of purpose-writing to lesson and understand.

UNIT 1: Language and Literary

- Background of students Influence classroom Interaction.
- Literacy, Oral and Written language used in classroom to ensure optimal learning of the subject area.
- Develop Strategies for using oral language for the classroom to promote learning in the subject area.
- Oral language in class-room as a tool for learning.
- Pedagogical decisions and nature of students learning.
- Reading comprehension.

UNIT 2: Language Diversity & Multilingualism

- The home language and school language. The power dynamics of the standard language as the school language vs. home language or dialects. Deficit theory (Eter, 1989). Discontinuity theory.
- Nature of questioning in the classroom, types of questions, teacher control (Thwaite & Rivalland, 2009).
- Constitutional Provisions about Language
- Language Diversity: In the Context of India
- Multilingualism as a Resource and a Strategy
- Multilingual Classroom: A Case Study

UNIT 3: Language across the Curriculum



- Function of language: in the classroom, outside the class room
- Language in education and Curriculum
- Learning language and learning through language

UNIT 4: Language Classroom

- Introduction
- Aims and Objectives of Language Teaching
- Current Language Teaching-learning Processes and their Analysis
- Organizing Language Classroom
- Role of the Teacher
- Role of Errors

UNIT 5: Developing Language Skills

- Developing Listening and Speaking skills: Dialogue, Storytelling, Poem Recitation, Short play
- Reading an expository text; strategies; comprehension; activating schema;
- Building schema; reading to learn; acquisition of registers
- Beyond the textbook: diverse forms of texts as materials for language
- Relationship of Language and Society: Identity, power and discrimination
- Nature of multilingualism: hierarchical status of Indian languages and its
- Critiquing state policies on language and education
- Developing Writing Skills



• Linkages between reading and writing

Mode of Transaction

- Close and critical reading of selective texts under "discussion reading in small groups
- ❖ Participatory transaction by building them around responses of students
- ❖ Giving students opportunities to go through experimental process for transacting some topics such as process writing

COURSE 5: UNDERSTANDING DISCIPLINES AND SUBJECTS

Course Credit : 2 Full Marks : 50

Exam Duration: 3hrs. Theory: 40

Practicum : 10

Objectives:

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

- Reflect the nature and role of disciplinary knowledge in the school curriculum.
- To redefine the school subjects in schools with concern for social justice.
- To know the "Theory of content framed in the syllabus and how it can be transformed.
- To analyse critically about the media which propagates popular believes,
 reinforcing gender roles in the popular culture and by implicasim at school.
- To become aware with some issues of gender identity roles and performativity for the development by positive notions of body and self.
- To reflect on one s aspiration and possibilities in order to develop a growing sense of interdisciplinary approach of knowledge.
- To identify experiences of children with community.

Course Content:

UNIT 1: Understanding Discipline and Subjects

- Understanding discipline and school subjects schema of the school curriculum.
- Changing in most disciplinary areas (Linguisties, social science and natural science).
- Mathematics through socio-cultural prospective.



- Emerging of subjects in particular social, political and intellectual concepts.
- History of the teaching subject areas in schools (Montuschi, 2003, Porter and Ross, 2003).

UNIT 2: Disciplinary Knowledge

- Redefining school subjects for social justice.
- Role of disciplinary knowledge in the overall scheme of school curriculum.(John Dwey)
- Paradigm shifts in nature of disciplines.
- The School subjects concerning with social justice.
- The methods of study & validation it Knowledge.

UNIT 3: Theory of Contents Selection

- Theory of contents, selection of context formed in the syllabus for constructing knowledge among the learners.
- Recent development of science, Maths, and philosophy.
- Teaching of language History and Civics as better vehicles of colonial indoctrination.
- Teaching of Maths and Science as vehicles of national development.
- Inclusion & Exclusion of subject area from there school curriculum.

UNIT 4: Experience of Children and Communities

- Experience of children and their communities their natural curiosities methods of the study of the subjects.
- School subjects with Practical Knowledge, community knowledge, intuitive knowledge and tacit knowledge (Deng, 2013).



- Work related subjects: Horticulture or hospitality, need to be creatively developed.
- Design of the curriculum & textbook as need of the children.

UNIT 5: Gender Identity Roles& Interdisciplinary Knowledge

- Develop a growing sense of interdisciplinary approach of knowledge.
- Issues of gender identity roles and performativity for the development positive notions of body self.
- Gender roles in popular culture & implication at school.
- Work related subjects like horticulture or hospitality etc.

Mode of Transaction

- Group discussion, Brainstorming,
- Audio visual environment,
- Developing community relationship,
- Classroom transaction, seminar presentation
- Reading Various Resources

COURSE 6: GENDER, SCHOOL AND SOCIETY



Course Credit : 2 Full Marks : 50

Exam Duration: 1hr. 30min. Theory: 40

Practicum: 10

Objectives:

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

- To understand the gendered roles in society, through a variety of institution such as the family, caste, religion, culture, media and popular culture (films, advertisement, songs etc.), law and the state.

- To understand how socialization into a specific gender influences, how we and others look at ourselves and others.
- To examine the role of schools, peers, teachers, curriculum and textbooks etc. in challenging gender inequalities or reinforcing gender parity.
- To study the distribution of roles and responsibilities in schools and classrooms, rituals and school routines, processes of disciplinary distinctly school as for boys and girls.
- To help student teachers to rethink their beliefs on gender bias & subjects.
- To examine how schools nurture or challenge creation of young people as masculine and feminine selves.
- To help to develop abilities to handle notions of gender and secularity, often addressing the issues under diverse cultured consparians, their own and their students, instead of studying away from the same.
- To formulate of positive notions of sexuality among young people impact larger issues.

Course Content:

UNIT 1: Gender Role in Home & Society



- Gender roles in society through family, caste, religion, culture (films, advertisements, songs etc.), law and the state (Menon, 2012).
- Opportunities for education to girls.
- Influence of home and society in gender identity construction.

UNIT 2: Gender and School

- Role of schools, peers, teachers, curriculum and text books etc. in challenging gender inequalities.
- Roles and responsibilities in schools and classrooms, rituals and school routines, process of disciplinary distinctly as for boys & girls and in classroom interaction.
- Representation of gendered roles, relationships and ideas in text books & curricular (Nirantar, 2010).
- Examining how schools nurture or challenge creation of young people as masculine & feminine selves.
- Positive nations of sexuality among young people impact larger issues. Perception of safety at school, home & beyond, Identification sexual abuse/violence & verbalization combating the dominant societal outlook of objectification of female body.

UNIT 3: Gender and Beliefs

- Critical reading of the media which propagates popular beliefs, reinforcing gender roles in the popular culture and by implementation at school.
- Development of positive nations of body and self-group work, discussion, A-V engagement for sensitized women issue.
- Pedagogy to challenge gendered inequalities roles of family, caste, religion, culture, media & popular culture, law & the state.

UNIT 4: Issues of masculinity and Feminine



- Emergence of gender specific roles.
- Cross-cultural perspective
- Social construction of masculinity and feminity.

UNIT 5: Gender Inequality in the school

- Patriarchies in interaction with other social structures and identities.
- Reproducing gender in school: Curriculum, text-books, classroom processes and Student-teacher interaction.
- Working towards gender equality in the classroom.

Practical:

- Content analysis of 2 text books of school with respect to gender.
- Development of a project on the organizational climate of two schools single sex and co-ed. educational school.

COURSE 7a & 7b: PEDAGOGY OF SCHOOL SUBJECT (PSS for 1st Year and 2nd Year)

Course Credit: 2+2 Full Marks: 50+50

Exam Duration: (1hr. 30min) x 2 Theory: 40+40

Practicum: 10+10

Objectives:

On the whole, the Pedagogy of School Subject envisages the following objectives:

- To understand the epistemological and Pedagogical bases of their own chosen school subject.
- To understand the Pedagogy as the integration of knowledge about the learner, the subject and the social context.
- To embed the Pedagogy with in the teaching learning process, an approach to draw upon socialities to address issues of justice & equity.
- To comprise of three areas: (1) Nature of the school subject, including its relation to disciplinary knowledge and its social history; (2) Approaches for the teaching of the subjects at different stages of school; (3) Deeper theoretical understanding of how children in diverse social condense construct knowledge of specific subject concept areas.
- To go over some of the basic concepts of the subject area.
- To relate their understanding of concepts with what children bring to the classroom from their environment and experience, given their diverse backgrounds and interests.
- To work with theoretical studies as well as on the field with school children from different backgrounds to understand their initiative conceptions and to adequately prepare for their own internship.
- To examine teaching-learning process that incorporates enquiry, discovery,



conceptual development, activity based learning etc. Within the classroom.

Course Content:

PSS-1: TEACHING ENGLISH

Objectives:

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

- Understand the nature and resources of language and issues related to language acquisition, variation and change.
- Use the knowledge and skills needed to understand, analyse, and evaluate their own performance.
- Appreciate the uniqueness of multilingualism in India as a linguistic and sociolinguistic phenomenon and its Implications for pedagogy.
- Acquire knowledge about the role, status, objectives and problems of teaching English as a second language in India.
- Develop the four basic skills i.e. listening, speaking, reading and writing among the students.
- Enrich their knowledge of English vocabulary, structures, grammar and usage and to develop the ability to teach them.
- 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 related to the courses prescribed by different state boards of Secondary Education in the Northern Region.
- Use of various techniques for the evaluation of learner s achievement in English.
- Identify and analyse errors and plan and execute remedial instruction.

Course Content:

UNIT I:

- Language: Nature, concept, types (verbal & non-verbal), functions
- Concept of language learning and acquisition
- Multilingualism as a resource
- The objectives of teaching English as a second language at the secondary level.
- The position and role of English in India.
- Problems in effective teaching of English as a second language in Indian schools and their possible solutions
- Psychological, linguistic and pedagogical principles of teaching English as a second language.

UNIT II:

Determiners
 Tenses
 Question Forms including Question Tags
 Connectors
 Auxiliaries an Modals
 Subject- verb concord
 Active and Passive Voice
 Infinitives and Participles
 Prepositions
 Direct and Indirect speech
 Punctuation
 Phrasal verbs
 Adverbs
 Clauses

Study of Grammar Section

UNIT III:

- Reading Its meaning and importance
- Methods of Teaching Reading
- Loud and Silent Reading
- Intensive and Extensive Reading
- Skimming and Scanning
- Reading defects and their cure
- Reading Comprehension
- Acquaintance with different literary genres: Poetry, Drama, Novel, Essay and Story.
- Different literary and poetic devices:
 - o Rhyme
 - \circ Rhythm
 - o Simile
 - o Metaphor
 - o Alliteration
 - o Pun
 - o Repetition

UNIT IV:

- Grammar translation method
- Direct method
- Structural situational approach



- Bilingual approach
- Communicative language teaching
- Eclectic approach
- The skill of questioning

UNIT IV:

- Teaching of Prose detailed and non-detailed
- Teaching of Poetry
- Teaching of Grammar
- Lesson planning in all the above four areas
- Unit planning

Transaction Mode:

The approach to be followed is the eclectic approach. It includes questioning, lecture cumdiscussion, demonstrations, and communicative activities, situational teaching and learning by doing. The emphasis will be on learner- centered teaching.

Practicum: Any two of the following

- Tracing the objectives of teaching in a given passage
- Preparation of unit plans and lesson plans
- Framing suitable exercises on a given topic/passage
- Framing comprehension questions and finding correct answers
- Participation in Conservation

- Describing places after visiting them
- Preparing different teaching aids
- Development of language games
- Action research on different problems of teaching English in India
- Assignments on the prescribed suitable topics
- Abstracting and review of articles published in standard journals



PSS2: TEACHING URDU

Objectives:

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

- Understand the nature and mechanics of language.
- Use the knowledge and skills needed to understand, analyse, and evaluate his own-performance.
- Appreciate the uniqueness of Urdu language and literature.
- Identify the components of the four language skills.
- Develop acquaintance with approaches and methods of teaching.
- Plan and tech lessons in Urdu prose, poetry, drama, grammar and composition.

Course Content:

<u>UNIT I</u>

- Concept of language (verbal & non-verbal) concept of language learning and acquisition functions of language, communication, transmission of culture and medium of instruction.
- Objectives of teaching Urdu at Secondary levels.
- Origin and development of Urdu language.
- The qualities of a good language teacher.

UNIT II

- Writing: Elementry knowledge of Urdu scripts- Khat-e-Naskh, Khat-e-Nastaliq and Khat-e-Shikast.
- Teaching of alphabates, borrowed from Arabic, parsian and Hindi, their shapes and nomenclatures.
- Punctuation
- Qualities of good hand writing
- Letter writing (Formal and Informal)
- Essay writing

UNIT III

- Reading: Its importance, concept and meaning.
- Types of reading Silent and loud reading, extensive and intensive reading.
- Reading comprehension
- Reading defects and their cure.

UNIT IV

Methods of teaching:

- Translation method
- Direct method
- Play way method
- Bilingual method
- Structural approach Communicative approach



UNIT V

- Teaching of prose
- Teaching Poetry
- Teaching of Grammar
- Teaching of Composition
- Lesson planning in all the above areas
- Skill of questioning
- Teaching aids in Urdu

Practicum: Any two of the following

- Preparation of objective type tests
- Writing f objectives for teaching of prose
- Writing of objectives of teaching poetry
- Preparation of teaching aids
- Framing suitable exercises on given topic
- Preparation of lesson plan and unit plans
- Participation in conservation
- Practicum on suitable topics

PSS 3: TEACHING OF HINDI

रह्मं इय - प्रशिक्षणर्थ -

- 1- माध्यमिक स्तर पर पढ़ाई जाने वाली हिन्दी भामा। और उसकी विमाय वस्तु को पूरी तरह जान समझ सकें तथा उसकी षिक्षण विध्यों का कुषलतापूर्वक प्रयोग कर सकें।
- 2- हिन्दी भामा। की मौखिक एवं लिखित अभिव्यक्ति के पिक्षण के लिए भामा। के अनिवार्य अंगों उपांगों का वैज्ञानिक विष्लेमाण कर सकें तथा हिन्दी भामा। के व्यवहारिक अप का कक्षा पिक्षण में प्रयोग कर सके।
- 3- छात्रों में भामा। बोध के विभिअ आयामों के विकास के लिए पढ़ाई जाने वाली विमायवस्तु, यथादृकविता, कहानी, निबंध, नाटक तथा अन्य विधओं के शैक्षणिक उद्देष्य और उनका अलग अलग महत्व समझ सके तथा विभिअ विधओं की पाठ योजनाओं का विकास कुषतलापूर्वक कर सकें।

प्रथम इंकाइं -

(अ) ध्विन : हन्दी की ध्विनयाँ, मुख विवर में स्थान और प्रयत्न के आधर पर उनका वर्गीकरण।

वर्णीलिप तथा मात्राएं -

वर्णमाला का स्वअप। देवनागरी लिपि और उसका मानक स्वअप। स्वर और व्यंजन। मात्राओं का प्रयोग । "र" के प्रकार और प्रयोग। संयुक्त स्वर और व्यंजन,? उनकी संधि, प्रकार और प्रयोग।

(आ) उच्चारण –

हिन्दी भामा। में उच्चारण की समस्याएं। अषुद्ध उच्चारण के कारणों की पहचान तथा निदानात्मक षिक्षण । कक्षा षिक्षण में उच्चारण ठीक कराने के प्रयत्न तथा अन्य भामाक क्रियाएं।

द्वितीय इकाई –

- (अ) शहद और शहद रचना शहद और उसके प्रकार दृ
- (क) अर्थ की दृमिट से दृ (एकार्थी, अनेकार्थी, पर्यायवाची, विलोम)
- (ख) प्रयोग की दृमिट से दृ (सामान्य, तकनीकी)
- (ग) इतिहास की दृमिट से दू (तत्सम, तद्भव, देषज और विदेषी)

शब्द रचना -

उपसर्ग, प्रत्यय, संधि और समास की अवधरणाएं तथा शēद रचना में उनकी भूमिका उनके प्रकार और प्रयोग तथा हिन्दी शēद रचना में अपांतरण का महत्व।

शब शक्तियां -

अभिधा, लक्षणा और व्यंजना का भामा। पिक्षण में महत्व तथा साहित्य की सौन्दर्यपरक व्याख्या में इनकी भूमिका।



(अ) शहदार्थ पिक्षण में शहद की प्रकृति के अनुअप विध्यों का प्रयोग यथादृ उपसर्ग, प्रत्यय, संधि, समास, व्युत्पत्ति तथा वाक्य प्रयोग आदि के द्वारा शहदार्थ पिक्षण की विधि

त्तीय इकाई-

- (आ) वाक्य रचना तथा लेखन –
- 1- हिन्दी वाक्यों का रचना विधन । वाक्यों के प्रकार । हिन्दी में अर्थ विज्ञान और अर्थ बोध तथा अर्थ परिवर्तन । मुहावरे तथा लोकोतियों का भामा। में स्थान और महत्व ।
- 2- पत्र लेखन, निबंध लेखन, तार तथा संवाद लेखन आदि की कुषलता के

विकारन की प्रविधि -

कक्षा षिक्षण के समय वाक्यों के सार्थक अप से बोलने की भामिक भंगिमाओं से परिचित कराने के अभ्यास की विधि, लिखित अप में भी भाषिक भंगिमाओं को स्पमट अप से अभिव्यक्त कर सकने के अभ्यास की विधि । मुखर और मौन वाचक के उद्देष्य । पठन के प्रकार, साधरण पठन । अर्थ ग्रहण के साथ पठन । विचारात्मक एवं सर्जनात्मक पठन ।

चत्र्थं इकाई -

हिन्दी भामाा पिक्षण में मातृभामाा का महत्व । भामाा पिक्षण के सिद्धांत और भामिक कौषल । भामाा पिक्षण में इन कौषलों का अन्योन्याश्रय संबंध । मातृभामाा के अप में हिन्दी पिक्षण के उद्देष्य तथा द्वितीय भामाा के अप में इसके उद्दर्ष्यों में अंतर ।

भारतीय भामाओं में हिन्दी भामा। का स्थान तथा संपर्क भामा। के अप में हिन्दी की भूमिका औरर महत्व । हिन्दी भामा। की बोलियां और उनका क्षेत्र।

पंचम इकाई -

- 1- पाठ योजना और उसकी उपयोगिता
- 2- कविता, कहानी, निबंध नाटक षिक्षण के उद्देष्य और भामा। षिक्षण में इनका महत्व और भूमिका । 1 कविता 2 कहानी
- 3 निबंध 4 नाटक

आदि की पाठ योजनाओं के सोपान तथा उनके उद्देष्य । प्रष्नोत्तर विभि तथा कक्षा में की जाने वाली विभिन्न क्रियाओं का अप ।

(नवीं कक्षा की निर्धरित पाठ्य पुस्तक के पाठों को आधार बनाकर प्रत्येक विभा के दो दो पाठो का प्रविक्षणािथयों के सहयोग से उदाहरण स्वअप विकास करना अनिवार्य)

भाषा शिक्षण में मारिङक तथा लिखित प्रञ्नां का स्वरूप —

(क) कक्षा षिक्षण के समय अध्यापक द्वारा अर्थ ग्रहण, सराहना, सौन्दर्य बोध तथा रचनात्मकता के मुल्यांकन के लिए किये जाने वाले प्रष्नों के अप तथा विध्यां ।



(ख) लिखित अभिव्यक्ति में किए जाने वाले अर्थ ग्रहण, सराहना तथा ऐसे रचनात्मक प्रष्न जिनके द्वारा छात्रों की सर्जनात्मक क्षमता तथा मौलिक कल्पना शक्ति का मूल्यांकन किया जा सके। साथ ही वे सराहना तथा सौन्दर्य बोधात्मक प्रष्न जिनके द्वारा भाव सौन्दर्य, जीवन दृमिट तथा रचनागत सौन्दर्य आदि के विवेचन की क्षमता का मूल्यांकन किया जा सके।

कक्षा षिक्षण के अतिरिक्त छात्रों की भा ॥गत रचनात्मकता के विकास के लिए की जाने वाली अन्य क्रियाएं दृ कविता लेखन, कहानी लेखन तथा निबंध लेखन आदि की छोटी छोटी कार्यषालाओं के आयोजन का स्वअप और उनका महत्व । अध्यापन विधियां –

व्याख्यान के साथ साथ परिचर्चा, छात्रोां द्वारा स्वयं करके सीखना उनकी सहभागिता द्वारा पिक्षण ।

(रन) प्रयोगात्मक दू निम्नलिखित में से केवल दो रूद्

- 1- छात्राों की भामा। सीखने संबंधी किटनाईयों और समस्याओं का अध्ययन विष्लेमाण तथा निदान के उपाय।
- 2- ऐसे छात्र समूहों अथवा किसी विषिमट छात्र की भामाा सीखने सम्बंधी समस्याओं कठिनाईयों का निदानात्मक उपचार जो सर्वथा विषिमट और भिन्न हो ।
- 3- पाठ्य पुस्तक में दी हुई रचनाओं (कविता, कहानी, निबंध आदि) के अतिरिक्त छात्रों से समकालीन पत्र पत्रिकाओं से पूरक सामग्री का चयन ।

PSS4: TEACHING SOCIAL SCIENCE-I (HISTORY & CIVICS)

Objectives:

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

- Understand the concept, Nature and scope of social science (History/Civics).
- Understand the aims and objectives of teaching History and Civics.
- Get acquainted with principles and methods of curriculum construction.
- Apply appropriate methods, principles maxims and skill of teaching History and Civics.
- Emphasize the role of history in developing the national integration and international understanding.
- Prepare lesson plan and unit plan.
- Develop the skills in preparing and using of instructional aids.
- Acquaint with different techniques of evaluation.

Course Content:

UNIT -I: Nature, Scope and Curriculum of History/Civics

- Meaning, Nature, Scope and importance of History/Civics as a subject.
- Aims, objectives and values of teaching History/Civics.
- Relation of History/Civics with other school subjects: Geography, Economics science and language.
- Meaning of curriculum and syllabus and advantages of curriculum.
- Principles of curriculum framing and Articulation of History/Civics.
- Syllabus at the Primary, middle and secondary level.
- Construction of material chronological, topical and concentric.



• Characteristics of good textbook and evaluation of textbook.

UNIT -II: Methods and skills of teaching History/Civics.

- Methods of teaching History/Civics, relative merits and limitation of different methods.
- Principles and maxims of teaching History/Civics.
- Skills of teaching History/Civics Introduction, Explanation, Blackboard writing, Questioning, Reinforcement, stimulus variation.
- Micro-teaching Characteristics, Process micro-teaching cycle advantages and limitations of micro teaching.
- Qualities of History teacher.
- Professional development of history teacher.
- Principles of organizing co-curriculum activities.
- Organizing semester, debates quiz exhibition to wall magazine, field trip and their report.

UNIT-III: Instructional Planning and Instructional Aids/Equipment in History & Civics

- Various approach of lesson plan.
- Advantages of lesson plan, steps of lesson plan.
- Classification of Lesson plan.
- Unit plan and its formate.
- Need and Importance of Audio visual aids.
- Characteristics and essential qualities of audio-visual aids.



• Classification of audio-visual aids.

UNIT-IV: Role of History in promoting National and International integration and Evaluating Learning

- History and national integration: Our national heritage, unity in diversity, the role of history in promoting national integration.
- Education for Citizenship.
- History and international understanding: Our human heritage, the role of history as promote internationalism.
- Importance and purpose of evaluation, selecting appropriate evaluation procedure; oral and written tests.
- Preparation of test items: objective type and essay type.
- Setting question paper: Blue print, scoring key, question analysis.
- Devising achievement test in history and civics.

UNIT-V: Mankind Through ages

- (a) Archaeology and Pre-history, Paleolithic and Neolithic ages:
 - Bronze Age civilizations: Harappa, Mesopotamia, Egypt and Chinese.
 - Iron Age Societies: Indian Chinese, Iranian, Greek, Roman.
- (b) Social formations in the Medieval Period:
 - Europe: Feudalism, role of church.
 - Arab civilization.
 - Indian: Social and economic life, development of culture and science.
- (c) Beginning of Modern age and industrial revolution:
 - Renaissance, Reformation, Discoveries and Exploration.



- Rise of Nation states and the English revolution.
- -Industrial revolution, American, French and Russian revolution.

Transaction Mode:

- Participatory mode and group work.
- Lecture cum discussion and demonstration methods.
- Brain storming technique.
- Historical Trip.
- Project and presentation.
- Question-answer.

Practicum (Any two of the following) The

following activities are proposed:

- Seminars on current relevant topic/issues.
- Construction of achievement test in history and civics.
- Organizing quiz for school students.
- Organizing social science exhibition/fairs.
- Preparation of T.L.M.
- Visits of historical and political places.
- Organizing Bal-Sansad (Child Parliament)
- Project, based on historical movements, personality and local place.
- Review of one History/Civics school textbook.
- Preparation of a scrap-book.

PSS 5: TEACHING OF SOCIAL SCIENCE-II (GEOGRAPHY & ECONOMICS)

Objectives:

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

- Understand concept, meaning and scope of social sciences.
- Get acquainted with appropriate methodology as applicable to social sciences.
- Prepare unit plan and lesson plan.
- Enrich the knowledge of basics of economics and acquaint with the Indian economy.
- Develop the skill in preparing and use of instructional aids.
- Develop understanding of a man and environment relationship.
- Understanding core relationship between human occupation, natural resources and natural regions.
- Acquire skill in teaching Social sciences.
- Acquire knowledge of various evaluation procedures and to devise effective evaluation tools.

Course Content:

UNIT-I: Nature, Scope and Curriculum of Social Science

- Nature, Scope and importance of Geography and Economics as a subject.
- Aims and Objectives of teaching Geography and Economics at secondary level.
- Social science and social studies: core subjects of social science History, Civics,
 Geography, Economics, Inter relationship between them.
- Curriculum and their principles.



UNIT-II: Methods of Teaching Geography/Economics and their Instructional planning

- Lecture, Discussion, Excursion, Project, Problem-solving, Story method Inductive and deductive, Brain-storming, lecture cum demonstration, Heuristics method, Tutorial, Question-Answer.
- Principles and maxims of social studies teaching.
- Preparation of lesson plan and unit plan and their characteristics, importance; steps and formate.
- Audio-visual aids in teaching of Geography, need, Importance and preparation.
- Text book of Geography and Economics.
- Teacher of Social Studies.

UNIT-III: General Geography of India & World

Geography of India:

- Location and situation size, shape, relief, and physiographic division of India.
- Climate and Monsoon.
- Social, Natural, Vegetation and forest.
- Minerals
- Industry
- Transport

World Geography:

- The atmosphere-factors determining weather and climate.
- The Lithosphere- The changing factors at earth, external and thermal process.



- The Hydrosphere- Relief of the ocean floor
- The Biosphere Inter relationship between Man and Atmosphere, Lithosphere and Hydrosphere.
- Resources and their classification: renewables, & Nonrenewable, Potential and developed resources, distribution and utilization of resources-land, soil, forest, fisheries, power resources and their conservation.
- Population: Distribution, growth and density of population.
- Occupation: Primary occupation-food gathering, animal husbandry and mining, secondary occupation –industries, tertiary occupation, trade, transport, communication and services.
- Man's Intervention: need and efforts to improve the quality of environment. Major nature regions of the world.

UNIT-IV: *Introductory Economics*

- Types of economics capitalistic, socialistic and mixed economy, developed and developing economy.
- Consumption: Meaning, definition, utility-kinds of utility.
- Consumer, procedure, demand and supply-meaning, definition, law of demand, price mechanism.
- Indian Economy: Main sectors and regions, sectors according to ownership private and public, sectors according to the types of activity- rural and Urban.

UNIT-V: *Evaluation*

- Objectives of evaluation in social science.
- Essay type, short answer type and objective type questions in social sciences, their advantages and limitations, framing different types of questions.
- Construction of achievement test items.



• Continuous evaluation using feedback for improvement of teaching and learning.

Transaction Mode:

- Lecture cum demonstration.
- Discussions
- Problem-Solving
- Question-Answer
- Illustration
- Story-telling
- Field trip
- Inductive-deductive.

Practicum (Any two of the following)

- Preparation of unit plan.
- Preparation of teaching aids including slides and PPT.
- Preparation of scrap book.
- Preparation and analysis of achievement test.
- Action Research

PSS: 6 TEACHING OF SCIENCE-I (FOR PHYSICAL SCIENCE GROUP)

Objectives:

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

- Understand the nature and structure of science.
- Understand the aims and general objectives of teaching science at secondary level.
- Apply the principles of learning processes in the appropriate teaching strategy.
- Construct test items to measure objectives belonging to various cognitive levels.
- Identify specific learning difficulties in science and provide suitable remedial/individual instruction.
- Use effectively the teaching aids in teaching science.

Course Content:

UNIT I:

History, Philosophy and nature of science, its role and importance in daily life, Objectives of teaching science.

Planning the instruction: Behavioral objectives, types of objectives, writing instructional objectives in behavioural terms, identification of teaching points, organizing the content, designing learning experiences. Role and functions of instructional materials and teaching aids: Components of instructional materials, multimedia, computer, chart, models, improvised apparatus preparation of unit and lesson plan.

UNIT II:

Planning the teaching by using the following methods: Lecture method, discussion method, demonstration method, activity based teaching, inductive and deductive approaches, Heuristic method, inquiry approach, problem solving method, projected method programmed instruction, learning teaching.

Evaluation: Oral observation and written, objectives and essay type questions, type, fill- inblank type, true-false, matching type, making of test items, achievement test, diagnostic test and their constructivist approach.

UNIT III:

- Newton s laws, qualitative concept of relativity, Universal law of gravitation, its discovery, Kepler s law, solar system, stars, constellation, galaxy, universe, formation of earth and its structure.
 - Heat as energy, temperature, transfer of heat, thermal expansion and change of state. Reflection and refraction of light on plane and curved surface. Refractive Index, Prism, pure spectrum, optical instruments, microscope, telescope, defects of vision, mirage, total internal reflection, wavelength of various colours.
 - Rate of chemical reactions and chemical Equilibrium:
 - Elementary idea of rate of reactions, slow and fast reaction, reversible and irreversible reactions, Chemical equilibrium dynamic nature only acids and bases. pH Scale, Heat changes during chemical reactions.

UNIT IV:

- Motion, Force, Work and Energy:
- Displacement, motion and its types: speed, velocity and acceleration, angular velocity and acceleration.
- Force: Magnitude and direction, Addition and subtraction, resultant balanced and unbalanced force, Momentum.



• Work: work done by force, dependence of work on relative orientation of force and displacements, energy, (Kinetic and Potential) work – energy equivalence, power conversion of K.E. into P.E. and vice-versa, law of conservation of energy and momentum, Gravitation: Newton's law of gravitation, acceleration due to gravity, factors affecting "g motion of planets around Sun.

UNIT V:

- Wave and Oscillation, Heat and Light.
- Simple pendulum, restoring force, SHM. Displacement, amplitude, frequency, time period, expression for time period, wave motion, propagation of wave through a medium, Longitudinal and transverse waves, wave length, relation between speed, frequency and wavelength, transfer of energy and momentum in wave propagation, periodic motion, sound waves and their nature.
- Heat as form of energy: work and heat, temperature, specific heat, thermal expansion, coefficient of linear expansion, Light, image formation by spherical mirrors and lenses, telescope, microscope, defects of vision and their correction, perception of color, color blindness, composition of white light, wavelength and color of light.
- In unit III, IV and V activity based learning be highlighted as per NCF-2005.

ransaction Mode:

Lecture, discussion demonstration project, problem-solving, and heuristic inductive – deductive method.

Practical:

Demonstration by the teacher and observation by the students on a pre-designed questionnaire of the following:

- a) Magnetic effect of current
- b) Spectrum
- c) Preparation of gases like H2, O2, NH3, Cl2, & CO2.



Activities to be conducted by the students:

- a. Measurement using following instruments: meter scale, vernier calipers, screw gauge, thermometer, ammeter, and voltmeter.
- b. Production spectrum using prism.
- c. Image formation by convex and concave lens.
- d. Reaction between Zn + CuSO4 (aq.) +Fe + CuSO4.

Practicum: Any two of the following

- Preparation of teaching aids: charts, models, OHP transparencies etc.
- Preparation of ball and stick models of CH4, C2H5, C2H4, C2H2, NH3, H2 and CO2.
- Maintenance of Science laboratory equipment.
- Preparation of solutions and laboratory regents.
 - b) Use of first aid and awareness of safety rules.
 - c) Organisation of science club and hobby club.
 - d) Organisation of Science Exhibition.
- Measurements of length, mass, time and temperature and graphic manipulation like
 (a) distance-time graph (b) velocity-time graph (c) voltage-current graph (d) temperature-time graph (e) force extension of spring or elastic chord graph etc.
 - Study of motion under force (design and demonstration).

- Study of laws of reflection and refraction.
- Design and study of working of (a) telescope and microscope (b) Pinhole camera (c) Eclipse formation.
 - To demonstrate (1) Image formation in spherical mirrors and lenses (2) resultant of forces acting at a point or body (3) work done in lifting a weight or compresses spring to raise a body (4) Waves on Stretched rope and water surface (5) Various relation in waves
 - Measurement of rise of temperature with time of different materials kept under sun and shadow with interpretation of result.

PSS 7: TEACHING OF SCIENCE-II (FOR BIOLOGICAL SCIENCE GROUP)

Objectives:

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

- Understand the aims and objectives of teaching science and its inter relationship with other branches of science.
- Appreciate the role of science in day to day life and its relevance to modern society.
- Develop adequate skills to use different methods of science for an effective classroom teaching.
- Develop competency to organize laboratory facilities and equipment.
- Prepare and use lesson plans and unit plans required for instructional purpose.
- Develop abilities and competencies to effectively organize teaching learning experience with maximum involvement of students.
- Fabricate and use the adequate low cost teaching learning materials for effective teaching in science.
- Analyse the organization of science content at secondary level.
- Develop skills to design and use various evaluation tools to measure the extent of achievement for instructional objectives.
- The whole syllabus is divided into five units: Two units consisting of pedagogical foundations, one unit containing Physical Science (Physics & Chemistry topics) and two units containing Biology.
- Questions would be set from each unit with equal weightage. Only internal choice would be given. No question would be set based on pure content. Every question related to content must carry integrated pedagogical aspect.



Course Content:

UNIT I:

History, Philosophy and nature of science, its role and importance in daily life, Objectives of teaching science. Planning the instruction: Behavioral objectives, types of objectives, writing instructional objectives in behavioural terms, identification of teaching points, organizing the content, designing learning experiences. Role and functions of instructional materials and teaching aids: Components of instructional materials, multimedia, computer, chart, models, improvised apparatus preparation of unit and lesson plan. Constructivist approach NCF- 2005.

UNIT II:

Planning the teaching by using the following methods: Lecture method, discussion method, demonstration method, activity based teaching, inductive and deductive approaches, Heuristic method, inquiry approach, problem solving method, programmed instruction, learning teaching. In the light of NCF-2005 constructivist approach is also followed.

Evaluation: Oral observation and written, objectives and essay type questions, types of objective test items: short answer type, multiple choice types, fill-in-blank type, true-false, matching type, making of test items, achievement test, diagnostic test and their construction approach are adopted.

UNIT III:

Nutrition: Balance diet and nutrition deficiency diseases. Structure and function of different animal tissues.

Communicable and non-communicable diseases, their symptoms, prevention and control.

Cell structure prokaryotic and Eukaryotic, functions of various cell organelles, cell division (Mitosis, Meiosis), Apical meristems, tissue system, permanent tissue (complex, secretory), epidermis.

UNIT IV:

Cell structure, Prokaryotic and Eukaryotic, Brief account of functions of various cell organelles, cell division: Mitosis elementary ide of Meiosis, Structure and function of meristems (Apical

meristems), permanent tissue (Complex, secretory) Epidermis.

UNIT V:

Feeding mechanism, nutrients, balance diet and nutrition deficiency diseases. Communicable and non-communicable diseases, structure and functions of epithelial, connective, muscular and nervous tissues.

In the light of NCF-2005 Unit III, IV and V are highlighted on activity based learning.

Transaction Mode:

Lecture-cum-demonstration, question answer, discussion, Experimentation, assignment, project work etc.

Practical:

- a) Defects of eye audits correction
- b) Evolution of oxygen in photosynthesis
- c) Evolution of heat and Co2 in respiration
- d) Identification of pests
- e) Diffusion and osmosis
- f) Dissection of verbrate and inverbrate and exposure of different systems.
- g) Preparation of blood film

Practicum:

<u>Suggested topics</u>: Analysis identification and classification of various concepts and hard spots in science at secondary stage.

- Museum, herbarium and aquarium.
- Designing lesson plans for a particular concept keeping in mind the expected operational level of children.
- Designing lessons for selected concepts in science for class IX.



- Preparation of designs of ideal laboratory/Herbarium/Aquarium/terrarium.
- Practice the skill of collection, fixation and preservation of biological materials.
- Methods of preparation of common laboratory reagents.
- Measuring the rates of water absorption and loss in plants and animals.
- Using chromatography techniques to demonstrate that plant leaves contain a range of pigments.
- To demonstrate that green leaves produce starch in the presence of light.
- To design and perform experiment to demonstrate that by product of Respiration in plants and animals is heat.
- To demonstrate oxygen consumption during respiration in plants and animal.
- Perform experiments to detect the presence of carbohydrates, lipids and proteins in food by qualitative chemical tests.
- To design and perform experiments to investigate the mechanism of breathing.
- Observing blood flow in the capillaries of living organism.
- Microscopic examinations of human blood-to observe the cellular components of blood.
- Observing the principle feature of the mammalian brain using models or drawings.
- Observing Neuron and Neuromuscular function on prepared microscopic slides.
- Observing the stages of embryo developments in plants and animals using preserved material.
- Preparing microscopic slides to demonstrate stages of mitosis and meiosis.\
- Collection of samples of angiospermic plants, presenting examples of vegetative reproduction in plants.



• (6) Myopia and Hypermetropia and their correction.

Activities:

- a. Salivary amylase activity.
- b. Plasmolysis and deplamolysis.
- c. Stomatal movement it s opening and closing.
- d. Absorption and uptake of water through xylem.
- e. Pollen germination
- f. Preparations of cheek smear.
- g. Preparation of onion root tip smear for mitosis division.

PSS 8: TEACHING OF MATHEMATICS

Objectives:

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

- Understanding of the characteristics of Mathematical language and its role in Science
- Understanding of the nature of axiomatic method and mathematical proof
- Knowledge about aims and general objectives of teaching secondary school mathematics ability to state specific objectives in behavioural terms with reference to concepts and generalizations ability to teach different kinds of mathematical knowledge consistent with the logic of the subject ability to evaluate learning of concepts and generalization ability to identify difficulties in learning concepts and generalization and provide suitable remedial instruction.
- Understanding of mathematical proof in the context of secondary school mathematics
- Understanding of nature, importance and strategies of problem-solving ability to teach proof of theorem and solution of problem to develop relevant skills ability to evaluate
- Understanding of proof of a theorem and problem-solving skills.



• Understand the characteristics of and strategies for teaching exceptional children in mathematics prepare and evaluate instructional materials in mathematics appreciate the need for continuing education of mathematics teachers.

Course Content

UNIT 1: Foundations of Mathematics Education

Nature of Mathematics

Meaning and dimensions of mathematics- the historical, scientific, language, artistic, Recreational, activity and tool; the nature of mathematical propositions, mathematical proof, structure and logic, axiomatic method, history of mathematics with special emphasis On Indian mathematics.

Learning of Mathematics

Perspectives on the psychology of learning and teaching of Mathematics- constructivism and enactivism, constructivism and a Vygotskyan perspective, Zone of Proximal Development, Cognitive guided instruction, Cognitive apprenticeship, critical and realistic mathematics education, The van Hiele levels of geometric thinking, constructivism and spatial learning, cognitive modeling in spatial learning; implications for teaching.

Curriculum Reforms in School Mathematics

Rationale, objectives, principles, designs and materials produced in the recent curricular reforms at the National and State levels and their critical appraisal

Need for Standards for school mathematics, Analysis of the aims and general objectives of teaching mathematics vis-à-vis the objectives of secondary education.

UNIT 2: Strategies for Teaching of Different Kinds of Mathematical Knowledge

Teaching of Mathematical Concepts

Meaning and aspects of a concept, concept formation and concept assimilation, Moves in teaching a concept – defining, stating necessary and/or sufficient condition, giving example with/without a reason, Comparing and contrasting, giving counter example; non-example with/ without a reason; Use of Concept Attainment and Advance Organizer Models, planning and implementation of



strategies in teaching a concept.

Teaching of Mathematical Generalizations

<u>Learning by Exposition</u>: Moves in teaching for understanding of generalizations: Introduction moves – focus, objective, motivation; Assertion, Interpretation moves instantiation, paraphrasing, review of prerequisites, translation, analogy, analysis; Justification, Application – planning of strategies for teaching generalizations.

Learning by discovery: Nature and purpose of learning by discovery, Inductive-, deductive guided discovery strategies, Maxims for planning and conducting discovery strategies; planning of strategies involving either induction or deduction or both for constructing knowledge.

Learning mathematics in groups-issues in practice, Characteristics of students of high ability and unsuccessful, Group work and cooperative or collaborative strategies, Provision in heterogeneous classrooms.

UNIT 3: Teaching of Process in Mathematics

Teaching for Understanding Proof

Developing an intuition about the nature of proof – to make the transition from concrete thinking to more formal reasoning and abstract thinking as they progress from class to class, kinds of proof – direct proof, mathematical induction, proof by contradiction, proof by cases, the contra positive, and disproof by counter example.

Teaching Problem Solving in Mathematics

Definition of a problem, problem-solving and teaching problem-solving; importance of teaching problem solving, posing a problem, generating problem, modeling and model for problem-solving in algebra and geometry, Situation model for solving word problem, discovering or exploring various options for solving the problem i.e. developing heuristics, carrying out the plan and generating and extending a good problem.

UNIT 4: Assessment of and for Mathematics Learning

Stating measurable objectives of teaching concepts, generalizations, problem solving and proof;



construction of appropriate test items for assessing product and developmental(thinking skills) outcomes, Diagnosing basic causes for difficulties in learning concepts, generalizations, problem solving and proof; planning remedial teaching strategies based on the perceived causes, implementing and evaluating the strategies. Construction of unit tests: Design and blue print; item construction; marking scheme; question-wise analysis. Construction of a mathematics question paper including general instruction with nature of options and overall coverage, and marking scheme.

Learning mathematics in groups-issues in practice, Characteristics of students of high ability and unsuccessful, Group work and cooperative or collaborative strategies, Provision in heterogeneous classrooms.

UNIT 5: Learning Resources in Mathematics

Meaning, types, functions, preparation and utilization of learning resources in Mathematics: Textbook, Models, Calculators and Computers, Graphic calculators, Logo in learning algebraic language and spatial reasoning, Cabri geometry as a mediating and as a cognitive tool, Geometer's sketchpad, The Mathematics Laboratory – planning and organizing lab activities, Mathematics Outside the Classroom.



COURSE EPC 1: READING AND REFLECTING ON TEXTS (1/2)

Course Credit : 2 Full Marks : 50

Exam Duration: 1 hrs. 30 min. Theory: 40

Practicum: 10

Objectives:

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

 To Enable B.Ed. students to read and respond to a variety of texts in difference ways and also think together.

- To become conscious of their own thinking process as they grapple with diverse texts.
- To enhance their capacities as readers and writers by becoming participants in the process of reading.
- To engage with the reading interactively individuality and in small groups.
- To focus on making and appraising arguments and interpretations, creating thoughtful & Prepare.
- To initiate the B.Ed. students for the course requirements of working on the field, as
 well as selected reading & writings for the other courses.
- To make predictions, check their predictions answer questions & then summarize or retail what they have read.
- To read a wide variety of texts, including empirical, conceptual and historical, work, policy, documents, and studies about school, teaching, learning and about different people s experience of all of these.
- To write with a sense of purpose and audience through tasks such as responding to a
 text with one s own opinions writing within the content of other ideas.



Course Content:

UNIT 1: The Importance of Reading

- Reading and responding variety of texts in different ways.
- Learn to think together.
- Personal/Creative/Critical all of these together responding.
- Developing Meta-cognitive awareness to become conscious of their own thinking process as they grapple with diverse texts.
- Participating in Reading and writing process to enhance their capacities as readers and writers.
- Reading narrative texts, expository texts from diverse source or including autobiographical narratives, field notes, ethnographies etc.

UNIT 2: Reading various of Texts

- Role of language & pedagogy of reading and writing across other subjects.
- Reading interactively-individually and in small groups.
- Enhancing capacity of placing a text through reading and experiences.
- Making and appraising arguments and interpretations, creating thoughtful arguments and offering justification for them.
- Reading variety of texts: empirical, conceptual and historical work, policy, documents, studies about schools, teaching learners and about different people s experiences.
- Addressing different types of reading skills and
- Expository texts like: Making predictions, answer questions and summarizing.



UNIT 3: Writing

- Analyse various text structures.
- The content of writing from readings.
- Reading & Writing leads to develop the critical skills.
- Writing with sense of purpose and audience responding, writing within the context of other ideas.

UNIT 4: Reading and Writing

- Ways of reading; pre-reading and post reading activities
- Helping Children to become Good Readers
- What is writing and relationship between Reading and Writing
- Writing as a tool of consolidating knowledge, responding to/ aesthetically relating to narrative texts assessment of writing
- Types of texts; narrative and expository reader s response to literature, schemas and interpretation of texts
- Engaging with a text.

UNIT 5: Understanding of Textbooks and pedagogy

- Philosophy and guiding principles for the development of language textbooks
- Content, approaches and methods of teaching languages Interactive and participatory methods, teacher as facilitator
- Themes, structure of the unit, nature of exercises and its implications
- Academic standards and indicators of learning
- Learning resources for effective transaction of language curriculum.



Transaction Mode

- Reading various texts
- Critical thinking
- Writing various approaches
- Guest lectures on relevant studies
- Group discussion
- Question-answer



COURSE EPC 2: Drama and Art in Education (1/2)

Course Credit : 2 Full Marks : 50

Exam Duration: 01hr. 30min. Theory: 40

Practicum: 10

Objectives:

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

- To draw out and work with different faculties simultaneously i.e. physical, intuitive,
 emotional, sensual and mental through practical exercise.
- Build imagination and concentration of the body and mind. Structured exercises for coordinating, enhancing and translating imagination into physical expression.
- Learn to challenge and shift one s own attitude and standpoint as one learns to understand multiple perspectives to empathise.
- Identify and develop one s own creative potential.
- Bring the arts into the center of exploration, e.g. in visual arts: semiotics of the image/film/play/music; how is an image to be made meaning of; how can an image act as a starting point for an exploration?
- Recognise the role of "drama as education in the elementary school
- Learn to identify areas that are best suited for drama exploration
- Examine through chosen themes, how learning can take place in the classroom through group drama exploration by a whole class of elementary school students
- Explore the role of the teacher as creative guide in learning that is drama driven.
- Develop an understanding of art and craft, the need to appreciate it in different forms;
 the scope and purpose of art education and art as the basis of education.
- Develop a perspective and appreciation of art, nature, human existence relationship.
- Critique the current trends in art education and develop a possible scenario for art for change.



- Understand the range of traditional art forms and working with hands.
- Develop an appreciation for diverse music forms and the role of music in human cultures.
- Create and present pieces of art: using visual arts and crafts
- Create and present pieces of performance art using music and movement
- Evolve collective art projects incorporating different art media into a public festival/event.
- Deepen understanding, appreciation and skills in one chosen medium through selfwork and evaluate self as an artist and art educator.

Course Content:

Creative Drama: Focus Areas

- In drama exploration, the overall context presented to students is to understand life and to learn from life. The mode is experiential. The exercises are structured by the teacher, but the experience and its outcome is generated by participants in the process. The experience and reflection on that, is the learning. However for this to happen it is mandatory that the exercises are planned and structured by the teacher and not offered as "open improvisations".
- Encourage recognition of differences among people: caste, class, gender, religion, age, community, occupation, lifestyle, etc. and how these influence actions, decisions, and relationships of people. Learn to place oneself in a wider arena of these cross cutting currents. The self to be placed in the context of the other. "How should I look at the other? What does that reveal about me?" Go beyond the immediate and look at other groups and settings, e.g. rural, the disadvantaged and other cultural communities.
- ❖ Ways of seeing situations, social structures and communities. To sharpen observation and to learn to continuously ask probing questions while investigating situations. Develop the capacity to look at same situation from different perspectives. Learning to recognize contradictions within situations with the aim of grasping a better understanding of the situation rather than wanting to look for solutions.
- Finding connections between the particular and the universal. How larger processes and



contexts play out in the specific context of daily life situations and vice versa. For instance, the case of a marginalized Dalit woman seeking medical help is connected with the larger worlds of state responsibility and public health policy, prevailing gender relations, the judiciary, etc.

- Change as a principle of life. Identifying it within drama work; the repercussions of change, who does it affect, why and how?
- Learning to continuously reflect on and analyse classroom exploration and their connection with events and situations in world outside. Evaluating one s own and groups progress in class.

Mode of Transaction

Games to help loosen up sharpen reflexes; have fun while building imagination in different ways. Build imagination within games and exercises. Add conditions to games to draw together and harness different physical, emotional, mental faculties. Use theatrical exercises to awaken sensory awareness and transformation. Devise preparatory games and physical exercises to build imagination. Refine physical actions and integrate the physical with other faculties. Exercises in observation, communication, associative thinking; building situations with imaginary objects and people.

Planned and structured drama exploration exercises designed to first experience and then, deepen social awareness of students. Some examples would include the use of an image (photo, painting) as a stimulus for exploration; still photographs of students themselves leading to tracking a line of thought about some issue. Participative learning using role play, hot seating, building stories/songs, making and analyzing a "character s" diary, personal belongings (objects) of characters. Make short plays that can be performed by student-teachers with aim to study school student s responses during school contact programmes. Help build a set of skills so the class can organize role plays as well as larger school play that are built on student s creativity rather than following a given script.

Fine Arts: Focus Areas

❖ Art, Art appreciation and Art education: visit to places like crafts museums, bal- bhavan,



art galleries. Organise art, craft and music exercises with small groups followed by discussions and presentation. Any local exhibition or art event can be used as precursor for the session. The session should involve using some art for a while followed by a reflection on the experience and then connect it to their own school days and art. \

- ❖ Visual Art: Opportunities to experiment and create pieces of art using different medium. Focus on colours, textures, composition and thematic content. Using a range of medium: paper and water colors, paper and crayon, color pencils, acrylic, oil paint and canvass, student-teachers would learn about lines, forms, compositions, colors, space divisions etc. Specific tasks would include free drawing, developing narratives in visuals, composition of an imagined situation, telling a story through comic strips, creating a collage using images, bits cut out from old magazines, news- paper etc.
- ❖ Music: Orientation to different forms of music with either a film screening or lecture demonstration by an artist to show a wide range of musical forms and a brief history of one or two forms; connecting to music in nature and within our own selves; voice training: opening the voice, music and rhythm exercises: singing, creating music with different objects, practicing basic notes and tones; experimenting with one new forms: folk of any one region; collating music/songs from a community/within the family for special occasions or themes. (e.g. lullabies from different language cultures, harvest songs, songs during the freedom struggle etc.; create musical pieces with others; design and run sessions on music with children.
- ❖ Cinema and Electronic Media: Provide exposure to alternative cinema, develop appreciation for cinema as an art and understand the impact of the electronic media, it s impact on our psyche and aesthetics; orientation with an expert on films providing a background followed by screening of known films; projects/discussion on

elevision and our mindscape: storylines, the corruption of aesthetics, intervention in familial spaces, ncreasing legitimization of violence; age appropriate viewing and selection of films.

- ❖ Literary Arts: linkage between language, literature and performing arts; appreciation of poetry as performance art, play reading and reading literature as an art, selection of poetic pieces and developing performances around it; exposure to readings in different language traditions: Hindi, English other Gyan Prakash languages and dialectics drawing upon local traditions.
- Architecture and spatial Design: develop a deeper understanding of architectural heritage, appreciation of spatial designs and the aesthetics therein: colonial, Mughal, Sultanate period, Post-Independence etc. Through heritage walks; political dynamics of space and its changing trends; cultural social connections with architecture and town/city planning; connection to natural resources and access to these viz a viz architecture and design; spaces for children in a city.
- ❖ Designing a Project for School Children: Participants to identify a specific age group of children and a relevant theme and design an art based project for them which should span over a period of time example − a heritage walk to a nearby monument and a public event about it − including art exhibition , plays, songs and other similar expressions; principles of inclusion, diversity, child-centered approaches would be a given and the participants would be encouraged to use all that they have learnt in an interactive manner; feedback from students, teachers and community would be used for evaluation of this aspect.

Expertise/Specialization required conducting this course

This course needs to be conducted in the mode of workshops by professionals trained in drama, theatre, folk arts, music, Fine-arts and co-ordinated by a faculty member.

COURSE EPC 3: Critical Understanding of ICT (1/2)

Course Credit : 2 Full Marks : 50

Exam Duration: 3 hrs. Theory: 40

Practicum : 10

Objectives:

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

- To develop knowledge about micro computer system.
- To understand and develop skills in using computer in field of education.
- To develop skills in using application software for the purpose of educational management.
- Enable him to learn programming for the purpose of developing educational software s.

Course Content:

UNIT-I: Computer & Its Uses

- What is Computer?
- History & Technological Development.
- Uses of Computer in Modern Society i.e. Education, Weather Forecasting,
 Banking, Research, Defence, Business, Census etc.
- Limitation and Disadvantage.
- Impact of Computer on Education, Planning and Administration.
- Globalization of community through Computer (Internet).

UNIT-II: Characteristics & Hardware

- Characteristics of Computer.
- Classification of computer (According to Technology & Capacity wise).
- Personal Computer.
- Input Unit, Output Unit, Processing Unit.
- Memory of Computer.

UNIT-III: Operating System

- Types of Operating System (Dos, Unix, Windows)
- Dos Internal Commands, External Commands.
- Introduction of UNIX.
- Brief Introduction of Windows.
- Utility & Application of Software.

UNIT-IV: Introduction to Computers Software

- Basic & Its simple Programming.
- DBMS & Database Software (DBASE, MS. Access)
- C++ & Its simple Programmes.
- MS.-Word & Word Star

UNIT-V: Spared Sheets

- Introduction to Apache Open office(version 3.2)
- MS-Excel

(These all software has following details File creating, Editing, Printing, Graphs and File conversion into other language data files)



2nd Year COURSE 8: KNOWLEDGE AND CURRICULUM

Course Credit: 4 Full Marks: 100

Exam Duration: 3 hrs. Theory: 80

Practicum : 20

Objectives:

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

- To introduce perspectives in education and will focus on epistemological and social; bases of education.
- To discuss the basis of modern concept child-centered education.
- To introduce changes due to industrialisation, democracy ideas of individual autonomy and reason.
- To understand education in relation to modern values like equioty and equality, individual opportunity, social justice & human dignity, with special reference to the ideas of Ambedkar.
- To draw understanding from critical multiculturalism and democratic education system of education.
- To understand nationalism, universalism and secularism and their inter-relationship with education with reference to the ideas of Tagore & Krishnamurti.
- To identify various dimensions of the curriculum and their relationship with the aims of education.
- To discuss the relationship of power, ideology and the curriculum.
- To analyse critically various samples of textbooks, children s literature and teacher s handbooks etc.

Course Content:



UNIT 1: Epistemology and social bases of Education

- Distinction between knowledge and skill.
- Teaching and training, Knowledge and Information, Reason and belief.
- The concepts of activity discovery and dialogue with reference to the ideas of Gandhi and Tagore.
- Child s construction of knowledge: attaining knowledge through activity & experiences.
- Concepts of belief, information, knowledge & understanding.
- Different kinds of knowledge & their validation processes.

UNIT 2: Education and Modern values

- Historical changes Introduced by industrialisation democracy and ideas of individual autonomy and reason.
- Education in relation to modern value like equity and equality, individual opportunity social, justice and human dignity with special reference to ideas of Dr. Ambedkar (Rodrigues, 2002).
- Multiculturalism and democratic system of education.
- Concepts of Nationalism, universalism, secularism and there inter relationship with education with special reference to the ideas of Tagore & Krishnamurti.

UNIT 3: Various Dimensions of Curriculum

- Various dimensions of curriculum and their relationship with the aims of education.
- Knowledge & Power: representation, inclusion of knowledge & knowledge of different social groups in curriculum & textbook.
- What is curriculum?



- Who prepares the curriculum and why?
- Who will participate in the developing curriculum?
- Process & criteria for curriculum selection & construction.
- What is the role of state in designing curriculum?

UNIT 4: Framing Curriculum

- The relationship between curriculum framework and syllabus.
- How syllabus is transformed in to textbooks? Explain through examples?
- Principles of curriculum construction.
- Dominant knowledge vs. marginalized knowledge Indigenous knowledge vs Scientific Knowledge.
- School knowledge vs. Everyday knowledge information & out of school knowledge.
- Approaches to curriculum Organisation & Development.
- Development of children & Organisation of curriculum experiences.

UNIT 5: Curriculum as a Process

- Curriculum as a process and practice, relationship of power, ideology and curriculum.
- Curriculum, syllabus and Textbooks: concept and interrelation.
- Representation of various social groups in curriculum development
- Analysis of various samples of textbooks, children, literature and teachers handbooks.



COURSE 9: ASSESSMENT FOR LEARNING

Course Credit : 2 Full Marks : 100

Exam Duration: 3 hrs. Theory: 80

Practicum : 20

Objectives:

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

- Understand the nature of assessment and evaluation and their role in teachinglearning process.
- Understand the perspectives of different schools of learning on learning assessment
- Realise the need for school based and authentic assessment
- Examine the contextual roles of different forms of assessment in schools
- Understand the different dimensions of learning and the related assessment procedures, tools and techniques
- Develop assessment tasks and tools to assess learners performance
- Analyse, manage, and interpret assessment data
- Analyse the reporting procedures of learners performance in schools
- Develop indicators to assess learners performance on different types of tasks
- Examine the issues and concerns of assessment and evaluation practices in schools
- Understand the policy perspectives on examinations and evaluation and their implementation practices
- Traces the technology bases assessment practices and other trends at the international level



Course Content:

UNIT 1: Perspectives on Assessment and Evaluation

- Meaning of Assessment, Measurement, Tests, Examination, Appraisal, and Evaluation and their interrelationships
- Difference between "true ability and "observed ability, Principles of assessment and evaluation, Behaviorist, Cognitivist and Constructivist Perspectives
- Purposes of Assessment: Prognostic, Monitoring of Learning, Providing Feedback, Promotion, Placement, Certification, Grading and Diagnostic
- Classification of assessment: based on purpose (prognostic, formative, diagnostic and summative) scope (teacher made, standardized), attribute measured (achievement, aptitude, attitude, etc.), nature of information gathered (qualitative, quantitative), mode of response (oral and written; selection and supply), nature of interpretation (norm referenced, criterion referenced) and context (internal, external) Need for continuous and comprehensive assessment School based assessment; Authentic assessment.

UNIT 2: Assessment of Learning

- Dimensions of learning: cognitive, affective and performance
- Assessment of cognitive learning: types and levels of cognitive learning: understanding and application; thinking skills –convergent, divergent, critical, problem solving, and decision making; items and procedures for their assessment
- Assessment of affective learning: attitude and values, interest, self-concept; items and procedures for their assessment
- Assessment of Performance: tools and techniques for assessment of skills
- Grading: Concept, Types and Application: indicators for grading; CBSE and State evolved indicators.



UNIT 3: Assessment for Learning

- Assessment information as an input for learning, metacognition and development –
 need for continuous, formative and diagnostic assessment.
- Use of Projects, Assignments, Work sheets, Practical work, Performance based activities, Seminars and Reports as assessment devices.
- Developing Performance Tasks (Subject Specific)
- Assessment of Group Processes Collaborative/Cooperative Learning and Social skills.
- Portfolio Assessment its meaning, scope and uses; Planning, development and Assessment.
- Self, Peer and Teacher Assessments.

UNIT 4: Planning, Construction, Implementation and Reporting of assessment

- Consideration of what and why to assess (content and objectives)
- Differentiation between instructional, learning and assessment objectives
- Stating of Assessment Objectives Need for integrated objectives.
- Deciding on the nature and form of assessment oral tests and written tests; open book examination; weightage to content, objectives, allocation of time; Preparation of a blue print
- Construction/selection of items; Guidelines for construction of test items
- Assembling the test items; Guidelines for administration
- Scoring procedure manual and electronic; Development of Rubrics
- Analysis and Interpretation of Students Performance
- Processing test performance: calculation of percentages; central tendency measures;



- graphical representations; and interpreting performance Item response analysis
- Role of Feedback in Improving Learning, and Learners Development
- Ascertaining student needs, identifying student interests and feeding forward for improving learning
- Reporting Student Performance content and formats; Progress reports, Cumulative records, Profiles, and Open house.
- Using feedback for reporting to different stakeholders students, parents, and administrators.
- Use of Feedback for teachers self-improvement.

UNIT 5: Issues, Concerns and Trends in Assessment and Evaluation

- Existing Practices: Unit tests, half- yearly and annual examinations, semester system, Board examinations and Entrance tests, State and National achievement surveys.
- Management of assessment and examinations, Use of question bank
- Issues and Problems: Marking Vs Grading, Non-detention policy, Objectivity Vs Subjectivity,
- Impact of entrance test and public examination on teaching and learning the menace of coaching
- Policy perspectives on examinations and evaluation: Recommendations in National
 Policies of Education and curriculum frameworks
- Trends in assessment and evaluation: Online examination, Computer-based examination and other technology based examinations
- Standards based assessment international practices.



COURSE 10: CREATING AN INCLUSIVE SCHOOL

Course Credit: 2 Full Marks: 50

Exam Duration: 1hr. 30min. Theory: 40

Practicum: 10

Objectives:

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

- To bring about an understanding of the "Cultures, Policies & Practices that need to be addressed in order to create an inclusive school, as spelt out by both and ainscow in "The Indian for Inclusion" (2000).
- To explore the definition of "disability and "inclusion within an educational framework so as to identify the dominating threads that contribute to the Psychological construct of disability and identity.
- To look at the models of disability as well as the dominant disclosure on "the other in the narratives of all concerned.
- To attempt to identify the "barriers to learning and participation.
- To integrate the physically and mentally handicapped with the general community as equal partners.
- To prepare them for normal growth and enable them to face life with coverage and confidence.
- To promote integration of students with disabilities in the normal schools.
- To help schools move towards positive practices, cultures and policies.

Course Content:

UNIT 1: Concepts of Inclusive Education

- Meaning, Definition, characteristics and objectives of special Education, Integrated Education and Inclusive Education.
- De-institutionalization, normalization, least restricted environment integration, Mainstreaming and Inclusive education.
- Implement Disability and Handicappedness.

UNIT 2: Education for children with special need

- Definition, Causes, Identification and Educational provisions for Visually Impaired children.
- Definition causes identification and educational provisions for Hearing Impaired children.
- Definition causes identification and educational provisions for Mentally Impaired children.
- Definition, characteristics, causes Type and approaches for helping learning Disability.

UNIT 3: Policies & Acts Implementing Inclusive Education

- Silent features of national policy on education (1968to1986)
- Rehabilitation council of India.
- Persons with disabilities act 1995 (Equal opportunities, Protection of right and full participation)
- New Policies for persons with disability 2012.
- Right to education 2009.



UNIT 4: Children with special Needs

- Historical and contemporary perspectives to disability and inclusion.
- Range of learning difficulties.
- Disability identification, assessment and interaction.
- Approaches and skills for teaching children with learning difficulties.

UNIT 5: Inclusion and Exclusion in Indian Education

- Forms of inclusion and exclusion in Indian education (marginalized sections of society, gender, children with special needs)
- Addressing Inequality and Diversity in Indian Classroom: pedagogical and curriculum concerns
- Understanding and exploring the nature of assessment for inclusive education.

Mode of Transaction:

- The Practicum and the Theory courses of the programme to develop a solid platform for this paper.
- In consonance with other courses, this course helps in understanding how structures in school create barriers for inclusionary practices
- The practicum courses of the programme, with the present course should help students in exploring spaces for inclusion in schools.
- Dialogue and discussions has to be the key for the transaction of this course.

COURSE 11: OPTIONAL COURSES* (OC)

Course Credit : 2 Full Marks : 50

Exam Duration: 1 hrs. 30 min. Theory: 40

Practicum: 10

(OC) 1: Work Education and Office Processing:

Objectives:

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

- Develop the ability to write different types of letters.
- Use postal and telephone services.
- Develop the competence in maintaining different types of office registers.
- Develop the skill in filling and indexing of letters properly.
- Appreciate the place of office in life.

Course Content:

UNIT-I:

- Letter writing: Qualities of a good letter, format of a letter
- Commercial Letters: Letters of inquiry, quotation and order, complaints and recovery.
- Letters of complaint: Railway and post office
- Government letters: Meaning and characteristics, types of official letters, Format of ordinary official letter, D.O. letter, Memorandum and circular letter
- Filling and indexing: Aims of filling, characteristics of good filing, types of filling.
 Horizontal and vertical filling systems, indexing, meaning and need, types of indexing
 sample, card and visible indexing.



UNIT-II:

- Meaning of office and office procedures, office organization and office management
- Office communications meaning and characteristics, types of communication,
 Internal and external communication. Departmentisation of office.
- Making travel arrangement Tour programme, Reservations, Tour Advance,
 Submission of T.A. Bills.

UNIT-III:

- **Postal service:** Types of postal service, filling in different types of forms and performas, preparing postal packer and parcel and sealing them. Writing a telegram, Operation of intercom, receiving a call, making notes about calls, use of telephone directory, private branch Exchange (PBX), Speed post, Western Union & Instant Money order.
- *Postal saving schemes:* Term Deposits, Kisan Vikas Patra (K.V.P), National Saving Certificate (NSF), MIS, PPF, RD.

UNIT-IV:

Handling of correspondence/mail – Record of inward and outward mail. Making entries
in important registers – stock register, attendance register, medical bill registers, inward
and outward register, peon book and letter receipts and dispatch.

UNIT-V:

Filling and indexing – aims of filling, characteristics of good filling, types of filling.
 Horizontal and vertical filling systems, indexing, meaning and need, types of indexing – simple, card and visible indexing.

EVALUATION:

Evaluation will be done on the basis of practicals, records and tests and viva.



(OC) 2: Health and Physical Education

Objectives:

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

- Develop physical fitness
- Understand the rule and regulations of different physical education activities.
- Develop competencies in games and athletic events and other activities.
- Understand their role in conducting matches and annual sports.
- Develop and appreciate the values of education programme.

Course Content:

UNIT-I: *Physical Education*

- Concept of Physical Education
- Definition of Physical education
- Aims & Objectives of Physical Education
- Importance of Physical Education
- Meaning of Physical Education
- Scope of Physical Fitness.
- Definition of Physical Fitness
- Component of Physical Fitness.

UNIT-II: Health Education

• Meaning and definition of Health & health Education



- Objectives of Health Education
- Importance of Health Education
- Dimension of Health
- Objectives of Health Education
- Importance of Health Education
- Dimension of Health

UNIT-III: *Major Games*

- History of Game
- Measurement of Court/Ground
- Fundamental Skills
- Techniques & Tactics of Games/Sports
- Rules & Regulations
- Major championship/competitions

3.1 Awards & Honour of Particular Games/Sports

Note: student teacher shall participate and learn minimum of two games in a year from the following: badminton, basketball, cricket, football, table-tennis, volleyball and any other similar game.

UNIT-IV: Athletics

- Short Distance (Sprits) 100m, 200m, 400m, Run
- Middle Distance 800m, 1500m, Run
- Distance Runes 3000m, 5000m, 10000m, Run



- Relay 4×100m, 4×400m
- Skills: Starts (Crouch start standing start) Striding, Finishing, Exchange of baton etc.)

UNIT-V: Yoga

- Meaning and definition of Yoga and Meditation
- Element of Yoga (Practice of selected Asanas)
- Importance of Yoga
- Types of Pranayama (Practice of selected Pranayama)

(OC) 3: Peace Education

Objectives:

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

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

Course Content:

UNIT-I: Importance of Peace

- Aims, Objectives and importance of Peace Education.
- Barriers Psychological, Cultural, Political.
- Factors responsible for disturbing Peace: Unemployment, terrorism, Exploitation, suppression of individuality, complexes.
- Characteristics of good textbook, evaluation of text book, analysis of text book from peace education and environmental education perspective.

UNIT-2: Empowerment for Peace

- Justice Social economics, Cultural and religions.
- Equality Egalitarianism, Education for all, equal opportunity.
- Critical thinking: Reasoning and applying wisdom cooperation.
- Learning to be and learning to live together.
- Conflict resolution; Brain storming, Problem Solving Model and Activity Performance.



UNIT-3: Development Perspectives: Adolescence

- Cognitive, moral, social reasoning and wisdom.
- Bad habits: drug, abuses, theft, indiscipline.

UNIT-4: Pedagogy of Peace

- Conflict resolution
- Brain storming
- Problem Solving Model
- Activity Performance

UNIT-5: Strategies for Peace

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

Practicum:

Excursion to sites or monuments symbolizing introspection; Organizing morning assembly, meditation, exhibition, etc. on peace-related themes.

End of term project: each student will be required to submit and present in class a paper covering a short analysis of any contemporary conflict and a proposal to resolve it.

(OC) 4: Guidance and Counseling

Objectives:

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

- Understand the concepts of guidance and its need.
- Provide guidance and counseling to pupils.
- Assist the school counselor.

Course Content:

UNIT-1: *Introduction to Guidance*

- Meaning, Nature, Scope and need of guidance.
- Guidance Services: Educational, Vocational and Personal guidance.
- Problems of Guidance, Principles of guidance.
- Modern Trends of Guidance.
- Placement Service: Educational placement, vocational placement.
- Evaluation of guidance programme, follow-up services.

UNIT-2: Counseling

- Nature of principles of counseling, difference between guidance and counseling.
- Approaches to counseling- Directive, Non-Directive and Eclectic Counseling.
- Professional Role & Functions of the counselor.
- Techniques for collection information s-Non-standardized method and standardized method.



UNIT-3: Function of Guidance and counseling Service:

- Role and Requirement of Guidance and counseling Centre.
- Identification of problems and Organisation in guidance.
- Anecdotal Record.
- Need of psychological test in guidance service: Intelligence test, personality test and Interest inventories.

UNIT-4: Educational Guidance

- Meaning and principles of guidance.
- Philosophical, psychological and sociological foundations of guidance.
- Aims and objectives of guidance with special reference to secondary schools.
- Evaluating the students through performance in class and co-curricular activities, anecdotal records, rating scales, autobiographies and essays, sociogram and cumulative records, uses and limitations of standardized tests and inventories in guidance.
- Educational and occupational information.

UNIT-5: Vocational Guidance

- Group guidance techniques and guidance in classroom programme.
- Understanding the role of counselor teachers, administrators and other specialists.
- Helping student with educational and vocational problems.
- Introduction to counseling and follow-up programme.
- Teaching and guiding exceptional students (the gifted, retarded and handicapped).



Transaction Mode:

- Lecture cum discussion.
- Project and Presentation.
- Question-Answer.
- Problem Solving

<u>Practicum</u>: Any two of the following

- Case study of any one special need child.
- Organizing career interview for school students.
- Psychological test: Personality test, Aptitude test, Creativity test.
- Organizing career and counseling talk

Practicals:

- 1. The students will administer at least five tests/non tests from a & b selecting at least two from them.
 - a) Test Technique: Intelligence Test, Aptitude Test, Interest Test, Personality Questionnaire and study Habit Inventory.
 - b) Non Test technique: Sociometric Test, rating scale, anecdotal record and interview.
- 2. Students will maintain cumulative record or prepare a case study.
- 3. Collection and dissemination of educational and occupational information.



COURSE EPC 4: Understanding the Self (1/2)

Course Credit : 2 Full Marks : 50

Exam Duration: 1hr. 30min. Theory: 40

Practicum: 10

Objectives:

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

- To help student teachers discover and develop open-mindedness, the attitude of a self-motivated learner, having self-knowledge and self-restraint.
- To help student for sensitivity, sound communication skills and ways to establish peace and harmony.
- To develop the capacity to facilitate personal growth and social skills in their own students.

Course Content:

UNIT-1: Exploring the Aim of Life

Objectives

- To enable students to develop a vision of life for themselves.
- To encourage students to give conscious direction to their lives to take responsibility for their actions.
- To develop a holistic and integrated understanding of the human self and personality.

Workshop Themes

- Vision as a person: Aspiration and purpose of life.
- Giving a conscious direction to life.
- Understanding different dimensions of self and personality and way in which they influence the dynamics of identity formation, values and direction of life.

UNIT-2: Discovering one's True Potential

Objectives

- To facilitate the personal growth of the students by helping them to identify their own potential
- To develop the power of positive attitude
- To encourage students to develop the capacity for self-refection and personal integration.

Workshop Themes

- Understanding one's strengths and weaknesses through self-observation exercises.
- Taking responsibility for one's own actions.
- Developing positivity, self-esteem and emotional integration.
- Exploring fear and trust: competition and cooperation
- Developing skills of inner self organization and self-reflection
- Writing a self-reflective journal

UNIT-3: Developing Sensitivity

Objectives

• To enable students to examine and challenge the stereotypical attitudes and prejudices that influence identity formation and the process of individuation.



- To encourage students to develop the capacity for perspective taking and appreciating different points of view.
- To develop sensitivity towards needs of children by connecting with one's own childhood experiences.

Workshop Themes

- Understand and challenge the unconscious, conditioned attitudes that are stereotyped and prejudiced (gender, case, class, race, region, disability etc.) and critically examine the sources of stereotyped messages (e.g. media).
- Defining consciously one's own values towards self and society and develop a capacity to understand and appreciate divergent points of view. Widening their realm of consciousness.
- Developing the capacity for empathic listening and communication skills.
- Understanding one's own childhood and adult-child gaps in society.

UNIT-4: Peace, Progress and Harmony

Objectives

- To develop the capacity to establish peace within oneself
- To develop the capacity to establish harmony within a group and methods of conflict resolution.
- To understand the meaning of leadership and develop attitudes and skills of a catalyst
- To understand the basis of social disharmony, the factors those contribute to it and ways to facilitate change.

Workshop Themes

• Establishing peace within oneself, exercises of concentration and mediation



- Understanding group dynamics and communication.
- Creating group harmony: exploring methods of creating a collective aspiration for progress and conflict resolution.
- Exploring the bases of social disharmony: becoming the agents and catalysts of change and exploring methods of facilitating change.

UNIT-5: Facilitating Personal Growth: Applications in Teaching

Objectives

- To explore attitudes and methods needed for facilitating personal growth in students
- To explore ways of integrating the facilitation of personal growth and social skills within the formal curriculum

Workshop Themes

- Becoming a self-reflective practitioner: becoming conscious of one's own attitudes and communication pattern while teaching.
- Observing children: Appreciating social, economic, cultural and individual differences in children and relating with them.
- Exploring and practicing ways to facilitate personal growth and develop social skills in students while teaching.

Mode of Transaction

There is no standard prescribed material for these workshops. The professional experts are expected to engage with the students with specially designed activities. These could be based on the facilitator's personal integration and unique individual and group characteristics and are rooted within the context of student's lives and contemporary realities. It is suggested that the students be given space to explore and articulate their own sense of life and its issues. They can be encouraged to think a fresh on issues that most closely concern them and use creativity and imagination to develop a perspective on them. The resource materials are an aid in this process.



Page | 99

The resource materials can also include newspaper/ web articles on contemporary concern and movies/documentaries and other audio-visual materials. There is a suggested list of resource materials which should be contextualized and updated periodically.

Expertise/Specialization required teaching this course

Specialists who have conducted personal development workshops and who have a qualification in clinical and counseling Psychology.

SCHOOL INTERNSHIP

Course Credit: 10 Full Marks: 250

- 1. Students are to be actively engaged in teaching for 16 weeks in the final year of the course. They shall be engaged at two levels, namely, upper primary (classes VI VIII) and secondary (IX X), or senior secondary (IX XII), with at least 16 weeks in secondary/ senior secondary classes.
- 2. They should be provided opportunities to teach in schools with systematic supervisory support and feedback from faculty.
- 3. Internship in schools will be for a minimum duration of 20 weeks for a two-year programme (4 weeks in the first year, and 16 weeks in the second year as noted above). This should also include, besides practice teaching, an initial phase of one week for observing a regular classroom with a regular teacher and would also include peer observations, teacher observations and faculty observation of Practice lessons.

INTERNSHIP & EVALUATION

(A) B.Ed. (First year)

Four weeks

During this period, the student teachers will be provided training in core teaching skills, content analysis, development of TLM, organization of school activities, lesson planning etc. The evaluation of the students will be done on the basis of their performance by teacher educators' group.



Maximum Marks: 50 Duration:

1. Content analysis and mode of transaction Assignment in each Teaching subject	Page 100 5×2=10
2. Preparation, representation and use of TLM in each subject.	5×2=10
3. Participation, Exercises, Acquisition of Skills,	10
4. Peer group teaching in each subject two lesson plans Observation of day to	
day School activities and report of an in- depth study of one activity.	10
5. Delivery of two lessons in each teaching subject in school.	10

Total Marks: 50

INTERNSHIP & EVALUATION (B) B.Ed.(Second year)

1. Duration (16 weeks)

200 marks

Delivery of lessons

Minimum number of Lessons in each teaching subject to be delivered should be 20 including two criticism Lessons. Total 60 Lessons for two teaching subjects will be required for students who had P.G. & kept 2 method papers in same subject.

2. Practicum

- (i) Preparation and analysis of achievement tests followed by remedial teaching.
- (ii) Case study/Action Research

Working with community (meeting with parents (at least 2) for total growth & development of their words and preparation of report)

- (iii) Observation of 5 lessons in each subject and preparation of report Organise/Participate in any one school co-curricular activities/Review of the text book.
- (iv) Teaching Aids in each teaching subject. (Any other activities decided by the institute)

Preparation of health card/time-table preparation blue print of an achievement test/psychological test (2) etc.



3. Post Internship

Reflection/Review of above programme & feedback

- 4. Suggested School Activities (any four): 40marks
- Organization of Cultural Activities
- Organization of Sports/Games
- Making school time table
- Organizing morning assembly
- Maintenance of School record
- Preparing TLM
- Guidance and Counseling
- Organizing Science Exhibition
- Maintenance School Laboratories
- Maintenance School Library
- Community Oriented activities
- Gardening
- Literacy Campaign
- Mass Awareness Programme

5. Assessment of Internship activities

А	Regular Classroom Teaching through 30 lessons with	50 marks
	preparation	
В	Criticism Lessons two in each subject observed by minimum 2 supervision	10 marks
С	Classroom Management Techniques	20 marks
	(i) Observation of 5 lessons in each teaching subject a	and 20 marks

			Page 1	
		preparation of report		
	(ii)	Development of achievement test and remedial teaching	10 marks	
	(iii)	Participation in 2 co-curricular activities and preparation of report	10 marks	
	(v)	Analysis of textbook from peace prospective	10 marks	
D	Teac	hing Aids (at least 2 in each subject)	10 marks	
E	Impl	ementation of ICT Skill development through curriculum	20 marks	
		— Browsing		
	– Data Entry & calculation			
