JAN NAYAK CHANDRA SHEKHAR UNIVERSITY (JNCU) BALLIA (U.P.)

B.El.ED. PROGRAMME

Bachelor of Elementary Education Rules, Regulation, Duration and Syllabus

1. PREAMBLE :

B.El.Ed. stands for Bachelor of Elementary Education. It is a four year integrated professional degree programme of elementary teacher education. It is a full time graduate course not available under distance or correspondence mode.

2. DURATION

The B.El.Ed. programme shall be four year integrated professional course. The first 3 years are a combination of theory and practicum courses and 4th year culminates with a direct experience of School functioning, practice teaching, reflection and internship. The programme is an attempt towards fulfilling the need for professionally qualified Elementary School Teachers. Four year integrated B.El.Ed. Course is designed to integrate the study of subject knowledge, human development, pedagogical knowledge and communication skills. Both professional and academic options are available to students who graduate with a B.El.Ed. degree.

3. WORKING DAYS

a. There shall be at least two hundred working days each year exclusive of the period of admission, examination and evaluation.

b. The minimum attendance of student teachers shall have to be 80% for all theory course and practicum and 90% for school internship and school contact programme (SCP).

4. B.El.Ed. ELIGIBILITY:

a. Admission shall be made on merit basis marks obtained in the entrance examination or in accordance with any procedure as per the policy of the Jan Nayak Chandrashekhar University (JNCU), Ballia.

b. If the student has not completed theory Courses, Practicum and School internship he/she will not be allowed to appear in the B.El.Ed. Examination.

c. During the study of B.El.Ed. course no student can avail the opportunity of any kind of full time or part time paid job. If any such cases are reported, his/her admission will stand cancelled.

5. EXAMINATION

a. At the end of each academic year. Annual examination is conducted in all the theory course taught during that year. 25% weight age is given to internal assessment in the theory course. Practicum is based entirely on internal assessment.

b. Students have the option to write the examination in Hindi or in English.

6. **EVALUATION :**

The minimum marks required to pass the examination is :

- 40% in each theory paper.
- 45% in the aggregate for each year.
- Candidates obtaining less than 50% aggregate in practicum's taken together, will not be allowed to appear in the annual examination.

B.El.Ed. Course Syllabous

The B.El.Ed. Course of Jan Nayak Chandrashekhar University, Ballia offers compulsory and optional theory courses, compulsory practicum and a comprehensive school internship experiences. Theory courses comprise foundation courses, core courses, pedagogy courses, liberal courses and specialized courses in education. In the practicum courses are designed to allow a variety of experience with children within and outside the elementary school. In addition student teachers acquire a wide range of professional skills including drama, craft, developing teaching learning material, classroom management, systematic observations and evaluation. The Course aims at development of needed competencies and skills for an effective elementary teacher in electronic age classroom processes and school context.

KEY WORDS :

Theory Courses :

Foundation Courses	These offer an in-depth study of the process of child development and learning; how the education of children is influenced by the social, political, economic and cultural contexts in which they grow; techniques and processes of school organisation and management; educational theory, issues and concepts specific to elementary education. In addition to developing theoretical constructs and frameworks of analysis, these courses also aim to cultivate skills to relate and communicate as teachers.
Core Courses	These offer the student-teacher the opportunity to reconstruct concepts learnt in school and to integrate them within a multi-disciplinary perspective. These also form the foundation for pedagogy courses.
Pedagogy Courses	These provide a study of pedagogical theory to develop skills specific to the teaching of young children. While developing perspectives in pedagogy, student-teachers also learn methodologies of teaching specific knowledge areas.
Liberal Courses	These offer studies in a specific discipline with academic rigour. They are designed to enrich the knowledge base, to allow for further study in the discipline and in the pedagogies, in which student-teachers opt to specialize.

Specialized Courses in Education	The optional courses offered in the fourth year provide specialised support to the student teacher.

B) E.P.C. : These courses are designed to allow a variety of experiences with children within and outside the elementary school. In addition, student-teachers acquire a wide range of professional skills including drama, craft, developing curricular material, classroom management, systematic observations, documentation and evaluation.

Performing & Fine Arts, Crafts & Physical Education	They enable the student-teachers to experience and understand the learning process in a holistic manner, rather than confirming it to the 'cognitive' domain.
School Contact Programme	It is the 1st contact of student-teachers with children. While initiating contact with elementary schools, student-teachers contend with issues of planning and organizing creative activities for children within the school. They also explore ways of organizing meaningful interaction with children outside the school. Student-teachers get the opportunity to develop the ability to related, communicate and develop a positive attitude towards children and teaching.
Observing Children	It is designed to help establish a crucial link between theoretical concepts and ground realities. Through systematic observation and study of children in different settings, the student teacher evolves scientific ways of understanding children while also verifying theoretical constructs.
Self-Development Workshops	Through a process of self-reflection and analysis, students sharpen their abilities and learn to question, be critical and reflective.
Classroom Management & Material Development	This programme begins with systematised observations and analysis of pedagogic practices in conventional and innovative settings. The student-teacher is facilitated to evolve pedagogic practices that address crucial concerns of classroom management, design and choice of activities, material development and evaluation.

School Internship	Placement in schools forms a major component of the fourth year of the B.El.Ed. programme. Student interns actively engage in teaching elementary school children. Systematic feedback and evaluation is provided by supervisors. Functioning as regular teachers, the interns attempt to translate their knowledge-base and professional skills into reflective classroom practice.
Projects	Student-teachers are required to take up projects based on themes arising out of their school experience. This enables them to acquire basic research skills of systematic observation, documentation and analysis.
Tutorial/Colloquia	Tutorials help student-teachers to build connections between theory observations and classroom teaching. Student-teachers are expected to present term papers and participate in discussions. Colloquia are structured to include activities on children's literature, storytelling, drama and music; organising teaching and learning resource centres and seminar presentations of school experiences. Colloquia are an essential part of all the four years of study. Colloquia means a conference analyze and discuss a specific topic.
Academic Enrichment Activities	A structural provision within the programme of study is for discussion forum and seminars. It offers student-teachers the opportunity to interact with faculty of diverse disciplines from within and outside the college.

B. El. Ed. Course

Year wise scheme of courses and examination for the 4-year Bachelor of Elementary Education (B.El.Ed.) Programme.

AREA	COURSE	TITLE	MARKS
YEAR-I			
THEORY	F1.1	Child Development	100
	F1.2	Contemporary India	100
	C1.1	Nature of Language	50
	C1.2	Core Mathematics Teaching	50
	C1.3	Core Natural Sciences	50
	C1.4	Core Social Sciences	50
E.P.C : 01	PR 1.1	Performing and Fine Arts	75
	PR 1.2	Craft, Participatory Work	25
		Colloquia Academic Enrichment Activities	50
	TOTAL :		**550**
YEAR-II			
THEORY	F2.3	Cognition and Learning	100
	F2.4	Language Acquisition	50
	F2.5	Human Relations and Communication	50
	P2.1	Language Across the Curriculum	50
		Liberal Course (Optional I)*	100
	O2.1	English I	
	O2.2	Hindi I	
	O2.3	Mathematics I	
	O2.4	Physics I	
	O2.5	Chemistry I	
	O2.6	Biology I	
	O2.7	History I	
	O2.8	Political Science I	
	O2.9	Geography I	
	O2.10	Economics I	
E.P.C : 02	PR 2.3	Observing Children	75
	PR 2.4	Self-development Workshops	50
	PR 2.5	Physical Education	25
		Colloquia Academic Enrichment Activities	50
	TOTAL :		**550**

AREA	COURSE	TITLE	MARKS
YEAR III			
THEORY	F.3.6	Basic Concepts in Education	100
	F3.7	School Planning and Management	50
	F3.2	Logico Mathematics Education	50
	F3.3	Pedagogy of Environmental Studies	50
		Liberal Course (Optional II)*	100
	O3.1	English II	
	O3.2	Hindi II	
	O3.3	Mathematics II	
	O3.4	Physics II	
	O3.5	Chemistry II	
	O3.6	Biology II	
	O3.7	History II	
	O3.8	Political Science II	
	O3.9	Geography II	
	O3.10	Economics II	
E.P.C : 03	SC 3.1	Classroom Management	75
	SC 3.2	Material Development and Evaluation	75
		Colloquia	50
		Academic Enrichment Activities	
	TOTAL :		**550**
YEAR-IV			
THEORY	F 4.8	Curriculum Studies	50
	F 4.9	Gender and Schooling	50
	Option A :	Pedagogy (one of the following)	50
	OP 4.1	Language	
	OP 4.2	Mathematics	
	OP 4.3	Natural Science	
	OP 4.4	Social Science	
	OR		
	Option B :	Specialised course in education (one of the following)	
	OL 4.1	Education and Communication Technology	
	OL 4.2	Special Education	
	OL 4.3	Fundamentals of Guidance and counselling.	
E.P.C : 04	SI	School Internship	250
		Project	100
		Colloquia	50
		Academic Enrichment Activities	
	TOTAL :		**550**

* Option will be offered as per the availability in respective colleges.

F : Foundation Course : Core Course : P. Pedagogy Course, O : Optional Liberal Course: OP : Optional Pedagogy; OL : Optional Course; PR : Practicum ; SC: School Contact Programme : SL : School Internship.

In the course nomenclature the numerical immediately following letters (E.C.P. etc.) denotes the year of the programme in which the course is to be taught. The second numerical denotes the serial number in a particular course type. For instance, F2.5 signifies that Human Relations and Communications is the 5th Foundation Course to be taught in the 2nd Year of the programme study.

F 1.1 CHILD DEVELOPMENT

Objectives: After completing this course, the students will be able to-

1. Differentiate between growth and development.
2. Understand meaning and scope of child development.
3. Differentiate among different theories of development.
4. Analyze the general, purpose of Birth and Infancy.
5. Explain the concept of pre-school child.
6. Interpret the concept of I.Q, E.Q. and S.Q.

Unit-1 Concept, Issues and Theories of Human Development: Growth and development; developmental principles; influences of heredity and environment; methods for studying development; socialisation, education and acculturation in the context of development; theories of Erikson, Piaget and Kohlberg; Bruner's theory of concept formation. significant developmental periods in the human life span.

Unit-2 Birth and Infancy: importance of conception; pre-natal development and birth; physical and mental development of infants; emotions in infancy; the infant in the family and implications for personality development. Individual difference.

Unit-3 The Pre-school Child: physical growth and motor development; intellectual characteristics; development of personality with special reference to identification and child-rearing techniques; gender-stereotyping; morality; play patterns of pre-school children.

Unit-4 The Elementary School Child: physical growth and development; the developing mind-intelligence; language and thought; the social world of the child, parents and children, friends, school and media, play; moral attitudes and behavior; development of self identity, self-concept; gender roles; play, interest and activities of the elementary school child. Role of IQ, EQ and SQ. in elementary school child.

Unit-5 Children with Special Needs: concept of special children-talented, creative, gifted children; slow learners and under achievers; children with special needs in NCF-2005.

References :

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2. Berk, Laura E. *Child Development,* Prentice Hall of India: New Delhi, 1996.
3. Clarke Stewart, A. and S. Friedman, *Child Development: Infancy through Adolescence,* John-Wiley and Sons, UK, 1987.
4. Crain, Williams C. *Theories of Development: Concepts and Applications,* Prentice Hall of India: New Delhi, 1980, and edition.
5. Gardner, Howard, *Developmental Psychology: An Introduction,* Little Brown & Co. : Boston, 1978.
6. Gauvian, M. and M. Cole. (eds.) *Readings on the Development of Children.* W.H. Freeman : New York, 1997.
7. Hetherington, E.M. and R.D. Parke, *Child Psychology: A contemporary view point,* McGraw Hill :Auckland, UK, 1993.
8. Kakkar, S. *The Inner world,* Oxford University Press: New Delhi, 1980, pp 189-211.
9. Papalia, D. and S. Olds. *Human Development,* Tata McGraw Hill: New Delhi, 1996.
10. Saraswathi, T.S. (ed) *Culture, Socialisation and Human Development: Theory, Research and Applications in India,* Sage: New Delhi, 1999, pp 13-42.
11. Winnicott, D.W. *Chidl, The Family and The Outside World,* Adison-Wesley : UK, 1992.
12. Sharadendu (2012) *Child Development (Hindi) Varanasi:* Nootan Publications.

F 1.2 CONTEMPORARY INDIA

Objectives: After studying this course, the students will be able to-

1. Analyze the general purpose of different commission report.
2. Explain the framework and scope of constitution.
3. Understand the Economic, social and cultural issues.
4. Interpret major issues in contemporary India.
5. Understand the concept of social conflict, social change, social stratification and their educational implications.

Unit-1 Education Commission Report (1964-66): NPE-1968, NPE-1986, Learning without burden (1993), NCF : 2005, NCFTE-2009.

Unit-2 The Constitution: Its framework and scope; major social policies enshrined in the Constitution; provision related to childhood and education; concurrent status of education.

Unit-3 Economic Issues: poverty and inequality; employment; private and public sectors new economic policy. Political Issues : main features of the democratic system; central, state-level and local systems of government.

Unit-4 Social and Cultural Issues: major characteristics of India's pluralist make-up; gender-related issues; family and child-rearing in India (to be studied with the help of a project based on locally done field work.)

Unit-5 Major Issues in Contemporary India: (to be studied by class-room and individual projects): childhood in India; environment and development; reservation as an egalitarian policy, social conflict, social change and education social stratification.

READINGS :

1. Bhaduri, Amit and Deepak Nayyar, *The Intelligent Person's Guide to Liberalization,* Penguin Books India: New Delhi, 1996.
2. Dubey, S.C. *Indian Society,* National Book Trust: New Delhi; 2001 (Reprint).
3. Heehs, Peter. *India's Freedom Struggle 1857-1947: a short history, Oxford University Press : New York, 1988*.
4. Hussain, S. Abid. *The National Culture of India,* National Book Trust: New Delhi, 1994.
5. Kashyap, S.C. *The Constitution of India,* National Book Trust: New Delhi, 1994.
6. Khilnani Sunil. *The Idea of India,* Penguin: New Delhi, 1999.
7. Shah, A.M. *Family in India: Critical Essays,* Orient Longman: New Delhi, 1988.
8. www.contemporaryindiansociety.com.

ADVANCED READINGS:

1. Bhasin, Kamala *What is Patriarchy?,* Kali for Women: New Delhi, 1994.
2. Centre for Science and Environment, *State of India's Environment: A Citizens Report,* CSE: New Delhi, Updated ed.
3. Kothari, Rajani, *Politics and the People,* Vol.-I & II, Ajanta Publications: Delhi, 1989.
5. Masani, Minoo. *Our India,* Oxford University Press: Calcutta, 1949.
6. Nehru, Jawaharlal, *The Discovery of India,* Oxford University Press: New Delhi, 1989.
7. Guha, Ramchandran. *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalayas,* UCA: Los Angeles, 1990.
8. सद्गोपाल, अनिल, *शिक्षा में बदलाव का सवालः सामाजिक अनुभवों से नीति तक, ग्रंथ शिल्पीः दिल्ली, 2000*
9. Seminar. *Childhood Today,* 275, July 1982; *Child Labour*, 350, October 1988; *Constitutional Commitment*, 464, April 1998; *Poverty and Famine, Education and Ideology,* 400, December 1992; *Family Matters*, 424, December 1994.
10. Sinha, Shanta, Child Labour and Educational Policy in India, *The Administrator,* July-October, 1996, pp. 17-39.
11. Srinivas, M.N. *Social Change in Modern India,* Orient Longman: New Delhi, 1995.
12. Thappar, Romila. *Past and Prejudice,* National Book Trust: New Delhi, 1985.
13. Thappar, Romila (ed) *India: Another Millennium?, Penguin:* New Delhi, 2000.
14. Tracts for the Time series (Relevant Titles) Orient Longman: New Delhi.

C 1.1 NATURE OF LANGUAGE

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, definition, component and barriers of communication.
2. Differentiate between verbal and non-verbal communication.
3. Analyze the basic concepts in phonology, syntax and semantics in linguistic system.
4. Recognize the significance of structure of story, poem, essay etc.
5. Interpret the relation between language and other subjects.

Unit-1 Aspects of Linguistic Behavior: Verbal and non-verbal communication; human and non-human communication; defining features of a human system of communication; language and mind; language and society; communication skill and its component. Barriers of communication.

Unit-2 Linguistic Systems: the organization of sounds; the structure of sentences; the concept of Universal Grammar; nature and structure of meaning; basic concepts in phonology, syntax and semantics (to be taught through suitable illustrations).

Unit-3 Text and Linguistic Systems: organization of text discourse structure, oral and written; nature of class room discourse. Structure of a story, poem, essay etc., points of entry into texts to teach them more effectively (to be taught through practicum) Various methods of language teaching.

Unit-4 Languages of India: multilingualism; using the multilingual resource of a classroom (to be taught through practicum). Relation between language and other subjects, language and NCF 2005, language and Deconstruction.

READINGS :

1. Agnihotri, R.K. and Khanna A.L. (eds) *English Grammar in Context,* Ratnasagar: Delhi, 1996.
2. Agnihotri, R.K. Multilingualism as a Classroom Resource', in K. Heugh, et. al. (eds) *Education for South Africs,* Heinemann: Johannesburg, 1995.
3. Agnihotri, R.K. *Sociolinguistic Aspects of Multilingual Classrooms,* Paper presented at the International Seminar on Language in Education, Cape Town, South Africa, January 15-20, 1996.
4. Aitchison, J. *Linguistics,* Hodder and Stoughton : London, 1978, Chap. 1-5.
5. Brumfit, C. J. and J.T. Roberts, *Language and Language Teaching,* Bastsford Academic and Educational (H) : London, 1983, Chapter 1-5, 7.
6. Shapiro, M.C. *A Primer of Modern Standard Hindi,* Motila Benarsidass: Delhi, 1989, Chapter 1-3, 27, 28.
7. Verma, S.K. and N. Krishnaswamy, *Modern Linguistics: An Introduction,* Oxford University Press: Delhi, 1993, Chapters 1 & 2.
8. Yule, G. *The study of Language,* (2nd Edition), Cambridge University Press: Cambridge 1996. Chapters 3-8, 19-20.
9. नारंग, वैष्णा, *सामान्य भाषाविज्ञान,* प्रकाशन संस्थानः दिल्ली, 1984.
10. पाण्डेय, रामशकलः हिन्दी शिक्षण, अग्रवाल पब्लिकेशन आगरा।
11. सिंह, कर्ण : हिन्दी शिक्षण, राखी प्रकाशन, आगरा।
12. लाल, रमन बिहारी : हिन्दी शिक्षण आर.लाल बुक डिपो मेरठ।

ADVANCED READINGS:

1. Chomsky, N. *The Formal Nature of Language,* Lennerberg, 1967.
2. Gargesh, R. *Sheilly Vigyan, Mauya Bhasha Aur Hindi Paridrishya,* Pashyanti, Delhi University: Delhi, July-August 1995, 47-53.
3. Khubchandani, C.M. (ed.) *Language in a Plural Society,* IIAS: Shimla, 1988.
4. Leech, G.N. *Semantics,* Penguin: Harmondsworth, 1981.
5. Pandit, P.B. *India as a Sociolinguistic Area,* University of Poona: Poona, 1972.
6. तिवारी, भोलानाथ, भाषा विज्ञान, प्रभात प्रकाशनः दिल्ली, 1988.

C 1.2 CORE MATHEMATICS TEACHING

Objectives: After completing this course, the students will be able to-

1. Understand the meaning and scope of number and measurement.
2. Explain the concepts of space and shape.
3. Interpret the number patterns and others mathematical investigation and puzzles.
4. Recognize the significance of different teaching methods in mathematics teaching.

Unit-1 Number and Measurement: counting and place value; arithmetic operational approximation; estimation; fractions and decimals; concept and measurement length, mass/weight, area, volume, time.

Unit-2 Space and Shape: symmetry and pattern - properties of two and three dimensional objects e.g. symmetries, projection, perspective, tessellation, close packing etc.

Unit-3 Algebra: number patterns - forming and solving simple linear equations- others mathematical investigations and puzzles.

Unit-4 Practical Arithmetic and Handling Data: collecting, representing and interpreting data; using elementary statistical techniques; timetable and time tabling; flow charts; percentage; ratio and proportion; interest; discount; tax.

It is envisaged that the various concepts and operations will be reconstructed through activities and problems, using concrete materials as often from the kitchen as from mathematical kits, to arrive at solutions or conduct investigations. This would be followed by reflective discussions on the concepts, solutions, results and the methods used (both 'right' and 'wrong').

Unit-5 Mathematics in NCF-2005: methods of Mathematics teaching

- Inductive and deductive, Heuristic method and project method.
- Correlation of mathematics with other subjects.

READINGS :

1. Bolt, Brian, *Mathematical Activities, A Resource Book for Teachers,* Cambridge University Press: Cambridge, 1982.
2. Bolt, Brian and David Hobbs, *101 Mathematical Projects,* Cambridge University Press: New York, 1990.
3. Burns, M. *The I Hate Mathematics Book,* Cambridge University Press: Cambridge, 1987.
4. Furth, H.G. and S.H. Wachs, *Thinking Goes to School,* Oxford University Press: New York, 1975.
5. Gary L, Musser and Willam F. Burger, *Mathematics for Elementary Teachers :A Contemporary Approach,* Macmillan: UK, 1994. Third Edition.
6. Holt, M. and Z. Dienes. *Lets Play Mathematics,* Penguin: Harmondsworth, 1973.
7. IGNOU, AMT-01, *Teaching of Primary School Mathematics,* IGNOU: New Delhi, 1991.
8. IGNOU, AMT-01, *Learning Mathematics,* IGNOU: New Delhi, 2001.
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10. Nuffield Mathematics Project, *Mathematics Begins,* Newgate School Mathematics Project, Levels I to VIII, Work books and Teacher Guides, Nuffield: London, 1987.
11. Perelman, Ya. *Mathematics is Fun,* Mezhumurodnaya Kniga: Moscow, 1985.
12. Robert F. Reyes, Marilyn N. Suydam and Mary M. Lindquist, *Helping Children Learn Mathematics,* Allyn and Bacon: Massachusetts, 1992, Third Edition.
13. Rawat, D.S. Mathematics teaching, Agrawal Publication Agra.

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1. Karmii, C.K. *Young Children Reinvent Arihmetic,* Teacher's College Press/Oxford University Press, New York, 1985.
2. Liebeck, P *How Children Learn Mathematics,* Penguin: London, 1983.
3. Lovell, K. *The Growth of Basic Mathematical and Scientific Concepts, in Children,* University of London Press: London 1961.
4. Mangal, C.K. : *Ganit Shikshan,* Agrawal Pubication, Agra.

C 1.3 CORE NATURAL SCIENCE

Objectives: After completing this course, the students will be able to-

1. Understand the meaning of property, concept, relation and law in core natural science.
2. Interpret the measurement of length mass and time.
3 Differentiate between physical and chemical changes.
4. Differentiate between living and non-living.
5. Describe the classification of living world.

Part-I It is envisaged that most of the content will be transacted using the discovery approach, through simple observations and experiments, followed by discussion. Wherever necessary, additional information may be supplied by the teacher at the end of each activity.

Unit-1 Classification, property, concept, relation law.

Unit-2 Measurement of length, mass and time; heat and temperature; work and energy, weight; falling of bodies; gravitation; heat and temperature; states of matter; properties of magnets; electricity; refraction and dispersion.

Unit-3 Physical and chemical changes; separation of mixtures; atoms and molecules; metals and non-metals; oxides; acids; bases and salts; air and combustion; water-hard and soft.

Unit-4 Living and non-living; classification of living world; germination of seeds; life processes e.g. respiration, digestion, reproduction, photosynthesis, transportation phenomena, interdependence of plants and animals.

Unit-5 Science teaching in NCF-2005, NCFTE : 2009.

Part-II It is expected that investigative projects will involve some or all of the following elements- laboratory work, library reference, field-survey, group discussion, seeking expert opinion.

3 Projects : not more than one project from each area :

P1- Natural Phenomena
P2- Environment and Adaption
P3- Technology
P4- Health

For suggested lists of possible question to be investigated see Annexure 1

Annexure 1

P1
1. Why is the sky blue?
2. Why does it rain?
3. Why do stars twinkle?
4. How many colours are there in a rainbow?

P2
1. Why don't lizards fall from ceilings?
2. Why does a dog go round in a circle before it sits down?
3. How do fish survive without air?
4. Can human beings live on grass?
5. Why does a cat produce kittens and not baby camels?

P3
1. How is glass made?
2. How is electricity generated?
3. From where does a TV set get its pictures?
4. What is inside a camera?

P4
1. Why do teeth decay?
2. Why does hair fall?
3. Does bad blood cause pimples?
4. Why do ears run?

READINGS :

1. Eklavya *Bal Vigyanik,* Class-6, 7, 8, Madhya Pradesh Pathyapustak Nigam: Bhopal, 1978, Refer to updated editions.
2. Esler, W.K. *Teaching Elementary Science,* Wads Worth : California, 1973.
3. Gega, Peter, *Science in Elementary Education,* Wiley & Sons : New York, 1970.
4. Keetow, W.T. and J.L. Gould, *Biological Science,* W.W. Norton : New York, 1986.
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6. Neson, R. and B. Lootoian. *Fundamental Concepts of Biology,* John Wiley & Sons : New York.
7. UNESCO, *New UNESCO Source Book for Science Teaching,* University Press (India) Ltd. India, 1979.
8. RAWAT, D.S.: Vigyan Shikshan, Agrawal Publication Agra.
9. Kulsreshta, S.P. : Teaching of Biology, Loyal Book Depot, Meerut.

C 1.4 CORE SOCIAL SCIENCE

Objectives: After completing this course, the students will be able to-

1. Explain the role of social science in the learner's development.
2. Describe the relation of social science with other subjects.
3. Analyze the relationship between human experience and the growth of institutions.
4. Understand relationship human life, space and resources.
5. Understand the implications of sociological knowledge for explaining the problems of education.

Unit-1 Nature of Social Science: data, method and evidence to be discussed in the context of history, geography, civics, sociology and economics. Role of social science discipline in the learner's development. Significance of perspective and context in the study of social sciences. (Exemplars: 1857, Secularism/ Communalism). Relation of Social Science with other subjects.

Unit-2 Relationship between human experience and the growth of institutions (to be studied in the context of the following concepts): nationalism, democracy and citizenship. (These concepts could be taught with examples from a contents area which may be thought fit-the emphasis however, should be on the teaching of concepts).

Unit-3 Relationship between human life, space and resources (to be studied in the context of the following) : movement from a subsistent economy to a surplus economy; demography and the distribution of wealth in society; spatial interation (to be taught in the Indian context).

Unit-4 Study of the relationships and interactions of people in groups: culture, social stratification and social change. Social mobility and Education.

Unit-5 Project work: interconnections are to be drawn between the various disciplines that fall within social sciences through project work, e.g.

(a) Seminar presentation on citizenship education.

(b) Take two products available to you as a consumer. Try and trace the process by which it is made available to you from its raw form to a finished product. Study the various factors of geography, economics, politics, history and sociology that may have influenced it in one way or another.

(c) Essay writing on any innovation in Social Science.

READINGS :

1. Bottomore, T.B. *Sociology,* George Allen and Unwin : London, 1971.
2. Carr, E.H. *What is History?* Macmillan: London, 1962.
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11. Siddhiqui, Muzibul Hasan: *Teaching of Economics,* Ashish Publishing House, New Delhi, 2012.

PR 1.1 PERFORMING AND FINE ARTS

Objective

- To provide a theoretical background on the relation between education and drama
- To initiate a process for independent, enjoyable and motivated learning by the learners themselves on the basis of their own experience
- To help realise one's own potential for self-enhancement
- To help recognise the importance of group work and socialisation
- To develop organisational skills, interpersonal relationships and discipline
- To draw linkages between various art forms
- To work on the linkages between dramatics and school subjects
- To develop a repertoire of skills for use in teaching-learning situations
- To grow with an attitude and philosophy about life and learning

Tasks

The students must be guided to acquaint with four thrust areas. One is related to developing the student's own personality and capacity. The second is to help develop the potentialities of school children to the point of driving home the fact that child is the creator of knowledge. The third is to develop communication and interaction capabilities. And the fourth is to find linkages between various art forms and school subjects so as to develop a holistic view about learning.

The practicum can fulfill the objectives only when a series of workshops are organised in continuity and under professional guidance, over the academic year. Suggested activities are given below.

1. **Theoretical background:** Importance of 'play' in general and 'dramatic-play' in particular, child drama, creative drama, children's theatre, theatre in education, drama and theatre, 'role play' in social life and on stage, traditional role of drama and theatre in educating people and its modern use dramatics in relation to school subject.
2. **Drama as playful transformation-** Transformation of 'self' objects space and time; transformation for realisation; role of empathy; transcendence.
3. **Enhancement of 'self':** The purpose would be to sensitise students about their inherent potentialities. Component activities related to body and mind, senses emotions, imagination, concentration, observation introspection etc.
4. **Creating space:** The basic idea is to recognise available space and to create under most trying conditions. Components-many ideas about space physical, mental, social, individual, limited and unlimited (example: limited space of classroom and its unlimited use, or limited space on stage where everything is possible) space for oneself and space shared with others, uses of space in class room, in school and in life.

5. **Taking the floor:** Energetic entry, lively presence and exist on promise of better experience together is common to a teacher and a performer. Each individual style can be sensitised for improvement.
6. **Communication:** Reaching out to others and different means of doing so; role of dramatics and related art forms as means of communication; performance as a way of communication.
7. **Verbal communication:** Sound extended to music, speech (clarity, diction, volume, tonal variation, emphasis, pause, silence), recitation, story telling, mask and puppet paly, and lesson transaction.
8. **Non-verbal communication:** Sign and symbol, importance of contact (touch, eye, etc.), gesture, expression, mime, movement, child art and craft, arrangement and design.
9. **Improvisation:** Role play, observation and imitation, action-reaction, spontaneity, responding to situations.
10. **Problem solving:** Problem solving as an approach to life and work: transcending the problems in class room, school and resources; this also amounts to accepting the fact that children are intelligent human beings and are capable of solving their own problems, the need is no have confidence in them.
11. **Relaxation:** Playfulness and enjoyment of work, learning to relax in the midst of intense activity, relation between energy and relaxation, thinking positive and be creative, relaxation of body and mind.
12. **Linkage activities:** Dramatics incorporates all art forms. The basics of all these can be easily understood and practised by all. These are also language systems, used for communication at various levels and ways. These are also the means to enhance cognitive and affective skills. In addition, linkages can be worked out to enhance organisational skills, human relations, confidence, resourcefulness and self-discipline.
13. **Drama and school objects:** Dramatics can be and have to be linked to curriculum subjects, simply because drama is also a learning process. One has to find the devises for doing so.

The heads mentioned above may overlap. These are classified more for understanding and a sense of direction.

Record Keeping

Each student will be expected to maintain a reflective journal which will include:

- a detailed record of the sessions
- reflective analysis of the activities
- insights gained
- linkages with school subjects, with examples

Time Frame

Each student will be required to attend a minimum of 22 workshops.

Each workshop will be of 3 hours duration.

Supervisory Support

Workshops must be conducted and supervised by a professional (trained in drama, theatre, preferably as it applies to education) and coordinated by a faculty member. Facilitation and supervision will include:

- planning and conducting the activities
- maintaining a diary of comments on each session and on each student
- initiating discussion and buildings up an environment for critical and reflective sharing

While assessing a student, the change in overall attitude and personality of each student must find mention in Resource Person's comments. The diary maintained by the resource person should be submitted to the college authorities at the time of submission of awards.

Assessment

There will be an ongoing internal assessment of each student by the concerned professional and faculty member, using the following basis and criteria.

Basis	**Criteria**
Activities	Regularity
	Participation and interest
	Self-discipline
	Interpersonal adjustments
	Organisational skill
	Confidence
Performance	Attitude towards work
	Initiative taking
	Originality and resourcefulness
	Skills acquired
	Flexibility and adoptability
	Problem solving
	Creativity
Reflective journal	Description of sessions
	Analysis of activities
	Linking dramatics to pedagogy with examples
	Reflections and critical assessment of dramatics in education
	Overall presentation, including the arrangement and look of the journal, as a record for future reference.

Note: No separate guideline has been provided for first and third year students. However, for the third year students, the theoretical aspects, linkage with art forms & curricular subjects and all-round communication skills would be of major importance.

READINGS :

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2. Coombs, James and M.W. Mansfield, (ed), *Drama in Life: The Uses of Communication* in So New York Communication Art Books: New York, 1976.
3. Dodd, Nigel and Winifred Hickson, *Drama and Theatre in Education,* Heinemann: Lon 1971/1980.
4. McCaslin, Nellie, *Creative Drama in the Primary Grades, Vol I* and *In the Intermediate Gr. Vol II,* Longman: New York/London, 1987.
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PR 1.2 CRAFT

Objective

To learn to:

- recognise and actualise one's own potential for creativity
- develop a repertoire of skills in craft
- use craft skills in education in order to stimulate creative expression, imagination an, generate confidence among children
- enable children to express their emotions
- provide ways for promoting decision-making in children
- enable children to plan, collect and perform activities on their own, using various creative media

Workshops

Craft activities are to be conducted in the form of workshops for groups of 12-16 students under the supervision and guidance of professionals. Workshops will include individual and group work. The focus of these workshops should not only be to develop skills of craft but also skills for the use of craft in education.

Some of the suggested media that need to be used for developing craft skills in students

Paperwork

Origami, paper cutting, college making

Painting

Drawing, painting of different kinds, with water colours, oil paste, batik, tye and dye, fabri colours etc.

Modelling

Model making, mask making using clay, plaster of paris or any other medium

Waste material

Making different forms of animal and human figures using natural materials such as flower: twigs, leaves, making objects or puppets out of waste material such as ice-cream sticks, empty match boxes, wool, cotton, socks, thread, sticks etc.

Paper Mache

Making various objects and masks using the skill and the technique of papermache

Keeping Records

Each student will keep regular written records of the workshop sessions. This would include:

- detailed description of the activities undertaken
- use of the learnt skills in pedagogy by giving specific examples
- students' reflection and critical assessment of the use of each of the craft skills in education

Time Frame

Each student will be required to attend a minimum of 25 craft workshops in a year. Craft workshops could be conducted either twice a week over half the academic year or once a week over the entire academic year.

Space

Craft workshops required enough floor space for individual and group work. The allotted room must also have storage and appropriate display space.

Supervisory support and professional guidance

Students will participate in craft workshops under the supervision and guidance of professional crafts person(s). In addition, a faculty member will coordinate the craft workshops with the professional resource person(s).

The professional trainer will:

facilitate the process of learning, covering various media

help students to draw linkages between specific activities and the teaching-learning process

Assessment

Each student will be assessed internally by the concerned professional on the following basis and criteria:

Basis	**Criteria**
Various Media	Skill develop
	Originality
Individual Reports	Description of the activity
	Visual layout and sample items
	Specific pedagogic examples
	Reflection and critical assessment of crafts skills in education
Performance	Regularity
	Participation and interest
	Creativity
	Initiative taking
	Repertoire of skill

COLLOQUIA:SCHOOL CONTACT PROGRAMME

Objective

To learn to:

- relate and communicate with children
- place emphasis on craft, theatre, music for organising creative activities and also to plan, design and organise creative activities with children using skills of craft, theatre, music and so on
- conduct meaningful group and individual activities with children
- engage all children in activities and to ensure active participation and free expression
- observe children and collate experiences of interacting with and relating to children
- reflect upon experience

Tasks

Plan for the School Contact

Planning in terms of theme or topic, method of introduction, content, mode of presentation, duration and specific activities

School Contact

Interaction with children using planned activities

Post-Contact

Review and discussion with group members and faculty supervisors. This would include observations of children, collection of experiences and reflection upon experiences.

Record Keeping

Group reports will be informed by systematic written records of each student. Reports will include:

- the plan
- description of the collation of experiences with children, children's involvement etc.
- critical assessment of the plan and the school contact in terms of:
  - choice and design of activities
  - organisation
  - observations of children
  - the difficulties faced and possible innovation

Time Frame

Each student should have a minimum of 5 contact sessions over the year.

- Planning 2-3 hrs with faculty facilitation
- School Contact 3-4 hrs per school contact
- Post-Contact discussion 2-3 hrs with faculty supervisor

Supervisory Support

Each groups of 4-6 students will be supervised by a faculty member who will:

- facilitate the planning process
- observe the interaction of trainee teachers with children during the contact
- give timely feedback and facilitate the process of analysis, interpretation, documentation and reflective learning

The Colloquia

Each group will make a minimum of two presentations based on the collated experience of all members. Group presentations will be followed by questions, queries and common from the rest of the class.

Reflective learning

It is expected that the trainees will learn to analyses critically their preparation, choler activities and materials, developments that take place in a classroom, their own and one classmates interaction with children. They are also expected to reflect upon issue regarding children's learning, their expressions, creativity, issues of discipline and contact and the influence of varying socio-cultural background of children on their learning.

Assessment

Each student will be assessed internally by the concerned professional on the following basis and criteria:

Basis	**Criteria**
Planning	Theme/topic
	choice of activities
	relevance of materials
	organisation of time
School Contact	organisation of material
	communication
	engaging children
	spontaneity
	time management
Post Contact Discussion	insights gained
	analysis and interpretation
	reflective learning
Individual Report	clarity of thought
	organisation and format
	analysis and reflection
	logical flow
Group Presentations	identification of key elements
	clarity and organisation of ideas
	openmindedness to critique
	ability to substantiate arguments
	critical and reflective questioning
	cooperation and coordination among group member.

JAN NAYAK CHANDRA SHEKHAR UNIVERSITY (JNCU) BALLIA (U.P.)

B.El.ED. PROGRAMME

Bachelor of Elementary Education Rules, Regulation, Duration and Syllabus

B.El.Ed. Course

YEAR-II

THEORY	F2.3	Cognition and Learning	100	
	F2.4	Language Acquisition	50	
	F2.5	Human Relations and Communication	50	
	Language Across the Curriculum		50	
		Liberal Course (Optional I)*	100	
	O2.1	English I		
	O2.2	Hindi I		
	O2.3	Mathematics I		
	O2.4	Physics I		
	O2.5	Chemistry I		
	O2.6	Biology I		
	O2.7	History I		
	O2.8	Political Science I		
	O2.9	Geography I		
	O2.10	Economics I		
E.P.C : 02	PR 2.3	Observing Children	75	
	PR 2.4	Self-development Workshops	50	Total
	PR 2.5	Physical Education	25	200
		Colloquia	50	Marks
	Academic Enrichment Activities			
	TOTAL :		**550**	**Marks**

F 2.3 COGNITION AND LEARNING

100 Marks

Objectives: After studying this course, the students will be able to-

1. Understand, meaning, definition and approaches to cognition.
2. Describe how children perceive elementary cognitive processes.
3. Examine how children learn and remember.
4. Explain the meaning and scope of learning.
5. Recognize factors contributing to learning.

Unit-1 The mind at work : cognition and approaches to cognition: individual difference and its implication. Leval and Stages of teaching. How children perceive: elementary cognitive processes-sensation, perception and attention.

Unit-2 How children learn and remember: basic processes, strategies, knowledge, memory; current issues, Forgetting : causes and principles. The developing mind: concepts and concept formation: Bruner. developing concepts of time, space, number, relationship etc.

Unit-3 Transfer of Learning, Motivation various techniques for motivating the child: creativity and problem solving.

Unit-4 Alternative conceptions of learning. Factors contributing to learning : personal and environmental conditions of learning. E-Learning, Role of ICT in Learning. The Child's personal and social world : cognition and emotion, Bloom's Taxonomy : Cognitive, Affective Psychomotor.

References :

- Dutta, N.K. : The Psychological Foundation of Education, Doaba house, Delhi, 1974.
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- Kundu, C.L. : Educational Psychology, Sterling Publication, 1983.
- Misra, K.S. : Emotional Intelligence : Concept Measurement and Research, Association for Education Studies, Allahabad 2007.
- Pandey, K.P. : Advanced Educational Psychology, Viswavidhyalay Prakashan 2007.
- Sharma, N. : Understanding Adolescence, NBT, India 2003.
- Chauhan, S.S. Advanced Educational Psychology, Vikas Publishing House, New Delhi, 2010.
- Panda, P.K. : Perspectives of Educational Psychology, Agrawal Publication, Agra, 2015.

F 2.4 LANGUAGE ACQUISITION

100 Marks

Objectives: After completing this course, the students will be able to-

1. Describe the importance of language in cognitive process.
2. Explain the concept of phonology, morphology, syntax and semantics.
3. Interpret the reading comprehension and teaching implications.
4. Understand the meaning of Alexia and Dyslexia.
5. Describe the importance of reading in language acquisition.

Unit-1 Language and cognition: cognitive prerequisites for language acquisition; biological foundation; language and thought, annalist hypothesis; cognitive, social and linguistic development : Piagetian and Vygotskian perspectives, Language in NCF : 2005 perspectives.

Unit-2 Language development: the earliest stages and the babbling period; stages of language development: the role of motherese and caretaker speech; phonology; morphology; syntax and semantics; sociolinguistic aspects, Link between learning a languages and environment.

Unit-3 Comprehension and production: speech and speech comprehension; speech production; encoding and performance measures; the role of errors in language production. Reading comprehension and Teaching implication. Principle underlying reading comprehension exercise. Reading comprehension in classroom.

Unit-4 Reading and writing: learning to read and understand; the written process, devices in writing difference of written. Reading process charactoisties of reading, reasons for readings. Reading problems : Miscues visionless Neurological problems. Alexia and Dyslexia : Concept and causes.

References :

- Grellet, F. (1981); *Developing Reading Skills,* Cambridge University Press, Cambridge.
- Bist, Abharani : Teaching English in India, Agrawal Publication, 2014.

- Radhakrishnan Pillai, Rajeevan K. & Bhaskaran Nair, T., (1990) : *Written English* Emerald, Madras.
- Saraswathi V., (1979) : *Organized Writing,* Orient Longman, Madras.
- Haekar D. & Renshaw R., (1989) ; *Writing with a Voice,* Scott, Coresman and Illinois.
- Hedge T., (1988) : *Writing,* Oxford University Press, Oxford, ElBS.
- Raines, Ann (1983) : *Techniques in Teaching Writing,* Oxford University Press, New Yark.
- Pincas, Anita (1982) : *Teaching English Writting,* Macmillan, London.
- Doff, A. (1998) : *Teach English : A Training Course for Teacher's* The British Counsel & Cambridge University Press, Cambridge.
- Matthews, A., M. Spratt and L. Dangerfield (eds) (1985) : *At the Chalkface,* Edward Amold, London.
- Nuttall, Christine (1987) : *Teaching Reading Skills in a Foreign Language,* Heinemann Educational Books Ltd., 1982; ELBS Edn., London.

F 2.5 HUMAN RELATIONS AND COMMUNICATION

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning and scope of human relation.
2. Differentiate between verbal and non verbal communication.
3. Explain why communication process is important in classroom teaching-learning.
4. Differentiate between behaviorist and humanistic perspectives in communication process.
5. Understand the concepts of life skills Education and Joyful learning.

Unit-1 Personal development: self identity and human relationships : psychoanalytic and humanistic perspectives, perspectives from women.

Unit-2 Communication: the adult child gap, assumptions and attitudes; channels of communication : the hidden curriculum. Components of communication skill. Process of communication, Barriers of communication.

Unit-3 Human relations in education: Behaviorist versus Humanistic perspectives Role of ICT in Communication process; Tips of effective communication.

Unit-4 Perspectives: Peer learning, Joyful learning constructs and dimensions: community involvement. Life skill Education meaning, need, model.

References :

- *Amidon, Edmund J. And John B. Hough (1967)- Interaction Analysis : Theory, Research and Application,* Addison Wesley Publishing Company, Reading Massachusetts London, Ontario, 401 pp.
- *Allen, Dwight Kevin Ryan (1969)* 'Micro-teaching'. Addison-wisley publishing Company, London, Ontario, 71 pp.
- *Amidon, Edmund J, Elizabeth Hunter (1967)- Improving Teaching, the Analysis of Classroom Verbal Interaction.* Holt Rinehart and Winston, Inc. New York London. 221pp.

- *Buch, M.B. and Santhanam, M.R. (1970) - Communication in Classroom,* CASE. M.S. University, Baroda-2 165 pp.
- *Flanders, Ned A. (1972) - Analysing Teaching Behaviour,* Addison Wesley Pub. Co. California, London, 416 pp.
- *Fleming C.M. (1969)- Teaching : A Psychological Analysis.* London, Methuen. 291 pp.
- *Gage N.L. (1965)* - 'Theories of Teaching in Theories of Learning and Instruction' NSSE University press 63rd Year Book, Chicago.
- Sharma, R.A. and Chaturvedi, Shikha (2013) Educational Technology and CAI, R. Lal Book Depot, Meerut.
- Aggarwal, J.C. (2011) Educational Technology and Managements, Agrawal Publication Agra.

F 2.1 LANGUAGE ACROSS THE CURRICULUM

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understanding the language as a means of construction.
2. Differentiate between language as a school subject and language as a means of learning.
3. Describe basic language competencies required at school.
4. Interpret the concept of school language and home language.
5. Evaluate the language of textbooks in different subjects.

Unit-1 **Meanings, nature, scope and importance of language and learning language as a means of construction of reality;** language and experience; concept-formation. Aims and objectives of studying Language.

Unit-2 **Language at School:** distinction between language as a school subject and language as a means of learning and communication, language and society linguistic variability.

Unit-3 **Basic Language competencies required at school:** oracy, listening, reading and writing. Special study of reading: cognitive basis of reading, analysis of the tasks involved in reading, motivation to read, stages of learning to read, reading ability. Different types of writing : composition, Dialogues, Letters paragraphs, Essays, reports. Reading technique : Skimming and scanning..

Unit-4 **The child's language and the school:** school language and home language; language as an aspect of teacher-child relationship: language environment of school: language of textbooks in different subjects.

Suggested Projects

1. To elaborate their theoretical understanding students should undertake a project involving listening to children's reading, miscue analysis, developing a reading test and administering it.
2. Analysis of text books and other materials used in different subjects from the point of view of registers and styles used in them.

References :

- Bhaskaran, M.P. (1989): *Onwards English: Language Practice 1-5,* Orient Longman, Madras.
- Freeman, S. (1977): *Written Communication in English,* Orient Longman, Madras
- Radhakrishnan Pillai, G., Rajeev, K. & Bhaskaran Nair, T. (1990): *Written English for You,* Emerald, Madras.
- Pincas A. (1982): *Teaching English Writing,* The Macmillan Press Limited, London.
- Saraswathi, V. (1979): *Organised Writing,* Orient Longman, Madras.
- Tickoo, M.L. & Bhaskaran, M.P. (ed.) (1985): *Gulmohar Graded English Course: Practice Books 1-5,* Orient Longman, Madras.
- Wright, A. (1989): *Pictures for Language Learning,* Cambridge University Press, Cambridge.
- Xavier, L. and Ramani, P.N. (1987): *Written Communication I & II,* Pondicherry University, Pondicherry.
- Grellet, F. (1981): Developing Reading skills, Cambridge University Press, Cambridge.

02.1 ENGLISH I

Section : A Reading and writing skills

Objectives: After completing this course, the students will be able to-

1. Differentiate between teaching as a first language and foreign language.
2. Understand panchtantra in English context.
3. Illustrate T.S. Eliot as a thinker.
4. Interpret common language errors which are likely to be encountered by the teachers of English as a second language.
5. Understand the implications of teaching language through literature.

(Preferences for extracts are from named editions. These may vary in erent editions).

Unit-1 Panchtantra : The Monkey and the Crocodile Hans Christian Anderson : Rapunzel Stephen Leacock : From Literary Lapses : My Financial Career (Penguin 1939. Pg. 7-10)

Carl Sagan : From Cosmos (Ballantine Books) from chapter 1, pg. 1-5. "The Cosmos is all that is_to".. working out our destiny".

Unit-2 T.S.Eliot : Macavity (poem). Wole Suyinka : Telephone Conversation (poem). Anne Frank : The Diary of a Young Girl (Pocket Books. New York, 1958) Pg. 49-50. Letter dated Friday 20th Novermber, 1942. From "None of us really knows how to take it all... "to" .... about those other miseries".

Lord Byron : From Byron's letetrs and Journals Vol IV (ed Leslie Marchand) Pg. 326-327-Letter to Tom More October 31, 1815, extract from "Yesterday I dined out...."to"... the first sprightly running of others".

Unit-3 Four advertisements from the Matrimonial Page of Times of India. Philip Kodar : The Principles of Marketing (Prentice Hall. India) Pg. 159-160 from "Playboy magazine has passed ..."to"... factors that influence and motivate consumer behavior". Shakespeare : Julius Caesar-Act III Sc. 2 Ln 12-33 and Ln 74-107 (Speeches of Brutus and Mark Antony).

Charles Dickens : David Copperfield. (Penguin Classics) Pg 312-314. From "We entered a low...? to" ... Uriah's dinted nostrils."

Unit-4 Teaching English as a Second Language.

The differences between teaching English as a first language, as a second language and as a foreign language,

Common language errors which are likely to be encountered by the teachers of ESL,

Implications of teaching language through literature,

Teaching techniques and materials such as drama, audio-visual aids, puppetry etc.

READINGS

1. Allen, II. and Cambell, R (ed.) *Teaching English to a Second Language,* McGraw Hill : New York, 1972.
2. Brumfit, C.J. and Johnson (ed.). *The Communicative Apprroach to Language.* Oxford University Press : 1979.
3. Kachru, Braj B. *Non-Native Literatures in English as a Resource for Language Teaching',* in Brumfit, C.J. and Carter, B.R. (ed), Language and Literature Teaching, Oxford University Press : Oxford 1980.

02.2 हिन्दी I

उद्देश्य– इस कोर्स को पूर्ण करने के पश्चात् छात्र–

1. भाषा विज्ञान एवं वाक्य विज्ञान को समझ सकेंगें।
2. अर्थ विज्ञान एवं अर्थ परिवर्तन के कारणों का उल्लेख कर सकेंगें।
3. हिन्दी नाटक, कहानियां तथा निबन्ध की व्याख्या कर सकेंगे।
4. हिन्दी रंगमंच के सामान्य परिचय को समझ सकेंगे।

इकाई–I (A) भाषा विज्ञान : परिभाषा एवं क्षेत्र, भाषा विज्ञान का इतिहास, भाषाओं का वर्गीकरण

(B) वाक्य एवं पद – विज्ञान, ध्वनि–विज्ञान, ध्वनि परिवर्तन एवं उसके कारण।

इकाई–II (A) अर्थ विज्ञान : अर्थ, परिभाषा एवं अर्थ विज्ञान का विषय, अर्थ परिवर्तन के कारण।

(B) लिपि का विकास भारतीय लिपियां, नागरी लिपि नाम एवं विशेषतायें

इकाई–III (A) हिन्दी नाटक :

ध्रुवस्वामिनी – जयशंकर प्रसाद

आधेअधूरे – मोहन राकेश

(B) कहानियाँ तथा निबन्ध

पुत्र–प्रेम – प्रेमचन्द

शरणागत – वृन्दावन लाल वर्मा

दासी – जयशंकर प्रसाद

संस्कृति क्या है? – रामधारी सिंह दिनकर

इकाई–IV (A) हिन्दी रंगमंच का सामान्य परिचय आधुनिक हिन्दी नाटक एवं रंगमंच

(B) एकांकी :

सीमा रेखा – विष्णु प्रभाकर

सूखी डाली – उपेन्द्र नाथ अश्क

औरंगजेब की आखिरी रात – डॉ0 राम कुमार वर्मा

संदर्भ ग्रन्थ/सहायक पुस्तकें

1. सिंह, राजकिशोर (1987) : संस्कृत भाषा विज्ञान, विनोद पुस्तक मन्दिर, आगरा।
2. सिंह, बच्चन : हिन्दी नाटक, राधाकृष्ण प्रकाशन, दिल्ली।
3. लाल, लक्ष्मीनारायण : आधुनिक हिन्दी नाटक एवं रंगमंच, साहित्य भवन, इलाहाबाद।
4. महेन्द्र, रामचरण : एकांकी व एकांकीकार
5. ओझा, दशरथ : हिन्दी नाटक
6. तिवारी, डॉ0 भोलानाथ : भाषा विज्ञान
7. सिंह, कर्ण : भाषा विज्ञान
8. पाण्डेय, त्रिलोचन : भाषा विज्ञान व हिन्दी साहित्य की भूमिका।

02.3 MATHEMATICS

MM:100

Course Content:

Part I : SYMBOLIC LOGIC AND SET THEORY

Objectives: After completing this course, the students will be able to-

1. Understand the symbolic logic and set theory.
2. Describe various representations of complex numbers.
3. Illustrate theory of Elementary Algebra.
4. Explain the concept of vector and vector products.
5. Interpret the successive differentiation.

Unit-1 Statements: negation, conjunction, disjunction, implication, converse : and contra positive, necessary and sufficient conditions; types of proofs, mathematical induction and deduction, truth table switching circuits.

Sets, operations on sets, distributive laws, De Morgan's laws, power set, Cartesian Product.

Relations: equivalence relations and equivalence classes, partitions of a set; partial order relations (in particular divisibility and set inclusion) chains and lattices.

Mappings, injective, surjective and bijective mappings; inverse of a mapping, composite of mapping.

Denumerable and non-denumerable sets, .

Permutations and combinations.

Part II : ELEMENTARY ALGEBRA

Unit-2 Various representations of complex numbers, Algebra of complex numbers, De Moivre's theorem and its applications.

Theory of polynomial equations: relations between the roots and coefficients.

Definition and operations on matrices over R and C, special types of matrices; determinant of square matrix, properties of determination; adjoint and inverse of a square matrix, rank of a matrix.

Systems of linear equations; characteristic equation, characteristic roots, Cayley Hamilton theorem.

Part III : VECTORS AND ANALYTIC GEOMETRY

Unit-3 Vectors, scalar and vector products; triple products, position vector and applications of vectors to geometry, gradient, divergence and curl.

Straight lines in two dimensions, pair of straight lines; circles and system of circles.

Conies, parabola, ellipse and hyperbola in standard forms, elementary properties.

Sketching of conies.

Planes and straight lines in three dimensions-direction ratios and direction cosines, equations of planes, straight lines and spheres—Cartesian and vector representations. Basic properties of spheres.

Cones, reciprocal cones; right circular cones; cylinders and right circular cylinders.

Topological structure of R, neighbourhoods, open and closed sets, limit points, bounded sets.

Sequences and their convergence, monotonic sequences; the number e. Infinite series of positive terms, comparison and ratio tests for covergence of an infinite series.

Limits, continuity and derivability of functions; mean value theorems and Taylors expansions: power series expansions of elementary functions. Indeterminate forms and L, Hospital rule.

Part V : DIFFERENTIAL CALCULUS

Unit-4 Successive differentiation and Leibnitz rule; partial derivatives and Euler's theorem on homogeneous functions.

Monotone functions and inequalities, convexity and concavity of functions; maxima, minima with applications to mensuration, dynamics and economics.

Tangents and normal's, curvature, asymptotes and singular points; curve sketching.

Functions of two variables; partial derivatives; maxima and minima of two variables: Lagrange's method for constrained optimization (Lagrange's method of indeterminate multiplier)

READINGS

1. Ballabh, Ram, *A Textbook of Coordinate Geometry,* Prakashan Kendra : Delhi, 13th Edition.
2. Narayan, Shanti, *Differential Calculus, S. Chand and Co.*: New Delhi, 13th Edition.
3. Narayan, Shanti *Analytic Solid Geometry, S.* Chand and Co : New Delhi, 15th Edition.
4. Singal, M.K. and Asha Rani Singal, *Topics in Analysis I* R. Chand & Co. : New Delhi, 2000, 6th Edition.
5. Singal, M.K. and Asha Rani Singal, *Algebra, R.*Chand & Co. : New Delhi, 2000, 22th Edition.
6. Malhotra, O.P., Gupta, S.K. and Gangal, A. ISC Mathematics Book II, S. Chand and Co : New Delhi, 1965.

02.4 PHYSICS I

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, definition and scope of mechanics.
2. Differentiate between oscillations and wave optics.
3. Differentiate among different theories of Electricity.
4. Illustrate review of laws of thermodynamics.
5. Interpret equilibrium statistical mechanics.

Unit-1 Mechanics : scalars & vectors. Addition of vectors, Newton's laws of motion, forces and pseudo-forces, work-energy theorem, conservative forces. Conservation of energy, conservation of linear momentum, centre of mass, particle collisions (in 2 dimensions). Rotational motion, torque and angular momentum. Conservation of angular momentum. Law of gravitation, intertial and gravitational masses, motion of planets and satellites. Kepler's laws.

Unit-2 Oscillations: free oscillations with one degree of freedom, damped oscillations, forced oscillation, resonance and Q factor, combination of two harmonic motions.

Wave optics: wave equation, travelling and standing waves, superposition of waves, phase and group velocity. Coherent sources and interference. Young's double slit experiment, interference in thin films. Description of diffraction by a single slit, double slit and diffraction grating. Polarized and unpolarised light, linear and circular polarization; polarization by reflection.

Unit-3 Electricity, magnetism and electromagnetic theory: review of laws of electricity and magnetism—conservation of charge, Coulomb's/Gauss, Law. Non-existence of magnetic monopoles, Ampere's law, Faraday s law. Displacement current, Maxwell's equations (in integral form). Electromagnetic waves. Light as an electromagnetic phenomenon. Transmission lines. Optical fibres.

Unit-4 Equilibrium statistical mechanics; review of laws of Thermodynamics. Classical statistics: Maxwell—Boltzmann distribution. Quantum statistics: Fermi—Dirac and Bose—Einstein distributions and their properties.

PRACTICAL At least two from each group:

GROUP I MECHANICS

1. Study of damped harmonic oscillator— Q factor.

2. Coupled pendulums.
3. Moment of inertia of irregular bodies.
4. Experiments with a loaded vertical spring.

GROUP II OPTICS

1. Wavelength of sodium light by Newton's rings.
2. Use of spectrometer—determination of \i of glass prism.
3. Diffraction grating—determination of \i of sodium light.
4. Polari meter—specific rotation of cane sugar solution.

GROUP in ELECTRICITY AND MAGNETISM

(A) 1. Study of LCR circuit
2. Determination of resistance and its variation with temperature of Carey Foster's bridge.
3. Determination of L by Anderson's bridge.
4. Determination of high resistance by leakage method.

READINGS

1. Herbert Goldstein, Classical Mechanics, Fearson publication, New Delhi.
2. Quantum mechanics, by Alastair I.M. Rae, fifth Edition.
3. David Morin, Electricity & Magnetism Cambridge Uni Press.
4. Satya Prakash, Electricity & Magnetism, Pragati Edition.
5. W. Saslow, Electricity, Magnetism and light, academic press, 2002.
6. Electricity & Magnetism, P.F. Killy CBC, Press, 2015.
7. M. Ghosh, B. Bhattacharya, A. textbook & oscillations, waves amd Aloustics, S. Chand 2016.
8. Satya Prakash, Vinay Dua, oscillation, and waves, Pragati Prakashan.
9. P.K. Mittal, Oscillation, Waves and Awustics, J.K. International Publishing House Pvt. Ltd., 2010.
10. Kumar Mittal, Nageen Prakashan Pvt. Ltd., 19th Edution, 2020-21.
11. D.P. Khandelwal; "Optics and Atomic Physics" Himalay, Publishing House Bombay, 1988.
12. S.K. Agrawal and B.K. Agrawal "Thermal physics".

02.5 CHEMISTRY I

MM:100 Marks

PART I : INORGANIC

Objectives: After completing this course, the students will be able to-

1. Understand inorganic chemistry.
2. Interpret multi electron system.
3. Explain organic chemistry.
4. Describe criteria of purity and purification of organic compounds.
5. Understand the meaning and scope of Isomerism.
6. Explain characteristics of Gases.

1. Multi electron system: Pauli's exclusion principle, Hund's rule of maximum multiplicity. Aufbau principle and its limitations; energy level diagrams.

2. Periodic Table: modern periodic table, periodicity in properties of elements, atomic, ionic and covalent radii, ionization energy, electron affinity, screening effect, electro negativity, metallic and non-metallic character.

3. Chemical bonds and molecules: shapes of simple molecules, bond energy, and bond length, types of bonding, lattice energy, Born-Haber cycle, Fajan's rule, dipole moment, metallic bond, hydrogen bond, resonance and hybridization.

PART II : ORGANIC

The following topics are to be dealt with keeping in mind the introduction to the basic principles as applied to carbon compounds, illustrated with suitable examples.

(a) Criteria of purity and purification of organic compounds:

(i) melting point and boiling point.

(ii) Crystallisation, sublimation, distillation (simple, steam, fractional, under reduced pressure)

(iii) Chromatography-paper and thin layer.

(b) Tetrahedral Concept: Catenation, hybridisation—sp, sp^ and sp-3, nomenclature (IUPAC notation).

Concepts in organic reaction mechanism:

(a) Covalent bond, homolysis, heterolysis, free radicals, ionic species, carbanion. Carbocation, electrophile and nucleophile.

(b) Inductive, electromeric and mesomeric (resonance effect).

(c) Aromatic character- Huckel's rule applied to the hydrocarbons (e.g.: Benzene, polynuclear and heterocyclic compounds).

Isomerism

(a) Structural Isomerism (chain, positional & functional).

(b) Stereoisomerism (i) geometrical (cis and trans) (ii) optical (symmetric and asymmetric carbon atom), optical activity, racemic mixture and resolution.

PART-III: PHYSICAL

Unit 1 (a) Gases: characteristics of gases, ideal gases, gas laws, deviation from ideal Behaviour, Van der Waal's equation (no derivation but explanation regarding a & b), critical phenomenon (no derivation) and liquefaction of gases.

(b) Liquids: difference between gases and liquids on the basis of their molecular, structure, vapour pressure of liquids, relationship between vapour pressure and boiling point, surface tension, viscosity, their experimental determination and applications.

Unit 2 (a) Chemical kinetics and Chemical equilibrium: rate of a reaction, law of mass action, effect of temperature, concentration and catalyst (qualitative treatment). What is chemical equilibrium, equilibrium law and factors influencing equilibrium states?

(b) Photochemistry: absorption of light, Lambert-Beer's law, laws of photochemistry. photochemistry, phosphorescence and fluorescence.

Unit 3 Ionic equilibria and conductance: Ostwald's Dilution law, ionic product of water, pH value, theory of acidbase indicators, buffer solutions, buffer range and capacity, equivalent and molar conductance, kohlrausch' s law of independent migration of ions, variation of conductance with concentration for weak and strong electrolytes. Hydrolysis of salts (only qualitative treatment). Applications of conductance for determining solubility product of water etc. conductometric titrations.

PRACTICAL- 1

(A) PROJECT WORK:

Each student shall prepare a project which innovative & application oriented as approved by the teacher.

(B) LABORATORY WORK:

(a) Integrated experiments involving the following aspects such as laboratory techniques, qualitative and quantitative analysis; (b) some physical experiments; using simple compounds such as benzoic acid, copper sulphate and salicylic acid (any 2 of them) and subjecting them to varous processes, e.g.

(a) Integrated Experiments:

(i) Benzoic acid: isolating benzoic acid by hydrolysis of sodium benzoate, purifying it by hot water, crystallization, testing its criteria of purity by melting point determination. Finally studying solubility curve and determining VH.

(ii) Copper Sulphate: preparation of cuprammonium sulphate, studying paper chromatography of both the initial & the final product using colonmetry of various concentrations of copper sulphate to verify Lambert-Beer's Law.

(iii) Salicylic Acid: purification by sublimation, preparation of aspirin (by acetylation), melting point determination, paper chromatography of both salicylic acid & aspirin respectively, complex formation with iron namely (Fe salicylate complex). Using colorimetry to verify Lambert-Beer's Law.

(b) Physical Experiments:

(i) Determination of surface tension of (i) Pure liquids (ii) Binary mixtures of liquids by Stalagmometer.

(ii) Measurement of Viscosities of (i) Pure liquids (ii) Binary mixtures of liquids by O. viscometer.

(iii) Measurement of pH by pH papers/pH meter of buffer solutions (acid & alkaline).

(iv) To study the kinetics of the reaction between $Na_2S_2O_3$ and HCL using initial rate method.

READINGS

Inorganic Chemistry

1. Cotton, F.A. and Wilkinson, G. *Advance Organic Chemistry,* John Wiley and Sons: Sussex, 1988 Fifth Edition.

2. Day, M. and J. Selbin, *Theoretical Inorganic Chemistry,* East West Press: Delhi, 1972.

3. James E. Huhey, et.al. *Inorganic Chemistry,* Harper Collins: London, 1993.

4. Lee, J.D. *A New Concise Inorganic Chemistry,* English Language Book Society, Van Nostrand Reinhold International : London, Fifth Edition, 1996.

5. Liptrot, G.F. *Modern Inorganic Chemistry,* ELBS, Bell & Harper Collins Educational : London, 1983.

6. Madan, R.D. and Satya Prakash, *Modern Inorganic Chemistry,* S. Chand and Co.: New Delhi, 1990.

7. Mohan, Bruce H. *Inorganic Chemistry,* Narosa Publishing: New Delhi, 1990.

Organic Chemistry

1. Bahl, R.S. and Srun Bahl, *Advanced Organic Chemistry,* S. Chand and Co.: New Delhi, 1990.

2. Bhutani, S.P. *Selected Topics in Organic Chemistry,* Vol. I, Vishal Publications: Delhi 1986.

3. Finar, I.L., *Organic Chemistry,* Vol.-I, The Fundamental Principles, Longman Group: Essex, 1973.

4. Finar, I.L., *Organic Chemistry,* Vol.-II, Stereochemistry and the Chemistry of Natural Products, 1975, Longman: Harlow, 1975.

5. March, Jerry, *Advanced Organic Chemistry: Reactions, Mechanisms and Structure,* Fourth Edition, Wiley Eastern Ltd.: New Delhi, 1992.

6. Morrison, R.N. and Boyd, R.N. *Organic Chemistry,* Prentice Hall India: New Delhi, 1996, Sixth Edition.

7. Norman, R.O.C. and Waddingtion D.J., *Modern Organic Chemistry,* Collms Educational, Bell & Hyman: London, 1983.

8. Sykes, Peter, *A Guide Book to Mechanism in Organic Chemistry,* Orient Longman: Bombay, 1971.

9. Srivastava, H.C., ISC Chemistry, Nageen Prakashan, 14th Edition, 2020-21.

10. Kapoor, K.L., A textbook of Physical Chemistry, Themodynamics and chemical Equilibrum-Vol. 2, Mcgraw Hill Education 2019.

02.6 BIOLOGY I

MM:100 Marks

Unit-1 Diversity of life

Objectives: After completing this course, the students will be able to-

1. Understand the meaning and scope of diversity of life.
2. Illustrate structure and reproduction in Algae.
3. Differentiate between non-chordata and chordata.
4. Interpret the origin life.
5. Describe modern theory of evolution.

1. Five kingdoms of life: basis of classification: Monera, Protista, Fungi, Plantae and Animalae.
2. Virus: structure, reproduction and its relation to man.
3. Monera: structure, reproduction and its relation to man. e.g. Bacteria and Cyanobacteria.
4. Protista: structure, reproduction and its relation to man, e.g. Clamydomonas, Paramoecium.
5. Fungi: structure, reproduction and its relation to man, e.g. Aspergillus, mushroom.
6. Plantae

a) Structure and reproduction in Algae (e.g. Sargassum), Bryophyta (e.g. Tliccia & Moss) and Pteridophyta (e.g. Pinus).

b) Angiosperm: Structure and reproduction, modifications (stems, roots and leaves).

7. Animalae

a. Non Chordata

1. Porifera: Structure and reproduction, e.g. Sycon
2. Cnidaria: morphology and reproduction, e.g. Coral
3. Platy helminthes: morphology, reproduction and its relation to man, e.g. tapeworm.
4. Aschelminthes: morphology and reproduction, e.g. Ascaris.
5. Annelid: morphology and reproduction, e.g. earthworm.
6. Arthropoda: morphology and reproduction, e.g. cockroach.
7. Echinodermata: morphology and reproduction, e.g. starfish.

b. Chordata

1. Pisces: Generalised account of fish
2. Amphibia: e.g. Frog
3. Reptilia: e.g. Lizard
4. Aves: a general account of birds
5. Mammalia: e.g. rabbit, rat and man

Unit-2 Origin of Life

Brief history, chemical evolution of first cell, Heterotrophs and Auto crophs, advent of oxygen.

Unit-2 Evolution

Modern theory of evolution, examples of Natural Selection e.g. colouration, mimicry, industrial melanism, insecticidal resistance, mineral tolerance, human evolution, species and modes of speciation.

Practicals

1. Specimens study

   Paramoeciu, Ascaris, Pila, Sea Urchin, Sargassum (alga)

2. Study photographs

   (e.m.) T-phagc, TMV (Tobacco Mosaic Virus)

   (e.m.) bacteria

3. Temporary mounts

   Sponge: Gemmules and spicules

   Cockroach: mouth parts, trachea

   Earthworm: Septal and Pharyngeal nephridia

4. Slides of bacteria from pond water and curd.
5. Structure and movement of Euglena from pond water and Chamydomonas from rain water puddles.
6. Mushroom: Section cutting, study coloured photographs, grow Aspergillus and examine microscopically.
7. Riccia and moss: study details
8. Fern: Section cutting (true and false indusium)

9. Pinus: Section cutting
10. Any two families: Solanaceae, Graminae (Arecaceae)
11. Study of any angiosperm, slides of T.S. another and L.S. ovule.

READINGS

1. Adhikari, S. and Sinha, A.K. *Fundamentals of Biology of Animals,* Vol. 3, New Central Book Agency: Calcutta.
2. Alexander, R. McNeill, *Animals* Cambridge University Press: Cambridge, 1990.
3. Audersirk, G. and Audersirk, T. *Biology-Life on Earth,* MacMillan: New York, 1992.
4. Ayyer, Ekambaranatha, M. *A Manual of Zoology Part I and II,* S. Viswanathan: II Mc Nichols Road, Chetput, Madras, 1966.
5. Cleveland, P. Hickman, *Integrated Principles of Zoology,* The C.V. Mosby Co.: London 1970.
6. Dhami and Dhami, *Invertebrates,* R. Chand & Co.: New Delhi. 1985.
7. Dhami and Dhami, *Vertebrates,* R. Chand & Co.: New Delhi. 1972.
8. Easton, T.A. and Rischer, C.E. *Bioscorpe,* Charles E. Merill Pub. Co. : Ohio, 1995.
9. Goodnight, C.J., Goodnight M.C. and Grey, P. *General Zoology,* Oxford: New Delhi 1964.
10. Raven, P.H. and Johnson, G.B. *Biology,* Brown Publishers, London, 1996.
11. Robinson, M.A. and Wiggins, J.F. *Animal Types (Invertebrates),* Hutuchinson Education.
12. Weisz, Paul B. *Science of Biology,* McGraw Hill: New York, 1967.
13. Baveja, C.P. (2017, Text Book of Microbiology, Arya Publications, New Delhi.

02.7 HISTORY I AND II

02.7 HISTORY I

TRANSFORMATIONS IN HISTORY

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the conceptual basis of history as a discipline.
2. Interpret the concept of Empire: a case study of Magadha.
3. Describe the renaissance and the process of secularization.
4. Differentiate between industrialization and imperialism.
5. Explain the nationalism and nation state.

Unit-1 1. Understanding History: the conceptual basis of history as a discipline, the question of historical objectivity and truth.

2. Interpreting Sources: the nature of historical source (archaeological, numismatics, epigraphic, literary, written/oral), problems of interpretation.

Unit-2 3. Hunting Gathering: paleolithic, mesolithic, neolithic.

4. Domestication of Plants and Animals: pastoralism, shifting cultivation, settled agriculture.

Unit-3 5. Emergence of States: monarchies, republics. A case study of Ganasanghas/ Magadha/Pallavas/Stavahanas.

6. The concept of Empire: a case study of Magadha.

Unit-4 7. Feudalism: the debate on feudalism; the European case and the Indian experience.

8. The Medieval State: the absolutist state in Rurope; the Mughal State in India: regional state forms in the eighteenth century.

Unit-5 9. Renaissance and the process of secularization: transformation of religion and the emergence of the ideals of rationality and reason.

10. Industrialization and Imperialism: industrialization and the transformation of the economy; the specificities of imperialism in the industrial age.

Unit-6 11. The Democratic Revolutions: the French case, end of the ancient regime; the nature and the legacy of the revolution.

12. The Socialist Revolutions: the Russian case: the ideals of socialism and the nature of the revolution.

13. Nationalism and the Nation State.

READINGS :

1. Allchin, B. and Allchin, R. *Civilization in India and Pakistan,* Select Book Service Syndicate: New Delhi, 1988.
2. Basham, A.L. *The Wonder That was India,* Sidgwick & Jackson: London, 1954.
3. Childe, V. Gordon, *What happened in History,* Penguin : Harmondsworth, 1954.
4. Childe, V. Gordon, *Social Evolution,* Fontana: London, 1961.
5. Sahlins, M. *Stone Age Economics,* Tavistock Pub. : London, 1978, Chapter 1, 2 & 3.
6. Sahlins, M. *Tribesman,* Prentice Hall: Englewood Gliffs, 1968.
7. Dreckmeir, *Kingship and Community in Early India,* Stanford University Press: Stanford, 1962.
8. Sharms, R.S. *Aspects of Political Ideas and Institutions in Ancient India*, Motilal Banarsidas: Delhi, 1968.
9. Anderson, Perry, *Lineages of the Absolutist State,* Verso: London, 1979, pp. 15-59, 195-238, 397-431.
10. Anderson, Perry, *Passages from Antiquity to Feudalism,* NLB : London, 1974.
11. IGNOU, *India from Mid 18th to Mid 19th Century,* EHI-05, Block-1, IGNOU : New Delhi, 1993.

02.8 POLITICAL SCIENCE I

MM:100 Marks

POLITICAL STUDIES: CONCEPTS IN THEORY AND PRACTICE

Objectives: After completing this course, the students will be able to-

1. Understand meaning and scope of study of political science.
2. Explain the relation among society, community and politics.
3. Interpret the concept of nationalism.
4. Understand political visions of political thinker such as-Gandhi, Jai Prakash Narayana, Chandra Shekhar and Pt. Deen Dayal Upadhyay.
5. Explain the concept of Imperialism.

Unit-1 Introduction to the study of Politics.

1. Perspectives on:

a. Power relations, conflicts and conflict resolution;

b. Social change and Social movements.

2. Methods of the study of politics:

a. Ethics and philosophy-Aristotle and Hegel;

b. Institutions and legality-Mill;

c. Materialist inter prolusion of history-Marx and Mao;

d. Behaviouralism,

e. Comparative politics-Almond, Frank & Wallerstein.

Unit-2 Important theoretical concepts Rights, liberty, equality and justice- in the light of the following:

a. conflict between nature and law in ancient and modern thought

b. human rights;

c. the feminist critique of theories of justice and rights.

Unit-3 Society, community and politics

a. polis and the nature of the state in Greek antiquity;

b. monarchy and changing notions of the state;

c. civil society and the modern nation-state;

d. the state in post-colonial societies.

Unit-4 Nationalism

1. In Europe:

a. emerging identities in the nineteenth century;

b. the rise of fascism in the 1920s and 1930s;

c. the debates of the second International on the right of nationalities to self-determination;

d. 'new trends in nationalism in the 1980s and 1990s.

2. In the colonies, emerging from different anticolonial struggles:

a. Peaceful transfer of power-India, Nigeria;

b. Violent revolutionary struggles-Angola, Algeria;

c. Political visions-Gandhi, Jai Prakash Narayana, Chandrashekhar, Pt. Deen Dayal Upadhyay, Fanon, Cabral, examples from South-East Asia.

Unit-5 Imperialism

a. the industrial revolution and imperialism;

b. the new world economic order in the age of Bretton Woods and Comecon; the imperialism of aid and development;

c. its character after the 1950'-sLatin America., Vietnam and South Africa.

READINGS :

1. Birch, Anthony H. The Concept and Theories of Modern Democracy, Routledge and Kegan Paul : London, 1993.
2. Gamble, A. An Introduction to Modern Social and Political Thought, MacMillan: London 1981.
3. Flatman, R. (ed.) Concept in Social and Political Philosophy, MacMillan: London, 1993.
4. Manning, D.J., Liberalism, Open University Press: Milton, Keynes, 1976.
5. Mendus, S. Losing the Faith: Feminism and Democracy, in J. Dunn, (ed.) Democracy: The Unfinished Journey 508 B.C. to A.D., Oxford University Press : Oxford, 1967.
6. Quanton, A (ed.), Political Philosophy, Oxford University Press: Oxford, 1967.
7. Keane, J. Democracy and Civil Society, Routledge: New York, 1988.
8. Parrar, C. Ancient Greek Political Theory as a Response to Democracy, in J. Dunn, (ed.) Democracy: The Unfinished Journey 508 B.C. to A.D., Oxford University Press: Oxford, 1993.

9. Barrington, Moore, S. Jr. Social Origins of Distatorship and Democracy, Lord and Peasant in the making of the Modern World Penguin: London, 1966.
10. Birch, Anthony H. The Concepts and Theories of Modern Democracy, Routledge and Kegan Paul: London, 1993. Chapter-2.

02.9 GEOGRAPHY I

PHYSICAL GEOGRAPHY

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand meaning and scope of study of physical geography.
2. Describe the structure and composition of atomosphere.
3. Interpret the meaning, definition and scope of Hydrosphere.
4. Illustrate the soil and vegetation.
5. Identify classification and general distribution of major soil types.

Unit-1 Understanding basic concepts: location, area, flows/network, space and environment; scope of physical geography.

Unit-2 Lithosphere: geological time scale; internal structure of earth; rocks and their types; folds and faults; earth quakes and volcanoes; plate tectonics-isostacy, theory of plate tectonics, movement of major plates and their consequences; development of landforms and role of different agencies.

Unit-3 Atmosphere: structure and composition of atmosphere; insolationfactors and spatial distribution; pressure-factors and spatial distribution; general circulation of atmosphere-world wind belts, monsoons and cyclones: classification of climate-Koppen's classification.

Unit-4 Hydrosphere: temperature, salinity and density of ocean waterfactors influencing their spatial variation in oceans; movements in ocean waters-waves, currents and tides; major ocean currents.

Unit-5 Soils and vegetation: soil-formation, classification and general distribution of major soil types; vegetation-factors, classification of vegetation and general distribution of major vegetation types; interrelationship of climate, soils and vegetation m(a) semiarid, (b) temperate and (c) equatorial region.

Unit-6 Understanding Maps and Diagrams (Practical): (a) scales; (b) cardinal points; reading and measuring; and (c) projection-properties and types; topographical maps: identification numbers and interpretation of physical features: weather maps; conventional symbols and interpretation of weather maps; instruments used to measure temperature, pressure, humidity and precipitation; identification of rocks.

Unit-7 Project work; techniques of report writing; a report on geographic study of any region-mountain, desert, coastal or plain.

READINGS :

1. Barry, R.G. and R.J. Chorley, Atmosphere, Weather and Climate, Methuen, London, 1976.
2. Chorley, R.J. and P. Hagget. (ed.) The Changing Nature of Geography, Methuen, London, 1973.
3. King, C.A.M. Introduction to physical and Biological Geography, English Langage Book Society: London, 1975.
4. Monkhouse, F.J. and H.R. Wilkison: Maps and Diagrams: Their Compilation and Constuction, Methuen: London, 1971.
5. Sharma, R.C. and M. Vatal, Oceanography for Geographers, Chaitanaya: Allahabad, 1980.
6. Strahler, A.N. A Modern Physical Geograhpy, Wiley: New York, 1983.
7. Tikkha, R.N. Bhautik Bhugaol, Kedar Nath Ram Nath: Meerut, 1989.
8. Singh, Savindra : Physical Geography (Eng/Hindi)
9. Singh, J. and Singh, K.N. : Bhautik Bhoogol (Hindi)
10. Tiwari, A.K.- Jalwayu Vigyan Ke Mool Tatwa, 2000.

02.10 ECONOMICS I

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the role of price mechanism.
2. Explain factors of production and their combination.
3. Describe the objectives of a firm profit maximization.
4. Understand the meaning and importance of international trade.
5. Differentiate between micro economics and macro economics.

Unit-1 Role of price mechanism: market demand & market supply.

Part-2 Law of demand, Demand curve: Marshallian utility analysis and indifference curve approach. Elasticity of demand, Revenue curves-TR, MR, AR.

Unit-3 Production: factors of production & their combinations: law of returns: economics & diseconomies of scale: cost curves. Constituents of cost, wages, rent, profits, interest, and concept of opportunity cost.

Unit-4 Objectives of a firm-profit maximization, sales maximization, cost minimization, other non profit objectives. Market equilibrium conditions under perfect competition and imperfect competition (details of monopoly, oligopoly, monopolistic competition not required) objectives of non profit organization.

Unit-5 International trade: principle of comparative advantage, terms of trade.

Unit-6 National product: structure and concept, circular nature of income flows; methods of estimation; income, product and expenditure; problems of estimation.

Unit-7 National income estimation in India: composition of GDP; significance of various aggregates and their interrelationships.

Unit-8 Difference between microeconomics and macroeconomics. Determination of aggregate demand and aggregate supply to the resultant equilibrium income and employment. The concept of multiplier.

READINGS :

1. Becherman, W. An introduction to National Income Analysis, University Book Store: Seattle, 1984, Chapter-2.

2. CSO, National Accounts Statistics, Government of India, CSO: New Delhi, Latest Issue.
3. CSO, National Accounts Statistics, Source and Methods, Government of India, CSO: New Delhi, Latest Issue.
4. Lipsey, R.G. An Introduction to Positive Economics, English Language Book Society: London, 1995.
5. Ray, N.C. An Introduction to Micro Economics, Macmillan : Delhi, 1975.
6. Samuelson, Paul A. and William D. Nordhaus, Economics, McGraw Hill: New York, 1989, Chapters : 4, 5, 7, 8, 12 and 38.

Books Recommonded:

1. एस.एन. लाल और एस.के. लाल–व्यष्टि अर्थशास्त्र
2. एम.एल. झिंगन–व्यष्टि आर्थिक सिद्धान्त
3. वी.सी. सिन्हा, पुष्पा सिन्हा–व्यष्टि अर्थशास्त्र
4ण एस.एन. लाल और एस.के. लाल– समष्टि अर्थशास्त्र
4. एम.एल. सेठ–मौद्रिक अर्थव्यवस्था।

B: PRACTICAL ACTIVITIES SECOND YEAR:

Total : 100 Marks)

A: Observing Children : MM:75

To acquire and understanding of children's development in different socio-cultural, political, economic, familial and personal contexts, establish links between developmental constructs and principles and psycho-social realities of growing children and to develop skills in observing interviewing children, recording and reflective analysis. Students are required to observe a minimum of 4-5 children in each of the age-groups of 3-5 years and 6-8 years. Children can be observed in naturalistic settings such as a paly-ground or park in the neighbourhood. Observations time would be for about one hour, adding up to a total of 10 hours for each age-group. Students are required to keep detailed records of their observation. Students must learn to discuss the difference between raw data and the observations and interpretations thereof. It is expected that discussions amongst peer group and with faculty supervisors during the time allotted for this, would enable students to evolve frameworks of analyzing the observational data. Supervisors will facilitate the process of analysis and interpretation and help establish links with theory.

B. Self-development Workshops MM: 50

To explore the self for greater awareness, personal growth, reflective thinking and to develop insight in to various dimensions of the self-perception and assumptions about the attitude towards people, children in particular and social issues, in the institution a series of workshops on following themes, should be conducted over the year under the guidance and supervision of trained professionals:

- Exploring the self
- Understanding our own childhood
- Understanding the gap in perception between child and adult.
- Competition and cooperation

Each student will attend 5 full day workshop and will prepare the report of the workshops.

C: Sports and Physical Education : MM: 25

Students will participate regularly in sports activities and will prepare reports of two sports activities on the basis of actual field situations. They would be also provided inputs on psychological interaction and first-aid for actual situations on the field.

D: Academic Enrichment Activities: Story Telling and Children's

Literature: MM: 50

Students will do the following activities:

- Examine and develop a criteria of evaluating children's literature including picture books, folk tales, activity books fiction and nonfiction.
- Develop story-telling skills and creative use of children literature
- write children's stories and develop children's literature.

JAN NAYAK CHANDRA SHEKHAR UNIVERSITY (JNCU) BALLIA (U.P.)

B.El.ED. PROGRAMME

Bachelor of Elementary Education Rules, Regulation, Duration and Syllabus

B.El.Ed. Course

YEAR-III

THEORY	F3.6	Basic Concepts in Education	100	
	F3.7	School Planning and Management	50	
	P3.2	Logico Mathematics Education	50	350
	P3.3	Pedagogy of Environmental Studies	50	
		Liberal Course (Optional II)*	100	
	O3.1	English II		
	O3.2	Hindi II		
	O3.3	Mathematics II		
	O3.4	Physics II		
	O3.5	Chemistry II		
	O3.6	Biology II		
	O3.7	History II		
	O3.8	Political Science II		
	O3.9	Geography II		
	O3.10	Economics II		
E.P.C : 03	SC 3.1	Classroom Management	75	
	SC 3.2	Material Development and Evaluation	75	200
		Colloquia	50	
		Academic Enrichment Activities		
	TOTAL :		**550**	

F 3.6 BASIC CONCEPTS IN EDUCATION

100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, definition, forms and approaches to education and philosophy.
2. Differentiate between body of knowledge and construction of knowledge.
3. Interpret the child as a learner.
4. Explain the concept of social change, social mobility and social stratification.
5. Classify various schools of educational philosophy.
6. Describe the progressive thought in the Indian Context.

Unit-1 **Philosophical and sociological perspectives:** Meaning, Definition and Forms of Education. New Approaches to philosophy. Branches of philosophy metaphysics, epistemology and axiology.

Unit-2 **Knowledge:** distinction between 'body of knowledge' and the child's construction of knowledge. Knowledge in the context of *curriculum, syllabus* and textbooks; school knowledge and children's experiential knowledge; universal and local facets of knowledge.

Unit-3 **The learner:** the child as learner; the individual child and the age group; home and school; socialization and learning; activity and experience. Learner in NCF-2005, NCFTE : 2009 and NEP : 2020.

Societal context of education : Social change, social mobility and social stratification and education.

Unit-4 **Various schools of educational philosophy:** Idealism, Naturalism, pragmatism and realism.

General introduction to progressive thought in education: the tradition of Rousseau-Pestalozzi, Montessori, Dewey and Paul Goodman. Progressive educational thought in the Indian context: Tagore, Gandhi, Gijubhai, Krishnamurty and Pt. Deen Dayal Upadhyay. Detailed study of Sri Sathya Sai Baba educational thought in special reference to value education.

References :

- Chaube, S.P. & Chaube, Akhilesh : Philosophical and Sociological Foundations of Education, Vinod Publication, Agra.
- Pandey, K.P. : Perspectives in Social Foundations of Education, Vishwavidyalaya Prakashan, Varanasi.
- Pandey, R.S. : Education in emerging Indian Society, Vinod Publication, Agra.
- Sharma, R.N. : Philosophy and Sociology of Education, Surjeet Publication.
- Vazhayti, Joy : Reflections on the Philosophy of Education, N.C.E.R.T.

- Ruhela, S.P. : Philosophical and Sociological Bases of Education, Agrawal Publication, Agra.
- Pachauri, Girish : Shiksha Ke Darshanic and Samajshastriya Adhar, R. Lal Book Dept., Meerut.
- Pandey, K.P. :Shikshan Bywahar ki Technology : Vishwavidyalaya Prakashan, 2010 .
- Saxena, NRS : Gyan and Pathayakram, R. Lal Book Depot, Meerut.
- Shukla, Bhavna : Knowledge and curriculum, Agrawal Publication, Agra.
- Mallik, S. : Knowledge, Language and curriculum, Rakhi Prakashan, Agra.

F 3.7 SCHOOL PLANNING AND MANAGEMENT

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the SWOT analysis for improving school management.
2. Interpret the school as a system.
3. Describe the concept of PERT and POSTCORB in management.
4. Understand the school budget.
5. Explain physical and psychological needs of children.
6. Understand the concept of TQM and its application in School management.

Unit-1 **Organisation and management of school education:** role of Centre, State and local bodies; sources of funding. SWOT Analysis for improving school management.

Unit-2 **The school as a system I:** Induction, training and teacher support programmes; planning the school curriculum-academic, cocurricular and sports; community involvement. PERT, POSTCORB in Management.

Unit-3 **The school as a system II:** types of schools. The management committee and its functions; school administration; staffing pattern; the school budget; annual planning; documentation and information systems; physical infrastructure requirements; selection of materials and equipment for the school and selection of suppliers.

Unit-4 **Maintaining standards:** physical and psychological needs of children, teaching and non-teaching staff in a school; developing a Collaborative perspective. Staff supervision-models and application; feedback; establishing accountability.

The concept of TQM and its application in school management. Role of ICT in school management.

Project : (A)Case study of an "Existing School: or "Planning for a New School" (i) objectives (ii) vision of the school; (iii) strategic population (its needs, whether first or second generation learners, socio-economic background etc.); achieving targets realistically.

(B) A group project on the status of education in a particular area (collating and interpreting data about school enrolment, retention, availability of facilities etc.)

Reference Books-

- Bhatia, K.K. & Singh, Jaswant : Principles and practice of school management, Tandaon publications books market, Ludhiana.
- Bhatnagar, R.P. & Agrawal, Vidya : Educational administration, Supervision, Planning & financing, Surya Publication, Meerut.
- Koortz, Harold & Weihrich, Heinz : Essential of management an international perspective, Tata Mc Graw-Hill Publishing Company Limited, New Delhi
- Sindhu, Kulbir Singh :School organization and administration, Sterling Publishing Private Limited, New Delhi.
- Varshrey, G.K. : Organisation and Management, S. Chand and Company LTD., New Delhi.
- Kour, Gurvinder : School organization and Management, R. Lal Book Depot., Meerut.
- Sukhia, S.P. : Educational Organization, Administration and Health Education, Agrawal Publication, Agra.

P 3.2 LOGICO-MATHEMATICS EDUCATION

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the nature of children's logico-mathematics thinking.
2. Explain the concept of mental mathematics and different theories.
3. Interpret the critical study of some pedagogic considerations.
4. Describe the mathematics in the context of schools and research on children's learning.
5. Understand the concept of mathematics and mathematisation in NCF 2005.

Unit-1 Nature of children's logico-mathematics thinking: theories of Piaget, Bruner, Dienes and Vyogotsky; intuitive mathematics; mental mathematics; cultural differences and specificities.

Language and mathematics, language of mathematics. Principles of curriculum construction in Mathematics.

Unit-2 Critical study of some pedagogic considerations with reference to learning theory and practice: readiness; consolidating mental arithmetic; circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky); organising and structuring learning tasks; group and individual activity; drill; memorization and algorithmization assignment or homework.

Unit-3 Mathematics in the context-of schools; text-books, curricula and class-room practices; nature of mathematics-conceptual and procedural; areas (space, measurement, operation etc.); research on children's learning in specific areas; errors; feedback; testing and evaluation; the hidden curriculum; mathematics phobia and failure.

Unit-4 Content specific pedagogy: number, place, value, fractions, decimals, role of readymade kits.

Knowledge of mathematics and Mathematisation, Mathematics in NCF 2005. Formative and summative evaluation in mathematics. (Focus on regular formative assessment mention in NEP 2020.

Reference Books-

- Kumar, Sudhir & Ratnatikar, D.N. : Teaching of Mathematics, Anmol publication Pvt. Ltd., New Delhi.

- Sidhu, Kulbir Singh: The Teaching of Mathematics. Sterling Publishers, New Delhi.
- Vashista, S.R. : Curriculum Construction, Anmol publication Pvt. Ltd., New Delhi.
- Mangal, C.K. : Ganit Shikshan, Agrawal Publication Agra.
- Rawat, D.S. : Mathematics Teaching, Agrawal Publication, Agra.

P 3.3 PEDAGOGY OF ENVIRONMENTAL STUDIES

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the concept of Environmental studies, scope and significance as a curricular area at primary level.
2. Explain the basic considerations in developing curriculum in EVS.
3. Describe the method of science and process approach in EVS.
4. Understand the ideas of various thinkers on environmental protection.
5. Interpret the concept of Environmental Ethics Education and its relevance in Indian context.

Unit-1 Concept of Environmental Studies (EVS), its evolution and significance as a curricular area at primary level; EVS-an approach, a discipline or both; environmental studies and environmental education; its scope-integration related to the physical, social, historical and cultural aspects of the environment.

Unit-2 Basic considerations in developing curriculum in EVS: relating cognitive growth of children to the development of concepts; alternative frameworks; differences in approaches to the construction and transaction of curriculum at classes I and II and classes III to V; a review of different sets of curricular materials including text books.

Unit-3 Understanding the method of science: process approach in EVS; planning for and organization of teaching learning activities; unit and lesson planning; role of inquiry, experiment, discussion, drama etc; evaluation and testing.

Unit-4 Ideas of Gandhi, Tagore and J, Krishnamurti on environmental protection. Environmental Ethics Education : Definition and relevance in India.

Practical work :

(i) Organizing and planning for an excursion; learning how to make observations and recording them; conducting surveys.

(ii) Using equipment and materials: films, reports, documents, newspapers, local maps, atlas, wall charts; map drawing and reading weather charts; making charts, diagrams and models.

(iii) Collection and presentation of specimens: leaves, rocks, stamps, flags, news items etc. (classifying the material collected and maintaining a museum).

(iv) Writing innovation based article on Environmental Ethics Education (EEE).

Reference Books-

- Chitrabhanu, T.K. : Environmental Education, Authors Press, Delhi.
- Goyal, M.K. : Essential Environment, RSA International, Agra.
- Nagi, G.K. : et al. Noise Pollution, Common Wealth Publisher, New Delhi,1999.
- Pandey, G.N. : Environment Management Vikas Publishing House Pvt, 1997.
- Raj, Shalini : Teaching of Environmental Education, I.V.Y Publication, New Delhi.
- Rathor HCS : Society and Environmental Ethics, Allumini Association of Education B.H.U.
- Sharma, R.A. : Environmental Education, R. Lal Book Depot., Meerut.

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03.1 ENGLISH II

Approach to Texts

Objectives: After completing this course, the students will be able to-

1. Understand the approach based structure of English.
2. Explain components and approaches to English.
3. Interpret the concept of structuralism, Deconstruction and Formalism.
4. Describe the Novels of English literature.
5. Understand the some significant writers in English.

Unit-1 This paper follows an approach-based structure. While introducing students to various ways of looking at a text, an emphasis is also laid on incorporating some significant writing in English, into die syllabus.

Components

Approaches to texts with which students should be familiar are:

Historical

Psychological

Marxist

Feminism

Unit-2 New Criticism: Structuralism, Deconstruction, Formalism students should be able to look at the texts in a variety of ways.

Texts:

Drama: Any two

Arthur Miller All My Sons

Girish Karnad Tughlaq

Henrik Ibsen A Doll's House

Bertolt Brecht The Good Person of Szechwan (translated by John (Willett)

Unit-3 Novels Any two

V.S. Naipaul A House for Mr. Biswas

J. Steinbeck OfMiceandMen

Jane Austen Pride and Prejudice

Margaret Atwood : The Handmaid's Tale all Poetry Shakespear Sonnet No. 130: My mistress's the sun.

Unit-4 John Donne The Sonne Rising Blake London Shelley Song to the Men of England.

Langston Hughes : I Too Sing America Stephen Spender: An Elementary School Classroom in a Slum Countee Cullen : Incident: Baltimore Ted Hughes: The Jaguar

Gieve Patel : On Killing a Tree

A.K. Ramanujan: Of Mothers among other things (in Selected Poems)

03.2 हिन्दी II

Objectives: After completing this course, the students will be able to-

1. शिक्षा में मातृभाषा के महत्व एवं नई शिक्षा नीति 2020 में मातृभाषा के उपयोगिता को समझ सकेंगे।
2. मातृभाषा शिक्षण में सूचना एवं संचार तकनीक की भूमिका की व्याख्या कर सकेंगे।
3. लज्जा व ग्लानि निबन्ध, तुम चन्द हम पानी एवं सौंदर्य की उपयोगिका को समझ सकेंगे।
4. प्रमुख साहित्यकारों के व्यक्तित्व व कृतित्व का उल्लेख कर सकेंगे।
5. आधुनिक हिन्दी काव्य के विभिन्न आयाम में अन्तर स्थापित कर सकेंगें।
6. पाश्चात्य साहित्य के सिद्धान्त एवं आलोचना का उल्लेख कर सकेंगे।

इकाई–I (A) शिक्षा में मातृभाषा का महत्व, नई शिक्षा नीति 2020 एवं मातृभाषा की उपयोगिता।

(B) मातृभाषा शिक्षा में सूचना एवं संचार तकनीक की भूमिका (भारत के विशेष संदर्भ में।)

इकाई–II (A) निबन्ध–

लज्जा व ग्लानि (आचार्य रामचन्द्र शुक्ल) तुम चन्दन हम पानी (विद्या निवास मिश्र) सौन्दर्य की उपयोगिता (राम विलास शर्मा)

(B) व्यक्तित्व व कृतित्व

कुबेरनाथ राय

विवेकी राय

हजारी प्रसाद द्विवेदी

विद्या निवास मिश्र

इकाई–III (A) आधुनिक हिन्दी काव्य :

मैथिलीशरण गुप्त (साकेत का अष्टम सर्ग)

सूर्यकान्त त्रिपाठी निराला (सरोज स्मृति, भिक्षुक)

(B) आलोचनात्मक प्रश्न

सुमित्रानन्दन पन्त

महादेवी वर्मा

जयशंकर प्रसाद

इकाई–IV (A) पाश्चात्य साहित्य सिद्धान्त

प्लेटो की काव्य सम्बन्धी मान्यता

अरस्तू का अनुकरण एवं विरेचन सिद्धान्त

मार्क्सवादी समीक्षा पद्धति

शास्त्रवाद और स्वच्छन्दतावाद

(B) आलोचना–स्वरूप व प्रकार, आलोचक के प्रमुख गुण, हिन्दी के प्रमुख आलोचकगण–डॉ0 नागेन्द्र, आचार्य नन्द दुलारे बाजपेयी, डॉ0 रामविलास शर्मा।

सहायक ग्रन्थ–

1. पाश्चात्य साहित्य चिन्तन–निर्मला जैन
2. भारतीय व पाश्चात्य काव्यशास्त्र – डॉ0 अर्चना श्रीवास्तव
3. हिन्दी आलोचना का विकास – नन्दकिशोर नवल
4. आलोचक का दायित्व – रामचन्द्र तिवारी
5. आधुनिक हिन्दी आलोचना – डॉ0 हरिमोहन
6. हिन्दी समीक्षा : स्वरूप व संदर्भ – डॉ0 रामदरश मिश्र

03.3 MATHEMATICS II

PART-I:ALGEBRAIC STRUCUTRES

100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the Algebraic structures in mathematics.
2. Interpret the Primary operations, Vector spaces and Linear transformation.
3. Explain the concept of integral calculus and differential equations.
4. Describe the applications of elementary statistical methods in mathematics.
5. Understand the concept of Probability and Distributions.
6. Explain the approaches and laws of probability.

Unit-1 Binary operations; commutative and associative operations; identity element and inverse of an element.

Groups, subgroups; cosets and Lagrange's theorem, normal subgroups and quotient groups, homomorphisms, isomorphisms and fundamental theorem; permutation group.

Rings, integral domains and fields, subrings, ideals and quotient rings; ring homomorphisms, isomorphisms and embeddings.

Vector spaces, subspaces; quotient spaces; linear dependence and independence, basis and dimension; study of R as a Vector space.

Linear transformation, associated matrix, rank and determinants of a linear transformation; minimal polynomial.

Part II : INTEGRAL CALCULUS AND DIFFERENTIAL EQUATIONS

Unit-2 Integration by substitution and by parts; integration of rational, irrational and trigonometric functions reduction formulae.

Definite integrals and their properties; integral as the limit of a sum and Riemanns approach; area under curve.

Simple differential equations; differential equations of first order, linear differential equations to natural and social sciences- Radioactive decay, Newton's law of cooling, population growth and compound growth.

Systems of linear equations; characteristic equation, characteristic roots, Cayley Hamilton theorem.

Part III : STATISTICAL METHODS

Unit-3 Measures of central tendency, dispersion, moments, skewness and kurtosis.

Correlation and linear regression.

Sampling techniques based on z, t, F and, x^2 tests.

Part IV : PROBABILITY AND PROBABILITY DISTRIBUTIONS

Unit-4 Approaches to probability; laws of probability, Bayes theorem and its applications.

Random variables, probability distributions and mathematical expectation, EMV criterion in business.

Binomial and Poisson distributions.

Continuous random variables and normal distribution.

READINGS

1. Fraleigh, John B.A. First Course in Abstract Algebra, Addison- Wesley : UK, 1989, Fourth Edition.
2. Gupta, S.C. and V.K. Kapoor, Elements of Mathematical Statistics, Sultan Chand & Co.: New Delhi, 1999.
3. Kapur, J.N. and S.K. Gupta, A First Course in Abstract Algebra, R. Chand and Co.: New Delhi, 1976, Fourth Edition.
4. Narayan Shanti (2019), Integral calculus, S. Chand and Co. Ltd.
5. Balachandra Rao S and Anuradha H.R., Differential equations, Sangam Books Ltd.

03.4 PHYSICS II

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning and scope of quantum physics and review of classical physics.
2. Explain the concept of solid state physics.
3. Interpret the different theories of solid state physics.
4. Describe the concept of special theory of relativity.
5. Give examples of nuclear physics.

Unit-1 Introduction to quantum physics; review of classical physics and its inadequacies. Particle behavior of light-photoelectric effect, X-rays, Compton effect; wave behavior of matter; de Broglie's hypothesis, wave function; wave and group velocity, uncertainty principle and applications. Energy levels; Franck-Hertz experiment; correspondence principle.

Quantum mechanics; Schrodinger's equation in one dimension; time-independent Schrodinger equation; ransmission through a barrier, particle in a box. Qualitative discussion of hydrogen-like atom, spin, exclusion principle.

Unit-2 Solid state physics: free electron theory of metals: band theory of solids-Bloch's theorem, Kronig-Penney model (without derivations): metals, insulators, semiconductors; Fermi energy; intrinsic and extrinsic semiconductors; solid state devices-p-n junction, diodes, solar cell; bi-junction transistor.

Unit-3 Special theory of relativity: Michelson–Morley experiment; Einstein's postulates; Lorentz transformation; time dilation and length contraction; relativistic addition of velocities. Relativistic mass; mass-energy relation.

Unit-4 Nuclear Physics: nuclear masses and sizes; constituents of the nucleus, binding energy. Radioactive decay, half-life, radioactive series; application– carbon dating; qualitative description of alpha, beta and gamma decay. Nuclear fission, chain reaction; nuclear fusion; source of energy in stars, elementary particles and fundamental interactions.

The Universe: our galaxy; expansion of the universe— Hubble's Law; Newtonian cosmology; microwave background radiation (description).

PRACTICAL

(In experiments 1-3, the theory should be done in conjunction with the lap). In addition to the usual laboratory examination, the final examination should have a written component which tests the student's understanding of the theory.

A. 1. Study of power supply.

2. Study of transistor and its use as amplifier.

3. Study of op. amp. and simple applications.

B. Project : (About 20-25 laboratory hour's duration)

READINGS

1. Periya, Pedro, Fundamental of quantum Physics, Springer.
2. Nouredine Zettili, Quantum Mechanics, Wiley.
3. Charlis Kittel, Introduction to Solid State Physics, Wiley.
4. W. Pauli, theory of Relativity, Dover Pub. Inc.
5. Albert Einstein, Relativity, mannu Graphics. (Indian Publication)
6. S.P. Puri, General Theory of Relativity, Pearson.
7. Samuel S.M. Wong, Introduction to nuclear Physics, PHP.
8. John Lilley, Nuclear Physics, Wiley.
9. John Gribbin, Galaxy formation, Springer.
10. Stephen Hawking, the universe in a nutshell, Bantam Press.
11. Simon Singh, Big Bang, Harper Perennial Publication.
12. Mittal Kumar (2020-21) Physics, Nageen Publication, Meerut.
13. Ghoshal S.N., Nuclear Physics, S. Chand and Co. Ltd.

03.5 CHEMISTRY II

MM:100 Marks

PART I : INORGANIC

Objectives: After completing this course, the students will be able to-

1. Understand the concepts and theories of inorganic chemistry.
2. Illustrate the knowledge of transition and inner transition elements.
3. Differentiate between functional group and a substituent.
4. Differentiate between soaps and detergents.
5. Differentiate between insecticides and pesticides.
6. Explain the concept of environment and pollution.
7. Understand the concepts of solutions, and types of solutions.

Unit-1 Elementary idea of Bronsted-Lowry and Lewis concept of acids and bases: difference between strong and weak acids and bases in terms of equilibrium constants: applications of Arrhenius theory of ionization to weak, mono and polybasic acids: effect of solvent on the strengths of acids and bases-leveling effect of solvent. Comparative study of elements of zero, s and p block: an elementary idea of general group trends, electronic configuration, atomic radii, inert pair effect, ionization potential, electron affinity and electro negativity; a brief knowledge of transition and inner transition elements.

Study of some common useful inorganic compounds.

(a) Sodium chloride (b) Sodium hydroxide
(c) Sodium carbonate (d) Sodium bicarbonate
(e) Basic lead carbonate (f) Sodium thiosulphate
(g) Copper sulphate (h) Hydrogen peroxide
(i) Silver nitrate (j) Red lead
(k) Zinc oxide (l) Bleaching powder
(m) Potassium permanganate (n) Potash alum
(o) Gypsum salt (p) Plaster of Paris

PART II : ORGANIC

Unit-2 Functional Group: difference between a functional group and a substituent. Preparation, physical and chemical properties of compounds containing:

(a) Halo alkanes and halo arenes.
(b) Alcohols and phenols.
(c) Aliphatic carbonyl compounds.

(a) Synthetic & natural polymers: classification of polymers-natural and synthetic polymers, [general preparation of polymers such as Teflon, PVC (poly vinyl chloride), polystyrene, Nylon 6,6, Terylene, resins]

(b) Brief knowledge of the difference between (i) soaps and detergents (ii) insecticides and pesticides

(c) Chemistry in Action : chemicals in medicines-analgesics, antipyretics, antipyretics, antibiotics and disinfectants.

Unit-3 Environment and pollution : definition, causes, impact, TLV (Threshold limit value), unit (ppm), synergism and antagonism, various types of pollution (elementary Knowledge), environmental segments as atmosphere, lithosphere, biosphere, hydrosphere etc. special stress on depletion of ozone layer & its effects, photochemical smog, green house effect, Acid rain and Black rain.

PART-III: PHYSICAL

Unit-4 Solutions : types of solution.

(a) Solutions of solid in liquid-solubility, effect of temperature on solubility.

(b) Solution of gas in liquid-Henry's law.

(c) Solution of liquid- (i) miscible liquids. Raoult's law, ideal solution and non-ideal solution, fractional distillation (ii) partially miscible liquids, critical solution temperatures (iii) immiscible liquids, steam distillation.

(d) Solution of non volatile solutes-colligative properties, lowering of vapour pressure, elevation of boiling point, depression in the freezing point, osmotic pressure and reverse osmosis (only qualitative treatment with no derivations).

Distribution law: partition coefficient, definition, limitations, factors affecting the partition coefficient and applications such as solvent extraction.

Thermodynamics: exothermic, endothermic reactions, systems, surroundings, types of systems, states of a system, state functions, process, types of process, reversible and irreversible, Extensive and intensive properties, energy, work, heat capacity, first law of thermodynamics, heat of a reaction at constant pressure and constant volume, Hess's law, Born-Haber Cycle, bond energy and bond dissociation energy. Heat of neutralization and heat of solution.

PRACTICAL- II

INORGANIC

1. Determination of percentage of $Na_2 Co_3$ in a sample of washing soda.

2. Analysis of a given sample of water for pH, conductance etc. and determination of its hardness complexometrically.

ORGANIC

1. Detection of extra elements (N, S, Cl, Br, I) in organic compounds, not more than two such elements may be present in a compound.
2. Detection of functional groups in monofunctional organic compounds (only qualitative treatment).
3. Abnormal constituents of urine (sugar, ketobodies, proteins etc.).

PHYSICAL:

1. Determination of CST for phenol-water system.
2. Determination of heat of neutralization of HCI/NaOH.
3. To study any simple distribution system and determine the value of partition coefficient.

OTHER EXPERIMENTS:

1. Stains such as acid, blood, betel, iodine, paint, marking ink etc. and their removal.
2. Preparation of a toilet soap/washing soap.
3. Preparation of red ink/blue ink.

READINGS

1. Bruce, H. Mohan, (University Chem.) Inorganic Chemistry, Narosa Publishing House: New Delhi, 1990.
2. Cotton and Wilkison. Advance Organic Chemistry, John Wiley and Sons: Sussex, 1988, Fifth Edition.
3. Day, M.C. and J. Selbin. Theoretical Inorganic Chemistry, East West Press: Delhi, 1962.
4. Huhey, James, Inorganic Chemistry, Addison-Wesley/Harper: London, 1988.
5. Kapoor, Ramesh, S.K. Vasisht and R.S. Chopra, Inorganic Chemistry, R. Chand and Co. : New Delhi, 1984.
6. Jerry, March. Advanced Organic Chemistry : Reactions, Mechanisms and Structures, New Age International/Eastern: New Delhi, 1992.
7. Morrison, R.N. and R.N. Boyd. Organic Chemistry, Prentice Hall of India: New Delhi, Sixth Edition, 1996.

8. Norman, R.O.C. and D.J. Waddington. Modern Organic Chemistry, Bell & Hyman: London, 1994.

9. Sykes, Peter. A Guide book to Mechanism in Organic Chemistry. Orient Longman : London, 1965. (Bombey, 1971).

10. Srivastava H.C. (2020-21), Chemistry, Nageen Prakashan Pvt. Ltd. Meerut.

11. Kapoor K.L. (2019), A Textbook of Physical Chemistry, Tata Mc Graw-Hill Education India.

03.6 BIOLOGY II

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand structure and function of plants and animals.
2. Explain the concept of cell Biology and Genetics.
3. Describe the concept and relevance of developmental biology.
4. Interpret the concept of Bio-sphere and its future.
5. Classify various types of pollution.

Unit-1 Structure and Function

1. Plants : types of tissues (xylem, phloem, stomata) in relation to processes-transpiration, ascent of sap, photosynthesis (ATP generation), cellular respiration, growth and development.
2. Animals : study of digestion, respiration, circulation, excretion, transmission or nerve impulse, hormonal regulation.

Unit-2 Cell Biology and Genetics

1. Interaction of genes : epistasis, co-dominance, polygenic inheritance, multiple alleles. Linkage, crossing over and genetic maps.
2. Techniques in Cell Biology: microscopy, fractionation, tissue culture and somatic cell hybridization, DNA technology.
3. Nucleus and Nucleic acids: structure of chromosomes-prokaryotes and eukaryotes DNA replication, protein synthesis, genetic control, gene mutation and chromosomal aberrations.

Unit-3 Development Biology : Development of human embryo.

Unit-4 Environmental Science

1. Biomes, flow of energy: food chains and pyramids
2. Pollution: Water, air, soil, noise pollution
3. Biosphere and its future: Population explosion, Nuclear winter, acid rain, Green house effect.

Practicals

1. Working out dihybrid ratios with seeds.
2. Epistasis
3. Experiment on transpiration.
4. Oxygen evolution in photosynthesis.
5. Anaerobic-germinate seeds (Hg level).

6. Grow seeds and measure and record growth pattern.
7. Effect of IAA on decapitated plant.
8. Effect of salt concentrations on PBC.
9. Qualitative estimations of proteins, carbohydrates (sugars & starch) and fats.
10. Abnormal constituents of urine.
11. Chick embryology: 18 hrs, 24 hrs, 33 hrs, 73 hrs.
12. Slides of frog blastula, gastrula, Neurula stages.
13. Study of a quadrat (Ecology)
14. Water analysis.

READINGS

1. Beri, A.K. Textbook of Animal Physiology, EMK Pub. : North Suite, 313 Pnte, 1981.
2. Burns S. Science of Genetics : An Introduction of Heredity, McMillan : New York, 1980, 4th Edition.
3. De Robertis, EDP and EMF De Robertis, Cell and Molecular Biology, Saunders and Co. : USA, 1975.
4. Devlin, R.M. and Witham, F.H. Plant Physiology, DBS Publishers and Distributors : Shahadara, 1986.
5. Nielson, Schmidt. Principles of Animal Physiology, Prentice Hall : New Delhi, 1973.
6. Noggle, G.R. and G.J. Fritz, Introductory Plant Physiology, Prentice Hall : New Delhi, 1976.
7. Odum E.P. Fundamentals of Ecology, Saunders and Co. : London 1971, 3rd Edition.
8. Raven P.H. and G.B. Johnson Biology, Brown Publisher : England, 1995.
9. Verma, P.S. Ecology, Chand Publishers : New Delhi, 1986.
10. Tripurari Mishra, Diwakar Mishra, B.D. Singh. (2020) Principles of Ecology

03.7 HISTORY II

03.7 HISTORY II CULTURE, POWER AND COLONIALISM

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the concept of colonialism and under development.
2. Explain the relationship between colonialism and under development.
3. Interpret the relationship between education and society.
4. State the significance of language in the formation and assertion of identities.
5. Explain the relationship among science, knowledge and power.
6. Interpret the concept of resistance and domination.

Unit-1 Colonialism and Underdevelopment : The relationship between colonialism and underdevelopment and the variety of ways in which colonial power asserts itself will be discussed.

Education and Society : This theme will discuss the history of different forms of pedagogy (in pathshalas, tols, madarsas, schools etc.) and die structures of formal and informal education in colonial and pre-colonial India.

Unit-2 Language and Identity: The significance of language in the formation and assertion of identities and the link between language and power will be discussed. The conflicts between languages, the histories of their transformations and the processes of their interaction will be touched upon.

Unit-3 Science, Knowledge and Power : The different frameworks of scientific knowledge, the conflicts between forms of indigenous and western knowledge and the link between colonial hegemony and the domination of western science will be discussed with specific reference to medicine and scientific forestry.

Art, Society and Politics : The lectures will trace the shifting forms of art/architectural styles in India and their links with questions of identify and power.

Religion, Politics and Society: The lectures will discuss the history of different forms of patronage of religions; the conflicts between heterodox and orthodox sects; and the relation between religion and politics.

Unit-4 Resistance and Domination : The lectures will discuss a variety of forms of resistance to domination : silent protests/open rebellion, everyday

resistance/political movements, cultural/political resistance, passive/active resistance.

READINGS :

1. Chaudhary, Tapan Ray, et. al., Indian Economy in the 19th Century: A Symposium, Indian Economic and Social History Review, 1968.
2. Frank, Andre Gunder, On Capitalist Under Development, Oxford University Press : Bombay, 1975.
3. Acharya, Poromomesh, The Development of Modern Language. Text Books and the Social Context in 19th Bengal, Economic and Political Weekly, April 26, 1986, 21(17).
4. Kumar, Krishna, Political Agenda of Education, Sage : New Delhi, 1991.
5. Cohn, Bernard, The Command of Language and the Language of Command, in Ranajit Guha (ed.) Subalfern Studies, IV, Oxford University Press : Delhi, 1985.
6. Sheth, D.L. The Great Language Debate, Politics of Metropolitan Versus Vernacular India, in Upendra Baxi and Bhikhu Parekh, Crisis and Change in Contemporary India, Sage : New Delhi, 1995.
7. Gadgil and R. Guha, The Fissured Land, Oxford University Press : New Delhi, 1993.
8. Guha, Ramchandra. The Unquiet Woods : Ecological Change and Peasant Resistance in the Himalay, Oxford University Press : Delhi, 1989, Chapt-2, 3, 6 and 7.
9. Metcalf, Thomas R. An Imperial Vision, Indian Architecture and British Raj, Faber and Faber : London, 1989.
10. Guha, Ranajit, Elementary Aspects of Peasant Insurgency in Colonial India, Vol. II, Oxford University Press : Delhi, 1983.

03.8 POLITICAL SCIENCE II

MM:100 Marks

SOME NEW ISSUES IN POLITICS

Objectives: After completing this course, the students will be able to-

1. Understand the challenge of political theory from the concept of gender.
2. Interpret the Indian women's movements.
3. Illustrate the challenge to the dominant development paradigms from the perspective of the environment.
4. State the changing character of socialism.
5. Understand the impact of socialism on post-colonial societies.
6. Describe the changing character of capitalism.

Introduction: A Reappraisal of the Concerns of Politics.

1. From institutional and state-centered conceptions of politics to politics as a study of relations of power in society.
2. The entry of hitherto marginal groups and issues into the political mainstream.
3. The transformation of the global balance of power in the late twentieth century.

Gender

Unit-1 The challenge of political theory from the concept of gender. Major issues in feminist politics : women's access to employment, property and other resource-capitalist development in post colonial societies and their impact on women-issues relating to 'body politics' (sexual violence, access to abortion, intrusive and harmful contraceptive method purveyed in the south by multinational companies)-sexism in legal discourse-feminism and the labour movement.

The Indian Women's movement: central issues, ideological differences within the movement, relationship with other social movements.

Unit-2 Environment and Development

1. The challenge to the dominant development paradigms from the perspective of the environment: critique of Post-Enlightenment rationality and instrumental reason (Frankfurt school, Gandhi and postmodernist thought).
2. Focus on appropriate technology, sustainable development, traditional systems/practices of medicine, indigenous systems of management of water, soil, forests.

3. The ecology movement-history and context of emergence of western movements (e.g. Greenpeace, Friends of the Earth, CND) and nonwestern movements (Chipko, Silent Valley, NBA and other examples from Latin America and South-East Asia). Relationship of these movements with the State, mainstream political parties and other social movements (e.g. trade unions, women's and civil rights movements).
4. The contradictions of the dominant international economic order and the agenda of the environment-the use of environment concerns by the industrialized North as a weapon against the South.

Unit-3 The changing character of socialism.

1. The main features of socialist thought unto the 1980s.
2. Characteristics of socialist countries upto the 1980s.
3. Challenges after the 1980s.

a. the collapse of the Soviet Union and Eastern Europe

b. features of the crisis-response from within socialism

c. impact on post-colonial societies/third world

Unit-4 The changing character of capitalism

1. From laissez-faire to welfare state.
2. Capitalism in the 1980s: Thatcherism and Reaganomics.
3. Transnational companies and their role in post-colonial countries.

READINGS :

1. Held, D. (ed.). Political Theory, Today, Stanford University Press : California, 1981.
2. Leftwitch, A. (ed.). What is Politics, Blackwell Publishers : London, 1984.
3. Wignaraja, P. (ed.). new Social Movements in the Souths : Empowering the people, Zed : London, 1992.
4. Barrett, M. Women's Oppression Today, Problems in Marxist Feminist Analysis, NLB : London 1980.
5. Catharine, A. Mackinnon, Feminism Unmodified, Harvard University Press : Cambridge, 1987.

6. Kishwar, M. and R. Vanita. (ed.). In Search of Answers : Indian Women's Voice from Manushi, Horizon India Books : New Delhi. 1991, 2nd Edition.
7. Kumar, R. The History of Doing, Kali For Women : New Delhi, 1993.
8. Rowbotham. S. Women's Consciousness, Man's World, Viking Penguin : New York, 1973.
9. Guha, R. The Unquiet Woods : Ecological Change and Peasant Resistance in the Himalaya, Oxford University Press : Delhi, 1991.
10. Mies, M. and V. Shiva, Ecofeminism, Kali for Women : New Delhi, 1993.
11. Nandy, A. Intimate Enemy : The Loss and Recovery of Self Under Colonialism, Oxford University Press : Delhi, 1984.
12. Roy Burman, B.K. Tribal Population, Interface of Historical Ecology and Political Economy, in M. Miri, (ed.) Continuity and Change in Tribal Society, Indian Institute of Advance Studies : Simla, 1993.

03.9 GEOGRAPHY II

HUMAN GEOGRAPHY

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, definition and scope of human geography.
2. Classify various resources in geography.
3. Classify types of farming.
4. Understand the meaning and types of industrial geography and major industries.
5. Describe the concept of population geography.
6. Interpret the demographic variables in population geography.
7. Understand the meaning, definition and scope of settlement geography.
8. Explain the concept, scope and patterns of transport geography.

Unit-1 Human Geography : major paradigms in changing trends. Resource Geography : definition and classification of resources; land resource and land use classification; water resources-ground water and surface water; energy resources-conventional (fuel wood, coal, petroleum and hydro) and non conventional (solar, wind and geo thermal); biotic-forests and fisheries.

Unit-2 Agricultural Geography : types of farming; study of the following agricultural types- (a) shifting agriculture, (b) subsistence, (c) commercial, (d) plantation and (e) dairy farming; study of the following crops- (a) wheat, (b) rice, (c) cotton and (d) sugarcane; world, agricultural problems.

Industrial Geography: factors affecting industrial location; major industries: (a) mineral based (petro-chemicals and iron and steel, (b) agro-based (c) consumer based (automobiles and electronics); patterns and trends of industrialization.

Unit-3 Population Geography: demographic variables-fertility, mortality and migration; population growth and demographic transition model; causes and consequences of international migrations; population resource relationship-over, under and optimum population. Population policies.

Unit-4 Settlement Geography : classification of settlements-rural and urban; rural settlements-factors and types of rural settlements; urban settlements-origin, classification criteria and world urbanisation pattern; city and its region.

Transport Geography: world pattern of rail, road, air and water ways.

Practical work:

Understanding Maps and Diagrams (Practical): use of thematic maps (dot, choropleth and isopleth method); located statistical diagrams (bar diagram, pie chart and line graphs).

READINGS :

1. Alexander, K.W. and T.A. Hartshorne, Economic Geography, Prentice Hall : New Jersey, 1988.
2. Berry, B.J.L. et. al. : Economic Geography, Resource use, occasional choices and regional specialization in the Global Economy, Prentice Hall : New Jersey, 1987.
3. Chandna, R.C. An Introduction to Population Geography, Kalyani Publishers: Delhi, 1987. (Hindi version available).
4. Grigg, D.B. An Introduction to Agricultural Geography, Hutchinson : London, 1984.
5. Hagget; P. Geography : A Modern Synthesis, Harper and Row : New York, 1979.
6. Hudson, F.S. Settlement Geography. Macdonald and Evans : Plymouth, 1977.
7. Jarrett, H.R. Geography of Manufacturing, Macdonald and Evans; Plymouth, 1977.
8. Jasbir, S. and S.S. Dhillon : Agricultural Geography, Tata McGraw Hill : New Delhi, 1984.
9. Johnes, Hue. Population Geography, Harper and Harper : London, 1989.
10. Mitchell, B. Geography and Resource Analysis, Longman, London, 1988.
11. Zimmerman, E.W. Introduction to World Resources, Harper and Row : New York, 1964.

Books Reommended:

(i) Singh, J : Manav Bhoogol.

(ii) Bansa, S.C. : Manav Bhoogol.

(iii) Hira Lal L Jansankhya Bhoogol.

(iv) Shrivastava, V.K. and Rao, B.P. : Manav Bhoogol.

03.10 ECONOMICS II

MM:100 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the role of capital and technology in economic development.
2. Explain the key issues in economic transition.
3. Describe the objectives of planning in Indian economy.
4. Interpret the resource allocation across sectors.
5. Classify different demographic indicators of development.
6. Describe the concept of frequency distribution, index numbers and time series.

Unit-1 Problems of economic development : role of capital and technology; nature and causes of economic backwardness; key issues in economic transition- capital formation, unemployment, growth and income distribution. Colonialism and underdevelopment in the Indian context.

Objectives of planning; strategy of growth in a mixed economy; role of public sector, Assessment of performance under Five Year Plan.

Unit-2 Resource allocation across sectors; agriculture, industry services, foreign trade: between 1951 and the current Five Year Plan. Critical assessment of the policies and achievements of various sectors.

Unit-3 Demographic indicators of development-quantitative and qualitative dimensions; quality of life Index (performance in education, health, child labour, participation of women in the work force, etc.) (Poverty, problem of unemployment: reclassification of groups (educated & uneducated unemployment, employed in the informal sector, disguised unemploy)}.

Unit-4 a) Univariate frequency distributions: measures of location and of dispersion, association of attributes. Correlation, regression and factor analysis.

b) Index numbers of agricultural and industrial production (wholesale & consumer prices; meaning and uses) Indices of human development with special reference to educational development.

c) Time series: objectives, components of time series, calculation of trend-linear and non-linear trends.

READINGS :

1. Chaudhary, P. 'India : Objectives, Achievements and Constraints', in P. Chaudhary, (ed.) Aspects of Indian Economic Development : A Book of Readings, Allen & Unwin : London, 1971.
2. Gupta, S.P. Statistical Methods, Sultan Chand and Sons : New Delhi, 1989.
3. Jalan, Bimal, (ed.). The Indian Economy : Problems and Prospects, Penguin Books : New Delhi, 1992.
4. Kapila, Uma. Indian Economy : Issues in Development Planning and Sectorial Aspects, Academic Foundations : New Delhi, 2000.
5. Kapila, Uma. (ed.). Indian Economy since Independence, Academic Foundation : New Delhi, annual updated edition.
6. Mishra, S.K. and Puri, V.K. Indian Economy, Himalaya Publishing House : Bombay, annual edition.
7. Nurkese, R. Problems of Capital Formation in Underdeveloped Countries, Oxford University Press : Bombay, 1974.
8. Patel, I.G. 'Strategy of Indian Planning', in P. Chaudhary, (ed.) Aspects of Indian Economic Development : A Book of Readings. Allen and Unwin : London, 1971.
9. Todaro, M.P. Economic Development in the Third World, Longman : New York, 1989, Chapter 1 and 2.

READINGS :

a. R.K. Upadhyay : Bhartiya Arthvyawastha
b. Stonier and Hague : A Text Book of Economic Theory.
c. M.L. Jhingan : Viaks ka Arthasastra and Ayojan.
d. Datt and Sunderam : Bhartiya Arthavyastha
e. D.N. Alhans : Sankhiyki Ke Mool Tatva.
f. B.K. Singh : Sankhiyki ke mool Tatva.

B: PRACTICAL ACTIVITIES THIRD YEAR: (MM : 200)

A: To develop Teaching skills (through teaching of 20Micro lessons) MM 75

Practice in core teaching skills–

a. Set Induction	प्रस्तावना
b. Explanation	व्याख्या
c. Illustrating with examples	दृष्टान्तीकरण उदाहरण सहित
d. Questioning and probing	प्रश्नीकरण एवं खोजपूर्ण प्रश्न
e. Writing of behavioral objectives	व्यवहारपरक उद्देश्य लेखन
f. Lesson planning & Unit planning	पाठयोजना एवं इकाई योजना
g. Stimulus variation	उद्दीपक–परिवर्तन
h. Reinforcement and feedback	प्रबलन एवं प्रतिपुष्टि
i. Use of teaching aids including Black board writing श्यामपट्ट लेखन सहित शिक्षण सहायक सामग्रियों का प्रयोग	
j. Sketching and drawing	रेखांकन एवं चित्र निर्माण
k. Closure	पाठ समापन
(At least eight skills are compulsory)	कम से कम आठ कौशल अनिवार्य।

B: 4 week internship in primary and elementary schools MM 75

- Observation of School Activities and Preparation of Report.
- Observation of 10 Teaching classes and Preparation of Report
- Preparation of lesson plans and teaching of 20 lesson plans in primary and elementary schools (10 in each)

C: Preparation and use of teaching aids and learning material : MM: 50

Practical Exam: In the third year assessment/evaluation will be carried out by a board of examiners, consisting of two members one being an external member from JNCU BOS, and one member from Aided college (Deptt. of B.Ed.) (Affiliated to JNCU, Ballia) but not from the concerned college in accordance with seniority through rotation and who will act as convener.

JAN NAYAK CHANDRA SHEKHAR UNIVERSITY (JNCU) BALLIA (U.P.)

B.El.ED. PROGRAMME

Bachelor of Elementary Education Rules, Regulation, Duration and Syllabus

B. El. Ed. Course

YEAR-IV

THEORY	F 4.8	Curriculum Studies	50	
	F 4.9	Gender and Schooling	50	
	Option A:	Pedagogy (one of the following)	50	
	OP 4.1	Language		
	OP 4.2	Mathematics		
	OP 4.3	Natural Science		200
	OP 4.4	Social Science		Marks
	Option B:	Specialised course in education	50	
		(one of the following)		
	OL 4.1	Education and Communication Technology		
	OL 4.2	Special Education		
	OL 4.3	Fundamentals of Guidance and counselling.		
E.P.C : 04	SI	School Internship	200	
		Project	100	350
		Colloquia	50	
TOTAL :			**550**	**Marks**
		Theory	**200**	**550**
		Practical	**350**	**Marks**

* Option will be offered as per the availability in respective colleges.
F : Foundation Course : Core Course : P. Pedagogy Course, O : Optional Liberal Course : OP : Optional Pedagogy : OL : Optional Course; PR : Practicum; SC School Contact Programm: SI : School Internship.
In the Course nomenclature the numerical immediately following letters (E.C.P. etc.) denotes the year of the programme in which the course is to be taught. The second numerical denotes the serial number in a particular course type. For instance, F2.5 signifies that Human Relations and Communications is the 5th Foundation Course to be taught in the 2nd Year of the programme study.

F 4.8 CURRICULUM STUDIES

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, scope, determinants and approaches of curriculum development.
2. Explain the curriculum transactional strategies.
3. Interpret the meaning, definition and principles of curriculum development.
4. Describe the structure and constraints in developing a structure of curriculum development.
5. Evaluate the role of evaluation in the curriculum improvement process.

Unit-1 Determinants of curriculum: The teacher, the learner The school. The community.

Basic considerations in curriculum design: approaches to curriculum design: Behaviourist, cognitivist, constructivist, connectivist.

Unit-2 Direct and indirect curriculum transactional strategies, interactive discussions, Team Teaching, inquiry Training, Experiential Learning and Brain Storming.

Curriculum organization: Subject centered; thematic; activity or experience-based (child centered). Study of an innovative curriculum (Basic curriculum as an example of the past and any one innovative curriculum in the present). Meaning, Definition and principles of curriculum Development.

Unit-3 Developing a curriculum for a specific stage: structure and constraints in developing a structure. Curriculum in NCF 2005 and NCFTE 2009.

Unit-4 Curriculum evaluation: role of evaluation in the curriculum improvement process; principle of curriculum evaluation. Continuous and comprehensive, Evaluation, Formative and summative evaluation.

References :

- Borich, Gary D. : Effective teaching methods-Research Based Practice: Pearson 7th edition, 2012.
- Allan, Ornatein C. : Teaching: Theory into Practice: Allyn & Bacon, 1995.
- Pandey, K.P. : Shikshan Bywahar ki Technology: Vishwavidyalaya Prakashan, 2010.
- Kumar, K. : What is worth Teaching? (3rd edition) orient Blackswan (2004).
- Holt, J. : How children fail (Rev.ed.) Penguin, 1964.
- Saxena, NRS : Gyan and Pathayakram, R. Lal Book Depot, Meerut.
- Shukla Bhavna : Knowledge and curriculum, Agrawal Publication, Agra.
- Mallik, S. Knowledge, Langnage and curriculum, Rakhi Prakashan, Agra.

F 4.9 GENDER AND SCHOOLING

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the psychological and sociological perspectives of sex and gender.
2. Explain the concept of social construction of gender.
3. Describe the gender inequalities in schooling.
4. Interpret the gender discrimination in the schooling.

Unit-1 **Sex and Gender:** Psychological and sociological perspectives (Radical Feminist, Socialist-Feminist, Psychoanalytic and other Perspectives) and recent debates. The Indian perspective on gender and its implications.

Unit-2 **Social construction of Gender:** socialization, family and gender identity; the media, gender roles and stereotypes; caste, class, community and gender relations.

Unit-3 **Gender inequalities in schooling:** organisation of schooling; gender bias in text books, curricular choices and the hidden curriculum (teacher attitudes, classroom interaction and peer culture). Gender discrimination in NCF-2005.

Unit-4 **Gender and schooling:** case studies of interventions in school education; reflections from the field and strategies for change.

Gender Bias-neutralize their negative effect. Co-education school and Gender discrimination.

Reference Books :

- Nirantar: Textbook regimes: A feminist Critique of nation and identity, New Delhi. (2010).
- Menon, N. : Seeing like a feminist India: Penguin (2012).
- Bhatt, H. : The diary of a school teacher, An Azim Premji University Publication, New Delhi.
- Batra, P. : Voice & Agency of teachers.
- Pandey, K.P. : Perspectives in Social Foundation of Education. (2010).
- Kushwaha, Madhu: Gender aur Shiksha, Ganga Sharan & Grand Sons, Varanasi.
- Pachauri, Girish : Gender, School and Society, R. Lal Book Depot., Meerut.
- Bhargav, Mahesh : Creating an inclusive School, Rakhi Publication, Agra.

Op 4.1 PEDAGOGY OF LANGUAGE

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand place of English in school curriculum.
2. Explain conditions of learning and micro teaching in language.
3. Differentiate among different methods and models of English teaching.
4. Interpret language acquisition in multilingual setting.
5. Identify different materials and teaching aids in language teaching.
6. Examine evaluation process in language teaching.

Unit-1 **The Learner:** Place of English in school curriculum. Objectives of teaching English.

Learning Contexts: conditions of Learning. Micro teaching in Language.

Unit-2 **Methods and Models:** grammar-translation method; direct method; the structural approach; audiolingualism; communicative approaches; natural method; monitor model; total physical response; sociolinguistic approaches, teaching in a multilingual classroom. Grammar games and grammar practice Activities.

Unit-3 **Language acquisition in multilingual setting:** theory of interference; contrastive analysis and its limitations; error analysis; errors as stage in the process or learning: schema theory; appreciative systems.

Materials and teaching aids: selection of materials; gradation; the concept of linguistic complexity; cohesion and coherence; idea; density; levels of readability; schema theory; teaching aids; language.

Unit-4 **Evaluation:** taxonomy of tests: discrete point and integrative tests; cloze, dictation and translation-new perspectives; communicative testing; process evaluation; participatory evaluation and the discourse. Formative and summative evaluation, NRT and CRT.

References :

- Anderson, Richard C. et. al. (eds). Learning to Read in American Schools, Lawrence Erlbaum Associates: New Jersy, 1984.
- Butler, A. and J. Turbill. (eds.) Towards a Reading Writting Classroom, Heinemann: Portsmouth, NH, 1984.
- Donal, J. Len and Charles K. Kinzer. Effrective Reading Instruction, Prentice Hall: UK, 1995, Chapters 10 and 11.

- Rhodes, Lynnk. and Nancy L. Shankin. Windows into Literacy; Assessing Learners K-8, Heinemann: Portsmouth, NH. 1993.
- Rosenblatt, Louise M. What Faxt Does This Poem Teach: Language Arts, Vol. 57 No. 4, 1980.
- Teale, W. and E. Sulzby. (eds) Emergent Literacy: Writting and Readings, Nerwood: New Jersey, 1986.
- Tompkims, Gail E. Teaching Writing: Balancing Process and Product; McMillan; California, 1994.

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Abercrombie, D. : Problems and Principles. Studies in Teaching English as a Second Language : Longmans Green, 1965.

Ballard, P.B. : Teaching and Testing English, Univ. of London, 1965.

Bhandari, C.S.; V.A. Hinkley & Ram, S.K. : Teaching English, New Delhi : Orient Longmans, 1951.

Bill, W.F.L. : The Techniques of Language Teaching, Longmans.

Bhatia, H.R. : Teaching English Spelling.

Chmpion, H.C. : Lectures on Teaching of English in India, Oxford, 1957.

Chapman, L.R.H. : English Composition for Beginners, London : Longmans.

Christopherson, P. : An English Phonetic Course.

Close : English as a Foreign Language, Allen & Unwin.

French, F.G. : The Structure of English.

French, F.G. : Teaching English as an International Language.

French, F.G. : Teaching of English Aboard, Parts I, II and III, Oxford, 1950.

Frisby, A.W. : The Teaching of English.

Fries, C.C. : Teaching and Learning English as a Second Language, Univ. of Michigan Press, 1945.

Fries, C.C. : The Structure of English, N.Y. : Brace & Co., 1952.

Gatenby, E.V. : English as a Foreign Language.

Gimson : An Introduction to the Pronunciation of Language.

Glehu, Louis-de : Teaching of Modern Foreign Language.

Gokak, V.K. : Future of English in India.

Gupta, S.C. : On Teaching and Learning of English in India.

Gurrey, P. : Teaching of English as a Foreign Language.

Horaby, A.S. : A guide of Patterns and Usage in English.

Jain, R.K. : Essentials of English Teaching Agra : Vinod Pustak Mandir, 1968.

Bisht, Abha Rani: Teaching English in India, Agrawal Publication, Agra, 2014.

OP 4.2 PEDAGOGY OF MATHEMATICS

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning scope and nature of mathematics in curriculum.
2. Explain the aims and objectives of mathematics teaching at various stage.
3. Differentiate among logical thinking, reasoning and representation.
4. Interpret the concept of pedagogical considerations in geometry.
5. Identify the role of ICT in mathematics.
6. Examine the evaluation process in mathematics teaching.

Unit-1 **What is Mathematics**: patterns; reasoning; generalizations; nature of mathematical statements-axioms and postulates; explanations and proofs; parsimony; necessity and sufficiency. Nature of mathematics in the curriculum: Aims and objectives of mathematics teaching correlation of mathematics with other subjects.

Unit-2 Development of children's logical thinking, reasoning and representation (formal operations and abstraction).

Pedagogical considerations in geometry, practical arithmetic, number, algebra, data handling and statistics, ratio and proportional reasoning.

Unit-3 **Communicating Mathematics:** activity; graphical methods construction; measurement; modeling; computation. Uses of ICT in Mathematics. Helping children develop a mathematical view of the world; knowledge of Mathematics and mathematisation. Mathematics in NCF. 2005.

Unit-4 Feedback, testing, evaluation and remedial teaching.

Formative Assessment and Summative Assessment.

References Books :

- Kumar, Sudhir & Ratnatikar, D.N. : Teaching of Mathematics, Anmol publication Pvt. Ltd., New Delhi.
- Sidhu, Kulbir Singh : The Teaching of Mathematics. Sterling Publishers, New Delhi.
- Vashista, S.R. : Curriculum Construction, Anmol publication Pvt. Ltd., New Delhi.
- Mangal, C.K. : Ganit Shikshan, Agrawal Publication, Agra.
- Rawat, D.S. : Mathematics Teaching, Agrawal Publication, Agra.

OP 4.3 PEDAGOGY OF NATURAL SCIENCE

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning, nature and structure of natural science.
2. Explain the aims and objectives of teaching science at different level.
3. Interpret disciplinary and integrated approach to teaching natural science.
4. Describe meanings characteristics and steps of lesson planning in science.
5. Examine the evaluation process in natural science
6. Evaluate the importance and role of programmed instruction and micro teaching in science.

Unit-1 Nature and structure of natural science; significance of natural science in the curriculum at the upper primary level. Correlation with other subjects.

Relating the study of cognitive growth and learning to the development of understanding and appreciation of sciences. Aims and objectives of teaching science at different level.

Unit-2 Disciplinary and integrated approach to teaching: levels of disciplinary growth of different natural sciences-descriptive, inductive, causal and formal. Significance and bases of integration* aims and objectives of teaching integrated science. Role of observation, experiment, discovery and intuition.

Unit-3 Natural Science Lesson Plan, meanings, characteristics and steps. Appraisal of existing curricula including innovative curricula in India and abroad. Text analysis-text book, work-book and teacher's guide.

Evaluation in science: cognitive, psycho-motor and affective aspects. Test construction, analysis and interpretation. Formative and summative evaluation.

Unit-4 Programmed Instruction and Microteaching in Science. Focus on teaching skill.

Practical-

1. Maintenance of Junior Science Laboratory.
2. Development of skills like observation; use of environmental and local resources; improvising apparatus; organizing science clubs, fairs, museum and exhibitions.

3. Field trips.

References Books :

1. Bloom, B.S. (1956) : "Taxonomy of educational objectives" David Mackay Company, INC, New York.
2. NCERT : "Text Book of Science, NCERT, New Delhi.
3. Pareekh, A.M. (2001) : "Lesson Planning in Indian School", R.C. of Education, Jaipur.
4. Rao, D.B. (1997) : "Reflection on Scientific Attitude", Discovery Publishing House, New Delhi.
5. Singh, Satnam : Modern Methods of Teaching Science, Srishti Book Distributors New Delhi.
6. Singh, Uttam Kumar : Science Education, C.W. Nayak A.K.
7. Sood, J.K. (1999) : "New Direction In Science Teaching", Kohli Publication, Chandigarh.
8. Yadav, M.S. : Modern method of teaching of science, Anmol Publishers, New Delhi.
9. Rawat, D.S. : Vigyan Shikshan, Agrawal Publication, Agra.

OP 4.4 PEDAGOGY OF SOCIAL SCIENCE

50 Marks

Objectives: After completing this course, the students will be able to-

1. Understand the meaning and scope of social science and social studies.
2. Differentiate between social science and social studies.
3. Explain the rationale for a social studies programme at elementary school.
4. Interpret programmed instruction, micro teaching and teaching skill.
5. List various teaching methods and materials in social science.
6. Describe the preparation of lesson planning in social science.

Unit-1 Social Science and Social Studies: defining its scope and nature; rationale for a social studies programme at the elementary school. Co-Relation with other school subjects.

Unit-2 Developing concepts, skills and attitudes through the teaching of social studies. Programmed instruction and Micro teaching in Social Science. Teaching skills and its components.

Unit-3 Methods and Materials: Project, Source, simulated teaching. Problem solving, Brain storming. Experiential Learning.

Unit-4 Preparation of Lesson Plan : Harbartion approach, unit Plan. Formative and summative assessment in social science.

References Books :

- Singh Rampal : Teaching of civics, R. Lal Book Depot. Meerut (2012).
- Singh, Satnam. : Modern Methods of Teaching Political Science, Srishti Book Distributors, New Delhi.
- Tyagi, Gurusaran : Teaching of civics, Vinod Pustak Mandir, Agra (2013).
- Yadav, Nirmal. : Teaching of Civics and Political Science.
- Bhargav, Mahesh : Nagarik Shastra Shikshan, Rakhi Prakashan, Agra.

OPTION : B
OL 4.1 EDUCATION AND COMMUNICATION TECHNOLOGY

Objectives: After completing this course, the students will be able to-

1. Understand the concept, scope and approaches of Educational Technology
2. Explain the concept of micro teaching, programme instruction, computer assisted instruction and web based instruction.
3. Interpret the concept of various models of teaching.
4. Describe the concept, principles, modes and barriers of communication.
5. Examine the role and relevance of educational and communication technology in teaching and learning process.

Unit-1 Understanding Educational Technology

- Educational technology: concept and approaches, scope of Educational Technology.
- Educational technology: present trends and futuristic vision.
- Major institutions of educational technology in India— CIET, IGNOU, SIET NIOS, Consortium for educational Communication (CEC).
- Microteaching, Programme Instruction, CAI, Web Based Instruction (WBI).

Unit-2 Educational Technology for Teaching-Learning Purposes

- Modalities of teaching: teaching, training, instruction, conditioning, indoctrination.
- Stages of teaching: pre-active, interactive and post-active.
- Teaching at different levels: memory, understanding and reflective.
- Organizing teaching and learning by using educational technology: Open Educational Resources (OER), Massive Open Online Courses (MOOCs)
- Models of Teaching: Basic Teaching model, Flander's model, CAM (Concept Attainment Model) and VAM (Value Analysis Model)

Unit-3 Technologies in Education

- Synchronous and asynchronous media for formal and non formal educational settings.
- Technology supported instruction: meaning characteristics, uses, advantage, and disadvantages.
- Communication process: Concept, Principles, Modes and Barriers of Communication.

- Online technologies in education: Concept, types and uses.
- Emerging technologies in education: blended learning, mobile learning, flipped learning, E-learning, Role and relevance of Educational and Communication Technology in Teaching and Learning process.

Unit-4 Distance Education

- Distance education: concept, methods and techniques.
- Offering distance education: student support services and evaluation strategies, Counselling Methods in Distance education. Norm Reference Test and Criterion-reference Test (NRT and CRT)
- Distance education in India: changes and challenges.
- Virtual Universities.

Field-based Activities

- Prepare a power point presentation of 15 slides on any topic of your choice by using pictures, animation and graphics and give its presentation.

References Books :

- Aggarwal, J.C. (2001). *Principles, methods and techniques of teaching.* Delhi: Vikas Publication.
- Allison, L.J. (2003) : *Refusing online resources, a sustainable approach to e-Learning.* Kogan Page Limited.
- Bengalee, C. (1986). *Intruduction to educational technology: innovations in education.* Mumbai: Saith.
- Bhatia, K.K. (2001). *Foundation of teaching learning process.* Ludhiyana: Tandon Publishers.
- Bhatt, B.D., & Sharma, S.R. (1992). *Educational technology: concept and technique.* New Delhi: Kanishka Publishing House.
- Dahiya, S.S. (2008). *Educational technology: towards better teaches preference.* Delhi: Shirpa Publication.
- Dangwal, K.L. (2010). *Computers in teaching and learning.* Agra: Vinod Pustak Mandir.
- Das, R.C. (1993). *Education technology: a basic text.* New Delhi: Sterling.
- Dasgupta, D.N. *Communication and Education,* Pointer Publishers.

- Heinich, R., Molenda, M., & Russell, J.D. (1989). *Instructional media and the new technologies of instruction.* New York: Macmillan.
- Jain, P. (2004). *Educational technology.* New Delhi: Dominant.
- Joyce, B. (2009). *Models of teaching.* New Delhi: PHI Learning.
- Kumari, S. (2006). *Increasing role of technology in education.* Delhi: Isha.
- Mangal, S.K. (2002). *Essentials of teaching learning and information technology.* Ludhiyana: Tandon Publishers.
- Mukhopadhyay, M. (1990). *Educational technology: challenging issues.* New York: Sterling.
- Naidu, S. (2003). *e-learning a Guidebook of principals, procedures and practices.* Canada: COL.
- Pachauri, S.C. (2011). *Educational technology.* New Delhi: APH Publishing Corporation.
- Rastogi, S. (1998). *Educational technology for distance education.* Jaipur: Rawat Publication.
- Robert, H. (1990). *Instructional media and the new technologies of instruction.* London: John Wiley and Sons.
- Sampath, K., Panneerselvam, A., & Santhanam, S. (2007). *Introduction to educational technology.* Sterling Publishers Pvt. Ltd.
- Sareen N. (2005). *Information and Communication Technology.* New Delhi: Anmol Publication.
- Sethi, D. (2010). *Essentials of educational technology and management.*
- Sharma, A.R. (2001). *Educational technology.* Agra: Vinod Pustak Mandir.
- Sharma, K.D., & Sharma, D.V. (1993): *Open Learning System in India.* New Delhi: Allied Publishers Ltd.
- Singh, C.P. (2011). *Advanced educational technology.* Lotus Press: New Delhi.
- Sleeman, P.J., Cobun, T.C., & Rockwell, D.M. (1979). *Instructional media and technology: a guide to accountable learning systems.* New York: Longman.
- UNESCO. (2002). Information and Communication Technologies in Education: A Curriculum for School and Programme of Teacher Development. Paris: UNESCO.

- UNESCO. (2002). UNESCO Information and Communication Technologies in Teacher Education: A Planning Guide. Paris: UNESCO.
- Venkataiah, N. (1996). *Educational technology.* New Delhi: APH Publishing Corporation.
- Verma, M. (2006). *Online teaching-tools and methods.* New Delhi: Murari Lal & Sons.
- Verma, M. (2006). *Teaching in digital education.* New Delhi: Murari Lal & Sons.
- Walia, J.S. (2003). *Educational technology.* Jalandhar: Paul.
- Sagar, Krishna (2005): Dictionary of Digital Education, Authors Press, Delhi.

OL 4.2 SPECIAL EDUCATION

Objectives: After completing this course, the students will be able to-

1. Understand the concept, nature, objectives and types of special education.
2. Differentiate among exceptional children.
3. Explain the education of gifted and creative children.
4. Interpret issues and trends in special education.
5. Explain the evaluation process in special education.
6. Examine the children with diversities in NCF 2005, NCFTE 2009, NCTE regulation 2014 and NEP 2020.

Unit-1 Special Education

- Concept and nature of special Education.
- Objectives
- Types
- Historical Perspectives
- Intergrated Education.

Unit-2 Exceptional Children

- Education of Mentally retarded teaching strategy.
- Education of the visually impaired, educational programmes.
- Education of Hearing impaired. Degree of impairment etiology and prevention.
- Education of the Orthopedically Handicapped. Characteristics and educational programme.

Unit-3 Education of Gifted and Creative

- Characteristics, educational programmes.
- Learning Disabled children-Characteristics identification and educational programmes.
- Juvenile Delinquents: Characteristics, problems of Alcoholion Drug Addiction, Anti Social and Character disorder.
- Educational programmes for Rehabilitation.

Unit-4 Issues and Trends in Special Education

- Children with Diversities in NCF 2005, NCFTE 2009, NCTE Regulation 2014 and NEP 2020.
- Information and Communication Technology and Special Education.
- Formative and Summative evaluation in Special Education.

Transactional Strategies:

- Essay writing on Special education in special reference to etiology and prevention of slow learner.
- Reflective readings on excerpts from documents NCF-2005. (about Special Education).

Reference Books:

- William, M. Cruickshank (1955): The Psychology of exceptional Children and youth, staple press, London.
- Povey, Robert (M)(ed): Educating the gifted Child, London: Harper and Row.
- Chauhan, S.S. (1994): Advanced educational Psychology New Delhi: Viaks Publishing House.
- Howell, Kenneth (1983): Inside special education, London: C.E. Merril Co.
- Siddiqui, Hena (2017): Inclusive Education, Agrawal Publication, Agra.
- www.NCF2005.com.
- www.NCFTE2009.com.
- www.NCTE Regulation 2014.com.
- www.NEP2020.com.

OL 4.3 FUNDAMENTALS OF GUIDANCE AND COUNSELLING

Objectives: After completing this course, the students will be able to-

1. Understand the concept, need, scope and objectives of guidance in Indian context.
2. Explain the principles and various theories of guidance.
3. Interpret the kinds of guidance and need of guidance for special children.
4. Understand meaning, concept and relevance of counselling.
5. Differentiate between guidance and counselling.
6. Illustrate various techniques of counselling.
7. Examine the role of evaluation process in guidance.

Unit-1

A. Guidance: concept, need, objectives, scope and status of guidance in Indian context.

B. Principles and basic assumptions of guidance, various theories of guidance, modern trends and problems of Guidance in Indian context.

Unit-2

A. Kinds of guidance: educational, vocational and personal, Organization of School Guidance Programme.

B. Needs of guidance for special children: ongoing efforts in this field. Various Guidance services, occupational information.

Unit-3

A. Counselling: meaning, conceptual similarities and differences between guidance and counselling, relevance of counselling in present context, organization of guidance and counselling services in schools.

B. Techniques of counselling: directive, non-directive and eclectic counselling: objectives, steps, characteristics and educational implications. The Questionnaire, Observation, Autobiography, case study, Cumulative Record Interviews.

Unit-4

A. Evaluation techniques used in guidance: standardized and non-standardized tests, interview, observation, case study, autobiographical description, their merits and demerits. Formative and Summative evaluation.

B. Formation of cumulative records - steps and importance in teaching-Learning. Characteristics of a good cumulative record.

Transactional Strategies:

The course will be transacted mainly through practical work such as the following:

- Preparing the cumulative record of any two students by collecting data through case study method.
- Conducting a counselling session based on the problem of two students by using appropriate counselling technique and preparation of report thereon.
- Writing Essay at least two topics related to Guidance and Counselling.

Reference Books:

- Bhatia K.K. : Principles of Guidance and counselling. Kalyani Publication.
- David, A. : Guidance and Counselling. Com. W. Publication.
- Kochhar, S.K. : Educational and Vocational Guidance in secondary schools. Sterling Publication.
- Pandey, K.P. : Educational and Vocational Guidance in India. Vishvavidyalaya Prakashan.
- Rao, S.N. : Counselling and Guidance, Tata Mcgraw Hill, New Delhi.
- Traxler, A.E. & North, R.I. : Techniques of Guadiance, Harper and Raw, New York.
- Sharma, R.A. : Guidance and Counselling, R. Lal Book Depot., Meerut.
- Sharma, R.A. : Fundamental of Guidance and Counselling, R. Lal Book Depot., Meerut.

B: PRACTICAL ACTIVITIES FOURTH YEAR:

Total : 350 Marks)

A: School Internship : MM:200

Each intern is expected to spend 16 weeks in the internship programme. Of these, one week is expected to be spent on classroom observations at the beginning of the internship. The subsequent 15 weeks are to be divided into two blocks for regular teaching. The first block of 7-8 weeks is to be spent in teaching a primary class (I-V). In the second block of 6-7 weeks, the interns will teach middle level (VI-VIII) classes. The intern is expected to teach a minimum of four days per week in this duration he/she will teach 30 lesson in primary class (I-V) and 30 lesson in middle level (VI-VIII) classes. The intern is expected to teach a minimum of four days per week, adding up to a total of 64 days. It is expected that the internship programme will be considered observations and a minimum of 55 days of teachings.

The main activities of school internship programme are as follows:

I) Reflection on Classroom Observation: Observe classroom to understand children's needs and levels of learning, classroom practices and the classroom culture. Interns are expected to observe the classroom they will teach in during internship.

II) Rapport Building with Teachers: Establish rapport with the regular staff of the school: In order to sustain a positive and professional work culture during internship.

III) Classroom observations: Interact with B.El.Ed. faculty to reflect upon experiences in the school during observations and rapport building. This is to facilitate the interns to make sense of existing work and learning conditions. This in turn will help the process of translating ideas of teaching learning into practice.

IV) Developing Lesson Plans

V) Class Room Teaching:

B. Project: MM: 100

- Every student is required to take up project work in specific areas of interest. Project work is designed to initiate students into a process of scientific enquiry, through classroom-based research. Small projects on specific themes such as miscue analysis gender stereotypes, error analysis, children's understanding of specific concepts and so on can be taken up.
- Each student is expect to undertake two or three small projects, these could be related to pedagogic studies specific to language, maths and environmental sciences, or be based on any of the foundation or specialized courses of fourth year.
- Students interns may use their experiences of teaching identifying project themes and undertake the task of data-collection during internship. Each individual project will be conducted under the guidance of a faculty member.
- It is expected that the research undertaken will enable students to cultivate skill systematic observation, documentation, critical analysis and interpretation This will create a teacher oriented towards probing into children's learning processes, with the objective of improving classroom practices. Students will be expected to submit a short report on each project.

C: Colloquia - Preparation of innovative teaching aids and comprehensive Viva.