

राष्ट्रीयसंस्कृतसंस्थानम्

(समविश्वविद्यालयः)

राष्ट्रीयमूल्याङ्कन-प्रत्यायन-परिषदा 'ए' श्रेण्यां प्रत्यायितम्
नवदेहली

RASHTRIYA SANSKRIT SANSTHAN
(Deemed University)

Accredited with 'A' Grade by NAAC

New Delhi

पाठ्यक्रमः

SYLLABUS

उत्तरमध्यमा/प्राक्शास्त्री (सीनियर सेकेण्डरी)

Uttaramadhyama/Prak-Shastri (Sr. Secondary)



राष्ट्रीयसंस्कृतसंस्थानम्

RASHTRIYA SANSKRIT SANSTHAN

2017

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पाठ्यक्रमः

SYLLABUS

उत्तरमध्यमा/प्राक्शास्त्री (सीनियर सेकेण्डरी)
Uttaramadhyama/Prak-Shastri (Sr. Sec.)

अनुक्रमणिका

	पृष्ठसंख्या
1. उत्तरमध्यमा/प्राक्शास्त्रिपाठ्यक्रमः – परीक्षापत्रविवरणम्	5
2. उत्तरमध्यमा/प्राक्शास्त्री –	
प्रथमवर्षम्	9-25
द्वितीयवर्षम्	26-59

उत्तरमध्यमा/प्राक्शास्त्रीपाठ्यक्रमः

परीक्षापत्रविवरणम्

उत्तरमध्यमा/प्राक्शास्त्रिपाठ्यक्रमे द्वयोः वर्षयोः प्रतिवर्षम् अधोलिखितानि पत्राणि सन्ति-

उत्तरमध्यमा/प्राक्शास्त्रिपरीक्षा (प्रथमवर्षम्) -

पत्राणि	विषयाः	अंकाः
1.	व्याकरणम्	100
2.	साहित्यम्	100
3.	आंग्लभाषा	100
4.	हिन्दी/प्रान्तीयभाषाः	100
5.	अर्थशास्त्रम्/इतिहासः/राजनीतिशास्त्रम्/समाजशास्त्रम्/ जीवविज्ञानम्/गणितम्/भूगोलः	100
6.	वेदः/व्याकरणम्/साहित्यम्/ज्यौतिषम्/दर्शनम्/जैनदर्शनम्/बौद्धदर्शनम्	100
7.	संगणकविज्ञानम्	100

उत्तरमध्यमा/प्राक्शास्त्रिपरीक्षा (द्वितीयवर्षम्) -

पत्राणि	विषयाः	अंकाः
1.	व्याकरणम्	100
2.	साहित्यम्	100
3.	आंग्लभाषा	100
4.	हिन्दी/प्रान्तीयभाषाः	100
5.	अर्थशास्त्रम्/इतिहासः/राजनीतिशास्त्रम्/समाजशास्त्रम्/ जीवविज्ञानम्/गणितम्/भूगोलः	100
6.	वेदः/व्याकरणम्/साहित्यम्/ज्यौतिषम्/दर्शनम्/जैनदर्शनम्/बौद्धदर्शनम्	100
7.	संगणकविज्ञानम्	100

पाठ्यक्रमः
Syllabus

उत्तरमध्यमा/प्राक्शास्त्री (सीनियर सेकेण्डरी)
Uttaramadhyama/Prak-Shastri (Sr. Sec.)

प्राक्शास्त्री/उत्तरमध्यमापाठ्यक्रमः

प्रथमवर्षम्

प्रथमं पत्रम् - व्याकरणम्	100
अभागः - लघुसिद्धान्तकौमुदी आदितः पञ्चसन्ध्यन्तं यावत्	40 अङ्काः
बभागः - रचनानुवादः शब्दरूपाणि धातुरूपाणि च (अधोनिर्दिष्टाः)	60 अङ्काः
1) अमरकोशः स्वर्गवर्गः	10 अङ्काः
2) शब्दरूपाणां परिचयः	20 अङ्काः
पुंलिङ्गकाः शब्दाः-राम, हरि, भानु, पितृ, सखि, पति, गो	
स्त्रीलिङ्गकाः शब्दाः - रमा, मति, नदी, मातृ,	
नपुंसकलिङ्गकाः शब्दाः - ज्ञान, वारि, मधु, जगत्, कर्मन्, मनस्,	
सर्वनामशब्दाः - युष्मद्, अस्मद्, इदम्, अदस्, तद्, एतद्	
3) धातुरूपाणां परिचयः (दशसु लकारेषु)	20 अङ्काः
परस्मैपदिधातवः - भू, लिख, गम्, स्था, पठ्, पा-पाने, अस्, इष्	
आत्मनेपादिधातवः - एध्, सह्, लभ्	
उभयपदिधातवः - कृ, दा	
4) वाच्यपरिवर्तनम्	05 अङ्काः
5) अनुवादः-हिन्दीतः/आङ्ग्लतः संस्कृतम्, संस्कृततः हिन्दी/आङ्ग्लम्	05 अङ्काः
(अधीतशब्दरूपधातुरूपतः अनुवादवाक्यानि)	

द्वितीयं पत्रम् - साहित्यम्	100
रघुवंशम्, 1-2 सर्गौ	

तृतीयं पत्रम् - आंग्लम् (English) **100**

Section A : Comprehension **10 marks.**

A Passage from the text followed by 5 questions each carrying 2 marks (5×2)

Section B : Comosition **10 Marks.**

Report, Writing or Composition or letter writing

Section C : Grammar **40 marks.**

- (i) Parts of Speech, types of sentences, Tenses, Clauses, Modals. 20 Marks
10 question out of 15 each question carrying 2 marks (10×2)
- (ii) Editing Tasks : Punctuation, Correction of Spellings,
Grammatical errors. 10 Marks
5 questions outs, each carrying 2 marks (5×2)
- (iii) Re-ordering of sentences 10 Marks
One set out of 2 sets

Section D : Text Books **30 marks.**

- (i) **Hornbill** 20 Marks
(a) Five out of eight short answer questions
each carrying 4 marks
- (ii) **Snapshots** 10 Marks
One out of three long answer questions (essay type
answer with 100 to 150 words)

Section E : Essay Type Question on clean India (swacha Bharat) **10 marks.**

One out of three long answer questions (essay type
answer with 100 to 150 words)

Prescribed Books :

- (i) Hornbill-published by N.C.E.R.T. 2008, prescribed for Central Schools
in Class XI.
- (ii) Snapshots-published by N.C.E.R.T. 2008, prescribed for Central Schools
in Class XI.

चतुर्थ पत्रम् - हिन्दी/प्रान्तीय भाषा	100
(I) हिन्दी	
(अ) हिन्दी (केंद्रिक)	
अथवा	
(ब) हिन्दी (ऐच्छिक)	
(अ) हिन्दी (केंद्रिक)	100
(क) पाठ्य पुस्तक-आरोह (भाग-1)	40
1) प्रेमचन्द	
पूरक पुस्तक-वितान (भाग-1)	20
(ख) रचनात्मक लेखन (कामकाजी हिन्दी और रचनात्मक लेखन)	10
(1) निबन्ध	
(2) कार्यालयीय पत्र	
अभिव्यक्ति और माध्यम पुस्तक के आधार पर प्रश्न-	10
(i) समाचार लेखन/आलेख	5
(ii) जीवन संदर्भों से जुड़ी घटनाओं और स्थितियों पर फीचर लेखन	5
(ग) स्वच्छ भारत समाचार लेखन/आलेख	20
आरोह पुस्तक के आधार पर प्रश्न	40
काव्य भाग 20	
(i) दो काव्यांशों की व्याख्या	10
(ii) काव्य के सौन्दर्य बोध पर एक प्रश्न	5
(iii) कविता की विषयवस्तु पर आधारित लघु उत्तरात्मक प्रश्न	5
गद्यभाग	20
(i) दो गद्यांशों की व्याख्या	10
(ii) गद्य पर वर्णनात्मक प्रश्न	5
(iii) गद्य की विषय वस्तु पर आधारित लघु उत्तरात्मक प्रश्न	5

वितान, भाग-1		20
पाठों की विषयवस्तु पर आधारित लघु उत्तरात्मक प्रश्न	10	
विषयवस्तु पर आधारित निबन्धात्मक प्रश्न	10	
निर्धारित पुस्तकें—		
(i) आरोह, भाग-1, एन.सी.ई.आर.टी. द्वारा प्रकाशित		
(ii) वितान, भाग-1, एन.सी.ई.आर.टी. द्वारा प्रकाशित		
(iii) अभिव्यक्ति और माध्यम		
(ब) हिन्दी (ऐच्छिक)		100
(क) अपठित बोध (काव्यांश एवं गद्यांश बोध) 5+5		10
(i) काव्यांश—काव्यांश पर आधारित पाँच लघु उत्तरात्मक प्रश्न	5	
(ii) गद्यांश— गद्यांश पर आधारित प्रयोग, रचनान्तरण, शीर्षक आदि लघु उत्तरात्मक प्रश्न	5	
(ख) रचनात्मक तथा व्यावहारिक लेखन		25
(i) निबन्ध	10	
(ii) कार्यालयीय पत्र	8	
(iii) व्यावहारिक लेखन— प्रतिवेदन/ कार्यसूची इत्यादि	7	
(ग) अन्तरा, भाग-1		25
काव्य भाग—		
(i) सप्रसंग व्याख्या	10	
(ii) कविताओं के काव्य पर दो प्रश्न	10	
(iii) काव्य सौन्दर्य पर प्रश्न	5	
गद्यभाग—		25
(i) सप्रसंग व्याख्या	8	
(ii) पाठों की विषयवस्तु पर आधारित प्रश्न	7	
(iii) किसी एक लेखक/कवि का साहित्यिक परिचय	10	

(घ) अन्तराल, भाग-1

15

- (i) विषयवस्तु पर आधारित प्रश्न 7
(ii) विविध विधाओं पर आधारित बोधात्मक प्रश्न 8

निर्धारित पुस्तकें—

- (i) अन्तरा भाग-1, एन.सी.ई.आर.टी. द्वारा प्रकाशित
(ii) अन्तराल भाग-1, एन.सी.ई.आर.टी. द्वारा प्रकाशित
(iii) अभिव्यक्ति और माध्यम, एन.सी.ई.आर.टी. द्वारा प्रकाशित

(2) प्रान्तीय भाषा

बंगला

(क) Grammar	100
(i) Simple, Complex and compound sentences, Transformation	
(ii) Correction of words	
(iii) Karak	
(iv) Sadhu O' Chalit Bhasha	
(v) Proverbs and idioms	
(ख) Unseen passages	10
(ग) Composition	20
Effective writing skill	
(i) Expansion of ideas	
(ii) Essay/paragraph	
(घ) Text-Book	
1. उच्चमाध्यमिकपाठसंचयन	30
(गद्य, पद्य एवं नाटक, 2005)	
2. कर्णकुन्तीसंवाद- रवीन्द्र नाथ टैगोर	15
उडिया / Uriya	100
क. Applied Grammer	20
उत्तरमध्यमा/प्राक्शास्त्री (सीनियर सेकेण्डरी)	13

	Transformation of sentences, antonyms, synonyms, idioms, proverbs, punctuation, correction of errors	
ख.	Effective Writing Skill	20
	(i) Report-Writing for newspapers	
	(ii) Eassay / article / speech	
ग.	Unseen passages	10
घ.	Text-Books	50
	(i) Novel Chaman Athagunta- Fakir Mohan Senapati, Cuttack	
	(ii) Poetry Chilika- Radhanath Ray, Cuttuck	
	(iii) (One act play) Mantri Asibe Ramchandra Misra Cuttuck	
नेपाली / Nepali		100
A.	Grammer	15
	Paryayevachi, Viparitarthak, anekarthaka, Saar Shabda, Sabda-Shuddhi Vimarsha	
B.	Unseen passages	10
C.	Composition-	
	(i) Patra-rachna-Vyaktigata, Vyaparik, Datari, Smarak Patra	15
	(ii) Nibandha rachna	
	Ref. Book : Madhyamik Nepali Vyakaran ra Rachana.	
D.	Text-books	60
	(i) Katha-Sangraha, Janapakchcha Prakashan, Gangtok, Sikkim	
	(ii) Nibandha Sangrah, Janapakchcha Prakashan, Gangtok, Sikkim	
	(iii) Muna Madan-Mahakavi Laxmi Prasad.	
	(iv) Nepali Ekanki Sangraha, Kiksha Vibhag, Sikkim Sarkar	
डोगरी / Dogri		100
(i)	व्याकरण	20
(ii)	अपठित अंश	10
(iii)	रचना	20
(iv)	पाठ्यपुस्तकें	

(i)	सांझ प्याली	
(ii)	सरपंच	50
मलयालम (Malayalam)		100
I.	Applied Grammer	20
	Parts of speech, idioms & proverbs, Correction and transformation of sentences, Vocabulary-building, equivalent words of simple terms in economic, administrative, scientific discourses and writings	
II.	Composition	20
(i)	Letter Writing.	
	Business Letters, infromal, application for civic amenities, letters to the editors, application for a job.	
(ii)	Paragraph Writing	
(iii)	Unseen Passage	
(iv)	Prose and Poetry	60
Text-books		
(i)	Malayalam, Govt. of Kerala, SCERT, 2005	
(ii)	Vyakti-vivekam by Akavoor Narayanan	
तमिल / Tamil		100
(1)	पोधु तमीजा (Podhu Tamizaha (Class XI 2004 Ed.)	
(2)	Sirukathai Selvam (2004) pt I (Nindetark XI)	
गुजराती / Gujarati		100
A.	Unseen passage	10
B.	Composition	20
	(i) Report Writing for Newspapers	
	(ii) Precis-Writing	
	(iii) Essay	
C.	Grammar	20
	Transformation of sentences, formation of words (Samanarathi, Virodharathi) Correction of Sentences, idioms, proverbs, Punctuation.	

D.	Text-Books	50
	Gujarati (Dwitiya Bhasha) Std XI	
	Gujrat Rajya Sala Pathya Pustak Mandal, Gujrat	
मराठी / Marathi		100
A.	Grammer	
	(i) Transformation of sentences-moods, voices, tenses	
	(ii) Transformation of words	
	(iii) Filling in the blanks with appropriate from of words.	
B.	Unseen passages	
C.	Composition Essay	
D.	Literature	
	Text-books	
	(i) Yuvak Bharati for Class XI	
	(ii) Kounteya - V.V. Shrivadekar	
मणिपुरी / Manipuri		100
A.	Applied Grammer	15
	Root and its types, Affixes, Syllable	
B.	Composition	25
	(i) Essay, application,	
	(ii) Precis writing	
C.	Unseen Passage	10
D.	Prose-Poety	
Lesson (Poetry)		
(1)	Ahing-gi-chekla Tamma	30
(2)	Ningkhair	
(3)	Smriti	
(4)	Lei Langba	
(5)	Jagoi Jогоi	

Selected Pieces. (Prose)

- | | | |
|-----|-----------------------------|----|
| (1) | Kh. Chaoba-gi-Kavi | 20 |
| (2) | Kala Amasung Punshi | |
| (3) | Yatri-ka-Thengnaruba | |
| (4) | Ning Shinglarga lba | |
| (5) | Kaling a lan loibada Ashoka | |

Prescribed Books

- (i) Manipuri Wareng-Cultural Forum, Manipur
- (ii) Manipuri Sheireng-Manipur Sahitya Parishad, Imphal
- (iii) Meetei Lonmit (Part II) by Dr. M.S. Ningomba
- (iv) Manipuri Grammer-Board of Sec. Education, Manipur

कन्नड़ (Kannada)**100**

Text book : Sahitya Nandana

पंचमपत्रम्—अर्थशास्त्रम्/इतिहासः/राजनीतिशास्त्रम्/समाजशास्त्रम्/जीवविज्ञानम्/गणितम्/भूगोलः**अर्थशास्त्रम् / Economics****100****A. Statistics in Economics****50**

1. **Economics**-meaning-scope and importance of Statistics in Economics
2. **Collection, organisation and presutation of Data**-sources, methods, census of India, National Sample Survey Organisation, Variables, Frequency Distribution, Presentation-Tabular, Diagramatic.
3. **Statistical Tools and Interpretation.**
 - (i) Mean, median and mode.
 - (ii) Measures of Dispersion
 - (iii) Correlation
 - (iv) Introduction to Index numbers meaning, types, uses, Inflation
4. **Developing Projects**
 - (i) Demographic structure
 - (ii) Consumer awareness
 - (iii) Changing prices

(iv)	Co-operative institutions	
B.	Indian Economic Development	50
6.	Economic Reforms since 91	
	liberalization, globalisation and privatisation, LPG policies.	
7.	Current Challenges-	
	Poverty, Rural development, Human Capital Formation, Employment, infrastructure, Policies, Economic Development, effects of Economic Development on Resources and Environment.	
8.	Development Experiences of India	
(i)	Indian and Pakistan	
(ii)	India and China	
(iii)	Development indications	

Ref. Books

1. अर्थशास्त्र में सांख्यिकी (हिंदी)
Statistics in Economics (N.C.E.R.T.)
2. भारतीय अर्थव्यवस्था का विकास (हिंदी)
Development of Economic policies in India (N.C.E.R.T.)

इतिहास: / History **100**

1.	Introduction to World History	15
A.	Early Societies,	
B.	Empires across three continents, Central Islamic lands, Nomadic Empires	25
C.	Changing Cultural Traditions, Confrontation	25
D.	Paths to Modernization-Industrial Revolution, Displacement of indigenous people, Paths to modernization	25
	Map-Work based on above units	10

विश्व इतिहास के कुछ विषय (N.C.E.R.T.) (हिंदी)

Themes in World History (N.C.E.R.T.)

राजनीतिशास्त्रम् / Political Science	100
Part A Indian Constitution at works.	50
Making of Constitution, Fundamental Rights, System of representational democracy, Executive in a parliamentary system, legislature, Judiciary, Federalism. Local Government, Political Philosophy underlying constitution.	
Part B Political Theory	50
Introduction, Freedom, Equality, Social Justice, Rights, Citizenship, Nationalism, Secularism, Peace Development.	
भारत का संविधान-सिद्धान्त और व्यवस्था	(N.C.E.R.T.)
Indian Constitution at work	(N.C.E.R.T.)
राजनीति के सिद्धान्त (Political Theory)	
संदर्भ ग्रंथ-	
भारतीय संविधान का कार्यात्मक रूप एवं राजनीतिक लेखन – श्री बी.बी. चौधरी	
समाजशास्त्रम् / Sociology	100
A. Introducing Sociology	50
Society, Sociology and relationship with other sciences, Basic concepts, social Institutions, Culture and Society, Practical Sociology: Methods and Techniques	
B. Understanding Society	50
Structure, Process, Stratification, Social Change, Environment and Society, Western Social Thinkers, Indian Sociologists-Karl Marx, Emile Durkheim, Max Weber, G.S. Ghurye, D.P. Mukherjee, A.R. Desai, M.N. Srinivas	
समाजशास्त्र परिचय (N.C.E.R.T.)	
Introducing Sociology (N.C.E.R.T.)	
समाज का बोध (N.C.E.R.T.)	
Understanding Society (N.C.E.R.T.)	
जीवविज्ञानम् / Biology	100
(i) Diversity in Living World	
(ii) Structural Organization in animals and plants	
(iii) Cell-Structure-and function	

- (iv) **Plant Physiology-**
Water, food, nutrients, gases, Respiration, Photosynthesis, growth development.
- (v) **Human Physiology**
Digestion, absorption, Breathing, respiration, Body Fluids and circulations excretory products and elimination, Locomotion and movement, control and co-ordination.

Prescribed Books

जीवविज्ञान 1 (N.C.E.R.T.)

Biology Part I (N.C.E.R.T.)

गणितम् / Mathematics	100
I. Sets and Functions	25
Empty set, Finite and Infinite sets, Subsets, Power set, Universal set. Venn diagrams, union, intersection, difference, complement of a set	
(i) Relations and Functions	
Pictorial diagrams, domain, ranges, Sum, difference, product and quotient of functions	
(ii) Trigonometric Functions	
Measuring angles, conversion from one measure to another, Definition of trigonometric functions with the helps of unit circle identities.	
II Algebra	35
Principal of Mathematical Induction, Complex Numbers and Quadratic Equations, Linear Inequalities, Permutation and Combinations, Binomial Theorem, Sequence and Series	
III Co-ordinate geometry	15
Straight Lines, Conic Sections, Introduction to Three-dimensional Geometry	
IV Calculus	5
Limits and derivatives	
V Mathematical Reasoning	10
VI Statistics and Probability	10
गणित भाग (N.C.E.R.T.)	
Mathematics Part I (N.C.E.R.T.)	

भूगोल / Geography	100
A. Fundamentals of Physical Geography, Geography as a discipline, the earth, landforms, climate, water (oceans), life on earth.	40
B. India-Physical Environment Physiography, Climate, Vegetation, Soil, Natural Hazards, Disasters.	40
C. Maps, Topographical & Weather-maps Latitude, Longitude, time, Map-projection, Uses of weather charts, weather instruments.	20

Prescribed Books

भौतिक भूगोल के मूल सिद्धान्त (N.C.E.R.T.)

Fundamentals of Physical Geography (N.C.E.R.T.)

भारत का भौतिक पर्यावरण (हिन्दी) (N.C.E.R.T.)

Indian Physical Environment (N.C.E.R.T.)

भूगोल में प्रयोगात्मक कार्य (N.C.E.R.T.)

Practical Work in Geography (N.C.E.R.T.)

षष्ठं पत्रम्- वेदः/व्याकरणम्/साहित्यम्/ज्यौतिषम्/दर्शनम्/जैनदर्शनम्/बौद्धदर्शनम्	100
वेदः	100
(अ) शुक्लयजुर्वेदे रुद्राष्टाऽध्यायी (प्रथमाध्यायतः चतुर्थाध्यायपर्यन्तम्) 70 सस्वरमन्त्रकण्ठस्थीकरणम्	
(ब) छन्दसां सामान्यपरिचयः (गायत्री, उष्णिक्, अनुष्टुप्, बृहती, 30 पङ्क्ति, जगती छन्दांसि)	
व्याकरणम्	100
वैयाकरणसिद्धान्तकौमुदी- आदितः पञ्चसन्ध्यन्तो भागः अङ्गविभाजनम्-	
(1) संज्ञापरिभाषाप्रकरणे	30
(2) अच्सन्धिः	30
(3) हल्सन्धिः, विसर्गसन्धिः, स्वादिसन्धिश्च	40
साहित्यम्	100
वृत्तरत्नाकरः प्रथमाध्यायः 25 छन्दांसि	
(1) मात्रावृत्तम्	
(2) वर्णवृत्ते समवृत्तम्	
(अ) अनुष्टुब् - विद्युन्माला, प्रमाणिका	
(आ) त्रिष्टुब् - इन्द्रवज्रा, उपेन्द्रवज्रा, उपजातिः, दोधकम्, स्थोद्धता, स्वागत, शालिनी	
(इ) जगती - वंशस्थम्, तोटकम्, द्रुतविलम्बितम्, भुजङ्गप्रयातम्	
(ई) अतिजगती - प्रहर्षिणी, मञ्जुभाषिणी	
(उ) शक्वरी - वसन्ततिलका	
(ऊ) अतिशक्वरी - मालिनी	
(ऋ) अत्यष्टि - शिखरिणी, पृथ्वी, मन्दाक्रान्ता	
(ॠ) अतिधृति - शार्दूलविक्रीडितम्	

(लृ) प्रकृति - सुग्धरा
वर्णवृत्ते अर्धसमवृत्तम्, ललिता पुष्पिताग्रा च

ज्यौतिषम्	100
(1) रेखागणितम्, 1-2 अध्यायौ	50
(2) जन्मपत्रदीपकः	40
(3) पञ्चाङ्गपरिचयः	10
दर्शनम्	100
तर्कसङ्ग्रहः (पदकृत्यहितः)	
जैनदर्शनम्	100
तत्त्वार्थसूत्रम्, उमास्वामिविरचितम्	
बौद्धदर्शनम्	100
धर्मसङ्ग्रहः, आचार्यनागार्जुनविरचितः	
सप्तमं पत्रम् - संगणकविज्ञानम् (Computer Science)	100

Unit I

- 1. Computer Appreciation : What is Computer?** **3 sessions**
Characteristics of Computers, Input, Output, storage units, CPU, computer system.
Advantages and Disadvantages of using computers.
- 2. Computer Organization** **20 sessions**
 - 2.1 Central Processing Unit**
Control Unit, Arithmetic Unit, Instruction Set, Register, Processor and Processor Speed.
 - 2.2 Memory**
Main memory : Storage Evaluation Criteria, Memory Organization, capacity, RAM, Read only Memories, Secondary Storage Devices, Magnetic Disks, Floppy and

Hard Disks, Optical Disks, CD-ROM, Mass Storage Devices.

2.3 Input Devices

Keyboard, Mouse, trackball, joystick, Scanner OMR, Bar-code reader, MICR Digitizer, Card Reader, Voice Recognition, web cam, video cameras and other input devices.

2.4 Output Devices

Monitors, Printers-Dot matrix, inkjet, laser, Plotters, Computer, Output Micro-Film (COM) Multimedia Projector, speech synthesizer; dumb smart and intelligent terminal.

2.5 Multimedia:

What is Multimedia, Text, Graphics, Animation, Audio, Images, Video : Multimedia Application in Education, Entertainment, Marketing.

2.6 Computer Software

Relationship between Hardware and Software; System Software, Application Software, compiler, names of some high level languages.

3. Operating Systems 10 sessions

3.1 Disk Operating Systems

Simple DOS Commands, Simple File Operations, Directory Related Commands.

3.2 Microsoft Window

An overview of Window, Basic Windows elements, File management through Windows. Using essential accessories : Systems tools, Disk cleanup, Disk defragmenter, Entertainment, Games, Calculator, Imaging-Fax, Notepad, Paint, Word pad.

3.3 LINUX

Concept of multi user operating systems. Basics of Linux OS. An overview of Linux.

Revision 2 Sessions

Unit I Test 1 Session

Unit II

4. Data Representation 10 Sessions

Binary, Octal, Decimal, Hexa Decimal

Binary Arithmetic (Simple methods for add, subtract (2's Complement).

Binary number system, Binary to Decimal Conversion, Decimal to Binary Conversion, Binary Coded Decimal (BCD Code, ASCII Code.

5. Concept of Files **5 sessions**

Types of Files, file organization; sequential, relative and indexed, Modes of processing; batch, online and real-time.

6. Operation of files: **3 sessions**

Input, output and I/O; processing a file, multiple handling file updations, sequential file updation, random file update.

7. Principles and techniques of programming **20 sessions**

7.1 Introduction to programming:

Program definition, life cycle, characteristics of a good program, Program Design (flowcharts, pseudo codes, Dry Run, Techniques to prepare test data)

7.2 Algorithms for Problem Solving

Exchanging values of two variables, Summation of a set of numbers, Subtraction of two numbers, Product of two numbers, Sum of 10 numbers, Greatest of three numbers, Product of first ten odd numbers, Sum of first 20 even numbers, Find square root of a number, factorial computation, Reverse order of elements of any array, Find largest number in an array.

7.3 Programming paradigms:

Unstructured programming, structured programming, procedural programming, modular programming, program design, top down up design, program documentation.

Revision **2 sessions**

Unit II Test **1 session**

Revision **Remaining sessions**

द्वितीयवर्षम्

प्रथमं पत्रम् - व्याकरणम्	100
अ-भागः लघुसिद्धान्तकौमुद्यां कारकसमासप्रकरणे	30 अङ्काः
कृदन्तप्रकरणे-कृत्यप्रत्ययाः, ण्वुल्, तृच्, अण्, क, क्त- क्तवतु, शतृ-शानच्, 20 अङ्काः तुमन्, क्त्वा, लघुसिद्धान्तकौमुदीरीत्या	
ब-भागः रचानुनवादः	50 अङ्काः
1) शब्दरूपाणां परिचयः	15 अङ्काः
पुंलिङ्गकाः शब्दाः - राजन्, विद्वस्, गोमत्, गुणिन्, भगवत्, मघवन् स्त्रीलिङ्गकाः शब्दाः - वाच्, दिश्, गिर्, उपानह, अप्, श्री, स्त्री नपुंसकलिङ्गकाः शब्दाः - दधि, मधु, अस्थि, आदि, ददत् सर्वनामशब्दाः - सर्वेपि सर्वनामशब्दाः	
2) धातुरूपाणां परिचयः (दशसु लकारेषु)	20 अङ्काः
अदादि - अद्, इङ्-अध्ययने जुहोत्यादि - हु, भी दिवादि - दिव्, नृत् स्वादि - सु, चि तुदादि - तुद् रुधादि - रुध, भिद् तनादि - तनु क्र्यादि - क्री, ग्रह चुरादि - चूर्, गण्	
3) निबन्धलेखनम्	10 अङ्काः
यात्रावर्णनम्, संस्थावर्णनम्, विद्यामहिमा, परोपकारः	
4) अनुवादः आङ्ग्लतः संस्कृतम्, संस्कृततः हिन्दी/आङ्ग्लम् (अधीतशब्दरूपधातुरूपतः अनुवादवाक्यानि)	05 अङ्काः

द्वितीयं पत्रम्- साहित्यम्	100
(1) किरातार्जुनीयम् - प्रथम-सर्गः	40
(2) नीतिशतकम् (भर्तृहरिविरचितम्)	60

तृतीयं पत्रम्-आंग्लम् (English) 100

Section A : Comprehension 10 marks

A Passage from the text, followed by 5 questions each carrying 2 marks (5×2)

Section B : Advanced writing skills 10 marks

A Passage from the text followed by 5 questions each carrying one out of three question (composition or writing report. 2 mark or writing report) between 150 to 200 words

Section C : Grammar 40 Marks

Changing the voice and Narration, combining sentences. Articles, Prepositions
20 questions out of 25 each questions carrying 2 marks (20×20)

Section D : Text Books 30 Marks

(a) **Flamingo** 20 Marks

i) Five out of eight short answer questions (5×4+20 Marks)
(Each carrying 4 marks)

(b) **Supplementary Reader : Vistas** 10 Marks

One out of three long answer questions. (essasy type with 100 to 150 words)

Section E : Essay type question on importance of Yoga 10 Marks

One out of three long answer questions. (essasy type with 100 to 150 words)

Prescribed Books:

- Flamingo, NCERT, 2008 prescribed for Central School in Class XII
- Vistas, NCERT, 2008 prescribed for Central School in Class XII.

चतुर्थं पत्रम् – हिन्दी / प्रान्तीय भाषा 100

(I) हिन्दी-

(अ) हिन्दी (केंद्रिक)

अथवा	
(ब) हिन्दी (ऐच्छिक)	
(अ) हिन्दी (केंद्रिक)	
(क) रचनात्मक लेखन एवं जनसंचार माध्यम	40 अङ्काः
रचनात्मक लेखन—	
(1) निबन्ध	10
(2) कार्यालयीय पत्र	
जनसंचार माध्यम—	
निम्नलिखित विधाओं पर दो प्रश्न—	
(I) रिपोर्ट/आलेख	05
(II) फीचर लेखन (जीवन संदर्भों से जुड़ी घटनाओं और स्थितियों पर फीचर लेखन)	05
(III) योग विषय पर रिपोर्ट आलेख	20
(ख) आरोह, भाग-2	20 अङ्काः
काव्य भाग	
(I) दो काव्यांशों की व्याख्या	10
(II) काव्य के सौन्दर्यबोध पर एक प्रश्न	05
(III) कविता की विषयवस्तु पर आधारित लघु उत्तरात्मक प्रश्न	05
गद्य भाग	20 अङ्काः
(I) दो गद्यांशों की व्याख्या	10
(II) गद्य पर वर्णनात्मक प्रश्न	05
(III) गद्य की विषयवस्तु पर आधारित लघु उत्तरात्मक प्रश्न	05
(ग) वितान, भाग-2	20 अङ्काः
(I) पाठों की विषयवस्तु पर आधारित लघु उत्तरात्मक प्रश्न	10

(II)	विषय वस्तु पर आधारित निबन्धात्मक प्रश्न	10
निर्धारित पुस्तकें:		
(I)	आरोह, भाग-2 एन.सी.ई.आर.टी. द्वारा प्रकाशित	
(II)	वितान, भाग-2 एन.सी.ई.आर.टी. द्वारा प्रकाशित	
(III)	अभिव्यक्ति और माध्यम, एन.सी.ई.आर.टी. द्वारा प्रकाशित	
(ब)	हिन्दी (ऐच्छिक)	100
(क)	अपठित बोध (काव्यांश एवं गद्यांश बोध) 10+10	20
(I)	काव्यांश-काव्यांश पर आधारित रचनात्मक, शीर्षक प्रयोग आदि पर लघु उत्तरात्मक प्रश्न	10
(II)	गद्यांश-गद्यांश पर आधारित लघु उत्तरात्मक प्रश्न	10
(ख)	रचनात्मक तथा व्यावहारिक लेखन	20
(I)	निबन्ध	10
(II)	कार्यालयीय पत्र	05
(III)	अभिव्यक्ति और माध्यम के आधार पर व्यावहारिक लेखन पर प्रश्न	05
(ग)	अन्तरा भाग-2	25
काव्य भाग-		
(I)	सप्रसंग व्याख्या	10
(II)	कविताओं के कथ्य पर दो प्रश्न	10
(III)	काव्य सौन्दर्य पर प्रश्न	05
गद्य भाग-		
(I)	सप्रसंग व्याख्या	05
(II)	पाठों की विषय वस्तु पर आधारित प्रश्न	05
(III)	किसी एक लेखन/कवि का साहित्यिक परिचय	10

(घ) अन्तराल भाग-2	15
(I) विषय वस्तु पर आधारित प्रश्न	07
(II) विविध विषय पर आधारित बोधात्मक प्रश्न	08

निर्धारित पुस्तकें-

- (1) अन्तराल भाग-2, एन.सी.ई.आर.टी. द्वारा प्रकाशित
- (2) अन्तराल भाग-2, एन.सी.ई.आर.टी. द्वारा प्रकाशित
- (3) अभिव्यक्ति और माध्यम, एन.सी.ई.आर.टी. द्वारा प्रकाशित

(2) प्रान्तीय भाषा

बंगला / (Bengali)	100
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Section A :

Grammar	30
1. Phonology (Definition with five examples)	10
Samibhaban, Spinihiti, Sarasangati, Swarabhkti, Abhisruti	
2. Rhetoric (Definition and Identification)	10
Anuprash, Slesh, Yamka, Upama, Shamashakti	
3. Proverbs and Idioms	10

Section B : Summary Writing	10
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Section C : Composition	10
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Personal Letters (Friends and Parents)

Section D : Literature	50
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Text Book : Uccha Madhyamik Path Sanchayan (Prose) Edition-2005

Lessons to be studied :

1. Prose	20
1. Biral	
2. Tota Kahini-by Rabindra Nath Tagore	
3. Shubh Utsav	

Uccha Madhyamik Path Sanchayan (Poetry & Drama) Edition-2005	15
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2. Poems to be studied:	
(i) Attya Bilap	
(ii) Ora Kaj Kare	
(iii) Atharo Bacchar Bayesh	
3. Novel : Srikanta (Part I)- by Sarat Chandra Chatterjee	15
ଓଡ଼ିଆ / (Oriya)	100
Section A	
Reading Skills	10
Unseen Passage for Reading/Comprehension followed by 4 to 5 questions. 1 mark may be allocated for suitable heading.	
Section B : Writing Skills	25
1. Essay on Current topics (Social and Cultural issues) (250 to 300 words)	10
2. Letter to the Editor of Newspaper	08
3. Factual description of place or object	07
Section C : Applied Grammar, Prosody and Rhetories	15
(i) Applied Grammar	
1. Transformation of sentences (Simple, Complex, Compound)	03
2. Idioms and Proverbs-	03
3. Correction of errors in words	03
(ii) Prosody and Rhetories	
1. Prosody (Sama, Bisama, Matra bruta)	03
2. Rhetories (Anuprasa, Rupak)	03
Section D : Literature	
Prose : Prescribed Text : Gadya Dhara, Orissa State Bureau of Text Book preparation and Production, Bhubneswar, 2006	20
Lesson	
1. Swadhina Chinta	Biswanath Kar
2. Odia Jati Kie	Gopabandhu Das

3.	Kshyana	Mayadhar Mansingh
4.	Manisa (2)	Bhubaneswar Behera
5.	Jatira Jibana O Samskruti	Golak Bihari Dhal
6.	Madhu Sandhan	Chandra Sekhar Rath

Questions

1.	Long answer type question (one out of two)	08
2.	Short answer type questions (two out of four)	05
3.	Explanation (one out of two)	07

Poetry: Prescribed text : Padya Dhara, Orissa State Bureau of Text Book 20
Preparation and Production, Bhubaneswar, 2006 20

Enu Kapota Guru Moro-	Jagannath Das
Jagate Kebala-	Baladev Rath
Mo Jibana Pachhe Narke Padithau-	Bhima Bhoj
Mu Hata Bahuda-	Fakir Mohan Senapati
Barsha-	Radhanath Roy
Urkala Kamala	Godabarisha Mohapatra
Chhota Mora Ganti	Cachindananda Routroy
Gram Patha-	Binod, Chandra Nayak
Sarata Ratura, Janma	Guru Prasad Mohanty

Questions :

1.	Long answer type questions (one out of two)
2.	Short answer type-questions (two out of four)
3.	Explanation (one out of two)

Drama :

10

Buxi Jagabandhu by Mahorahjon Das, Dasarathi Pustakalaya, Cattuck-2

Questions :

1.	Short answer type questions to test knowledge on the theme, plot, character, settings and technique (two out of four)
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A. Grammar (Suggested chapters)

- (i) Chahanda : Anustup, Totak, Indrabajraa, Shikharini, Basantatilaka, Sardulvikridit.
(ii) Alankaar : Anupras, Upama, Rupak Slesh, Vakrokti, Utpreksha.

B. Reading Unseen : 10**C. Composition & Writing : 15**

- (a) Patra Rachana : Vyaktigat, Vyaparik, Daftari and Smarak Patra.
(b) Nibandha Rachana : Aatmaparak, Vicharatmak.

D. Literature : (Prose) : 30**Stories:**

- | | |
|----------------------|------------------------|
| (i) Machhako mol | Shiva Kumar Rai |
| (ii) Pipako Hawaldar | Matrika Prasad Koirala |
| (iii) Rupko Mulya | Bal Krishna Sam |
| (iv) Chaprasi | Achha Rai Rasik |

Essay

- | | |
|---------------|----------------------|
| (i) Dan | Laxmi Prasad Deokota |
| (ii) Namastey | Tara Nath Sharma |
| (iii) Sapana | Ram Krishna Sharma |

Language-Literature: Nepali Bhasako Utpati

Poetry : Ritu Vichar - Lekhnath Poudyal 10**Drama : (Suggested Chapters) : 10**

- (i) Natak-Saadharan parichaya
(ii) Nepali Natak-Ko Vikash Katha

Reference Book : Madhyamik Nepali Vyakaran ra Rachana

Reference Book : Katha Sangraha, Published by Janapakchha Prakashan, Gangtok Sikkim.

Reference Book : (to be prepared by the Department of Education, Govt. of Sikkim)

Reference Book : Nepali Sahitya Parichaya-Purna Rai

Reference Book : Ritu Vichar

Reference Book : Nepali Ekanki Sangraha-Siksha Vibhag, Sikkim Sarkar.

UPANYASH : Daak Bangla : by Shivakumar Rai

डोगरी (Dogri)	100
(क) शानो (उपन्यास)	50
(ख) कविता, निबन्ध संग्रह	50
मलयालम / (Malayalam)	100
1. Grammar	25
Elementary metres and alankaras	
1. Upama	
2. Utpreksha	
3. Atishayokthi	
4. Rupakam	
2. Writing Skills	25
A general study of newspapers/magazines and periodicals in the language with the object of writing	
(i) Reports of simple events	05
(ii) Letter of Editor	10
(iii) Comprehension of an unseen passage followed by short answer question	10
3. Prose, Poetry	50
1. Text book : 'SAHITYA DARPANAM' - Collection of Essays, Stories and Poems Prescribed by SCERT., Govt. of Kerala Pub. by All Saints International CMS College Road, Kottayam, Kerala (2005 Edition)	
2. Moulana Abdul Kalam Azad (Biography) by Dr. M.Leelavathy Pub. by Lipi Publications, Kozhikode Prescribed by SCERT, Govt. of Kerala (2003 Edition).	
3. Vidhura Bhiksha by Ulloor (Poem) Prescribed by SCERT Govt. of Kerala (Complete text) Pub. by Ulloor Publications, Thiravananthpuram, Kerala	
तमिल (Tamil)	100
A. Grammar	15
B. Letter Essay Writing	10+15
C. Unseen reading & Comprehension	10

D.	(i)	Prose	20
	(ii)	Poetry	15
	(iii)	Non-detailed text-book	15

Text-books

1. Podhu Thamizh Text Book Class XII
2. Kathai Kovai-non-detailed text Class XII
(Tamilnadu Text Book Society)

गुजराती / (Gujrati) 100

Section A : Advanced Reading Skills 10

1. An unseen passage of 150 words followed by 5 questions

Section B : Effective Writing Skills 26

- (i) An essay of 200-250 words on current topics. 10
- (ii) Story building from given points 08
- (iii) Letter-Writing (Personal, Professional, Occupational) 08

Section C : Applied Grammar 14

1. Identifying Alankar : (From prescribed poems only) 03
2. Identifying Idioms (From prescribed poems only) 03
3. Transformation of Sentences in respect of tenses 04
4. Identifying Cases from given sentences 04

Section D : LITERATURE : 50

- (a) Prose : 20
 1. Four reference to the context questions based on all prescribed lessons (In four or five lines)
 2. Two essay type questions out of four questions

Lessons to be Studies :

S.No.	Lesson No.	Title	Author
1.	2	Mata Pita ni Agna	Gandhiji
2.	6	Kanchan Ane Geru	Ramanlal V Desai
3.	8	Napass	Chandravandan C Meha
4.	14	Maji No Pyalo	Gulabdas Broker

5.	16	Diwaliman Noker Gayo	Chinubhai Patwa
6.	18	Navun Darshan	Chhottubhai Suthar
7.	22	Din Khoon ke Hamare	Dhirubhai Thakkar
8.	24	Shruti Ane Smruti	Chandrakant Baxi
9.	26	Indereshwarthi Ashram	Narottam Pallan
10.	28	Putra Shishyat Icchet Parajayam	Girish Ganatra

B. Poetry: 20

1. Two Rasdarshan - Bhavarth from the given lines from the prescribed poems only
2. Two long questions out of four questions based on the prescribed poems only
3. Critical appreciation of any one poem out of three poems

Poems to be studied :

S.No.	Lesson No.	Title	Author
1.	1	Mehulo Gaje Ne Madhav Nache	Narsinh Mehta
2.	5	Janani	Botadhar
3.	7	Phool vin Sakhe!	Kalapi
4.	11	Mane AeJ Samajatu Nathi	Karsandas Manek
5.	13	Biju Hun Kai na Magun	Badrayan
6.	15	Koun?	Sundaram
7.	17	Te Shun Kstuim?	Umashanker Joshi
8.	21	Banavati Phoolone	Prehlad Parekh
9.	23	Adhalak Dhaliyo Re Samaliyo	Dinesh Kothari
10.	25	Tham	Nalin Raval
11.	27	Tadko	Sudhir Desai
12.	30	Haiku	Loksahitya, Hemenshah & Sneh Rashmi

Prescribed Textbook - Gujrati (Dwitiya A Bhasha) Std. XII Gujarat Rajya Shala Pathya Pustak Mandal 'Vidhyayan' Sector 10 A Gandhinagar (Ed. 2004) Gujrat

C. History of Modern Literature (Broad Outlines) 10

'Gujarati Sahitya ni Vikas rekha by Dhirubhai Thaker

1. Dalapatram
2. Narmad
3. Goevrdharam Tripathi
4. K.M. Munshi
5. Gandhi
6. Umashanker Joshi
7. Sundaram
8. Dhumketu
9. Kalapi
10. Pannalal Patel

मराठी (Marathi) **100**

Section A

Grammar **25**

- (i) Transformation of Sentences in respect of moods, voice
and tenses 15
- (ii) Transformation of Words 05
- (iii) Filling in the blanks with appropriate forms of words 05
(Difficulty level should be higher than that of Class XI)

Section B

Unseen reading comprehension **10**

Section C **15**

Composition and Writing

Essay on topical subject relating to Economic, Social and Cultural Life.
in Contemporary society and day-to-day experiences

Section D **50**

Text-books Prescribed by CBSE

मणिपुरी (Manipuri) **100**

1. Applied Grammar

Number, Case, Sentence Types-Simple, Complex, compound

Suggested reference books for Grammar
Meete! Lonmit (Part-II) Dr. M.S. Ningomba Published by
Saraswati Book House, Singiamei Imphal
Manipuri Grammar Published by the Board of Secondary
Education, Manipur

2. Prose and Poetry

A. Prose

- (i) Explanation of the passages from the text
- (ii) Short Notes
- (iii) Questions on the text

Lessons to be studied : (05)

- | | | |
|-------|--------------------------|----------------------|
| (i) | Madhab gi Qukchel Hongba | Dr. L. Kamal Singh |
| (ii) | Sahitya | Dwijamani Dev Sharma |
| (iii) | Inthokpa | R.K. Shitaljit Singh |
| (iv) | Wakehing-gi-Nong | R.K. Shitaljit Singh |
| (v) | Sarkargi Chakari | H. Guno Singh |

Prescribed book : *Manipuri Wareng, Published by the Cultural Forum, Manipur*

B. Poetry

- (i) Explanations of passages (from the text) 20
- (ii) Questions on the text

Poems to be studies : (05)

- | | | |
|-------|------------------------|------------------------|
| (i) | Meitei Kokil | Dr. L Kamal Singh |
| (ii) | Cring-gi-Leirang Amada | Kh. Chaoba Singh |
| (iii) | Mrigchat thiba | H. Anganghal Singh |
| (iv) | Manipur | E. Nilakanta Singh |
| (v) | Sabhata gi Phum | R.K. Surendrajit Singh |

Prescribed book : *Manipuri Sheireng*, Published by the Manipuri Sahitya Parishad Imphal

C. Supplementary Reading :

Manipuri Lila Mancha (Selected Pieces) Published by

Cultural Form, Manipur

Tirha Tatra-Arambam Samarendra Singh

कन्नड (Kannada)	100
Text book : Sahitya Chandana	
पंचमपत्रम्-अर्थशास्त्रम्/इतिहासः/राजनीतिविज्ञानम्/समाजशास्त्रम्/जीवविज्ञानम्/गणितम्/भूगोलः	
अर्थशास्त्रम् / (Economics)	100
Part A : Introductory Microeconomics	50
Unit 1 : Introduction	
What is microeconomics?	04
Central problems of an economy, production possibility curve and opportunity cost	
Unit 2 : Consumer Behaviour and Demand	13
Consumer's Equilibrium-meaning and attainment of equilibrium through Utility Approach : One and two commodity cases Demand, market demand, determinants of demand, demand schedule, demand curve, movement along and shifts in demand curve, price, elasticity of demand, measurement of price elasticity of demand-percentage, total expenditure and geometric method.	
Unit 3 : Producer Behaviour and Supply	15
Production function : Returns of a factor and Returns to scale	
Supply, market supply, determinants of supply, supply schedule, supply curve movement along and shifts in supply curve, price elasticity of supply, measurement of price elasticity of supply-percentage and geometric method.	
Cost and Revenue : Short run costs-Total cost, Total variable cost, Total Fixed cost; Average Fixed cost, Average Variable cost and Marginal cost meaning and their relationship. Revenue-total, average and marginal revenue-Producer's equilibrium-Meaning and its conditions in terms of total cost and total revenue.	
Unit 4 : Forms of Market and Price Determination	
Forms of market-Perfect competition, Monopoly, Monopolistic competition-their meaning and features.	
Price determination under perfect competition-Equilibrium price, effects of shifts in demand and supply.	

Unit 5 : Simple applications of Tools of demand and supply	08
B : Introductory Macroeconomics	50
Unit 6 : National Income and related aggregates	15
Macroeconomics : Meaning	
Circular flow of income, concepts of GDP, GNP, NDP, NNP (at market price and factor cost), National Disposable Income (gross and net): Private Income, Personal Income and Personal Disposable Income, Measurement of National Income- Value Added Method, Income methods and Expenditure method.	
Unit 7 : Determination of Income and Employment	12
Aggregate demand, Aggregate supply and their components.	
Propensity to consume and propensity to save (average and marginal).	
Meaning of involuntary unemployment and full employment.	
Determination of income and employment: Two sector model.	
Concept of investment multiplier and its working.	
Problems of excess and deficient demand:	
Measures to correct excess and deficient demand-availability of credit, change in Government spending.	
Unit 8 : Money and Banking	08
Money-meaning, evolution and functions	
Central bank-meaning and functions	
Commercial banks-meaning and functions	
Unit 9 : Government Budget and the Economy	08
Government budget-meaning and its components	
Objectives of government budget	
Classification of receipts-revenue and capital : classification of expenditure-revenue and capital, plan and non-plan, and developmental and non-developmental, Balanced budget surplus budget and deficit budget : meaning and implications.	
Revenue deficit, fiscal deficit and primary deficit : meaning and implications; measures to contain different deficits.	
Unit 10 : Balance of Payments	
Foreign exchange rate-meaning (Fixed and Flexible) merits and demerits;	
Determination through demand and supply	

Balance of payments account
meaning and components

Books Prescribed

अर्थशास्त्र / Economics (N.C.E.R.T.)

इतिहास: (History)	100
Units	
Section A : Archaeology & Ancient India	25
Units 1-4	
Section B : Medieval India	30
Unit 5-9	
Section C : Modern India	35
Unit 10-15	
Unit 16 : Map Work	10

Themes in Indian History

Section A : Archaeology & Ancient India	25
1. The Story of the First Cities : Harappan Archaeology,	
Story of discovery : Early urban centres.	
Story of discovery : Harappan civilization	
Excerpt : Archaeological report on a major site	
Discussion : how it has been utilized by archaeologists/historians.	
2. Political and Economic History : How Inscriptions tell a story.	
Board overview : Political and economic history from the Mauryan to the Gupta period.	
Story of discovery : Inscriptions and the decipherment of the script, Shifts in the understanding of political and economic history.	
Excerpt : Asokan inscription and Gupta period and grant.	
Discussion : Interpretation of inscriptions by historians.	
3. Social Histories : Using the Mahabharata	
Broad overview : Issues in social history, including caste, class kinship and gender.	
Story of discovery : Transmission and publications of the Mahabharat.	

Excerpt : from the Mahabharata, illustrating how it has been used by historians.

Discussion : Other sources for reconstructing social history.

4. **A History of Buddhism : Sanchi Stupa Broad overview :** (a) brief review of religious histories of Vedic religion, Jainism, Vaisnavism, Saivism (b) Focus on Buddhist.

Story of discovery : Sanchi stupa

Excerpt : Reproduction of sculptures from Sanchi.

Discussion : Ways in which sculpture has been interpreted by historians, other sources for reconstructing the history of Buddhism.

Section B : Medieval India

30

5. **Agrarian Relations : The *Ain-i-Akbari***

Broad overview : (a) Structure of agrarian relations in the 16th and 17th centuries (b) Patterns of change over the period.

Story of Discovery : Account of the compilation and translation of *Ain-i-Akbari*.

Excerpt : from the *Ain-i-Akbari*

Discussion : Ways in which historians have used the text to reconstruct history.

6. **The Mughal Court : Reconstructing Histories through Chronicles**

Board Overview : (a) Outline of political history 15th-17th centuries. (b) Discussion of the Mughal court and politics.

Story of Discovery : Account of the production of court chronicles, and their sub-sequent translation and transmission

Excerpt : from the *Akbaranama and Pads hahnama*.

Discussion : Ways in which historians have used the texts to reconstruct political histories.

7. **New Architecture Hampi : Board Overview :** (a) Outline of new building during Vijaynagar period-temples, forts irrigation facilities (b) Relationship between architecture and the political system.

Story of Discovery : Account of how Hampi was found.

Excerpt : Visuals of buildings at Hampi

Discussion : Ways in which historians have analyzed and interpreted these structures.

- 8. Religious Histories : The Bhakti-Sufi tradition;**
Broad Overview : (a) Outline of religious developments during the period. (b) Ideas and practices of the Bhakti-Sufi saints.
Story of Transmission : How Bhakti-Sufi compositions have been preserved.
Excerpt : Extracts from selected Bhakti Sufi works.
Discussion : Ways in which these have been interpreted by historians.
- 9. Medieval Society Through Travellers' Accounts**
Broad Overview : Outline of social and Cultural life as they appear in travellers' accounts.
Story of their writings : A discussion of where they travelled, why they travelled, what they wrote, and for whom they wrote.
Discussion : What these travel accounts can tell us and how they have been interpreted by historians.

Section C Modern India

35

- 10. Colonialism and Rural Society : Evidence from Official Reports'**
Broad overview : (a) Life of zamindars, peasants and artisans in the late 18 century (b) East India Company, revenue settlements and surveys, (c) Changes over nineteenth century.
Story of official record : An account of why official investigations into rural societies were under taken and the types of records and reports produced.
Excerpts : From Firminger's Fifth Report, Accounts of France Buchanan-Hamilton and Deccan Riots Reports,
Discussion : What the official records tell and do not tell and how they have been used by historians.
- 11. Representation of 1857**
Broad Overview : (a) The events of 1857-58
(b) How these events were recorded and narrated.
Focus : Lucknow.
Excerpts : How the pictures of 1857 shaped British opinion of what had happened.
- 12. Colonialism and Indian Towns : Town Plans and Municipal Reports**
Broad Overview : The growth of Mumbai, Chennai, hill stations and cantonments in the 18th and 19th century.

Excerpts : Photographs and paintings. Plans of cities. Extract from town plan reports. Focus on Kolkata town planning.

Discussion : How the above sources can be used to reconstruct the history of towns. What these sources do not reveal.

13. Mahatma Gandhi through Contemporary Eyes

Broad Overview : (a) The nationalist movement 1918-43.

(b) The nature of Gandhian politics and leadership

Focus : Mahatma Gandhi in 1931.

Excerpts : Reports from English and Indian language newspapers and other contemporary writings.

Discussion : How newspapers can be a source of history.

14. Partition through Oral Sources

Broad Overview : (a) The history of the 1940s; (b) Nationalism. Communalism and Partition.

Focus : Punjab and Bengal.

Excerpts : Oral testimonies of those who experienced partition.

Discussion : Ways in which these have been analyzed to reconstruct the history of the event.

15. The making of the Constitution

Broad Overview : (a) Independence and the new nation state (b) The making of the constitution.

Focus : The Constitutional Assembly debates.

Excerpts : from the debates

Discussion : What such debates reveal and how they can be analyzed.

16. Map work on Unit 1-15

Prescribed books

भारतीय इतिहास के कुछ अंश (NCERT) (कक्षा XII)

Themes in Indian History (NCERT) (for Class XII)

राजनीतिविज्ञानम् / (Political Science)	100
Part A : Contemporary world Politics	46
1. Cold War Era in World Politics	06
Emergence of two power blocs after the second world war. Arenas of the cold war. Challenges to Bipolarity : Non Aligned Movement, quest for new international economic order. India and the cold war.	
2. Disintegration of the 'Second World' and Collapse of Bipolarity.	12
New entities in world politics : Russia, Balkan states and Central Asian states, introduction of democratic politics and capitalism in post-communist regimes. India's relations with Russia and other post-communist countries.	
3. US Dominance in World Politics :	
Growth of unilateralism : Afghanistan, first Gulf War, response to 9/11 and attack or Iraq. Dominance and challenge to the US in economy and ideology. India's renegotiation of this relationship with the USA.	
4. Alternative Centres of Economic and Political Power :	03
Rise of China as an economic power in post-Mao era, creation and expansion of European Union, ASEAN, India's changing relations with China.	
5. South Asia in the Post-Cold War Era:	
Democratisation and its reversals in Pakistan and Nepal. Ethnic conflict in Sri Lanka. Impact of economic globalization on the region. Conflicts and efforts for peace in South Asia. India's relations with its neighbours.	
6. International Organizations in a unipolar World :	06
Restructuring and the future of the UN. India's position in the restructured UN. Rise of new international actors; new international economic organisations, NGOs. How democratic and accountable are the new institutions of global governance?	
7. Security in Contemporary World :	04
Traditional concerns of security and politics of disarmament, Non-traditional or human security : global poverty, health and education. Issues of human rights and migration.	
8. Globalisation and Its Critics.	
Economic, cultural and political manifestations, Debates on the nature of consequences of globalisation. Anti-globalisation movements. India as an arena	

of globalization and struggle against it.

Part B : Politics of India Since Independence	54
9. Era of On -Party Dominance :	06
First three general elections, nature of Congress dominance at the national level, uneven dominance at the state level, coalitional nature of Congress. Major opposition parties.	
10. Nation-Building and Its Problems :	04
Nehru's approach to nation-building : Legacy of partition : challenge of refugee' resettlement, the Kashmir problem. Organisation and reorganization of states; Political conflicts over language.	
11. Politics of Planned Development	06
Five year plans, expansion of state sector and the rise of new economic interests. Famine and suspension of five years plans. Green revolution and its political fallouts.	
12. India's External Relations	06
Nehru's foreign policy. Sino-Indian war of 1962, Indo-Pak war of 1965 and 1971. India's nuclear programme and shifting alliances in world politics.	
13. Challenge to and Restoration of Congress System :	04
Political succession after Nehru. Non-Congressism and electoral upset of 1967, Congress split and reconstitution, Congress's victory in 1971 elections, politics of 'garibi hatao'.	
14. Crisis of the Constitutional Order :	10
Search for 'committed' bureaucracy and judiciary. Navnirman movement in Gujarat and the Bihar movement. Emergency : context, constitutional and extra-constitutional dimensions, resistance to emergency. 1977 elections and the formation of Janata Party. Rise of civil liberties organisations.	
15. Regional Aspirations and Conflicts	04
Rise of regional parties. Punjab crisis and the anti-Sikh riots of 1984. The Kashmir situation. Challenges and responses in the North East.]	
16. Rise of New Social Movements :	06
Farmers' movements, Women's movement, Environment and Development-affected people's movements. Implementation of Mandal Commission report and its after-math.	

- 17. Democratic Upsurge and Coalition Politics** **04**
 Participatory upsurge in 1990s. Rise of the JD and the BJP. Increasing role of regional parties and coalition politics. UF and NDA government. Elections 2004 and UPA government.
- 18. Regent issues and challenges**
 Challenge of and responses to globalization : new economic policy and its opposition. Rise of OBC in North Indian politics. Dalit politics in electoral and non-electoral arena. Challenge of communalism : Ayodhya dispute, Gujarat riots.

Prescribed Books

1. समकालीन विश्व राजनीति, कक्षा (NCERT) 12 के लिए
 Contemporary World Politics (for Class XII)
2. स्वतन्त्र भारत में राजनीति (NCERT)
 Politics in Independent India

समाजशास्त्रम् / (Sociology) **100**

INDIAN SOCIETY **50**

Unit I : Structure of Indian Society **05**

- Introducing Indian Society Colonialism, Nationalism
 Class and Community
- Demographic structure
- Rural-Urban Linkages and Divisions

Unit II : Social Institutions : Continuity & Change **15**

- Family and Kinship
- The Caste System
- Tribal Society
- The Market as a Social Institution

Unit III : Social Inequality & Exclusion **15**

- Caste Prejudice, Scheduled Castes and Other Back ward Classes
- Marginalization of Tribal Communities.

•	The Struggle for Women's Equality	
•	The Protection of Religious Minorities	
•	Caring for the Differently Abled	
Unit IV : The Challenges of Unity in Diversity		15
•	Problems of Communalism, Regionalism, Casteism & Patriarchy	
•	Role of the State in a Plural and Unequal Society.	
•	What We Share	
Change and Development in India		50
Unit V : Process of Social Change in India		10
•	Process of Structural Change : Colonialism, Industrialization, Urbanization	
•	Process of Cultural Change : Modernization, Westernization, Sanskritisation, Secularization.	
•	Social Reform Movement & Laws	
Unit VI : Social Change and the Polity		10
•	The Constitution as an instrument of Social Change	
•	Parties, Pressure Groups and Democratic Politics	
•	Panchayati Raj and the Challenges of Social Transformation	
Unit VII : Social Change & the Economy		10
•	Land Reforms, the Green Revolution and Agrarian Society	
•	From Planned Industrialization to Liberalization	
•	Changes in the Class Structure	
Unit VIII : New Areas of Social Change		10
•	Media and Social Change	
•	Globalization and Social Change	
Unit IX : Social Movements		10
•	Class-Based Movement : Workers, Peasants	
•	Caste-Based Movement : Dalit Movement, Backward Castes, Trends in Upper Caste Responses.	

- Women's Movement in Independent India
- Tribal Movements.
- Environmental Movements.

Prscribed Book

समाजशास्त्रम् कक्षा XII (NCERT)

Sociology Class XII (NCERT)

जीवविज्ञानम् / (Biology)

100

Units

1.	Sexual reproduction	15
2.	Genetics and evolution	30
3.	Biology and human Welfare	20
4.	Biotechnology and its applications	15
5.	Ecology and environment	20

I. Sexual Reproduction

Pollination and fertilizations in flowering plants

Development of seeds and fruits.

Human reproductions : reproductive system in male and female, menstrual cycle.

Production of gametes, fertilization, implantation, embryo development, pregnancy and parturition.

Reproductive health-birth control, contraception and sexually transmitted diseases.

II. Genetics and evolution

Mendelian inheritance.

Chromosome theory of inheritance. deviations from mendelian ration (gene interaction-Incomplete dominance, co-dominance, complementary genes, multiple alleles),

Sex determination in human beings: XX, XY.

Linkage and crossing over. Ingeitance pattern of haemophilia and book groups in human beings. DNA: replication, trancription, translation. Gene expression and regulation Genome and Hman Genome Project. DNA fingerprinting. Evolution:

Theories and evidences.

III. **Biology and Human Welfare**

Animal husbandry. Basic Concepts of immunology, vaccines. Pathogens, Parasites. Plant breeding, tissue culture, food production. Microbes in household food processing, industrial production, sewage treatment and every generation. Cancer and AIDS

Adolescence and drug/alcohol abuse.

IV. **Biotechnology and Its Applications**

Recombinant DNA technology. Applications in Health, Agriculture and Industry Genetically modified (GM) organisms; biosafety issues. Insulin and Bt cotton

V. **Ecology & Environment**

Ecosystems : components, types and every flow.

Species, population and community.

Ecological adaptations.

Centres of diversity and conservation of biodiversity, National parks and sanctuaries.

Environmental issues.

Prescribed Books

जीवविज्ञानम् भाग II

Biology Class XII (N.C.E.R.T.)

गणितम् / (Mathematics)

100

Units

I	Relations and Functions	10
II	Algebra	13
III	Calculus	44
IV	Vectors and three-Dimensional Geometry	17
V	Linear Programming	06
VI	Probability	10

Unit-I : Relations and Functions

1. Relations and Functions :

Types of relations : relations:, symmetric, transitive and equivalence relations. One to one and onto functions, composite functions, inverse of a function. Binary operations.

2. Inverse Trigonometric Functions :

Definition, range, domain, principal value branches. Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric functions.

Unit-II : Algebra

1. Matrices:

Concept, notation, order, equality, types of matrices, zero matrix, transpose of a matrix symmetric and skew symmetric matrices. Addition, multiplication and scale multiplication of matrices, simple properties of addition, multiplication and scale multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

2. Determinants:

Determinant of a square matrix (up to 3×3 matrices), properties of determination of minors, cofactors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equation in two or three variables (having unique solution) using inverse matrix.

Unit-III : Calculus

1. Continuity and differentiability:

Continuity and differentiability, derivative of composite functions, chain rule, derivatives of inverse trigonometric functions, derivative of implicit function. Concept of exponential and logarithmic functions and their derivative. Logarithmic differentiation. Derivative of functions expressed in parametric-forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric interpretations.

2. Applications of Derivatives:

Applications of derivatives: rate of change, increasing/decreasing functions, tangents & normals, approximation, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool).

3. Integrals:

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions, fractions and by parts, only simple integrals of the type to be evaluated.

$$\left| \frac{dx}{x^2 \pm a^2}, \frac{dx}{\sqrt{x^2 \pm a^2}}, \left| \frac{dx}{\sqrt{a^2 - x^2}}, \left| \frac{dx}{ax^2 + bx^2 + c}, \left| \frac{dx}{ax^2 + bx + c} \right. \right. \right. \\ \left. \left. \left| \frac{(px+q)}{ax^2 + bx + c} dx, \left| \frac{(px+q)}{ax^2 + bx + c} dx, \left| \sqrt{a^2 \pm x^2} dx \text{ and } \left| \sqrt{x^2 - a^2} dx \right. \right. \right. \right.$$

Definite integrals as a limit of a sum. Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.

4. Application of the Integrals:

Applications in finding the area under simple curves, especially lines, areas of circles/ parabolas/ellipses (in standard form only), area between the two above said curves (the region should be clearly identifiable).

5. Differential Equations:

Definition, order and degree, general and particular solutions of a differential equation. Formation of differential equation whose general solution is given. Solution of differential equations by method of separation of variables, homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:

$$dy + py = q, \text{ where } p \text{ and } q \text{ are functions of } x. \\ dx$$

Unit VI : Vectors and Three-Dimensional Geometry

1. Vectors:

Vectors and scalars, magnitude and direction of a vector. Direction cosines/ratios

of vectors. Type of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Scalar (dot) product of vectors, projection of a vector on a line. Vector (cross) product of vectors.

2. Three-dimensional Geometry:

Direction cosines/ratios of a line joining two points. Cartesian and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Angle between (i) two lines, (ii) two planes, (iii) a line and a plane. Distance of a point from a plane.

Unit-V : Linear Programming

1. Linear Programming :

Introduction, definition of related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P. problems, graphical method of problems in two variables, feasible and infeasible regions, feasible and infeasible solutions. optimal feasible solutions (up to three non-trivial constraints).

Unit-VI : Probability

1. Probability:

Multiplication theorem on probability. Conditional probability, independent events, total probability, Baye's theorem, Random variable and its probability distribution, mean and variance of haphazard variable. Repeated independent (Bernoulli) trials and Binomial distribution.

Prescribed Books

गणित भाग II (कक्षा XII) (N.C.E.R.T.)

Mathematics, Part II for Class XII (N.C.E.R.T.)

भूगोल / (Geography)	100
A. Fundamentals of Human Geography	50
Unit 1 : Human Geography	05
Unit 2 : People	10

Unit 3 : Human Activites	10
Unit 4 : Transport, communication & Trade	10
Unit 5 : Human settlements	10
Unit 6 : Map work	05
B. India : People and Economy	50
Unit 7 : People	05
Unit 8 : Human Settlements	05
Unit 9 : Resources and Development	15
Unit 10 : Transport, Communication and International Trade	15
Unit 11 : Geographical Perspective on selected issues and problems	05
Unit 12 : Map Work	05

A. Fundamentals Human Geography

Unit 1 : Human Geography : Nature and Scope

Unit 2 : People

- Population-distribution, density and growth
- Population change-spatial patterns and structure; determinants of population change;
- Age-sex ratio; rural-urban composition:
- Human development-concept; selected indicators, international compari-sons

Unit 3 : Human Activities

- Primary activites-concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agricultural and allied activities-some examples from selected countries;
- Secondary activities-concept; manufacturing: agro-processing, household, small scale, large scale; people engaged in secondary activities-some examples from selected countries;
- Tertiary activities-concept; trade, transport and communication; services; people engaged in tertiary activities-some examples from selected countries.
- Quaternary activities-concept; knowledge based industries; people enagaged in quaternary activities-some examples from selected countries.

Unit 4 : Transport, Communication and Trade

- Land transport-rods, railways; trans-continental railways;
- Watertransport-inland waterways; major ocean routes;
- Air Transport-Intercontinental air routes;
- Oil and gas pipelines;
- Satellite communication and cyber space
- International trade-Bases and changing patterns; ports as gateways of international trade, role of WTO in International trade.

Unit 5 : Human Settlements

- Settlement types-rural and urban; morphology of cities (case study); distribution of mega cities; problems of human settlements in developing countries.

Unit 6 : Map work on identification of features based on above units on the Political map of World

Part B. India : People and Economy

Unit 7 : People

- Population: distribution, density and growth; composition of population linguistic; sex, rural-urban and occupational change through time-regional variations;
- Migration: international, national-cause and consequences;
- Human developments selected indicators all regional patterns;
- Population, environment and development.

Unit 8 : Human Settlements

- Rural settlements-types and distribution;
- Urban settlements-types, distribution and functional classification.

Unit 9 : Resources and Development

- Land resources-general land use; agricultural land use, Distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber), agricultural development and problems.
- Water resources-availability and utilization-irrigation, domestic, industrial and other uses; scarcity of water and conservation methods-rain water harvesting, and watershed management.

- Mineral and energy resources distribution of metallic (Ironore, Copper, Bauxite, Managanese) non-metallic (Mica, Salt) minerals; conventional (Coal, Petroletun, Natural gas and Hydro electricity) and non-conventional *energy* sources (solar, wind, biogas).
- Industries-types, industrial allocation and clustering; distribution and changing pattern of selected industries-iron and steel, cotton textiles, sugar, petrochemicals, and knowledge based industries; impact of liberalization, privatisation aid globalisation on industrial location;
- Planning in India-target area planning (case study); idea of sustainable development (case study)

Unit 10 : Transport, Communication and International Trade

- Transport and communication, roads, waterways and airways: oil and gas pipelines; national electric grids; communication networking-radio, television, satellite and internet;
- International trade-changing pattern of India's foreign trade: sea ports and their hinterland and airports.

Unit 11 : Geographical Perspective on Selected Issues and Problems

- Environmental pollution; urban -waste disposal.
- Urbanisation-rural-urban migration; problem of slum.
- Land Degradation.

Unit 12 : Map work on locating and belling of features based on above units and outline political map of India.

Prescribed Book

भूगोल कक्षा XII (N.C.E.R.T.)

Geography for Class XII (N.C.E.R.T.)

षष्ठं पत्रम्-वेदः/व्याकरणम्/साहित्यम्/ज्यौतिषम्/दर्शनम्/जैनदर्शनम्/बौद्धदर्शनम्	100
वेदः	100
(अ) शुक्लयजुर्वेदे रुद्राष्टाऽध्यायी (पञ्चमाध्यायतः अष्टमाध्यायपर्यन्तम्)	
सस्वरमन्त्रकण्ठस्थीकरणम्	70
(ब) स्वराणां सामान्यपरिचयः	30

व्याकरणम्	100
वैयाकरणसिद्धान्तकौमुदी, अजन्तपुल्लिंगादारभ्य अव्यान्तो भागः अङ्गविभाजनम्-	
(1) अजन्तपुल्लिंगप्रकरणम्	25
(2) अजन्तस्त्रीलिंगप्रकरणम्	10
(3) अजन्तनपुंसकलिंगप्रकरणम्	10
(4) हलन्तपुल्लिंगप्रकरणम्	20
(5) हलन्तस्त्रीलिंगप्रकरणम्	15
(6) हलन्तनपुंसकलिंगप्रकरणम्	15
(7) अव्ययप्रकरणम्	05
साहित्यम्	100
चन्द्रालोकः प्रथममयूखः	
ज्यौतिषम्	100
(1) लघुजातकम्	60
(2) भास्करीयबीजगणितम्, चक्रवालपर्यन्तम्	40
दर्शनम्	100
अर्थसंग्रहः	
जैनदर्शनम्	100
परीक्षामुखसूत्रम्, माणिक्यनन्दिविरचितम्	
बौद्धदर्शनम्	100
पालिप्रवेशिका (कोमलचन्द्रजैन)	
सप्तमं पत्रम् - संगणक विज्ञानम् (Computer Science)	100

Unit I

1. Introduction to Internet 3 sessions

Internet, Growth of Internet, Owners of the Internet, anatomy of Internet, ARPANET and internet history of the World Wide Web, Basic Internet

Terminology, Net etiquette.

Internet Applications-Commerce on the Internet, Governance on the Internet, Impact of Internet on Society-Crime on/through the Internet.

2. World wide Web 3 sessions

Evolution of WWW, Basic features, WWW Browsers, WWW Server, HTTP, Universal Resource Locator (URL), Search Engines and their Categories, Searching Criterion, WWW and Hypertext.

3. Browsers 6 sessions

Basic features, Bookmarks, history, Progress indicators, Customization of Browsers, saving and printing web pages, Netscape Comni Network & Wide area Network

Addressing in Internet: DNS, Domain Name and their organization, unicator, - Internet Explorer

4. Electronic mail 6 sessions

Introduction of e-mail, Email Networks and Servers, Email protocols - SM1P, POP3, PMAP4, MIME6.

Structure of an Email-Email address, Email Header, Body and Attachments.

Email Clients: Netscape Mail Clients, Outlook Express, Web based E-mail Email encryption-Address bok Signature file.

5. HTML 15 sessions

Document Layout, Header Elements, section Headings, Block-oriented elements, lists, inline elements, Visual markup, Hypertext links, Uniform resource Locators (URLs), Images, Forms, Tables and Special Charcters. Pracical work based on HTML.

Revision 2 sessions

Unit II 1 session

5. Introduction to Business Data Processing

Overview of Business System: 4 sessions

Management functions, Levels of management, Information requirements for planning, coordination and control for various levels in Business, Industry and Government.

Profile of data in business systems: 6 sessions Large volumes of data and data

handling implicit, identification of relevant data. Classification of data elements by function and by source, primary and secondary. Historical data for reference and analysis. Need or ensuring accurate, reliable and timely processing of data. Basic tasks in business data processing, data origination, capture, sorting, merging, calculating, summarizing, managing output-results, sorting and retrieving transmission, both interim and final, examples of business data processing and applications payroll, financial, accounting, inventory, etc.

Computer system as a potential tool to meet business data processing needs, facilities available in computerized systems for data capture; online and offline; validation; storage; processing and output; transmission.

6.	Introduction to Visual Fox Pro	20 sessions
6.1	Introduction to Visual FoxPro: The menu system, file types, The Toolbars, Visual Design and Wizards, The Command Window and View window, Other features of Visual FoxPro interface.	
6.2	Tables in Visual FoxPro: Creating a new Table, Table wizard, using Table Designer, Using Tables, Opening a table, Working on a table, Modifying a table	
6.3	Managing Data: Switching from Browse to Edit display, Entering and Editing Data, Appending data, Editing data, Moving through a Table, Go To Record command, Find and Replace, Deleting a Record, Altering the Display of the Browse Window	
6.4	Using Queries: Creating a Query Wizard, Query Designer, Running the Query, Using the Using the Query, the Cross Tab Wizard, Modifying the Query, The Query Designer.	
7.	Overview of Business Applications	8 sessions
	Design, analysis and development of: Computerized Financial Accounting, Computerized Inventory Control, and Computerized Payroll, Computerized Invoicing application	
	Revision	2 sessions
	Unit II Test	1 session
	Revision	Remaining sessions

