

प्रस्तुत पाठ्यक्रम में जो भी सामान्य नियम दिये गये हैं वे अभ्यर्थियों की सुविधा हेतु दिये गये हैं। किसी भी प्रकरण में असंगति, सन्देह अथवा अपूर्णता एवं व्याख्या में मदभेद होने की स्थिति में परिनियम, अधिनियम एवं अध्यादेशों द्वारा विहित प्राविधान ही मान्य एवं सर्वोपरि होंगे।

— कुल सचिव

**BUNDELKHAND UNIVERSITY
JHANSI**



**कला संकाय
भाग-॥**

BUNDELKHAND UNIVERSITY , JHANSI

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**Ordinances Relating to Admissions to Different
Classes / Courses of Affiliated Colleges
and University Campus
Bachelor of Arts
(10+2+3) B.A. (Three Year Course)**

1. The examination for Bachelor Degree in ARTS, (B.A.) shall consist of three parts :-
Part - I
Part - II and
Part III
2. A candidate who, after passing 10+2 pattern (i) the Intermediate Examination of the Board of High school and Intermediate Education, Uttar Pradesh or any Indian University incorporated by any Law for the time being in force or (iii) any other examination recognized by the university as equivalent thereto is eligible for admission to B.A. Part-I
3. A candidate who after passing the B.A. Part-I Examination of the three-year degree course has completed a regular course of study for one academic year in an affiliated college or a teaching department of the university shall be eligible to appear at the B.A. Part-II Examination
4. A candidate who after passing the B.A. Part-II Examination of the three-year degree course has completed a regular course of study for one academic year in an affiliated college or a teaching department of the university shall be eligible to appear at the B.A. Part-III Examination.
5. A candidate who has passed B.A. Part-I examination of three year degree course of another university, may also be admitted to B.A. Part-II examination provided that he/she offered for his/her B.A. Part-I examination a course of an equivalent standard almost identical syllabus as is required for Part-I examination of this university with the permission of Vice-Chancellor on the recommendation of the Dean Faculty of Arts/
6. The Examination shall be conducted by means of papers only and may include a viva-voice or a practical examination as per syllabus approved by Academic Council.
7. Every candidate or student shall be examined in any three of the following subjects in B.A. Part-I and Part-II in addition to compulsory one language subject in B.A. first year only in B.A. III only two subject shall be examined opted by student.
 - (i) Hindi Literature
 - (ii) English Literature

- (iii) Sanskrit Literature
- (iv) Urdu Literature
- (v) Mathematics
- (vi) Philosophy
- (vii) Economics
- (viii) History
- (ix) Ancient History & Culture
- (x) Political Science
- (xi) Geography
- (xii) Indian Music
- (xiii) Home Science
- (xiv) Sociology
- (xv) Defence and Strategic study
- (xvi) Psychology
- (xvii) Education
- (xviii) Tourism & travelling management
- (xix) Computer Application
- (xx) Any other subjects approved by University

8. Each subject in B.A. Part-I or B.A. part -II or B.A. part-III shall consist of two or three papers the details of which are specified in regulations relating to syllabi.

Provided also that a private student cannot offer any subject having practicals except Education.

9. Grace Marks & Passing Marks shall be as per latest decision of Academic council however : In B.A. Parts-I, II and Part-III examinations each subject shall carry 100 marks and in order to pass the examination of B.A. Parts-I, II or III, it shall be necessary that a candidate obtains a minimum of 33% marks in each subject separately and also in the aggregate of all the subjects in which he/she was examined in B.A. Parts-I, II or III examination, as the case may be.

Provided that a candidate, who in B.A. Part I or Part II examination has passed in the aggregate and in any two optional subjects separately and has obtained 25% and above but less than 33% marks both in theory and practical separately in the third subject, he/she shall be declared passed with grace.

Provided further that a candidate, who in B.A. Part -I and Part-II examinations has secured the aggregate in any two optional subjects separately and also has obtained less than 25% marks either in theory and practical separately in third subject, shall be promoted provisionally to the next higher class with the condition that he/she should qualify the back paper with more than 25% marks in next back paper exam. If he/she fails to pass the back paper in Two attempt, he/she shall be declared fail in respective exam.

11. Every candidate shall have to pass the B.A. Parts-I, II and Part-III examinations separately but the division shall be awarded on the basis of the aggregate of marks obtained by a candidate in all the three parts of the examination.
12. A candidate cannot offer three literatures or more than two subjects having practicals in B.A. Part-I
13. Division shall be awarded on the basis of the aggregate of marks of the combined result of B.A., B.Sc., B.Com. A candidate who has obtained 33% marks and above but less than 45% marks in the aggregate shall be placed in the third division. A candidate who has obtained 45% marks and above but less than 60% marks shall be placed in the IInd Division and a candidate who has obtained 60% marks or above shall be placed in the first division.
14. The details of the course of each paper or subject of study is contained in the schedule.

BACHELOR OF ARTS

B.A. Part-I Examination

| | | Max. Marks | Min. Pass Marks |
|--------------------|--------------------------------------|---------------|--------------------|
| | Hindi Lang. | | |
| Ist Paper | | 50 | 33 |
| IInd Paper | | 50 | |
| | English Language | | |
| Ist Paper | | 50 | 33 |
| IInd Paper | | 50 | |
| | Sanskrit Language | | |
| Ist Paper | | 50 | 33 |
| IInd Paper | | 50 | |
| | Urdu Languages | | |
| Ist Paper | पठित | 50 | 33 |
| IInd Paper | अपठित | 50 | |
| | Hindi Literature | | |
| प्रथम प्रश्नपत्र | हिन्दी भाषा एवं साहित्य का इतिहास | 50 | 33 |
| द्वितीय प्रश्नपत्र | प्राचीन काव्य | 50 | |
| | English Literature | | |
| Ist Paper | Poetry | 50 | 33 |
| IInd Paper | Drama | 50 | |
| | Sanskrit Literature | | |
| Ist Paper | नाटक, छन्द और अनुवाद | 50 | 33 |
| IInd Paper | पद्य, काव्य एवं व्याकरण | 50 | |
| | Urdu Literature | | |
| Ist Paper | | 50 | 33 |
| IInd Paper | | 50 | |
| | Sociology | | |
| Ist Paper | Introduction to Sociology | 50 | 33 |
| IInd Paper | Society in India | 50 | |
| | Economics | | |
| Ist Paper | Micro Economics | 50 | 33 |
| IInd Paper | Indian Economy | 50 | |
| | Education | | |
| Ist Paper | Principle of Education | 35 | |
| IInd Paper | Development of Education in India | 35 | 33 |
| IIIrd Paper | Vivavoice | 30 | 10 |

Note : Private candidates can offer education subject marks in each paper 50 only private candidates.

| History & Archaeology | | | |
|---|---|--------------|-----------|
| Ist Paper | History of India upto C.A.D. 1200 | 50 | |
| IInd Paper | History of World (1453-1789) | 50 | 33 |
| Philosophy | | | |
| Ist Paper | समाज एवं राजनीतिक दर्शन | 35 | 23 |
| IInd Paper | भारतीय दर्शन | 35 | |
| | प्रायोगिक परीक्षा | 30 | 10 |
| Geography | | | |
| Ist Paper | Physical Geography | 35 | 33 |
| IInd Paper | Human Geography (Element of Geomorphology) | 35 | |
| IIIrd Paper | Cartography | 30 | |
| Political Science | | | |
| Ist Paper | Basic Principles of Political theory | 50 | 33 |
| IInd Paper | Indian Political thought | 50 | |
| Psychology | | | |
| Ist Paper | Basic Psychology Processes | 35 | 23 |
| IInd Paper | Psychological Statistics Practical | 35 | |
| | | 30 | 10 |
| Maths | | | |
| Ist Paper | Algebra and Trigonometry | 33 | |
| IInd Paper | Calculus | 33 | 33 |
| IInd Paper | Vector Analysis and Geometry | 34 | |
| Ancient Indian History Culture & Archaeology | | | |
| Ist Paper | Political History of India (From B.C. to 550 A.D.) | 50 | 33 |
| IInd Paper | Ancient Civilization | 50 | |
| Defence and Strategics Studies B.A./B.Sc. | | | |
| Ist Paper | The Arts of War in India | 30/50 | |
| IInd Paper | (A) Evaluation of Armament and Western of War | 30/50 | 23 |
| | | | or |
| | (b) Contemporary Problems of War & Peace | 30/50 | |
| | Practical | 40/50 | 10 |

| Home Science | | | |
|----------------------------------|--|-----------|-----------|
| Ist Paper | Hygiene, Public Health and Home Nursing | 35 | |
| IInd Paper | Family Resource Management | 35 | 23 |
| | Practical | 30 | 10 |
| | Indian Music | | |
| <u>Vocal Music</u> | | | |
| Ist Paper | Science of Music | 25 | 17 |
| IInd Paper | Applied Theory of Music | 25 | |
| <u>Instrumental Music</u> | | | |
| Ist Paper | Science of Music | 25 | 17 |
| IInd Paper | Study of Ragas Talas | 25 | |
| Practical | Vocal & Instrumental | 50 | 17 |

B.A. Part II Examination

प्रत्येक विषय में दो प्रश्न पत्र लिखित होंगे।

In each subject the Examination shall comprise of two written papers. In Psychology, Geography, Military Studies, Indian Music, Home Science there will be two papers and a Practical Examination in each, and a candidate is required to pass in Theory papers and Practical Examination separately.

| | | Max. Marks | Min. Pass Marks |
|----------------------------|---|-------------------|------------------------|
| Hindi Literature | | | |
| प्रथम प्रश्नपत्र | हिन्दी नाटक, निबंधक एवं एकांकी | 50 | 33 |
| द्वितीय प्रश्नपत्र | आधुनिक हिन्दी काव्य | 50 | |
| English Literature | | | |
| Ist Paper | Poetry | 50 | 33 |
| IInd Paper | Prose | 50 | |
| Sanskrit Literature | | | |
| Ist Paper | वेद एवं व्याकरण | 50 | 33 |
| IInd Paper | गद्य संस्कृत साहित्य का इतिहास एवं अनुवाद | 50 | |
| Urdu Literature | | | |
| Ist Paper | | 50 | 33 |
| IInd Paper | | 50 | |
| Sociology | | | |
| Ist Paper | Indian Society, Issue and Problems | 50 | 33 |
| IInd Paper | Rural Urban Sociology | 50 | |
| Economics | | | |
| Ist Paper | Macro Economics | 50 | 33 |
| IInd Paper | Money Banking & | 50 | |

Public Finance

| | | Education | |
|-------------|------------------------|-----------|----|
| Ist Paper | Educational Psychology | 35 | 23 |
| IIInd Paper | Educational Thought | 35 | |
| | Viva Voce | 30 | 10 |

History & Archaeology

| | | | |
|-------------|--|----|----|
| Ist Paper | History India from C.A.D. (1200-1760) | 50 | |
| IIInd Paper | History world from 1789 to 1919 | 50 | 33 |

Philosophy

| | | | |
|-------------|-------------------|----|----|
| Ist Paper | नीति शास्त्र | 35 | 33 |
| IIInd Paper | पाश्चात्य दर्शन | 35 | |
| | प्रायोगिक परीक्षा | 30 | 10 |

Geography

| | | | |
|-------------|---|----|----|
| Ist Paper | Physical Geography II (Climatology & Oceanography) | 35 | 23 |
| IIInd Paper | Economic Geography | 35 | |
| IIIrd Paper | Cartography II | 30 | 10 |

Political Science

| | | | |
|-------------|--|----|----|
| Ist Paper | Indian Government and Politics | 50 | 33 |
| IIInd Paper | Comparative Government and Politics (Govt. and Politics of U.K., USA, Russia, China, Switzerland, France) | 50 | |

Psychology

| | | | |
|-------------|-------------------|----|----|
| Ist Paper | Psychopathology | 35 | 23 |
| IIInd Paper | Social Psychology | 35 | |
| | Practical | 30 | 10 |

Mathematics

| | | | |
|-------------|---|----|----|
| Ist Paper | Advance Calculus & Tensor | 33 | |
| IIInd Paper | Differantial equation & Integral Transform | 33 | 33 |
| IIIrd Paper | Mechanics | 34 | |

Ancient Indian History Culture & Archaeology

| | | | |
|-------------|--|----|----|
| Ist Paper | Political History India (From 550 A.D. to 1200 A.D.) | 50 | |
| IIInd Paper | Ancient Indian Society and State | 50 | 33 |

Defence and Strategic Studies B.A./B.Sc.

| | | | |
|-------------|--------------------------------|-------|-------|
| Ist Paper | Studies of Art of war in India | 30/50 | |
| IIInd Paper | National Defence and Security | 30/50 | 20/33 |
| | Practicals | 40/50 | 13/17 |

Home Science

| | | | |
|-------------|----------------------------------|----|----|
| Ist Paper | Food and Nutrition | 35 | |
| IIInd Paper | Fundamental of Child Development | 35 | 23 |
| | Practical | 30 | 10 |

Indian Music

Vocal Music (Theory)

| | | | |
|-------------|-------------------------------------|----|----|
| Ist Paper | Notation Systems and History Theory | 25 | |
| IIInd Paper | Study of Styles Ragas and Talas | 25 | 17 |
| | Practical-Vocal and Instrumental | 50 | 17 |

B.A. Part III Examination

प्रत्येक विषय में तीन-तीन प्रश्न पत्र लिखित होंगे। केवल भूगोल विषय में चार प्रश्न पत्र होंगे एवं गृहविज्ञान व संगीत में दो प्रश्न-पत्र लिखित होंगे। मनोविज्ञान, भूगोल, सैन्य अध्ययन, भारतीय संगीत, गृह विज्ञान, शिक्षा शास्त्र में लिखित एवं प्रायोगिक परीक्षा में अलग-अलग उत्तीर्ण करना आवश्यक है।

Max. Marks **Min. Pass Marks**

Hindi Literature

| | | | |
|--------------------|---------------------------|----|----|
| प्रथम प्रश्नपत्र | हिन्दी कथा साहित्य | 50 | |
| द्वितीय प्रश्नपत्र | बुन्देली भाषा एवं साहित्य | 50 | 50 |
| तृतीय प्रश्नपत्र | प्रयोजन मूलक हिन्दी | 50 | |

English Literature

| | | | |
|-------------|--------------------|----|----|
| Ist Paper | Drama | 50 | |
| IIInd Paper | Fiction | 50 | 50 |
| IIIrd Paper | Forms and Movement | 50 | |

Sanskrit Literature

| | | | |
|-------------|--------------------------------|----|----|
| Ist Paper | काव्य एवं काव्य शास्त्र | 50 | |
| IIInd Paper | व्याकरण भाषा विज्ञान एवं निबंध | 50 | 50 |
| IIIrd Paper | दर्शन एवं संस्कृति | 50 | |

Urdu Literature

| | | | |
|-------------|--|----|----|
| Ist Paper | | 50 | |
| IIInd Paper | | 50 | 50 |
| IIIrd Paper | | 50 | |

| Sociology | | | |
|--------------------|---|-----------|-----------|
| Ist Paper | Foundation of Sociological thought | 50 | |
| IInd Paper | Social Research Methods | 50 | 50 |
| IIIrd Paper | (a) Crime and Society | 50 | |
| | (b) Field visit and Report Writing | | |

| Economics | | | |
|--------------------|--------------------------------|-----------|-----------|
| Ist Paper | Quantitative Techniques | 50 | |
| IInd Paper | International Economics | 50 | 50 |
| IIIrd Paper | History of Economics | 50 | |

| Education | | | |
|--------------------|---|-----------|-----------|
| Ist Paper | Education Guidance and counselling | 35 | |
| IInd Paper | Problems of Indian Education | 35 | 35 |
| IIIrd Paper | Envioronmental Education | 35 | |
| IVth Paper | Viva Voice | 45 | 15 |

Note : Private candidates can offer education subject Max. Marks in each paper 75. only private candidates.

| History & Archaeology | | | |
|----------------------------------|---|-----------|-----------|
| Ist Paper | Social & Economic History of India (1760 A.D.-1857 A.D.) | 50 | |
| IInd Paper | Indian National Movement (1857-1947) | 50 | 50 |
| IIIrd Paper | Modern World (1919-1945) | 50 | |

| Philosophy | | | |
|-------------------|-------------------------|-----------|--|
| Ist Paper | समकालीन दर्शन | 35 | |
| IInd Paper | सौन्दर्य शास्त्र | 35 | |

तृतीय प्रश्न पत्र वैकल्पिक है। छात्र इनमें से किसी एक का चयन कर सकता है, इनमें से प्रत्येक का पूर्णांक 35 अंक का होगा।

| | | | |
|----------------------|--------------------------|-----------|-----------|
| IInd-A Paper | न्याय दर्शन | 35 | |
| IInd-B Paper | धर्म दर्शन | 35 | 35 |
| IIIrd-C Paper | तर्क शास्त्र | 35 | |
| | प्रायोगिक परीक्षा | 45 | 15 |

| Geography | | | |
|--------------------|--|-----------|-----------|
| Ist Paper | Geography of India | 35 | |
| IInd Paper | Environmental Geography | 35 | |
| IIIrd Paper | of Regional studies of any one of the following regions | | 50 |
| | (i) South west Asia | | |
| | (ii) South East Asia | | |
| | for East China and Japan | 35 | |
| IVth Paper | Cartography III | 45 | |

| Political Science | | | |
|--------------------------|----------------------------------|-----------|-----------|
| Ist Paper | Public Administration | 50 | |
| IIInd Paper | International Politics | 50 | 50 |
| IIIrd Paper | Western Political Thought | 50 | |

| Psychology | | | |
|--------------------|--|-----------|-----------|
| Ist Paper | Psychopathology Research and Measurment | 35 | |
| IIInd Paper | Enviornmental Psychology | 35 | 35 |
| IIIrd Paper | Organization Behaviour | 35 | |
| | Practical | 45 | 15 |

| Mathematics | | | |
|--------------------|--|-----------|-----------|
| Ist Paper | Analysis | 50 | |
| IIInd Paper | Abstract Algebra | 50 | 50 |
| IIIrd Paper | Numerical Analysis and Statistics | 50 | |

| Ancient Indian History Culture & Archaeology | | | |
|---|--|-----------|-----------|
| Ist Paper | Element of Indian Archaeology | 50 | |
| IIInd Paper | Ancient Indian Art and Architecture | 50 | 50 |
| IIIrd Paper | Ancient Indian Religion | 50 | |

| Defence and Strategic Studies B.A/B.Sc. | | | |
|--|---------------------------------------|--------------|--------------|
| Ist Paper | Evelution of Strategic Thought | 35/50 | |
| IIInd Paper | War and International Relation | 35/50 | 35/50 |
| IIIrd Paper | Military Psychology | 35/50 | |
| | Practical | 45/75 | 15/25 |

| Home Science | | | |
|---------------------|--|-----------|-----------|
| Ist Paper | Introduction to Textiles and clothing | 50 | 33 |
| IIInd Paper | Extension Education | 50 | |
| | Practical | 50 | 17 |

| Indian Music | | | |
|---|---|-----------|-----------|
| Vocal Music | | | |
| Ist Paper | Applied Theory (Vocal) | 40 | |
| IIInd Paper | Theory Musicalology + Objectives | 40 | 27 |
| Practical - Vocal and Instrumental | Individual | 70 | 23 |

MUSIC

| | | |
|----------------|-----|---|
| B.A. I का I | 786 | Hindustan Classical Vocal Music Instrumental Stringed Music |
| | 788 | Hindustan Classical Instrumental Musicstring Cstringed |
| | 790 | Tabla and Mridang (Pakhawaj) |
| B.A. II का I | 129 | Hindustan Classical Vocal Music (Vocal Music) |
| | 130 | Music Instrument of Music saler (Sringed) |
| | 133 | Tabla and Mridang (Pakhawaj) Indian music Instrumental |
| B.A. III का I | 182 | Hindustan Classical (Vocal Music) Vocal Instrumentril Music |
| B.A. III का II | 183 | Instru Mental stringed music vocal |
| B.A. III का I | 184 | Applied theory music instrui Mentail stringed (sitev) |
| B.A. II का II | 185 | Vocal and Music Instrumental stringed (Sitar) |
| B.A. III का I | 186 | Indian Music Tabla & Pakhauaj |
| B.A. III का II | 187 | Music Instrumental Tabla & Pakhawag |
| M.A. I का I | 641 | Music Vocal & Instrumental General & Applied theory music |
| M.A. I का II | 642 | History of Aesthelies of Music |
| M.A. II का I | 643 | Theory of Applied Music and Musical Compositions |
| M.A. II का II | 644 | History of Voice culture and staff Notation |

History & Archaeology

B.A. (Part - 1)

There shall be two papers, each carrying 50 (fifty) marks.

M.M. 50

Paper I : History of India upto C.A.D. 1200.

Survey of the prehistoric age - Palaeolithic, Mesolithic, and Neolithic cultures; Harappan civilization - origin, extant, urban planning, urban decline, nature of economic patterns; society, economy, culture and religion as reflected in vedic literature: Varna, Jati. 16 Sanskaras and 4 Purusharthas; Buddhism and jainism and their contribution to the Indian culture; The Mauryan Empire - ASHOKA'S dhamma, Mauryan administration, art. and architecture; Social and cultural developments in the period of Satvahanas and K'ushanas (Mathura and Gandhara art.) Political condition of Shungas. Cholas and Pandyas. Sangam age - literature, society and culture; Gupta emire and its administration. revenue systems and trade. Development in the Gupta and post Gupta times upto A.D. 1200 - art, society, architecture, literature, Bhakti - movement in south. status of women and devadasi-systems; Polity and economy - Gurjara - Pratiharas, Palas and Rashtrakutas and Invasions of the Ghaznavids, Ghorids.

Paper II : History of World (1453-1789) M.M. 50

The Renaissance : Its salient features. The Reformation: its causes. progress and results. Counter reformation. The rise of Nation states: France and England. The rise and decline of Spain : Charles V and Philip : Thirty years War : The Ascendancy of France : Henry IV Richelieu, Mazan : Louis XIV: England the conflict between the Crown and the Parliament under the Stuarts; The Growth of Cabinet system; The Age of the Enlightened Despotism; Peter I Catherine II Frederick the Great; Industrial Revolution in England, the Decline of France after 1715; Antecedent of Revolution, American War of Independence, Commercial Revolution And Mercantilism, The Age of Reason.

Suggested Readings

History of India, upto C.A.D. 1200

1. Adhya, G.L., Early Indian Economics (Kolkata, Asia Publishing House, 1960)
2. Allchin, B and Allchin, F.R., Rise of Civilization in India and Pakistan (Delhi, Select Book Service Syndicate, 1983).

3. _____ Origins of Civilization (Delhi, Viking, 1997).
4. Basham, A.L., The Wonder That Was India. (Mumbai, Rupa, 1971)
5. Brown, Percy, Indian Architecture, Vol. 1 (Mumbai, Taraporevala, 1984)
6. R.C. Majumdar, Ancient India.
7. R.K. Majumdar, Hindu Civilization.
8. P. Brown - Indian Paintings.
9. Dr. R. B. Singh – प्राचीन भारत का राजनैतिक इतिहास भाग - I & II
10. R.C. Majumdar - History and culture of the Indian People
11. A.D. Puralkar - History and culture of the Indian People.
12. Beni Prasad - The state in Ancient India.
13. Shri Arvind - भारतीय संस्कृति के आधार

Modern World - mid 15th century to World War II

1. Anderson, Pery, Lineages of the Absolutist State (Routledge, 1974).
2. Barraclough, G., An Introduction to Contemporary History (Penguin, 1968).
3. Bronowski, J and Bruce Mazlish, The Western Intellectual Tradition (Ayer Co. Publication. 1960).
4. Bury, J.I.T., France, 1840 (Routledge Chapman and Hall, 1985).
5. Carr, H.H. The Bolshevik Revolution. 1917-23.3 Vols (Macmillan, 1950, 1051 & 1953).
6. Davies, H.A., Outline : History of the World ed. 5, 1968.
7. Fisher, H.A.L., A History of Europe (London, Fontana Library, 1969).

"History & Archaeology"

B.A. (Part - II)

Exam 2004 - 2005 & onwards

There shall be two papers, each carrying 50 (fifty) marks.

M.M. 50

Paper I : History of India from c.A.D. 1200 - 1760

Foundation of the Sultanate - Iltutmish, Razia, Balban; Khaljis; Mohammed - bin- Tughlaq, Feroz Shah Tuglaq, Bahamani, Vijaynagar and Tamil Kingdoms; Timur's invasion, Advent of the Mughals and the second Afghan empire; Bhakti and Sufi movements, art and architecture during Sultanate period.

Consolidation and territorial expansion growth of composite ruling class. Mughal Empire - 1707 - relations with Rajputs, Sikhs, Daccar Kingdom Persia and Central Asia; Mughal administration, land revenue system, Mansabdari, and Jagirdari.

Society and economy - Agriculture, Trade Ulemas, nobility, Zamindars, Status of women religious policies of Akbar and Aurangzeb. Decline and disintegration of the Mughal Empire.

Paper II : History of World from 1789 to 1919

M.M. 50

French Revolution : causes, main phase and consequences; Napoleon: rise, reforms, continental system and downfall.

The Era of Congresses - 1815 to 1822, the era of Revolutiions - 1830 and 1848; Napolian III; Unification of Italy and Germany; Eastern question. 1821 to 1878; International Relations - 1871 to 1914 (with special reference to Bismarck and William II): British Foreign Policy - 1901 to 1914 ; Causes of the First World War; the Russian Revolution; the Treaty of Versailles.

American Civil War, Opium Wars and the Establishment of European influence in China, Chinese Revolution of 1911, Emergence of Japan as a Modern nation. Partition of Africa.

Suggested Readings

History of India, c.A.D. 1200 - 1760

1. Sastri, K.A.N., History of South India (Delhi, OUP, 1975).
2. Satish Chandra, Medieval India, From Sultanate to the Mughals (Delhi, Har Anand Publications, 1997)
3. Stein, Burton, Peasant State and Society in Medieval South India (Delhi, OUP 1980)
4. Tripathi, R.P. Rise and Fall of the Mughal Empire (Allahabad, Central Book Depot, 1963)
5. Verma, H.C., Madhya Kalin Bharat 1540-1701, Part II (Delhi, Hindi Directorate, 1993).
6. _____, Madhya Kalin Bharat 750-1540, Part I (Delhi, Hindi Directorate, 1983).

History of World from 1789 to 1919

1. Joll, James, Europe Since 1870 : An International History (Har-Row, 1973).
2. Langer W.L., European Alliances and Alignments, (Greenwood. 1977).

3. Lefebvre, Georges, Coming of the French Revolution (Princeton, 1989).
4. Palmer, R.A. and Cotton, Joel, A History of Modern World, 6th ed. (mcgraw, 1982).
5. Parks. H.B., The United States of America.
6. Randal J.G. and David Donald, The Civil War and Reconstruction 2nd rev. ed. (heath, 1969).
7. Rude, George, Revolutionary Europe (1984).
8. Saboul, A., The French Revolution.

History & Archaeology
B.A. - III
Exam 2005 - 2006 & onwards

There shall be three papers, each carrying 50 (fifty) marks.

M.M. 50

Paper I : Social & Economic History of India 1760 A.D. - 1857 A.D.

Understanding the mid-eighteenth century-political, economic, social and cultural trends. Expansion and consolidation of British Empire - ideologies of expansion mercantilism; Tools of expansion-war and diplomacy - Bengal, Mysore, Marathas, North East, Rohillas, Awadh Central India, Sind and Punjab; subsidiary Alliance and Doctrine of Lapse; Economic changes - Land revenue settlements - permanent cottage industries, and 'de-industrialization Nature of colonial economy-rise of modern industries. British fiscal policy and India's Poverty.

Social changes - spread of Western education; Rise of professional classes. Growth of press - English and in Indian languages; Indian Renaissance; social - religious movement. Peasant and tribal movements. Revolt of 1857, causes, nature and results.

Paper II : India National Movement 1857 - 1947

M.M. 50

Emergence of organized nationalism. Political associations and the India National Congress; Moderates, Extremists and Revolutionaries. Constitutional development upto 1919. Rise of Gandhi and nature of Gandhi movement. Revolutionary Left wing movement peasants and Workers movement of India Act 1935; and provincial Ministries. Quit India movement. Subhas Chandra Bose and the India National Army. Communal politics and partition.

Paper III :- Modern World 1919 - 1945 M.M. 50

Beginning of First World war and peace settlement. League of Nations-achievements and failure; search for security and peace movement; Rise of Dictatorship, Fascism and Nazism. Russia after the Revolution; Lenin and Stalin; Mustafa Kama and regeneration of Turkey; Circumstances leading to the II World war U.N.O - achievement and problems; Emergence of Japan after the First World war. Crisis of Capitalism and New Deal of F.D. Roosevelt. Anti Emperialist movement in Indo-China, Egypt and Indonesia.

Suggested Reading

History of India, c.A.D. 1760 - 1950

1. Bayly, C.A Indian Society and the Making of the British Empire, The New Cambridge History if India, Vol II (Cambridge, 1988).
2. Bhattacharji, Sabhyasachi (trans). Adhunik Bharat ka Arthik Itihas 1850-1947 (Delhi, 1990).
3. Bipan Chandra, et al., India's struggle for independence, 1857-1947 (Delhi, Penguin, 1996)
4. Brass, Paul, The Politics of India since Independence (Delhi, Foundation Books, 1994).
5. Desai, A.R., Social Background of Indiam Nationalism (Mumbai, Popular Prakashan, 1986).
6. Dharma Kumar & Tapan Raychaudhuri, ed., Cambridge Economic History of India, Vol. II (Cambridge, 1982).
7. Heimsath, Charles, Hindu Nationalism and the Indian Social Reform Movement (Princeton, 1964).
8. IGNOU Course Material, EH 1.1 and EH 1.5 (English & Hindi) (1858 - 1964) (1757-1857).
9. Kulke, H., and D. Rothermund, History of India (Australia, Crook Helms, 1986, D. Routledge, 3rd edn. 1998).

Modern World 1919 - 1945

1. Carr, H.H. The Bolshevik Revolution, 1917-23.3 Vols (Macmillan, 1950, 1051 & 1953).
2. Fisher, H.A.L., A History of Europe (London, Fontana Library, 1969).

3. Palmer, R.A. and Cotton, Joel, A History of Modern World, 6th ed. (Mcgraw, 1982).
4. Taylor, A.J.P., The Origins of the Second World War.
5. Thompson, David, Europe Since Napoleon (Penguin, 1957, 1966).

Ancient Indian History Culture & Archaeology

There shall be seven papers in all. Two in the first year two in the second year and three in the third year course. Each paper will carry fifty marks as described below.

There shall be three sections in each paper.

Section A : Five very short answered questions will be asked. All compulsory. Each question will carry two marks. $2 \times 5 = 10$ marks

Section B : Twelve short answered questions will be asked out of which eight questions will be required to be attempted. Each question will carry two and half marks. $2\frac{1}{2} \times 8 = 20$

Section C : Four long answered questions will be asked out of which two question will be required to be attempted. Each question will carry ten marks. $10 \times 2 = 20$

B.A. I Examination 2008 - 09 onwards

| | | |
|------------|--|--------|
| Paper - I | Political history of ancient India (from 600 B.C. to 500 A.D.) | mm. 50 |
| Paper - II | Ancient civilization | mm 50 |
| 1. | Origin and evolution of man | |
| 2. | A brief survey of prehistoric civilization of Europe and Asia. | |
| 3. | Mesopotamian civilization : Sumerian, Babylonian, Assyrian, Hammuravi and Asurbanipal. | |
| 4. | Egypt : Society, Art and Architecture, Religion, Writing and literature. | |
| 5. | Ageans : Minoan Art and Architecture. | |
| 6. | Harappans Civilization : Salient Features. | |
| 7. | Greeks, Mycenians, Homeric age, Classical age and literature, Science, society and economy, Hellenistic age, Main differences between Hellenic and Hellenistic Civilization, art, literature, science, religion. | |
| 8. | Persians : Achamenians administration Zoroastrianism, natural achievements. | |
| 9. | China : Society, Art, religion (Confucius) literature, Buddhism and Laotse. | |

B.A. II Examination 2009 -10 onwards

| | | |
|----------|--|--------|
| Paper I | : Political history of ancient India (From 550 A.D. to 1200 A.D.) | mm. 50 |
| Paper II | : Ancient Indian Society and State | mm. 50 |
| Society | : Varnasrama, Jatis, Family structure, Education, Marriage, Woman, Position of slaves, Guilds. | |
| State | : Origin, Type, Monarchy, Ministry, Republics, Taxation | |

B.A. II Examination 2010 to 2011 onwards

Paper I : Elements of Archaeology mm. 50

(A)

1. Definition of Archaeology and its relation to other Natural Sciences.
2. Development of Archaeology in India.
3. Method of Finding Ancient Sites.
4. Method of Excavations, Vertical and Horizontal, Method of Recording.
5. Principals of Stratigraphy.
6. Report of following excavated Sites :
7. Lothal, Hastinapur, Kaushambi, Taxila, Kalibangan, Chirond, Brahmagiri

(B)

Antiquity of writing in ancient India, writing material in ancient India,
Origin and development of Brahmi and Kharsoshti.
Inscriptions as source of history.

(C)

Origin and antiquity of coinage in ancient India.
Method of manufacturing coins, authority of issuing coins.
Punch marked coins
Salient features of Indo-Greek coins, Satvahan coins, Kushans - Gupta coins.

Paper II : Ancient Indian and Architecture.

mm. 50

Paintings : Prehistoric Ajanta

Sculptures : Indus valley, Mauryan, Sunga, Kushan, gupta, Early, Medieval, Special Study of Gandharas, Mathura and Saranatl School of Arts.

Architecture : Harppan Architeture, Origine and development of Stupa, Architecture of Bharahut, Sanchi, Amaravati, Buddist cave Architecture, Chaityagrihas and Viharas, Mahayans and Hinayans, Origin and Development of temple Architecture. Gupta Temples, Mahabalipuram, Kailash Temple at Ellora, Development of Temple Architecture in Northern India : Khajuraho (Kandariyamaha deva) Orrisa (Lingaraja and Konark), Abu. Development of Temple Architecture in South India: Chalukya, Pallava, Chola, Classifications of Hindu's Temples. Chandella monuments - Barakhamba of Konch.

Paper II : Ancient Indian Religion mm. 50

Introduction : Change and continuity, Nature of Indian religion.

Buddhism and Janism : Origin and development of Buddhism, Life and teachings of Gutama Buddha, The Four Noble Truths, Prativitya - Samutpada and Nirvana, Origin and development of Mahayana and its relation to Hinayana, Philosophy of Shunyavada, Jain Anekantvada, Liberation, division of Jainism, Digambar and Shvetamber.

Saiva : Origin and antiquity, Rudra - siva in the Rigveda, siva in later Vedic Literature.

Pasupata School : Origin, diffusion and philosophy, South Indian Saiva tradition :

Vaishnava : Vaishnava, pancharatra and Sattvata, history and philosophy. Sakti-cult and other minor sects.

Narayan Puri and RamLala temples of Konch.

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. Education

1. The three year B.A. Course in Education shall be spread over three Academic Sessions Viz. Part-I, Part - II and Part- III.
2. Private Candidates can also offer education subject. For regular and private candidates the syllabus are same.
3. There will be two theory Papers carrying 35 marks each and a Viva-voice 30 Marks in the first two years. (B.A. Part-I and B.A. Part-II)
4. In B.A. Part-III, There will be three theory papers carrying 35 marks each and a viva voice 45 marks.
5. The candidates must pass in theory and viva-voice separately obtaining at least 33% marks in each.
6. The viva-voice examination will be conducted by board of examiners (Internal and External).
7. Class-wise schedule is as follows :-

B.A. (Part One) Session 2008-09 and onwards.

Min Passing Marks

| | | | | |
|-------------------|-----------------------------------|------|-----|----|
| Paper - I | Principles of Education | M.M. | 35 | 23 |
| Paper- II | Development of Education in India | M.M. | 35 | |
| Paper-III | Viva-voice | M.M. | 30 | 10 |
| Total M.M. | | | 100 | 33 |

B.A. (Part Two) Session 2009-10 and onwards

Min Passing Marks

| | | | | |
|-------------------|------------------------|------|-----|----|
| Paper - I | Educational Psychology | M.M. | 35 | 23 |
| Paper - II | Educational Thought | M.M. | 35 | |
| Paper - III | Viva-voice | M.M. | 30 | 10 |
| Total M.M. | | | 100 | 33 |

B.A. (Part Three) Session 2010-11 and onwards

Min Passing Marks

| | | | | |
|-------------|------------------------------------|------------|-----|----|
| Paper - I | Educational Guidance & Counselling | M.M. | 35 | |
| Paper - II | Problems of Indian Education | M.M. | 35 | 35 |
| Paper - III | Environmental Education | M.M. | 35 | |
| | | 105 | | |
| Paper - IV | Viva-voice | M.M. | 45 | 15 |
| | Total M.M. | | 150 | 50 |

B.a. Part - I (Education)
Session 2008-09 and onwards
PAPER - I
PRINCIPLES OF EDUCATION

M.M. 35

COURSE CONTENTS :-

- ❖ Nature and scope of Education, Education as a science; education as a social process, factors of Education.
- ❖ Aims of education - individual, social, vocational and democratic.
- ❖ Formal, informal and non-formal agencies of education. Relation between school and society.
- ❖ Meaning of philosophy and education; relation between philosophy and education; essential aspects of major philosophies of education-with special reference to aims, process and curriculum - idealism. naturalism and pragmatism
- ❖ Functions of education - Individual development, Transmission of Cultural heritage, Social cohesion.
- ❖ Curriculum, definition, types of curricula, principles of curriculum construction, child-centered and life centered curricula, co-curricular activities.
- ❖ Freedom and discipline in and out of school, discipline and order, free discipline.
- ❖ Value education, meaning of human values. Their development. Some transactional strategies.
- ❖ Education for national integration, international understanding and education for human resource development, education for leisure.

BOOKS RECOMMENDED :

- ❖ Advance S. - Bhartiya Shiksha Ke. Siddhant.
- ❖ Deniey, Jhon - The School and Society.
- ❖ Pandey R.S. - Principles of Education Vinod Pustak Mandir, Agra
- ❖ Ross J.S. - Ground of Education Theory New Delhi.

B.A. Part - I (Education)

Session 2008-09 and onwards

Development of Education in India

Paper - II M.M. 35

Course Contents :-

- ❖ Education in India during (a) Vedic, (b) Buddhist and (c) Medieval periods.
- ❖ Macaulay's minutes and Bentinck's resolution of 1835, Adam's report and its recommendations.
- ❖ Wood's Dispatch - 1854
- ❖ Recommendations of Indian Education Commission - 1882, its influence on the subsequent development of education.
- ❖ Essential features of the Sadler Commission Report - 1917.
- ❖ Wardha scheme of education - 1937.
- ❖ Radhakrishnan Commission - 1948-49
- ❖ Mudaliar Commission - 1952-53.
- ❖ Kothari Commission - 1964-66
- ❖ National Policy of Education 1986 and 1992.

BOOKS RECOMMENDED :-

- ❖ Altekar A.S. - Education in Ancient India, The Indian Book Shop Varanasi.
- ❖ Mishra R.K. and Shrivastava V.B. Lal - History of Indian education Vinod Pustak mandir, Agra
- ❖ Mukherjee R.K. - Ancient Indian Education, Motilal Banarsi Das, Delhi
- ❖ Rawat Pyarelal - Prachine Bhartiya Shiksha, Hindi Granth Academy, U.P.

B.A. PART - I (EDUCATION)

Session 2008-09 and onwards

Paper - III (Viva - voice)

M.M. 30

- ❖ The Viva-voice examination will be conducted by board of Examiners (Internal & External)

B.A. PART - II (EDUCATION)

Session 2009-10 and onwards

Paper - I

EDUCATION PSYCHOLOGY

M.M. 35

COURSE CONTENTS :-

- ❖ Psychology - Its meaning, nature and scope. Relationship between education and Psychology. Distinction between psychology and educational psychology.
- ❖ Stages of human development : infancy, childhood, latency and adolescence their needs, significance and problems. Human development and education, role of educational psychology in understanding the individual.
- ❖ Learning : Learning and maturation, Essential aspects of different theories and laws of learning, motivation in learning, transfer of learning.
- ❖ Attention and interest. Nature and conditions for attention, their educational implications.
- ❖ Habits, meaning of habit and its role and implications in educations.
- ❖ Emotions - their meaning, characteristics and place of emotions in educations.
- ❖ Intelligence - concepts, definition and measurement.
- ❖ Heredity and environment and their implications for education.
- ❖ Individual differences - causes of individual differences, significances of individual differences and educational implications.

BOOKS RECOMMENDED :

- ❖ Mathur S.S. - Education Psychology, Vinod Pushtak Mandir, Agra
- ❖ चौबे एस0पी0. - उच्चतर शिक्षा मनोविज्ञान, भवदीय प्रकाशन, फैजाबाद।
- ❖ माथुर एस0एस0 - शिक्षा मनोविज्ञान, विनोद पुस्तक मन्दिर, आगरा।
- ❖ भटनागर सुरेश - शिक्षा मनोविज्ञान, आर0ला0बुक डिपो मेरठ
- ❖ सारस्वल मालती - शिक्षा मनोविज्ञान की रूपरेखा, आलोक प्रकाशन इलाहाबाद।
- ❖ पाठक पी0डी0 - शिक्षा मनोविज्ञान, विनोद पुस्तक मन्दिर आगरा।

B.A. Part - II (Education)
Session 2009 - 10 and onwards
Paper - I
EDUCATION THOUGHTS

M.M. 35

Course Contents :-

- ❖ Critical study of the educational thought of the following and their implication for Indian Education-
M.K. Gandhi, Vivekananda, Rabindranath Tagore, Swami Dayanand Saraswati, Arbindo, Socrates, Plato, Roussau, Dewey, Comenius.

Books Recommends :-

- ❖ Chaubey S.P. and Akhilesh Chaubey - philosophical and Sociological foundation of Education.
- ❖ Chaubey S.P. and hartat aur Prachin ke A. Chaubey
- ❖ Mishra R.K. - vinod Pustak Mandir Agra Educational Thoughts and Practics
- ❖ Chaubey S.P. - Shreshtha Shiksha Shastri, Bhavadiya Publication Faizabad.
- ❖ Lal Raman Bihari - Shiksha Ke Darshnik Avam Samaj Shastriya, Adhar, RastogiPublication, Meerut.
- ❖ Pandey R.S. - Asurvey of educational thoughts, Allahabad, Horizon Publication.
- ❖ पाण्डेय श्रीघर एवं - विश्व के प्रमुख शिक्षा मनीषी त्रिपाठी लालजी एवं शिक्षा दर्शन, भवदीय प्रकाशन अयोध्या बाजार, फैजाबाद ।

B.A. Part - II (Education)
Session 2009-10 and onwards
Paper - III (Viva - Voice)

M.M. 30

The Viva-Voice examination will be conducted by board of examiners (Internal and External).

B.A. Part - III (Education)
Session 2010-11 and onwards
Paper _ I
Educational Guidance & Counselling

M.M. 35

Course Contents :-

- ❖ The concept of Guidance :
 - (a) Meaning, nature & scope of guidance.
 - (b) Philosophical, psychological and sociological bases of guidance.
 - (c) Need and importance of educational guidance services in school.
- ❖ Vocational Guidance :
 - (a) Purpose and functions of vocational guidance.
 - (b) Relationship between educational and vocational guidance.
 - (c) Relationship between vocational guidance and work education.
 - (d) Job analysis and occupational information services.
- ❖ Educational Guidance :
 - (a) Basic data necessary for educational guidance - pupils abilities, aptitudes, interests and attitudes, educational attainments and personality traits.
 - (b) Construction, administration and interpretations of (i) cumulative record cards, (ii) Individual inventories.
- ❖ The concept of Counselling :
 - (a) Meaning, nature and scope of counselling.
 - (b) Different type of counselling.
 - (c) Various steps and techniques of counselling.
- ❖ Necessary qualities (Personal and professional) of a good counselor, Role of the counselor in secondary schools. Relationship between guidance. counselling and teaching.
- ❖ Diagnostic and remedial measures : Special provisions. For deviant children to enable them face problems of the daily life. Gifted and creative children. Mental health and Psychodynamics of Adjustment.
- ❖ Concept of mental health and mental hygiene, Causes and symptoms of maladjustment, Frustration and conflicts, Adjustment mechanisms.

Books Recommends :-

- ❖ Dave, Indu - The Basic Essentials of Councelling, Sterling Publishers, New Delhi.
- ❖ Mathur Kiran - Vocational Guidance Services in Vocational Schools upto + 2 level, PSS Central Institute of Vocational Education, Bhopal.
- ❖ Pasricha, Prem - Guidance and Councelling in Indian Education, NCERT, New Delhi.
- ❖ डॉ० सीताराम जायसवाल – शिक्षा में निर्देशन एवं परामर्श

B.A. Part- III (Education)
Session 2010-11 and onwards
Paper - II
Problems of Indian Education

M.M. 35

Course Contents :-

- ❖ The following will be studied with reference to their Concept, Aims, Significance, Causes and Probable Solutions.
 - 1- Problems of Pre-Primary Education,
 - 2- Problems of Primary Education.
 - 3- Problems of Secondary Education
 - 4- Problems of Higher Education.
 - 5- Problems of Adult and Social Education
 - 6- Problems of Technical and Vocational Education
 - 7- Problems of Women Education
 - 8- Problems of students Unrest.
 - 9- Problems of National Integration.
 - 10- Language Problems in Education
 - 11- Problems of Examination System in Education.

Books Recommended :-

- ❖ Bhatnagar, Suresh - Problems of modern Indian Education R. Book Depot. Meerut 2002
- ❖ Kochar S.K. - Pivotal Issues in Indian Education Sterling Pub - Pvt. Ltd.
- ❖ लाल रमन बिहारी – भारतीय शिक्षा का इतिहास एवं समस्यायें, रस्तोगी पब्लिकेशन, मेरठ।
- ❖ मिश्रा आर०के० – भारतीय शिक्षा की समस्यायें, आलोक प्रकाशन, इलाहाबाद।

B.A. Part - III (Education)

Session 2010-11 and onwards

Paper - III

ENVIRONMENTAL EDUCATION

M.M. 35

Course Contents :-

- ❖ Environment : meaning, Scope and nature of environmental education.
- ❖ Types of environmental pollution - Causes of Noise, Water and Air pollution and their solutions.
- ❖ Causes and effects of environmental hazard, global and local : environmental pollution and its remedies.
- ❖ Green house effect - environmental threat, acid rain, pillar melting rise of sea level and their implications.
- ❖ Salient features of environmental awareness through education : programmes of environmental education for secondary school children.
- ❖ Programmes of environmental education for attitude changes among the children.
- ❖ Biodiversity : Conservation of genetic diversity. An important environment priority : learning to live in harmony with nature.
- ❖ Role of School in environmental conservation and sustainable development.

Books Recommended :-

- ❖ Home R.M. - The Chemistry of our Environment. John Willey & Sons, New York. 1972
- ❖ मिश्रा ए० एण्ड – देश का पर्यावरण, पर्यावरण आई०एन० आचार्य काया, गांधी शान्ति प्रतिष्ठान, नई दिल्ली . 1988

- ❖ रघुवंशी ए० तथा – पर्यावरण तथा प्रदूषण म०प्र० रघुवंशी सी०एल० ग्रन्थ अकादमी भोपाल
– 1987
- ❖ Sharma R.C. - Environmental Education, Metropolitan Delhi - 1981

Paper - VI (Viva - voice)

M.M. 45

- ❖ The Viva-voce examination will be conducted by board of examiners (Internal and External).

MATHEMATICS

B.A./B.Sc. (Part one) Exam 2003 - 2004 & onwards

Paper I - Algebra and Trigonometry

Time - 3 Hours

M.M. - B.A. 33

B.Sc. 50

Algebra - Definition and simple properties of group, Subgroups, cyclic groups, Order of element of a group. co-sets, Lagranges theorem, Fermats and Euler's theorems, Homomorphism and Isomorphism, Normal subgroups, Quotient group, Permutation groups, even and odd permutations, Alternating group, Cayley's theorem, Rings, subrings, Integral domain, Fields and characteristic of a ring.

Matrix Algebra :- Symmetric, skew symmetric, Hermitian and skew Hermitian matrices, orthogonal and unitary matrices, Rank of a matrix, Eigen values and Eigen vectors and the characteristic equation of a matrix, Cayley-Hamilton theorem, Solution of linear equations by matrix method, Consistency and in-consistency of Linear equations.

Relations between roots and coefficients of polynomial equation in one variable, transformation of equations, Descartes rule of signs.

Trigonometry :- Circular and hyperbolic functions, Eulers theorem. Logarithm of a complex quantity Gregory's series Summation of series (C+is method only)

Paper II - Calculus

Time - 3 Hours

M.M. B.A. - 33

B.Sc. - 50

Differential Calculus - ξ , δ definition of limit of a function, continuity and differentiability of functions, Kinds of discontinuities, Successive differentiation, Leibnitz theorem, Expansions of functions by maclaurin and taylor series, Curvature, Asymptotes and tracing of curves in cartesian and Polar coordinates, ordinary differential equations (O.D.E.), order and degree of a differential equation, Equations of first order and first degree. Solution of O.D.E. when variables are separable, Homogeneous equations, Linear equations and Bemoullles form of equations, Exact O.D.E. Clairauts form of a O.D.E. and singular solutions, Orthogonal trajectories, Linear differential equations with constant coefficients. Homogeneous Linear O.D.E.

Paper - III - Vector Analysis and Geometry

Time - 3 Hours

M.M. B.A. - 34

B.Sc. - 50

Vector Analysis - Scalar and Vector product of three and four vectors, Reciprocal vector, Differentiation and integration of vector function with respect to a scalar, Gradient, Divergence and curl, Theorems of Gauss, Green and Stokes and problems based on these theorems.

Geometry :- Reduction of general equation of second degree to standard forms, Tracing of parabola, hyperbola and ellipse, Polar equation of a conic and its properties.

Plane, Straight line and plane, sphere, cone and cylinder.

MATHEMATICS

B.A./B.Sc. (Part Two) Exam 2004 - 2005 & onwards

Paper I - Advanced Calculus & Tensor

Time - 3 Hours

M.M. - B.A. 33

B.Sc. 50

Continuity, Sequential continuity, Uniform continuity, Mean value theorems, Darboux theorem, Taylor's theorem with various forms of remainders.

Limits and continuity of functions of two independent variables, Partial differentiation, Change of independent variables, Euler's theorem on homogeneous functions, Taylor's theorem for functions of two independent variables, Jacobians.

Envelopes, Evolutes, Maxima and minima of functions of two variables, Lagrange's method of multipliers, Indeterminate form, Convergence & Divergence of infinite series, Beta and Gamma functions, Double and triple integrals, Change of order of integration in double integrals.

Tensor :- Introduction, Subscripts and Super scripts, Summation convention, Free and dummy suffix, Kronecker delta, n - dimensional space, Contravariant and co-variant vectors, Tensors of second and higher orders, addition and subtraction of tensors, product of tensors, contraction of mixed tensors, Inner product of tensors, Quotient law, Symmetric and skew-symmetric tensors, Reciprocal symmetric tensors.

Paper II- Differential equation & Integral transform

Time - 3 Hours

M.M. B.A. 33

B.Sc. 50

Partial Differential equation :- P.D.E. of first order, Lagranges method for solution of equations of the type $Pp + Qq = R$, Charpits method, some special types of equations which, can be solved easily by methods other than the general method.

Partial differential equations (PDE) of Second and higher order classification of linear PDE of Second order of the type $Rr + Ss + Tt + f(p, q, z, x, y) = 0$ and reduction into canonical form, Homogeneous and non homogeneous equations with constant coefficients, P.D.E. reducible to equations with constant coefficients, Monge's method.

Integral transform :- Laplace transform, Existence theorem, Laplace transforms of derivatives and integrals, shifting theorem, Differentiation and integration of transform, Convolution theorem, Solution of integral equations and system of differential equations using Laplace transformation.

Fourie Transform :- Infinite and finite Fourier transform, Inverse fourier transform, properties and theorems on fourier transform.

Paper III, Mechangics

Time 3 Hour

M.M. B.A. 34

B.Sc. 50

Statics :- Virtual work Catenary

Hydro Statics :- Centre of pressure and equilibrium of floating bodies

Dynamics :- Velocities and acclerations along radial and transverse directions and along tangential and normal directions, simple harmonic motion, Motion on verticle circle and on cycloid, central forces and motions in a resisting medium, When resistance varies as velocity and when resistance varies as square of velocity only.

MATHEMATICS

B.A./B.Sc. (Part Three) Exam 2005-2006 and onwards

Paper - I Analysis

Time - 3 Hours

M.M. - B.A. 50

B.Sc. 75

Real Analysis :- Riemann integral integrability of continuous and monotonic functions, Fundamental theorem of integral calculus, Riemann stiltjes (R.S.) integral and simple examples on it.

Improper integrals and their convergence comparison test, Abel's and dirichlet's test .

Complex Analysis :- Analytic function, Cauchy - Riemann equations, Harmonic functions, Mobious transformations, Fixed points, cross ratio, inverse points and conformal mappings.

Metric Spaces :- Difinition and examples of metric spaces, neighbourhoods, limit points, Interior points, Open and closed set, Closure, Interior and boundary points, Cauchy's sequences and convergent sequence.

Paper - II Abstract Algebra

Time : 3 Hour

M.M. B.A. - 50

B.Sc. 75

Group - Automorphism, Conjugacy relation, Normalizer, class equation of a finite group, Centre of a group.

Ring theory :- Ring homomorphism, Ideal and quotient ring, Euclidean rings, Polynomial Rings.

Linear Algebra :- Vector Spaces, Sub space, Linear sum and direct sum of subspaces, L.I. and L.D. vectors, Basis and dimension of a vector space, Theorems on dimensions. Quotient space and its dimention theorem, Linear transformations and their representation as matrices, Rank and nullity theorem, Dual space, Annihilator of a sub space.

Paper - III Numerical analysis and Statistics

Time : 3 Hours

M.M. B.A. 50

B.Sc. 75

Numerical Analysis :- Fundamental theorem of difference calculus, Operators in N.A., Interpolation for equal sub intervals, Interpolation for un-equal interval, Newton-Gregory Forward and backward formula, Divided differences for un-equal intervals, Newtons divided difference formula, Lagranges interpolation formula for un-equal intervals, Central difference

interpolation, Stirlings - Bessels and Gauss formula Numerical differentiation, Numerical integration, Trapezoidal, Simpsons and weddles rule for numerical integration.

Statistics :- Co-rrelation and Regression of two variables, additon and multiplication theorem of probabilities, and their uses in problems.

Binomial, Poissons and Normal distributions, their propertics and problems.

Note : Use of calculators is allowed.

B.A./B.Sc. GEOGRAPHY

The three year B.A./B.Sc. course in Geography shall be spread over three Academic Sessions viz. Part - I, Part II. Part III. There will be two theory papers carrying 35/50 marks each and a Practical of 30/50 marks in the first two years. In part-III, there will be three theory papers carrying 35/50. 35/50. 35/50 marks and a practical of 45/75 marks.

The candidates must pass in theory and practicals separately obtaining at least 33% marks in each. No private candidate is allowed. Failed candidates shall not be required to undergo practical training. They might submit the old Record Book or a new one.

Class - Wise Schedule of papers is as follows :-

B.A./B.Sc. Part - I

| | | |
|------------|--|------------|
| Paper - I | Physical Geography - I) Elements of Geomorphology) | M.M. 35/50 |
| Paper - II | Human Geography | M.M. 35/50 |
| | Practicals | M.M. 30/50 |

B.A./B.Sc. Part - II

| | | |
|------------|---|------------|
| Paper - I | Physical Geography - II (Climatology & Oceanography) | M.M. 35/50 |
| Paper - II | Economic Geography | M.M.35/50 |
| | Practicals | M.M. 30/50 |

B.A./B.Sc. Part - III

| | | |
|-------------|--|------------|
| Paper - I | Geography Of India | M.M. 35/50 |
| Paper - II | Environmental Geography | M.M. 35/50 |
| Paper - III | Regional Studies of any one of the following regions :- | M.M. 35/50 |
| | (a) South West Asia | |
| | (b) South East Asia | |
| | (c) Far East (China & Japan) | |
| | Practicals | M.M. 45/75 |

B.A./B.Sc. Part - I 2008 -09
Physical Geography - I
(Elements of Geomorphology)

Paper - I

M.M. 35/50

Course Contents :

- Unit - I** : The nature and scope of Physical Geography; Inter-relation of Physical Geography with other branches of earth sciences; the place of Geomorphology in Physical Geography; Geological Time Scale.
- Unit - II** : Earth's interior, Wegner's theory of Continental Drift; Plate Tectonics. Earth movements - Folding and Faulting and warping; Isostasy, earthquakes and volcanoes.
- Unit - III** : Rocks their origin, classification and characteristics, weathering; formation of soils; rocks and relief.
- Unit - IV** : Geomorphic agents and processes : erosion, transportation and deposition; mass wasting; Evolution of landscape; Concept of cycle of erosion, interruptions of cycle of erosion. Fluvial. Arid, Glacial. Karst and Coastal landscapes.
- Unit-V** : Application of geomorphology to human activities: settlements, transport, land-use, mining; resource evaluation; environmental hazards and assessment.

Suggested Readings

1. Dayal, P; A Text book of Geomorphology. Shukla Book depot, Patna, 1996.
2. ICSSR : A Survey of Research in Physical Geography. Concept, New Delhi, 1983.
3. Kale V. and Gupta, A : Element of Geomorphology, Oxford University Press, Calcutta, 2001.
4. Monkhouse, F.J. : Principles of Physical Geography. Hodder and Stoughton. London. 1960
5. Pitty. A. : Introduction to Geomorphology, Methuen, London, 1974.
6. Sharma, H.S. : Tropical Geomorphology, Concept, New Delhi, 1987.
7. Singh, S. : Geomorphology, Prayag Pustakalaya, Allahabad, 1998.
8. Small, R.J. : The Study of Landforms, Mc. Graw Hill, Newyork, 1985.
9. Sparks, B.W. : Geomorphology. Longmans, London, 1960.
10. Steers, J.A. : The Unstable Earth. Some recent views in geography, Kalyani Publishers, New Delhi, 1964.
11. Strahler, A.N. and Strahler, A.H. : Modern physical Geography : John Wiley & Sons, Revised edition 1992.

12. Thornbury, W.D. : Principles of Geomorphology, Wiley Eastern, 1969.
13. Wooldridge, S.W. and Morgan, R.S. : The Physical Basis of Geography - An outline of Geomorphology, Longman Green & Co., London, 1959.
14. Singh. J. and Singh K.N. : Bhautik Bhoogol (Hindi)
15. Agarwal, K.M.L. : Bhautik Bhoogol (Hindi)
15. Singh, Savindra, : Geomorphology (Hindi)
17. C.B. : Mamoriga Bhautik Bhoogol (Hindi)

B.A./B.Sc. Part - I

Human Geography

Paper - II

M.M. 35/50

Course contents :

Unit - I : Concept and Nature Meaning, scope and Development of Human Geography; Man and Environment relationship-Determinism, Possibilism, neo-determinism, Probabilism; Basic principles-Principle of Activity or Change, principle of Terrestrial Unity or whole.

Unit -II : Habitation (Population and Settlement)

Distribution of population and world pattern; global migration causes and consequences, concept of over population and under population.

Human Settlements - Origin types (Rural - Urban). characteristics, size and distribution. House types and their distribution with special reference to India,

Unit - III : Economy Evolution of Human Economy; Sequence of human occupation, primitive Economies - Food gathering, Hunting, Pastoral herding, Fishing, Lumbering and Primitive agriculture. Later major innovations and their impact.

Unit - IV : Society and Culture Evolution of man (Australopithecus, Homo Erectus, Hominids, Man, spread over the earth during the Pleistocene) Cultural Diffusion, Cultural realms World Human Races - Classification, Characteristics and Distribution.

Unit-V : World and Indian Tribes : Some typical modes of life of world Tribes-Eskimos, Kirghiz, Bushman, Masai, Semang and pygmies.

Habitat, Economy and Society of Indian tribes - Bhotias, Gaddis.

Tharus, Bhil, Gond, Santhal, Nagas (with reference to their present-day transformations).

Books Recommended :-

1. Spencer, J.E. and Thomas, W.L., introducing Cultural Geography.
2. Thomas, W.L. (ed.), Man's Role in Changing the Face of the Earth
3. Peripillou, Human Geography
4. Smith, D.M., Human Geography- A Welfare Approach
5. Forde, C.D. Habitat, Economy and Society
6. Dicken, S.N. and Pitts, F.R., Introduction to Human Geography
7. Kaushik, S.D., Manav Bhoogol (Hindi)
8. De Blij, H.J., Human Geography, Culture Society, Society and Space, John Wiley, New York, 1996
9. Prasad Gayatri, Sanskritik Bhoogol (Hindi)
10. Singh J., Manav Bhoogol (Hindi)
11. Bansal, S.C., Manav Bhoogol (Hindi)
12. Jain and Borha, Sanskritik Bhoogol
13. Srivastava V.K. and Rao, B.P., Manav Bhoogol
14. Thakur, B.S., Manav Bhoogol
15. Jordon, T.G. and Lawntre, The Human Mosaic
16. Hira Lal, Jansankhya Bhoogol
17. Fellman, J.L., Human Geography-Landscapes of Human activities, Brown and Bench man, Pub., U.S.A. 1997.
18. Michael, Can, New Patterns : Process and Change in Human Geography, Nelson, U.K. and Canada. 1996.

PRACTICALS

M.M. - 30/50

Course contents :

- Unit - I** Scales : Construction of Plain, Comparative, Diagonal and Vernier scales; Enlargement and Reduction of maps; Calculation of area of maps of different shapes by graphical and arithmetical methods.
- Unit-II** Methods of showing relief : hachures, and contours. Study and Interpretation of Topographical Maps - Classification and scale, Interpretation of one inch/1/50000 Survey of India Toposheets of Plain, plateau and Mountain area of India in respect of (i) Relief (ii) Drainage (iii) Settlement and (iv) Communication pattern
- Unit - III** Map Projections : General Principles : Classification, properties and choice of map projections - merits and demerits. Construction of Cylindrical Equal area,

Mercator's; Conical with two Standard Parallels, Bonne's, Polar Zenithal polyconic, Gnomonic and Stereographic polar zenithal.

Unit IV Cartographic Representation of Statistical Data

- (i) Graphs : Bend graph, Hythergraph, Climograph.
- (ii) Diagrams : Compound Bar, Wheel, Rectangle, Circle
- (iii) Distribution Maps : Using Dots, Isoleth, Choropleth.

Division of Marks :

Lab Work - (one question from each unit with internal choice - Duration - three Hours)

20/30

Sessional Records 5/10

Viva - Voice 5/10

Suggested Readings

1. Monkous, F.J. : Maps & Diagrams.
2. Robinson, A.H. : Elements of practical Geography.
3. Singh, R.L. : Elements of Practical Geography.
4. Mishra, R.P. and Ramesh, A. : Fundamentals of Cartography.
5. Singh, L.R. & Singh, R.N. : Map work and Practical Geography (Eng./Hindi)
6. Sharma, J.P. : Practical geography (Hindi)
7. Lal Hira : Prayogatmak Bhoogol ke Adhar (Hindi)
8. Tiwari, R.C. ; Tripathi, Sudhakar : Abhinav Prayogic Bhoogol.

Note : The following material to be provided to students during the annual practical exam by the University.

| | Size |
|---|-------------|
| 1. One University Answer Books | M.M. 35/50 |
| 2. Drawing Sheet (one) | 22"x28" |
| 3. Graph paper (One) | 22"x28" |
| 4. Tracing Paper (One) | 22"x28" |
| 5. Full Scape Paper | Two Sheets |
| 6. Black Ink (Drawing) | |
| 7. Drawing Sheet of Statistics Two Sheets | 11"x14" |
| 8. Tape (Cello Tape) | |
| 9. Board Pin Alpin, U-Pin, Tag | |

10. One Cyclostyled Question Paper

Periods allotted to Practical Class

Two periods for three continuous days.

The maximum number of students in each group of practical class should not exceed 20.

B.A./B.Sc. Part - II - 2009 -10
Physical Geography - II
(Climatology And Oceanography)

Paper - I

M.M.- 35/50

Course contents :

A. Climatology

Unit - I Weather and climate; definition and significance of climatology; elements of weather and climate, their causes, Composition and structure of the atmosphere, Atmospheric Temperature : Insolation and global energy budget; vertical, horizontal and distribution of temperature. Atmospheric pressure and winds; vertical and horizontal distribution of Pressure; Planetary periodic and local winds.

Unit - II Atmospheric moisture : humidity, evaporation and condensation. hydrological cycle; types of precipitation, world patterns of rainfall regional and seasonal distribution; Air masses and fronts : concept, classification and properties. Atmospheric disturbances : tropical and temperate cyclones; thunderstorms and tornadoes.

Unit - III Climatic classification : basis of Koppen's classification and types, distribution characteristics and related plant and animal life.
Role of Climate in human life; Atmospheric pollution and global warming general cause, consequences and Measures of control.

B.OCEANOGRAPHY

Unit - IV Relevance of oceanography in earth and atmospheric sciences. Definition of oceanography, Surface configuration of the ocean floor, continental shelf. continental slope, abyssal plains, mid-oceanic ridges and oceanic trenches, Relief of Atlantic, Pacific and Indian Oceans; Distribution of temperature and salinity of oceans and seas.

Unit - V Circulation of oceanic waters : waves, tides and currents; currents of the Atlantic, Pacific and Indian Oceans; Marine deposits and coral reefs, coastal environment , Oceans as storehouse of resources for the future.

Suggested Reading

Climatology

1. Barry R.G. & Chrley R.J. Atmosphere. Weather and Climate.
2. Critchfield, H. : General Climatology.
3. Das. P.K. : The Monsoons.
4. Lydolph, Paul E.K. The Climate of Earth.
5. Mther J.R. Climatology.
6. Patterson, S. Introduction of Meteorology.
7. Stringer E.T. Foundation of Climatology.
8. Trewartha, G.T. An Intrduction of Climate

OCCEANOGRAPHY

1. Anikouchine, W.A., and Sternberg. R. W. The World Oceans - An Introduction to Oceanography.
2. Gral, S. : General Oceanography - An Introduction.
3. Gurrison, T. Oceanography
4. Fine C.A.M. Beaches and Coasts.
5. King C.A.M. : Oceanography for Geographers.
6. Sharma, R.C. Vatel M. Oceanography for Geographers.
7. Shepard, F.P. : Submarine Geology.
8. Thyrrnan, H.B. Introductory Oceanography.
9. Wetsberg, J. and Howard : Introductory Oceanography.

B.A. / B.Sc. II

ECONOMIC GEOGRAPHY

Paper - II

M.M. - 35/50

Course - Contents

Unit - I Definition, nature, scope and systematic development of Economic Geography, Fundamental Concept of Economic Geography, Approaches, Methods of Study and Relation with other Sciences, Typology of economic Activities (Primary, Secondary,

Tertiary); Resources – concept and classification, resource conservation and management

- Unit II** Soil and major soil types, forest types, Agricultural land use and location Theory by Von Thunen, physical, Social, Cultural environment influencing crop production; distribution, production and trade of Principal crops - rice, wheat, Sugarcane, cotton, tea, coffee and rubber, agricultural regions of world by Whittelsey with special reference to U.S.A, Russia and China.
- Unit - III** Marine resources and Aquaculture - Major Fishing areas, their production and trade. Distribution, Production and trade of minerals : Iron-ore Manganese, Bauxite, copper, Mica and Gold. Sources of Power - their Production and utilization - coal, petroleum, Hydro-electricity and Atomic energy.
- Unit IV** Locational factors of Industries and their relative significance, Weber's theory of industrial location Types of industries, Location patterns and development trends of Manufacturing industries : Iron and steel, Textiles, chemicals, cement, paper, sugar and Ship Building. Industrial Regions of U.S.A., Russia and Japan.
- Unit V** Trade and Transport : geographical factors in their development, Major water land and air transport; internal and international trade, World Trade organization (WTO) and globalization and their effect and developing countries of world.

Suggested Reading

1. Alexander, J.W., Economic Geography
2. Robinson, A.H. Jones, C.F. and Darkenwarld, G.G., Principles of Economic Geography
3. Boesh, Hans, A Geography of World Economy.
4. Bengston and Reyen, Fundamentals of Economic Geography.
5. Zimmerman, E.W. : Introduction to world Resources.
6. Chisholm, M., : Modern World Development - A Geographical Perspective.
7. Singh, K.N. & Singh, : J., Arthik Bhoogol ke Mool tatva (Hindi)
8. Jain, P., : Arthik Bhoogol ki Shamiksh (Hindi)
9. Srivastava, V.K. & Rao, : B.P. Arthik Bhoogol.
10. Wheeler, J.O. et al., : Economic Geography, John Wiley, New York 1995.
11. Robertson, D (ed.), Globalization and Environment, E. Elgas Co. U.K., 2001

PRACTICALS

M.M. 30/50

Course Contents

- Unit - I** Statistical Analysis (i) Measures of Central Tendency-Mean, Median, Mode. Measures of Dispersion-Quartile range, Standard Deviation, Variance and Co-efficient of variation. Correlation and Co-efficient of correlation (ii) Graphical Representation of Statistical Data - Histogram, Polygon, Frequency Curve, Scatter Diagram.
- Unit - II** Weather Maps Use of weather instruments and weather symbols (indian); Study and Interpretation of Indian weather maps/reports specially of January, March, July and October, weather forecasting.
- Unit - III** Geological Maps Identification of rock-outcrops, bedding planes; Drawing of cross-section and Determination of dip and bed thickness - simple and folded.
- Unit - IV** (i) Aerial Photo Interpretation Meaning and Scope of Remote Sensing, Types; characteristics and Interpretation of aerial photographs : Determination of scales; Image characteristics - Tone, Shadow, size, pattern and their identification.
(ii) Identification of Rocks & Minerals : Granite, Basalt, Sandstone Limestone, Conglomerate, Gneiss, Schist, Slate, Quartzite, Marble. Quartz, Calcite, Feldspar, Gypsum, Haematite, Magnetite, Mica, Pyrite, Graphite, Bauxite.

Division of Marks :

Lab work - (One question from each unit with Internal

Choice - Duration - three hours). 20/30

Sessional Records - 5/10

Viva Voce 5/10

Suggested Readings :

- 1- Monkhouse, F.J., Maps & Diagrams.
- 2- Robinson, A.H. Elements of Cartography.
3. Gregory, S., Statistical Method and the Geographer.
4. Smith, H.T.V., Aerial Photographs and their Applications.
5. Singh, R.L., Elements of Practical Geography.

6. Singh, L.R. & Singh, R.N., Map work and Practical Geography (Eng./Hindia).
7. Sharma, J.P., Prayogatmak Boogol Ki Rooprekha. (Hindi)
8. Hira Lal, Pravogatmak Bhoogol ke Adhar (Hindi)
9. Sinhg, J. et al., Bhaumikiya Manchitron ki Rooprekha (Hindi)
10. Lal, Hira, Matratmak Bhoogol (Hindi).
11. Tiwari, R.C., and Tiwari, Sudha, Abinav Prayogic Bhoogol.

Note :- The following material to be provided to students during the annual practical exam by the University.

1. One University Answer Books
2. Drawing Sheet (One) 22"x28"
3. Graph paper (One) 22"x28"
4. tracing paper (One) 22"x28"
5. Full Scape paper Two Sheets
6. Drawing Sheet of Statistics Two Sheets 11"x14"
7. Tape (Cello Tape)
8. Board Pin, Alpin, U-Pin, Tag
9. One Cyclostled Question Paper

Periods allotted to Practical Class

Two periods for three continuous days.

The maximum number of students in each group of practical class should not exceed 20.

B.A./B.Sc. Part - III Geography of India

Paper I

M.M. 35/50

Course contents :

Unit - Ist India in the context of Asia and the World : Structure, Relief and Drainage System; Major Physiographic regions of India The Indian Monsoon-regional and seasonal variations in climate, climatic division; Soil types, distribution and the problems of soil conservation.

Unit - II Forest resources - their utilization and conservation; Power resources (water, Coal, Mineral oil, Atomic minerals and Mineral resources (Iron ore, Bauxite, Mica,

Manganese-their reserve, distribution, production, utilization, export and related problems of conservation; River Valley Projects.

Unit-III Indian Economy : Agriculture - main characteristics and problems of Indian agricultue; Irrigation, mechanization and Green Revolutiion; post revolution scenario - recent trends; Major Agricultural regions. Industries - Locational factors; development and spatial Pattern of major industries (Iron and Steel, Textiles, Cement, Sugar, Paper, Oir Refinary and Fertilizers); Major Industrial regions.

Unit - IV Population growth, distribution, density; demographic and Occupational stucture; literacy; Urbanization with special reference to post-Independence period; Population problems. Transport and Trade-Development of Transport Net-work, railway zones, road development and airline routes; Foreign trade : salient features, recent trends and trade direction, Major ports.

Unit : V Regional disparities and development in India during five-Year Plans; Major issues and planning of some problem areas-Flood prone areas, Drought prone areas and Tribal areas.

Regional divisions and detailed geographical study of different sub-regions of India
Detailed study of Bundelkhand (U.P.) geographical region Western, Central and Eastern U.P.

Suggested Readings :

1. Spate, O.H.K. & Learmonth, AT.A., India and Pakistan.
2. Singh, R.L. (ed), India - A Regional Geography.
3. Sen Gupta, P., Economic Regions and Regionalization of India.
4. Maitra, Ashok, Levels of Economic Development of India.
5. Singh, J., India-A Comprehensive Systematic Geography.
6. Sharma, T.C. & Countino, O., Economic Geography of India.
7. Verma, R.V. Geography of India (Hindi)
8. Bansal, S.C., Geography of India (Hindi)
9. Gopal Singh, Geography of India.
10. Ramamurti, Geography of India Systematic.
11. Tiwari, R.C. Geography of India.

Environmental Geography

Paper-II

35/50

Course contents :

- Unit - I** Meaning, Scope and concepts of environmental geography, Definition. Structure and factors of environment, ecology and ecosystem.
- Unit - II** Biomes, ecological pyramids, energy flow, food chain plant & animal kingdoms, biodiversity and endemism. Geo-bio-Chemical cycles.
- Unit - III** Man-environment relationships, environmental degradation, Green-house effect, ozone depletion, Acid rain, natural hazards, Population explosion and environmental impacts.
- Unit-IV** Environmental Pollution : Soil, Water, Air, Noise, and social pollution. Pollution Abatement Technology, legislation and awareness. Case studies : Ganga Action Plan, Tiger Project, Drinking water in rural areas.
- Unit - V** Environmental Management - the concept, approaches and planning, conservation and management of natural resources, wild life management, International cooperation and Education.

Suggested Readings :

- 1- Strahler, A.N. & Strahler A.H. : Environmental Geoscience - Interactions between Natural Systems and Man
2. Thomas, W.L. (ed.) : Man's Impact on Environment.
3. Detwyler, T.R. : Man's Impact on Environment.
4. Smith, R.L. : Man and His Environment - An Ecosystem Approach.
5. Odum, E.P. : Fundamentals of Ecology.
6. Park, C.C. : Ecology and Environmental management.
7. Khushoo, T.N. : Environmental Priorities in India and Sustainable Development
8. Saxena, H.M. : Environmental Geography.
9. Singh, Savindra : Environmental Geography (Eng./Hindi)
10. Srivastava V.K. & Rao B.P. : Paryabavan Aur Paristheteki (Hindi)
11. Chaurasia R.A. : Paryavaran Bhoogol 2006 Kitab Mahal Allahabad.

Paper III
Regional Studies of any of the following Regions
(a) South West Asia

M.M. 35/50

Course contents

- Unit-I** Region as a geographical entity and as a component of global system. Basis of regionalisation/grouping of countries - Geographical, political, historical cultural, etc.
- Unit - II** Structure, Relief, climate and climatic regions, vegetation. Irrigation, Power, and Mineral resources.
- Unit - III** Population distribution, growth, distribution pattern, migration. Agriculture, Industries, Transport and Trade.
- Unit - IV** Strategic importance of the region, Suez Canal, Geographical back ground of the modern problems.
- Unit - V** Detailed regional study of Turkey. Iraq. Israel and Saudi Arabia.

Suggested Readings -

1. W.B. Fisher : The Middle East
2. Cressey : Cross-Road
3. East and Spate : Changing Map of Asia
4. N.S. Ginnsburg : Pattern of Asia
5. W. Willcocks : the Irrigation of Messopotamia
6. J. Jones : Turkey
7. The Statesmans Year book : 2001-2002
8. Vishwanath Tiwari - Asia, Ka Bhugolik Swaroop
9. Mahesh Narain Nigam And. B.L. Garg - Pashchimi Asia.

SOUTH EAST ASIA

Paper III (b)

M.M. 35/50

Course Contents

- Unit - I** Region as a geographical entity and as a component of global system. Basis. of regionalisation/grouping of countries. Geographical, political, historical, cultural etc.
- Unit - II** Structure, Relief, climate and climatic regions, vegetation. Irrigation, Power and Mineral resources.

Unit - III Population - distribution, growth, distribution Pattern, migration - Agriculture, industries, Trade and Transport.

Unit - IV Strategic importance of the region, Geographical background of the modern problems.

Unit - V Detailed regional study of Myanmar, Thailand, Malaysia and Indonesia.

Suggested Readings -

1. Dudely Stamp : Asia
2. Fisher, Charles, A : South East Asia
3. Dobby : South East Asia
4. Dr. Jagdish Singh- Monsoon Asia
5. Dr. V.K. Srivastava - Asia
6. Vishwanath Tiwari : Asia Ka Bhugolik Swaroop
7. Dr. M.N. Nigam & B.L. Garg - Mansoon Asia

Fareast (China and Japan)

Paper - III (c)

M.M. 35/50

Course Contents :

Unit -I Region as a geographical entity and as a component of global system. Basis of regionalisation/grouping of countries geographical, political historical, cultural, etc.

Unit - II Structure, Relief, climate and climatic regions, Vegetation, Irrigation, power and Mineral resources.

Unit - III Population - Distribution, growth, distribution pattern, migration, Agriculture, Industries, Trade and Transport.

Unit-IV Strategic importance of the region, Geographical background of the modern problems.

Unit - V Detailed regional study of China and Japan.

Suggested Readings -

1. Dr. M.N. Nigam - Mansoon Ka Asia
2. Vishwanath Tiwari - Asia Ka Bhogolik Swaroop
3. Trewatha; G.T. Japan

4. Cole J : A Geography of the world's Major Regions.
5. Kolb A : East Asia - Geography of a cultural Region.
6. Songquiao, Z : Geography of China
7. Ward P.W. and Miller A. - World Regional Geography - A Question of Place
8. Oconnor A.M. : An Economic Geography of East Asia.
9. Stamp L.D. : Asia
10. राव बी०पी० : एशिया की भौगोलिक समीक्षा, बसुन्धरा प्रकाशन गोरखपुर
11. सतपथी, डी०पी० : चीन का भौगोलिक स्वरूप बसुन्धरा प्रकाशन गोरखपुर
12. चौरसिया बी०पी० : जापान का प्रादेशिक स्वरूप बसुन्धरा प्रकाशन गोरखपुर

PRACTICAL

M.M. 45/75

Course contents :

A. SURVEYING :

- Unit-I** Importance of field instrument survey - scope and purpose, principles and application of selected survey instruments.
- Unit - II** Surveying by Prismatic compass, open traverse, Closed traverse, Elimination of closing error, Bowdich Method, Axis Method.
- Unit - III** Indian clinometer : accessible and inaccessible method, Dumpy level : levelling.
- Unit - IV** Plane table Surveying-Radiation, Intersection, Traversing, Resection - two points problem, three points problem.

B. FIELD STUDY TOUR AND REPORT

An area of plain, plateau or mountain topography, different from the native region be selected for field work and a tour for atleast one week duration, be arranged to visit the area. The students are required to prepare field study report based on primary data and first hand information, observation of physical as well as cultural landscape of the area geographically visited, surveyed and studied. The finding must be supported by suitable, sketches maps and diagrams etc.

Division of Marks :

Field work (atlest two exercises duration three hours)

| | |
|-------------------|-------|
| | 20/30 |
| Tour Report | 15/25 |
| Sessional Records | 5/10 |
| Viva - Voice | 5/10 |

Suggested Readings

1. Khan, Z.A. : Test Book of Practical Geography. Concept New Delhi, 1998.
2. Sarkar, A.K. : Practical Geography - Asystemetic Approach. Orient Longman. Calcutta, 1997
3. Singh, R.L. : Elements of Practical Geography. Kalyani Pub. New Delhi.
4. Sharma J. P. : Prayogik Bhugol

Note :

1. T.A./D.A. and related expenses of Teachers and Supporting staff of Tour Duty shall be met by the respective institutions as per norm.
2. Normally for a batch of 20 students one teacher and an attendant would accompany the tour to guide students but not less than two teachers.

The following material to be provided to students during the annual practical exam by the university

1. One University Answer Book
2. Drawing Sheet (One) 22"x28"
3. Graph paper (One) 22"x28"
4. Tracing Paper (One) 22"x28"
5. Full Scape Paper Two Sheets
6. Drawing Sheet of Statistics Two Sheets 11"x14"
7. Tape (Cello Tape)
8. Board Pin, Alpin, U-Pin, Tag
9. One Cyclostyled Question Paper

Periods alloted to Practical Class

Two periods for three continuous days.

DEFENCE AND STRATEGIC STUDIES

The three year B.A./B.Sc. course in defence and strategic studies shall be spread over three Academic session viz Part I, Part II, Part III. There will be two theory papers carrying 35/50 marks in the first two years. In part III there will be three theory papers carrying 35/50 marks each and a practical of 45/75 marks.

The candidates must pass in theory & practicals separately obtaining at least 33% marks in each. No private candidate is allowed failed candidates shall not be required to undergo practical training. They might submit the old record book or a new one. Part - wise schedule of papers is as follows.

The maximum number of students in each group of practical class should not exceed 20.

B.S./B.Sc. (Part One) Exam. 2008-09 & On Wards

| | B.A./B.Sc. |
|--|-------------------|
| Paper I The Art of War in India | 30/50 |
| Paper II (a) Evolution of Armaments and Western art of War (b) Contemporary Problems of War & Peace | 30/50 |
| Practicas | 40/50 |

B.A./B.Sc. (Part Two) Exam 2009-10 & on wards

| | B.A./B.Sc. |
|---|-------------------|
| Paper I Studies of Art of War in India | 30/50 |
| Paper II National Defences and Security | 30/50 |
| Practicals | 40/50 |

B.A./B.Sc. (Part Three) Exam. 2010-11 & Onwards

| | B.A./B.Sc. |
|--|-------------------|
| Paper I Evolution of strategic thoughts | 35/50 |
| Paper II War and International Relations | 35/50 |
| Paper III Military Psychology | 35/50 |
| Practicals | 45/75 |

Defence Studies

Setting of papers for B.A./B.Sc. I, II, III

There shall be ten questions in each paper out of them 5 should be attempted.

Distribution of Marks

Each question carry 6/10 marks.

Practicals of B.A., B.Sc. I, II, III

| | |
|----------------|-------------|
| B.A./B.Sc. I | 40/50 Marks |
| B.A./B.Sc. II | 40/50 Marks |
| B.A./B.Sc. III | 45/75 Marks |

| | | |
|-------|--------------------|-------------|
| (I) | Sand Model Exsesi | 05/10 Marks |
| (II) | Traversing | 05/10 Marks |
| (III) | Disserlatices | 10/15 Marks |
| (IV) | Journalism or Tour | 15/25 Marks |
| (V) | Viva | 10/15 Marks |

45 / 75

DEFENCE AND STRATEGIC STUDIES

B.A./B.Sc. I

The Art of War in India

Paper I

1. Military system in Vedic and Epic period.
2. Indo-Greek art of war special reference to the Battle of Hydaspes 326 B.C.
3. Kantilya's philosophy of war Military organization, Art of war and Inter-state Relations.
4. Maurya's Military System.
5. Decline of Chariots and rise of Cavalry during gupta's and harshawardhan period.
6. Rajput military system and Turks pattern of warfare with special reference to battle of some of sone and Terrain 1192 A.D.
7. Moghal Military system with special reference to the Battles of Panipat and Khanawa Military system under Akbar the Great.
8. Maratha military system under Shivaji and after Shivaji.
Special reference to third Battle of Panipat.
9. Sikh military system under Dal Khal sa and Ranjit Singh, Battle of Sobraon.
10. Development of Armed forces under East India Company special reference to first war of Independence 1857.

Books Recommended

1. Singh. S.D. : Ancient Indian warfare with special reference to the vedic period.
2. Majumdar B.K. : Military system in Ancient India
3. Majumdar B.K. : Bhartiya Sena Ka Itihas

4. Fuller J.P.C. : General Ship of Alexander the great.
5. Kongle R.P. : Kautilya Arthashastra
6. Sarkar J.N. : Military History of India
7. King lueas : Memoirs of India
8. Irvin I : Bhartiya Mughalon Ki Sainya Vyavastha translated by R. Tiwari
9. S.N. Sen : Military system of Marathas
10. Dufs Grant : Marathon Ka itihis
11. F.S. Bajwa : Military system of Sikha
12. Tripathi R.P. : Rise and fall of the Moghals
13. Fortesque : History of british Army
14. Gupta N.R. : Maraths & Panipat
15. Pandey & : Sainya Adhayan Chaubey
16. Mista & Pandey : Bhartiya Sena ka Itihis.
17. Gautam Shrama: Indian Army through the Ages.
18. Aifred David : Decisive battles of India.
19. R. Prasad & : Bhartiya sanya Itihis Ki Roop Rekha, R.N. Singh
20. S.N. Roy : Bharat Ka Sainya Itihis
21. P.E. Robert : History of British India.
22. Singh, Dr. S.R. : Bharat Ka Yaudhik Itihis - Vol. I, II & III.

Paper II

(Evolution of Armaments and Western ART of War)

1. Military system of Ancient Greeks and Romans. Battle of Arbela (331 B.C.)
2. Age of Chivalry : The Battle of Hasting (1069 A.D.) and the battle of Grey (1146 A.D.)
3. Tactical reforms and contributions of gustovous Adolphus and Frederick the great
4. Development of naval power and Artillery in the age of steam. Emergence of nation-in Arms theory and Napoleons contribution to the art of warfare.
5. Various Technological inventions and their effectson modern warfare in the age of oil.
6. Armaments and Tactics of World War I and II.

7. Advent of Nuclear age, Development of Atom Bomb and its military and political effects
8. Civil defence during war and peace.

BOOK RECOMMENDED

1. J.F.C., Fuller : Armament and History
2. Arther Birnic : Yudh Kala (Translated)
3. Norman Copeland : Psychology and Soldier.
4. D.K. Palit : Essentials of Military Knowledge.
5. Inda Prakash : Science of war
6. Pandey & Chaubey : Sainya Adhayaa.
7. Wintringham Tom : Weapons and tactics
8. Mahajan V.D. : Weapons of world war I and II.
9. Verma M.P. : Pashchatya sinya Itihas.
10. Vidyalkar : Yodhan sambhar

or

Paper II (Optional 'B')

Contemporary Problems of War and Peace

1. Concept and Definition of war.
2. Causes of war, Political, Social, Psychological, Military and Allied aspects.
3. Types of war, total, limited, Revolutionary, unconventional warfare, Nuclear and specialized warfare (Mountaineer, Desert and general warfare)
4. Concept and Definition of peace and problems of peace in the contemporary world.
5. Cold war, concept and Explanation. New cold war.
6. New world order, disintegration of Soviet Union and end of cold war
7. War as an economic problem, Post war economy arms trade.
8. War as a Psychological problem, Concept of propaganda, rumour Brain washing and panic.
9. Settlement of disputes, legal control of arms conflict, concept of arms control and disarmament,
10. U.N. Peace-Keeping and peace-making, Regional and collective security, terrorism and problem peace.
11. NON-Aligned movement Success and Failure and validity in the post-cold war period.

12. NON-International conflict and the Refugee problem.

Book Recommended

1. Agarwal, A.N. : Economic mobilization for National Defence.
2. L.L. Bernard : War and its causes
3. Bailly, S.D. : Prohibitions and Restraints in War.
4. Bhagwati, J. : Foreign Aid.
5. Blainey, G. : Causes of war.
6. Bolton R.E., ed : Defence and Disarmament, the economic of Transition.
7. Boring, E.G. : Psychology for the armed forces.
8. Buchan, A. : War in modern society.
9. Ghosh, A. : Indian economy.
10. HILL. M. : United nations system,.
11. Jain, P.C. : Economic problems age.
12. Palit, D.K. : War in determent age.
13. Dixon. W. : The Psychology of Military.

Defence and Strategic Studies Practical

1. Introduction and interpretation of maps, use of topographical sheets.
2. Conventional signs : Geographical military.
3. Finding out North by different methods
4. Grid system, map references, four figure and Six Figures.
5. Scale simple and time and distance scale construction and interconversion.
6. Service prismatic liquid compass, its different uses.
7. Bearing and Inter conversion of Bearings, use of service protractor.
8. Determination of position on a Grided map, Resection and intersection.
9. Determination of Inter visibility on survey maps and Hilly regions by gradient method, proportion the section drawing methods.
10. Measurement of distances between two points on the map and finding distances on the ground.

Aim of this practical is to promote knowledge of students about importance of maps, topographical sheets and then adoption for military purposes as well as daily life purposes.

Every student is required to pass in the practical. Failing to this students will be declared fail in respective class.

Allotment of marks

| | | |
|----------------|---|-------------|
| Written test | - | 25/30 marks |
| Viva - Voce | - | 10/15 marks |
| Sectional work | - | 5/5 marks |

Books Recommendel -

1. Gale and Poldon complete guide to military map reading.
2. J.M. Srivastava practical military science part one.
3. Balwant Singh An easy approach to map reading.
4. B.N. Maliwal Military Science practical
5. M.P. Verma Sainik Manchitra vigyan.
6. L.N. Tewari Sainya Vigyan Maukhiki

DEFENCE STUDIES

The Three year BA/B.Sc. course in Defence studies shall be spread over three Academic sessions on viz Part 1, Part II, Part III. There will be two theory papers carrying 30/50 Marks each and a practical of 40/50 Marks in the first two year. In part III there will be three theory papers earrying 35/50 Marks each and a practical of 45/75 Marks.

The candidates must pass in theory & Practical Separately obtaining at least 33% Marks in each. No Private Candidate is allowed. Failed candidates shall not be required to undergo practical Training. They might submit the old Record Book or a now one.

Part - wise schedule on papers is as follows.

B.A./B.Sc. (Part Two)

Exam. 2002 - 2003 & Onwards

| | | |
|------------|--------------------------------|-------|
| Paper I | Studies of Art of War in India | 30/50 |
| Paper II | National Defence and Security | 30/50 |
| Practicals | | 40/50 |

B.A./B.Sc. II

Paper I Studies of war in India

I Concept and Dimensions of Art of war

- a. Nature of Modern war
- b. Evolution of strategy and its Dimensions
- c. Concept of tactics and its scope during 19th and 20th century.
- d. Principles of war

II Art of war in India

- a. Military operation in Kashmir (1948).
- b. Sino-Indian Conflict (1962) and its political and military effects.
- c. Indo-Pak war is 1965 and Role of armoured division
- d. 1971 war between India and Pakistan and its strategical implication.
- e. Brief lessons drawn from kargil operations.

Books Recommended

| Writer | Book |
|--------------------|---|
| 1. Singh Nagendra | - The theory of force and organization of Defence |
| 2. Longer V. | - Red Coat to Olive green |
| 3. Prasad B. | - The Indian Armed Forces in World war II |
| 4. Sen S.N. | - Eighteen Fifty Seven |
| 5. Chopra M.K. | - India-The search for power |
| 6. Gupta Shishir | - Kashmir |
| 7. Singh Bhupinder | - Indo-Pak Conflict over Kashmir |
| 8. Akbar M.J. | - India-The siege within the Indian Army |
| 9. Cohan S.P. | - The Pakistan Army |
| 10. Delvi J.P. | - Himalayan Blunder |
| 11. Kaul B.M. | - The untold story |
| 12. Sinha S. | - The Chinese Aggression |
| 13. Maxwell N. | - India and China war of 1962 |
| 14. Mankekar D.R. | - Twenty two fateful days |
| 15. Singh Harbaks | - Indo-Pak Conflict 1965 |
| 16. Palit D.K. | - The lightening campaign |

- 17. Singh S. - Liberation of Bangladesh
- 18. Akhtar J.D. - The Saga of Bangladesh
- 19. Thompson R. - War and Peace
- 20. Karie I.J. - India's Quest for Security
- 21. Saigal J.R. - Unfought war of 1962
- 22. T.N. Kaul - Diplomacy in Peace and War
- 23. Subrahmaniam K. - Indian security perspectives

Other books are recommended by the teachers

Paper II (Paper)

National Defence and Security

1. Conceptual framework of National Security in the contemporary strategic thinking
2. Evaluation of National security thinking and problematics
3. Essentials of National security in General :
 - (a) Geo-strategic factors
 - (b) Political strength
 - (c) Economic strength
 - (d) Scientific and Technical strength
 - (e) Industrial Developments
4. Concept and Models of International Security

Conceptual framework of International Security

 - (a) During cold war period
 - (b) Post cold war period
 - (c) Concept of Nuclear Deference
5. International Terrorism : Concept and dimensions
6. Insurgency and counter - insurgency : Concept and dimensions
7. Geo - Political and Geo-strategical considerations of India's security often independence.
8. Attitude of Neighbouring Nations
9. India's Nuclear Policy and options :
 - (a) India's need for Nuclear power.
 - (b) India's Nuclear options in a nuclearised world.

10. Indian ocean and India's security considerations
11. Threats to Indian internal security with reference to lingilism, Regionalism, casteism.

Books Recommended

1. Dr. A.B. Singh : India's Defence and foreign Policy
2. Dr. K.M. Panicker : Problems of Indian Defence
3. Dr. L.S. Kavic : India's quest for security
4. Dr. S. K. Khare : India's Defence Problems
5. Dr. Harir Sharma : Rashtriya Pratiraksha
6. Dr. B. N. Maliwal : Rashtriya Pratiraksha
7. Dr. K. Subramaman : Bangladesh and Indian Security
8. Dr. K.M. Panicker : India and Indian ocean
9. Lallan Singh : National Security
10. Dr. V.K.R.V. Rao : War in India Economy.

(Other Boks are recommended by the teacher)

B.A./B.Sc. II Practicals 40/50

1. Organisatiion, Weapons and equipment at platoon level

2. Elementary knowledge of modern treaties.
 - (a) Field craft
 - (b) Study and description of ground
 - (c) Judging distance
 - (d) Indication and recognition of Targets
 - (e) Personal concealment, camouflage and deception
 - (f) Fire control order
 - (g) Section formation
 - (h) Fire and move tactics in a section.

3. Patrolling
 - (a) General Introductions

- (b) Preparation
 - (c) conduct
 - (d) De-Briefing
4. Appreciation on the sand model on the following. The narrative will be at platoon level and students would be required in attempt at section level.

DEFENCE STUDIES

B.A./B.Sc. III

Evolution of Strategic Thoughts

Paper I

1. Kautilya philosophy of war and his strategic contribution.
2. Sun-Tzu's thoughts on war.
3. Thoughts of Napolian, Jomini and clouswitz and machiavelle.
4. Concept and theories of Revolutionary war and Guerilla warfare with reference to the views of Lenin, Stalin, Mao-tse-tung and Che Guevara.
5. Theories, of land warfare and mobile defence use of tank as propounded by Liddel hart and J.F.C. fuller.
6. Naval strategy and sea power concept by A.T. Mahan.
7. Theories of air power by G. Doubet and Alexander de severesky.
8. Impact of globalization on strategic thinking.

Books Recommended -

1. Beaufre A. An introduction to strategy with special reference to problem of defence. Politics, Economics and Diploma in Nuclear Age.
2. Beaufre A. Strategy of Action
3. Brodie B. Escalatioa and the Nuclear option.
4. Brodie B. Strategy in the Missile Age
5. Burlong J. Deviance Terrorism and war : The process of solving unsolved social and political Problems.
6. Carlton d. Arms control and technological innovation Scheafe (ed)

- | | |
|---------------------|--------------------------------|
| 7. Churchill, W. | Second world war |
| 8. Clacesewitz C.V. | on war. |
| 9. Dougherty J. | How to think about Arms |
| 10. Earle. E.M. | Markers of Modern Strategy |
| 11. Enime, E.M. | The impact of Air Power |
| 12. Falls C. | Art of war. |
| 13. Fuller J.F.C. | The conduct of war. |
| 14. Fuller J.F.C. | The evolution of strategy |
| 16. Halpern, M.H. | Contemporary military strategy |
| 17. Har Kebi Y. | Nuclear war and Nuclear Peace. |

B.A./B.Sc. III

War and International Relations

Paper II

1. Concept of war and International Relations
2. Military power as a factor in international relations since world war II.
3. Balance of power, collective security
4. End of isolationism
5. Neutrality and Non-alignment
6. Foreign policy of India panchsheel and Non violence.
7. Peace Through power balance and voluntary union.
8. Power rivalry in Indian ocean.
9. The Birth of new nations and changes in the patterns of International relations
10. Nuclear developments and their importance in Internations relations.
11. Power politics in south Asia.

Books Recommended -

- | | |
|----------------------|-----------------------------|
| 1- Mor genthan | Politics among nations |
| 2- Palmer & Parkings | Interntional Relations |
| 3- R. Arora | War and Peace |
| 4- Martchidge | Foreign Politics of the War |

| | |
|--------------------------|---|
| 5- Thompson | Foreign Politics of the world |
| 6- V.P. Dutt | China's Foreign Policy |
| 7- P.D. Sharma | International Relation |
| 8- Beiz Harman | International Relation |
| 9- Rashtriya Pratiraksha | Dr. Harvir Sharma |
| 10- Chester Bowles | New Dimensions of peace |
| 11- Dr. Mahendra Kumar | New Aspects of Interna-tional Relations |

B.A./B.Sc. III

Military Psychology

Paper III

- 1- Concept and Development of Military Psychology
- 2- Individual Factors in the Armed Forces
 - (i) Personnel selection and their classification
 - (ii) Application of principles of Psychology
 - (iii) Adjustments of Soldiers
- 3- Group Dynamics in Military life
 - (a) Group Structure
 - (b) Leadership
 - (c) Attitude
- 4- Psychological Warfare
 - (a) Military Propaganda
 - (b) Determinant of Brain Washing
 - (c) Rumour Psychology.

Books Recommended -

- 1- Boing E.G. Psychology for the Armed Services
- 2- Leinbarger Psychology Warfare
- 3- Barlet. F.C. Psychology and the soldier
- 4- Mann J. Frontiers of Psychology
- 5- Second and Beckman Social Psychology

- 6- I.C.C.S.S.R. Publication A survey of Research in psychology
- 7- Grinker R.R. Man under stress

DEFENCE STUDIES 45/75

B.A./B.Sc. III, Practical

- 1- Sand Model Exercises on selected Battles
 - (a) Battle of Hydaspus (326 BC.)
 - (b) Battle of Panipat I (1526 AD)
- 2- From actual outdoor traverse with compass and to draw a sketch from Route report.
- 3- Dissertation- On selected topics with consultation of teacher concern
- 4- Strategic Defence Journalism (News paper Clippings)

or

Tour Report of strategic places of military importance

PSYCHOLOGY
B.A.-I First Paper
BASIC PSYCHOLOGICAL PROCESSES

Marks - 35

1. INTRODUCTION

Definition and goals of psychology; Approaches : Biological, psychodynamic, behaviourist, cognitive, humanistic and evolutionary; Cross - cultural perspective; Methods; Experiment, observation, interview, questionnaire and case study.

2. BIOLOGICAL BASES OF BEHAVIOR

Human evolution; Genes and behaviour; Hormones and glands; The Nervous system : The neuron, The Central Nervous System and the Peripheral Nervous System; The Cerebral hemispheres; Monitoring neural activity; Biofeedback.

3. STATE OF MIND

Nature of consciousness; Changes in consciousness; Day dreaming, sleep and dreaming; extended states of consciousness : Hypnosis, meditation, and hallucinations; Psychoactive drugs.

4. SENSORY - PERCEPTUAL PROCESSES

Visual, auditory and other senses : Structure and functions; Attentional processes : Selective and sustained attention, Mechanisms: Resource allocation and automaticity; Perceptual organisation: Determinants of perception : Form, space and depth perception.

5. LEARNING

Classical and Operant Conditioning ; Basic Processes ; Extinction, Spontaneous recovery, Generalisation and Discrimination; Transfer of training; Reinforcement schedules; Verbal learning; Cognition in learning; Motivational and cognitive influences on learning; Observational learning.

6. MEMORIES AND FORGETTING

Encoding, storage and retrieval processes; Sensory, short-term and long-term memories; Mnemonics; Constructive memory; Forgetting : Decay, interference, retrieval failure, motivated forgetting and amnesia; State-dependent forgetting.

7. MOTIVATIONS AND EMOTION

Indicators of motivation; Biogenic and sociogenic motives; Intrinsic-Extrinsic framework : conflict and frustration; The need hierarchy model; Techniques of assessment of motivation; Emotions: development, expression and control; Theories of emotion; Culture and emotions; Physiological correlates; Polygraphic technique.

8. INTELLIGENCE

Psychometric theories and cognitive science approach; Genetic and environmental influences; intelligence tests; Interpretation of test scores; Cross-cultural issues in testing.

9. PERSONALITY

Trait and type approaches; Biological and socio-cultural determinants; Techniques of assessment: Psychometric and projective.

10. THINKING AND REASONING

Thinking process; Concepts, categories and prototypes; Schemas and scripts; Imagery and cognitive maps; Inductive and deductive reasoning; Problem solving approaches; Solution strategies and mental sets.

READINGS

Baron, R.A. (1995). Psychology : The essential science. New York : Allyn & Bacon. Zimbardo, P.G. & Weber, A.L. (1997). Psychology. New York : Harper Collins College Publishers.

Lafton, L.A. (1985), Psychology. Boston : Allyn & Baron

PSYCHOLOGICAL STATISTICS

Second Paper

Marks 35

1. NATURE OF PSYCHOLOGICAL DATA AND PSYCHOLOGICAL MEASUREMENT.

Levels of measurement; Categorical and continuous Variables; Applications of statistics in psychology.

2. FREQUENCY DISTRIBUTION

Drawing of frequency distribution, Bivariate frequency distribution, Graphical representation of grouped data.

4. MEASURES OF VARIABILITY

Concept of variability; Range and Quartily Deviation (QD); Standard Deviation and Variance; Coefficient of variation.

5. NORMAL DISTRIBUTION

Concept of probabiltiy; Laws of probability, Characteristics of Normal Probability Curve, Deviation from NPC-Skewness and Kurtosis; Applications of NPC; Binomial distributions.

6. CORRELATION

The cocept of correlation-linear and non-linear correlation; Pearson's product moment correlation (ungrouped data), Spearman's rank order correlation; Familiarity with other correlation methods, biserial and point biserial r , Tetrachoric, Prediction using correlation.

7. HYPOTHESIS TESTING AND MAKING INFERENCES

Population and sample; Random sampling; Sampling distribution, Standard errors of mean, SD and r ; df ; Nature and assumption of t -distribution; Computation of t values for independent and dependent samples; Interpretation of t values - level of significance; Type I and II errors in inference making.

8. ANOVA

Purpose and assumptions of ANOVA; One way Analysis of Variance.

9. NON-PARAMETRIC TEST

Nature and assumptions, Distribution-free statistics; Chi-square, Contingency co-efficient; Median and Sign test; Mann Whitney U Test, Friedman Test.

10. PREPARATION OF DATA FOR COMPUTER ANALYSIS

Familiarisation with software packages of statistics and their application.

READINGS

Broota, K.D. (1992). Experimental design in behavioural research, New Delhi : Wiley Eastern.
Minium, E.W., King, B.M., & Bear, G. (1993). Statistical reasoning in psychology and education.
Siegel, S. (1994). Non parametric statistics. New York : McGraw Hill.

PRACTICALS

Third Paper

Marks 30

In all eight practicals are to be performed selecting four each unit.

Unit I- 1. Bilateral Transfer in Mirror Drawing.

2. Maze Learning
3. Effect of knowledge of results on learning
4. Measurement of memory (Immediate Memory)
5. Retroactive Inhibition
6. Perception.

Unit II 1. Verbal or performance test of intelligence

2. Adjustment Inventory
3. Value Test
4. Introversion-Extraversion Test
5. EPI (Q)
6. Achievement Motivation

B.A. II FIRST PAPER

PSYCHOPATHOLOGY

Marks 35

1. Introduction to psychopathology :

The concept of normality and abnormality.

2. Signs and Symptoms of Mental Illness:

Delusions : Hallucinations, Obsessions; Compulsions etc.

3. Psychological Models of Psychopathology :

Psychodynamic, Behavioural, Cognitive Behavioural and Existential.

4. Psychological Assessment of Psychopathology :

Diagnostic tests, Rating scales, History taking interview; Orientation to projective tests.

5. Anxiety Disorders :

Panic disorder and Agoraphobia, Specific Phobias, Social Phobia; Obsessive Compulsive disorder, Generalised Anxiety disorder.

6. Somatoform Disorders : Dissociative disorders.

7. Mood Disorders. Manic episode, Depressive episode, Bipolar affective disorder, Dysthymia.

8. Schizophrenia : Delusional disorder, Brief psychotic disorder.

9. Disorders due to psychoactive substance use : Alcohol and drug dependence.

10. Personality disorders :

Paranoid, Schizoid, Dissociative, Impulsive, Borderline, Anxious avoidance, Dependent Personality.

11. Stress Disorders :

Stress due to normal calamities like earthquake, storm etc. and life events.

READINGS

Lamm, A (1997). Introduction to psychopathology. N.Y. : Sage

Buss, A.H. (1999). Psychopathology. N.Y. John Wil

B.A. II SECOND PAPER
SOCIAL PSYCHOLOGY

Marks 35

1. INTRODUCTION

Nature, goal and scope of social psychology : Social psychology and other social sciences; Methods of social psychology: Experimental and non-experimental methods, Correlational approach and cross-cultural research.

2. SOCIAL PERCEPTION AND COGNITION

Perceiving ourselves : self-concept, self-esteem, self-presentation and self-expression. Perceiving others: Forming impressions; Role of non-verbal cues, group stereotypes, and central traits; Models of information integration; Primacy and recency effects; Attribution of causality; Theories and biases.

3. ATTITUDE

Nature and function of attitudes; Attitude and behaviour : Theories of reasoned and planned behaviour; Formation, change and measurement of attitudes.

4. PREJUDICE AND DISCRIMINATION

Nature and components of prejudice; Acquisition of prejudice; Reduction of prejudice.

5. GROUPS AND LEADERSHIP

Group structure and function; Task performance: Social facilitation; Social loafing; Deindividuation : Conformity; Obedience and Social modelling; Group cohesiveness, Norms and decision making; Leadership : Definition and functions; Trait, situational, interactional and contingency approaches to leadership : Leadership effectiveness; The charismatic leadership.

6. COMMUNICATION

Communication models; Verbal and non-verbal communication; Language and social interaction; Barriers in communication; Interpersonal attraction and its determinants.

7. PRO-SOCIAL BEHAVIOUR

Co-operation and helping; Personal, situational and socio-cultural determinants; Bystander effect; Theoretical explanations of pro-social behaviour.

8. AGGRESSION

Theoretical perspectives; Trait, situational and social learning approaches; Social and personal determinants of aggression; Prevention and control of aggression.

9. POPULATION AND HEALTH

Psychological factors in population; Factors in birth control.

Health behaviours; illness prevention, treatment and health promotion, meeting the challenges to the health of women and children.

10. ENVIRONMENTAL ISSUES

Noise, pollution and atmospheric condition; Design, personal space and territoriality; Density and crowding; Behaviour in response to environmental problems; Intervention of environmental management.

READINGS

Alcock, J.E., Carment, D.W. Sadava, S.W., Collins, J.E., & Green, J.M. (1997). A text book of social psychology. Scarborough, Ontario : Prentice Hall/Allyn & Bocan.

Baron, R.A., & Byrne, D. (1998). Social psychology. New Delhi: Prentice Hall

Feldman. R.S. (1985). Social psychology : Theories, research and application, New York : McGraw Hill.

Myers, David, G. (1994). Exploring social psychology. New York : McGraw Hill.

Semin, G.R., & Fiedler, K. (Eds.) (1996). Applied Social Psychology. London: Sage.

PRACTICALS

Third Paper Marks 30

In all eight practicals are to be performed

1. Attitude Scale.
2. Self Concept
3. Modernization Scale
4. Student's Stress
5. Frustration Test
6. Anxiety Test
7. Mental Health
8. Feeling of Crowding
9. Altruism test

10. Test of Leadership
11. Aggression
12. Person Perception

FIRST PAPER
PSYCHOLOGICAL RESEARCH AND MEASUREMENT

B.A. II

Marks 35

1. SCIENCE AND PSYCHOLOGICAL RESEARCH

Assumption of science, characteristics of the scientific method, nature of psychological research, correlational and experimental.

2. SAMPLING

Sampling frames; probability and non-probability sampling techniques, sample size, sampling error.

3. PSYCHOLOGICAL SCALING

Purpose of scaling and types of psychological data. Psychological Scaling Method: Rating, Ranking and Paired comparison.

4. INTRODUCTION TO EXPERIMENTAL DESIGNS

Problem, Hypothesis, Variables, Pretest-post test design, Factorial designs.

5. CONSTRUCTION OF TEST

Meaning of test, characteristics of a good test, steps for test construction.

6. STANDARDIZATION OF TEST

Reliability and Validity of tests. Norms and interpreting test scores, cross validation.

7. INTERVIEWING

Principles and procedure of interviewing. Advantages and Limitations of interview method.

8. QUESTIONNAIRE DESIGN

Principles of questionnaire designing, types of questions and biases in questionnaire data.

9. ASSESSMENT OF PERSONALITY

Psychometric and projective techniques. Familiarity with MMPI, EPI, 16PF, TAT, PF., Rorschach and some Indian tests.

10. ANALYSIS OF DATA AND REPORT WRITING

READINGS

Anastasi A. (1988). Psychological testing. New York : MacMillan.

Minium, E.W., King, B.M., & Bear, G. (1993). Statistical reasoning in psychology and education. New York : John Wiley.

Kerlinger. F.N. (1983). Foundations of behavioral research. New York : Surjeet Publications.

Freeman, F.S. (1972). Theory and practice of psychological testing. New Delhi; Oxford & IBH.I

ENVIRONMENTAL PSYCHOLOGY

SECOND PAPER

B.A. III

Marks 35

1. CONCEPT AND THEORETICAL PERSPECTIVES OF ENVIRONMENTAL PSYCHOLOGY

Historical preview of environmental psychology, meaning of environmental psychology, Man-environmental relationship, Deep ecology and Gaia hypothesis

Methodology Issues : Non-experimental & experimental methods.

2. THEORIES OF ENVIRONMENTAL PSYCHOLOGY

The arousal approach, behavioural constraint theory, stimulus overload theory, adaptation theory, ecological theory and environmental stress approach.

3. PROCESSES OF PERSON-ENVIRONMENT TRANSACTION

Environmental perception, cognition and attitude

4. HUMAN SPACIAL BEHAVIOUR

Personal space and territoriality

5. CROWDING

Causes of crowd feeling, negative effect of crowding.

6. ENVIRONMENTAL STRESS & HEALTH

Noise, chemical pollution, air pollution.

7. APPLICATION OF ENVIRONMENTAL PSYCHOLOGY TO COMMUNITY PROBLEMS

The built environment : Architectural factors & social behaviour in housing effect of residential design.

8. HUMAN RESPONSES TO PROTECT THE ENVIRONMENT

Creating environmental awareness, Environmental movements - The chipko andolan, Tehri, the Narmada Andolan

READINGS

Dreze, J. & Sen, A. (Eds.) (1992). Indian development. Delhi: Oxford University Press.

Gadgil, M. & Guha, R. (1995). Ecology and equity. New Delhi: Penguin Books.

Goldsmith, E. (1991). The way: The ecological world-view. Boston: Shambhala

Ittelson. W.H., Proshansky, H.M.: Rilvin, E.G.: Winkel, G.H. & Dempsey, D. (1974). An introduction to environmental psychology, New York: Holt, Rinehart and Winston.

Jain, U. (1987). The psychological consequences of crowding. New Delhi : Sage.

Mishra, R.C. Sinha, D. & Berry, J.W. (1996). Ecology, community and lifestyle. New Delhi.

Odum, E.P. (1997). Ecology: A bridge between science and society. Massachusetts; Sinauer associates.

Pandey J. : Sinha D. & Bhawuk, D.P.S. (Eds.) (1996). Asian contributions to cross-cultural psychology. New Delhi: Saga Publications.

Sinha. D, : Tripathi, R.C. & Mishra, G. (Eds) (1982). Deprivation; its social roots and psychological consequences. New Delhi : Concept Publishign Company.

Stokols, D. and Altmann, I. (Eds.) (1987). Handbook of environmental psychology. New York: Wiley.

B.A. III THIRD PAPER

ORGANIZATION BEHAVIOUR

Marks 35

1. HISTORICAL CONTEXT OF ORGANISATIONAL BEHAVIOUR

Contributions of Taylor, Weber, Fayoll Definitions of OB; challenges, scope and opportunities for OB.

2. PERSPECTIVES FOR UNDERSTANDING OB

Open Systems approach, Human Relations perspective, Socio-technical approach; Developing an OB model responsive to Indian realities.:

3. PERSON IN ORGANISATION

Biographical characteristics, Personality; Definitions and Measurement, Concept of Skill, Self-awareness; Major personality attributes affecting OB; Matching personality and job. Personality and culture.

4. THE INDIVIDUAL AND ORGANISATION

Values, attitudes and job satisfaction. Importance of values, sources of values and its indoctrination. Attitudes: Sources, types and measurement of attitudes; Skills involved in changing attitudes.

5. THE INDIVIDUAL IN THE ORGANISATION

Motivation, concept and early theories of motivation : Need hierarchy theory; Theory X and Y and Two-factor theory, Skills involved in motivating workers; MBO, Behaviour modification, Employee involvement programs.

6. THE GROUP AND ORGANISATION

Nature, Types and stages of group development. COnditions affecting group functioning: organisational structure, authority systems, Personnel selection, performance evaluation and reward systems, organisational culture and physical setting, Skills involved in managing groups.

7. COMMUNICATION IN ORGANISATIONS

Communication model. Barriers and sources of distortions; Direction and network of communication Communication and decision-making, Cross-cultural communication. Skills involved in communicating and listening.

8. LEADERSHIP IN ORGANISATIONS

Nature and types. Behavioural theories: Contingency theories and contemporary issues in leadership Leadership and power: Bases of power and power in action, Skills involved in managing politicking.

9. CONFLICT NEGOTIATION AND STRESS IN ORGANISATIONS

Nature, Source and techniques of managing conflict in organisations. Negotiation strategies. Work stress: Sources and techniques in managing stress, Skills involved in managing stress, Conflict and negotiation.

10. ORGANISATIONAL CHANGE AND DEVELOPMENT

Nature forces and approaches to change management. Organizational development. OD intervention techniques. Cultural issues in change and development. Skills in managing change at individual level.

READINGS

Robbins, SP. (2000). Organisational behaviour: Concepts, controversies and applications. VII Edition. New Delhi: Prentice Hall of India.

Pfeffer, J. (1994). Competitive advantage through people: Unleashing the power of work force. Boston : Havard Business School Press.

Dunnette M.D. & Hough, L.M. (1992). Handbook of industrial and orghanizational psychology, (2nd Edition) Palo Alto Consulting Psychology Press. Commings, L.L. & Staw, B.M. (eds). (1999). research in organisatinal behaviour Greenwich CT : Jai Press.

Forth Paper

45 Marks

PARACTICALS

Pratical - 30 Marks

Project - 15 Marks

In all eight practicals are to be performed

1. Job satisfaction
2. Organizational Climate
3. Workers' Motivation
4. Crowding and discomfort
5. Home Environment
6. Quality of work life
7. Multi-variable personality
8. Social pollution
9. Impact Noise on performance
10. Leadership effectiveness
11. Occupational stress
12. Environmental Awareness

SHORT PROJECT

With a view to facilitating creativity, rewarding curiosity and promoting skills in planning and conducting psychological studies, Students may be required to take up a small project on an issue of interest to them under the supervision of teachers. It is expected that engagement in such an endeavour will help to clarify methodological issues and promote responsibility,

accountability and ownership. Students may be given freedom to undertake projects individually or jointly following a methodological approach (e.g., experimental, survey, observation, use of secondary data) of their choice.

PHILOSOPHY

प्रायोगिक - परीक्षा

पूर्णांक 45

बी0ए0 तृतीय वर्ष में 45 अंकों की प्रायोगिक-परीक्षा होगी जिसके अन्तर्गत किसी एक धर्म का जो अभ्यर्थी का अपना न हो विस्तृत दार्शनिक दृष्टि से अध्ययन किया जायेगा तथा न्यूनतम 50 पृष्ठों का प्रतिवेदन प्रस्तुत किया जायेगा, जिस पर आधारित मौखिकी होगी। सम्बन्धित धर्म के प्रमुख स्थानों का अध्ययन-भ्रमण भी अपेक्षित है।

दर्शनशास्त्र

सन् 2003 से प्रस्तावित दर्शनशास्त्र विषय का परिमार्जित पाठ्यक्रम

प्रस्तावित पाठ्यक्रम यू0जी0सी0 के दिशा निर्देशों एवं स्थानीय परिस्थितियों को दृष्टिगत रखते हुये तैयार किया गया है जिसमें शनै : शनै : सतत् परिवर्तन और संशोधन अपेक्षित है। जब तक दर्शनशास्त्र की सभी प्रमुख शाखाओं के विशेषज्ञ अध्यापक उपलब्ध नहीं होते तब तक प्रस्तुत पाठ्यक्रम ही व्यवहारिक है।

स्नातक स्तर पर सभी प्रश्न-पत्र निम्नलिखित तीन खण्डों में परीक्षा की दृष्टि से विभक्त किये जायेंगे।

खण्ड क (वस्तुनिष्ठ प्रश्न) इस खण्ड में एक-एक नम्बर के कुल सात वस्तुनिष्ठ प्रश्न कम से कम तीन विकल्पों के साथ अवश्य पूछे जायेंगे।

खण्ड ख (लघुस्तरीय प्रश्न) इस खण्ड में दो-दो नम्बर के कम से कम दस प्रश्न होंगे। जिनमें से अभ्यर्थी को सात प्रश्नों के उत्तर देना आवश्यक है।

खण्ड ग (दीर्घ उत्तरीय प्रश्न) इस खण्ड में सात-सात अंकों के चार प्रश्न पूछे जायेंगे जिनमें से दो प्रश्नों के उत्तर अभ्यर्थी को देना आवश्यक है।

दर्शनशास्त्र

बी0ए0 प्रथम वर्ष परीक्षा सत्र 2003 - 2004

बी0ए0 प्रथम वर्ष में 35-35 अंको के दो सैद्धान्तिक प्रश्न-पत्र होंगे और 30 अंक की एक प्रायोगिक परीक्षा होगी।

प्रश्न पत्र प्रथम

पूर्णांक 35

समाज एवं राजनीतिक दर्शन

1. समाज दर्शन का स्वरूप, प्रकृति एवं महत्व
2. मानव एवं मानव प्रकृति की विशेषतायें।
3. समाज की अवधारणा उत्पत्ति एवं विकास
4. सामाजिक संस्थायें : परिवार उद्गम, विशेषतायें एवं प्रकार, लघु एवं संयुक्त परिवार।
विवाह – विवाह का आधार, आवश्यकता एवं विवाह के प्रकार।
5. राजनीतिक संस्था : राज्य का स्वरूप, तत्व एवं कार्य, राज्य की उत्पत्ति के सिद्धान्त।
6. धार्मिक संस्थायें : धर्म का स्वरूप, विशेषता एवं आवश्यकता, धर्म से हानि एवं लाभ धर्म एवं धर्मवाद का भेद।
7. सांस्कृतिक संस्थायें : संस्कृति का स्वरूप, सभ्यता एवं संस्कृति संस्कृति, कला एवं विज्ञान।
8. दण्ड के सिद्धान्त : प्रतिशोधात्मक, सुधारात्मक, निवर्तनात्मक।
9. भारतीय समाज व्यवस्था : आश्रम, वर्ण, पुरुषार्थ।
10. राजनैतिक व्यवस्थायें : जनतन्त्र, समाजवाद।

सन्दर्भित : पुस्तक सूची

- | | |
|----------------------------|------------------------------------|
| 1. समाज दर्शन | लेखक : डॉ० रामनाथ शर्मा |
| 2. समाजदर्शन की भूमिका | लेखक : डॉ० जगदीशसहाय श्रीवास्तव |
| 3. समाजदर्शन की एक प्रणाली | लेखक : डॉ० संगमलाल पाण्डेय |
| 4. Social and Political | Author : Dr. N.V. Joshi Philosophy |
| 5. Outline of Social | Author : Dr. A.K. Sinha Philosophy |

भारतीय दर्शन

प्रश्न पत्र – द्वितीय

पूर्णांक 35

1. भारतीय दर्शन की विशेषतायें एवं वर्गीकरण।
2. चार्वाक : प्रमाण, तत्वमीमांसा, नैतिक विचार।
3. जैन : स्याद्वाय अनेकान्तवाद।
4. बौद्ध : चार आर्यसत्य एवं दार्शनिक विचार, क्षणभंगवाद, अनात्मवाद, प्रतीत्यसमुत्पाद।
5. सांख्य : सत्कार्यवाद, प्रकृति, पुरुष।
6. योग : अष्टाङ्ग योग।
7. न्याय : प्रमाण विचार, ईश्वर विचार।
8. वैशेषिक : पदार्थ विचार।
9. मीमांसा : अपूर्व की अवधारणा।

10. वेदान्त : ब्रह्म विचार (शंकर, रामानुज की अवधारणा) बन्धन एवं मोक्ष। शंकर एवं रामानुज का मत।

सन्दर्भित – पुस्तक सूची :

1. भारतीय दर्शन के मूलतत्व लेखक : डॉ० रामनाथ शर्मा
2. भारतीय दर्शन के सर्वेक्षण लेखक : डॉ० संगमलाल पाण्डेय
3. भारतीय दर्शन लेखक : डॉ० ममता मिश्रा
4. Outlines of Indian Philosophy Author : M. Hiriyanna
5. A critical survey of Indian Philosophy Author : C.D. Sharma

प्रायोगिक – परीक्षा

बी०ए० प्रथम वर्ष में 30 अंकों की प्रायोगिक परीक्षा होगी। जिसके अन्तर्गत निम्नलिखित शीर्षकों का अध्ययन छात्रों से अपेक्षित है।

1. योगासन
2. प्राणायाम एवं ध्यान
3. धार्मिक पाठ
4. धार्मिक अथवा सामाजिक सेवा।

दर्शनशास्त्र

बी०ए० (द्वितीय वर्ष) परीक्षा सत्र 2004–2005

बी०ए० (द्वितीय वर्ष) में 35–35 अंकों के दो सैद्धान्तिक प्रश्न पत्र होंगे और 30 अंकों की एक प्रायोगिक परीक्षा होगी।

प्रश्न पत्र – प्रथम

पूर्णांक 35

नीतिशास्त्र

1. नीतिशास्त्र का स्वरूप एवं विस्तार, नीतिशास्त्र का अन्य विषयों से सम्बंध यथा मनोविज्ञान, राजनीतिशास्त्र, धर्म।
2. नैतिक प्रत्यय : शुभ, उचित, कर्तव्य, अधिकार।
3. नीतिशास्त्र का मनोवैज्ञानिक आधार, इच्छा, अभिलाषा, संकल्प, चरित्र।
4. नैतिक निर्णय का स्वरूप एवं विषय (साध्य साधन)
5. नैतिक मानदण्डों के सिद्धान्त :
 - (1) नियमावाद का सिद्धान्त।
 - (2) सुखवाद (मनोवैज्ञानिक एवं नैतिक)
 - (3) एपूक्यूरियनवाद सरेनिक्सवाद
 - (4) उपयोगितावाद (बेन्थम मिल)

- (5) कष्ट का कठोरतावाद, नैतिक सूत्र, कर्तव्य कर्तव्य के लिए, निरपेक्ष आदेश
- (6) मूल्यवाद का सिद्धान्त : मूल्य का अर्थ, आन्तरिक और बाह्य मूल्य
- (7) पूर्णतावाद का सिद्धान्त
6. पुरस्कार एवं दण्ड का सिद्धान्त
7. गीता का नीतिशास्त्र (निष्काम कर्मयोग)
8. पुरुषार्थ
9. गान्धीजी के नैतिक विचार।

सन्दर्भित - पुस्तक - सूची -:

1. नीतिशास्त्र की रूपरेखा लेखक : डॉ० रामनाथ शर्मा
2. नीतिशास्त्र लेखक : डॉ० बद्रीनाथ सिंह
3. नीतिशास्त्र के मूलतत्त्व लेखक : डॉ० वेदप्रकाश वर्मा
4. An Introduction to Ethics Auther - W. Lillie
5. The Ethics of The Hindus Auther - S. K. Maitra

पाश्चात्य दर्शन

प्रश्नपत्र द्वितीय

पूर्णांक 35

1. दर्शन का स्वरूप एवं क्षेत्र।
2. दर्शन विज्ञान एवं धर्म।
3. ज्ञानमीमांसा :
 1. ज्ञान का अर्थ एवं सीमा
 2. अनुभववाद
 3. बुद्धिवाद
 4. समीक्षावाद
 5. रहस्यवाद
4. ईश्वर सम्बंधी दर्शन :
 1. एकेश्वरवाद
 2. द्विईश्वरवाद
 3. बहुईश्वरवाद, ईश्वर और जगत का सम्बंध।
 1. केवलनिमित्त ईश्वरवाद
 2. सर्वेश्वरवाद
 3. निमित्त उपादानेश्वरवाद।
5. ईश्वर की सत्ता के प्रमाण
6. तत्त्वमीमांसा :
 1. एकतत्त्ववाद (स्पिनोजा)
 2. द्वितत्त्ववाद (देकार्त)
 3. बहुतत्त्ववाद (लाइब्निज)।

7. आत्मसम्बन्धी दर्शन : देकार्त का मत, कांट का मत, ह्यूम का मत।
8. प्रत्ययवाद : 1. बर्कले का आत्मगत प्रत्ययवाद
2. हेगल का वस्तुनिष्ठ प्रत्ययवाद।
9. वस्तुवाद।

सन्दर्भित – पुस्तक – सूची

1. पाश्चात्य दर्शन का समस्यात्मक लेखक : डॉ० रामनाथ शर्मा विवेचन
2. पाश्चात्य दर्शन लेखक : डॉ० बद्रीनाथ सिंह
3. पाश्चात्य दर्शन की रूपरेखा लेखक : ठाकुर जयदेव सिंह
4. A Critical History of Western Philosophy Author : D.J. O. Connor
5. A History of Modern Philosophy Author : W. K. wright
6. A Histroy of Philosophy Author : F. Thilly

प्रायोगिक – परीक्षा

बी०ए० द्वितीय वर्ष में 30 अंकों की प्रायोगिक परीक्षा होगी।
खण्ड क : स्थानीय धार्मिक महत्व के स्थानों का अध्ययन और उस पर संक्षिप्त प्रतिवेदन।
खण्ड ख : प्राध्यापक के निर्देशन में किसी बाह्य प्रमुख धार्मिक स्थान का विस्तृत अध्ययन तथा उस पर 30 पृष्ठों की विवरणिका।

दर्शनशास्त्र

वी०ए० (तृतीय वर्ष) परीक्षा सत्र 2005–2006
बी०ए० (तृतीय वर्ष) में 35–35 अंकों के तीन सैद्धान्तिक
प्रश्न पत्र होंगे और 45 अंक की एक प्रायोगिक परीक्षा होगी।

समकालीन दर्शन

प्रश्नपत्र – प्रथम

पूर्णांक 35

1. समकालीन दर्शन की सामान्य विशेषतायें एवं प्रवृत्तियाँ।
2. अस्तित्ववाद की प्रमुख विशेषतायें।
3. दार्शनिक विश्लेषण : तार्किक भाववाद, प्रमाणीकरण का सिद्धान्त।
4. व्यवहारवाद (विलियम जेम्स) सत्य का सिद्धान्त।
5. महात्मा गांधी : सत्य, ईश्वर, सत्याग्रह।
6. विवेकानन्द : ब्रह्म विचार।
7. श्री अरविन्द : विकास की अवधारणा।
8. धर्म समभाव।
9. नारीवाद।
10. दलित विचारधारा।

सन्दर्भित – पुस्तक – सूची

1. समकालीन दार्शनिक चिन्तन लेखक : डॉ० हृदयनारायण मिश्र
2. समकालीन दर्शन लेखक : डॉ० बसन्त कुमार लाल
3. समकालीन दर्शन लेखक : डॉ० रामनाथ शर्मा
4. Critique of Social Evils Author : B.R. Ambedkar
5. Modern Indian Thought Author : V.S. Naravare
6. Contemporary Indian Philosophy Author : T.M.P. Mahadevan and C.V. Saroja

सौन्दर्य शास्त्र

प्रश्न पत्र-द्वितीय

पूर्णांक 35

1. सौन्दर्यशास्त्र का स्वरूप एवं क्षेत्र।
2. सौन्दर्य की अवधारणा : कलात्मक सौन्दर्य, प्राकृतिक सौन्दर्य।
3. ललित कलाओं का वर्गीकरण।
4. काव्य (लक्षण, हेतु प्रयोजन) संगीत (स्वर, ताल, भाव), स्थापत्यकला (वास्तुब्रह्मवाद) चित्र एवं मूर्तिकला (षडाङ्ग सिद्धान्त)
5. विष्णुधर्मोत्तर पुराण में कलाओं का पारस्परिक सम्बन्ध।
6. कला एवं अभिव्यक्ति : एस०के० लैंगर एवं हेंसलिक का मत।
7. रस सिद्धान्त : रस शब्द का अर्थ, रस के घटक, विभाव अनुभाव, संचारीभाव, रसोत्पत्ति के सिद्धान्त, नव रस।
8. ध्वनि सिद्धान्त : अभिधा, लक्षणा, व्यंजना।
9. सौन्दर्य सृजन की प्रक्रिया, आत्मगत सौन्दर्य, वस्तुनिष्ठ सौन्दर्य
10. सौन्दर्य समीक्षा।

सन्दर्भित – पुस्तक – सूची

1. सौन्दर्य शास्त्र लेखक : डॉ० राजेन्द्र बाजपेयी
2. स्वतन्त्र कला शास्त्र (भाग एक) लेखक : डॉ० कान्तिचन्द्र पाण्डेय
3. विष्णुधर्मोत्तर पुराण सम्पादक : डॉ० प्रियबाला शाह
4. ध्वन्यालोक लेखक : आनन्दवर्धन (लोचन टीका अभिनवगुप्तकृत)
5. History of Sanskrit Poetries Author : P.V. Kane
6. The Aesthetic Experience According to Abhinavagupta : नोहली
7. Some concepts of Alamkara Sashtira : V. Raghavan

वैकल्पिक

नोट : तृतीय प्रश्नपत्र वैकल्पिक है। छात्र प्रश्नपत्र (क), (ख) अथवा (ग) में से किसी एक को चुन सकते हैं।

न्यायदर्शन

प्रश्नपत्र तृतीय (क)

पूर्णांक 35

निम्नलिखित शीषकों का अध्ययन साथ में संलग्न निर्धारित मूलग्रन्थों से उद्धृत अंशों के संकलन के विशेष परिप्रेक्ष्य में प्रमाण, प्रत्यक्ष और उसके भेद, अनुमान का लक्षण उसके भेद, शब्द, उपमान, कारण उसके भेद, व्याप्ति हेतु, हेत्वाभास, न्यायसम्मत प्रमेय उनके उद्देश्य और लक्षण, नौ द्रव्य, आत्मा का स्वरूप और उसकी सिद्धि, ईश्वर स्वरूप और उसकी सिद्धि, मोक्ष का स्वरूप

न्याय सूत्र : 1/1/1-22

न्यायभाष्य : इन्द्रियस्यार्थेन सन्निकर्षादुत्पद्यते यज्ज्ञानं तत् प्रत्यक्षम् । ग्रीष्मे मरीचयो भौमेनोष्मणा संसृष्टा : स्पन्दमाना दूरस्थस्य चक्षुषा सन्निकृष्यन्ते, तत्रेन्द्रियार्थसन्निकर्षाद् उदकम् इति ज्ञानमुत्पद्यते, तच्च प्रत्यक्षं प्रसज्यते ?

इत्यत आहं – अव्य-भिचारीति । यद् 'अतस्मिंस्तत्' इति, तद् व्यभिचारिः यत् 'तस्मिंतत्' इति तद्व्यभिचारि प्रत्यक्षमिति ।

दूराच्चक्षुषा ह्ययमर्थ पश्चन्नावधारयति – धूम इति वा रेणुरिति वाः तदेतदिन्द्रियार्थसन्निकर्षोत्पन्नमनवधारणज्ञानं प्रत्यक्षं प्रसज्यते ? इत्यज आह-व्यवसायात्मकामिति ।

सर्वत्र प्रत्यक्षविषये ज्ञातुरिन्द्रियेण व्यवसायः पश्चान्मनसा- नुव्यवसायः उपहृतेन्द्रियाणाव्य मनुष्यवसाया भावादिति ।

पूर्ववदिति – यत्र कारणेन कार्यमनुमीयते यथा मेधोन्नत्या भविष्यति वृष्टिः इति । शेषवत् तत् यत्र कार्येण, कारणमनुमीयते, पूर्वोदकविपरीतमुदकं नद्याः पूर्णत्वं शीघ्रत्वं च दृष्ट्वा स्त्रोतसो अनुमीयते – भूतावृष्टिः इति । सामान्यतोदृष्टम्-ब्रज्यापूर्वकमन्यत्र दृष्टस्याडन्यत्र दर्शनमिति, तथा चा-दित्यस्यः तस्मादस्त्यप्रत्यक्षां व्यादित्यस्य ब्रज्येति ।

तर्कभाषाः यस्य कार्यात् पूर्वभावो नियतो न्यथा सिद्धश्च तत्कारणम् । यथा तन्तुवेमादिकं पटस्य कारणम् । यद्यपि पटोत्पत्तौ दैवादागतस्य रासभादेः पूर्वभावो विद्यते, तथापि नासौ नियतः । तेनानन्यथासिद्धनियतपूर्व भावित्वं कारणत्वम् । अनन्यथासिद्ध-नियत-पश्चात् भावित्वं कार्यत्वम् ।

तच्च कारणं त्रिविधम् । समवायि-असमवामि-निमित्त भदोत् । तत्र यत्समवेतं कार्यमुत्पद्यते तत्समवायिकारणम् । यथा तन्तवः पटस्य समवायिकारणम् । यतस्तन्तुष्वेत पदः समवेतो जायते, न तुर्यादिषु ।

ननु तन्तुसम्बन्ध इव तुर्यादिसम्बन्धोऽपि पटस्य विद्यते, तत्, कथं तन्तुष्वेष पटः समवेतो जायते, न तुर्यादिषु ।

सत्यम् । द्विविधः सम्बन्धः संयोगः समावायश्चेति । तत्रायुतसिद्धयोः सम्बन्धः । अन्ययोस्तु संयोग एव ।

कौ पुनरयुतसिद्धौ ? यमोर्मध्ये एकमविनश्यदपराश्रितमेवा – वतिष्ठते तावयुतसिद्धौ ।

सन्दर्भित – पुस्तक – सूची

1. न्यायचूत्र गौतम प्रणीत
2. न्यायभाष्य वात्स्यायन प्रणीत

3. तर्कभाषा श्री केशवमिश्र प्रणीत
4. नयायदर्शनतम् सम्पा, डॉ० श्री नारायण मिश्र
5. The Nyaya Theory of knowledge S.C. Chatterje

अथवा धर्म दर्शन

प्रश्नपत्र – तृतीय (ख) पूर्णांक 35

1. धर्मदर्शन का स्वरूप एवं विस्तार।
2. धर्मदर्शन का मनोविज्ञान और नीतिशास्त्र से सम्बन्ध।
3. धर्म की उत्पत्ति एवं विकास।
4. धर्म एवं परमसत् ईश्वर एवं निरपेक्ष।
5. ईश्वर अस्तित्व के लिए प्रमाण।
6. ईश्वर का स्वरूप एवं अवतारवाद।
7. धार्मिक ज्ञान तथा उसकी प्रमाणिकता, बुद्धि, अन्तरर्बोध, रहस्योद्घाटन।
8. धार्मिक अनुभूतियों का स्वरूप एवं प्रकार, रहस्यवाद।
9. अशुभ की समस्या।
10. मानव जीवन का परम लक्ष्य, कर्म, पुनर्जन्म का सिद्धान्त, आत्मा और मोक्ष, मोक्ष प्राप्ति के साधन, मनुष्य का ईश्वर से सम्बन्ध।

सन्दर्भित – पुस्तक – सूची

1. धर्मदर्शन की रूपरेखा लेखक : डॉ० हरेन्द्र प्रसाद सिन्हा
2. धर्मदर्शन लेखक : डॉ० लक्ष्मीनिधि शर्मा
3. The Religious Experience of mankind
Author : N. Smart
4. AN Interpretation of Religion Author : J. Hick
5. The Idealist View of life Author : S. Radhakrishnan

अथवा

तर्कशास्त्र

प्रश्नपत्र-तृतीय (ग)

पूर्णांक 35

1. तर्कशास्त्र की परिभाषा, स्वरूप एवं विस्तार।
2. शब्द और भाषा : भाषा के कार्य, भाषा और व्याकरण, सामान्य प्रत्यय की प्रकृति।
3. विचार के मूल नियम: तादात्म्य का नियम, पर्याप्त कारण का नियम, अव्याघात का नियम, मध्यदशा परिहार का नियम, नियमों के परस्पर सम्बन्ध।

4. पद और उनका वर्गीकरण, पदों का व्याप्यर्थ और गुणार्थ ।
5. वाच्यधर्म: वाच्यधर्म क्या है ? अरस्तू की पद्धति ।
6. तार्किक परिभाषा : परिभाषा का अर्थ, उपयोगिता, सीमा, परीक्षा ।
7. तार्किक विभाजन : परिभाषा एवं सीमा ।
8. निर्णय का अर्थ, निर्णय और प्रत्यय, निर्णय और तर्कवाक्य, निर्णय और अनुमान, निर्णय के प्रकार ।
9. तर्कवाक्य : तर्कवाक्य का अर्थ, विश्लेषण और भेद ।
10. अन्तरानुमान की प्रकृति और प्रकार ।
11. न्यायवाक्य और मिश्रित न्यायवाक्य ।
12. भारतीय न्याय में कारण की अवधारणा ।
13. हेत्वाभास और उसके भेद ।
14. आगमन के वस्तुगत आधार – निरीक्षण और प्रयोग ।
15. पूर्वकल्पना ।
16. प्रायोगिक एवं आगमनात्मक विधियाँ ।
17. सादृश्य से तर्क ।
18. भारतीय तर्कशास्त्र में अन्वय और व्यतिरेक ।

सन्दर्भित – पुस्तक – सूची

1. तर्कशास्त्र एक परिचय लेखक : डॉ० संगमलाल पाण्डेय
2. तर्कशास्त्र लेखक : डॉ० रामनाथ शर्मा
3. Introduction to logic Author : I.M. Copi
4. A Modern introduction Author : Susan Stebbing

Proposed Syllabus of Home Science (As one of the subject) at Under Graduate Level Bundelkhand University, Jhansi

HOME SCIENCE

B.A. Part I Exam 2008 - 09 and onwards

| | Marks |
|--|-------|
| Paper I Hygiene, Public Health and Home Nursing. | 35 |
| Paper II Family Resourch Management | 35 |
| Practical | 30 |
| Max Marks | |
| $35 + 35 + 30 = 100$ | |

B.A. Part II Exam 2009 -2010 and Onwards

| | |
|---|----|
| Paper I Fundamental of Food and Nutrition | 35 |
| Paper II Child Development | 35 |
| Practical | 30 |
| Max, Marks | |
| $35 + 35 + 30 = 100$ | |

B.A. Part III Exam 2010 - 2011 and onwards

| | |
|---|----|
| Paper I Introduction to Textiles and clothing | 50 |
| Paper II Extension Education | 50 |
| Practical | 50 |

Max. Marks

$$50 + 50 + 50 = 150$$

| | |
|-------------|-----|
| Part I | 100 |
| Part II | 100 |
| Part III | 150 |
| Total Marks | 350 |

B.A. Part I (HOME SCIENCE)

Paper I Hygiene, Public Health and Home Nursing

MM 35

UNIT I

Health Legislation and Provision for Teaching Hygiene.

UNIT II

Health Legislation in our Country

1. Primary Unit
2. Secondary Unit
3. District Organisation of Central Health Unit
 - (a) Child Welfare
 - (b) Family Welfare
4. World Health Organization (WHO)

UNIT III

Health and Climate

- (a) Effect of Heat, Cold, Humidity, Environment and

Sun-light on Health

UNIT IV

Concept of Positive Health and Physical Health

UNIT V

Hygiene : (1) Relationship of hygiene, health and sanitation;

(2) Personal Hygiene; significance, characteristics of personal health and fitness. Factors affecting personal health.

UNIT VI

Public Health : Municipal health services town planning and sanitation in housing and public places, water supply, purification, disinfection.

Food and Drinks : Adulteration Control of Food Materials and inspection of market, dairies, cold drinks, slaughter houses, cafeterias and restaurants. Prevention and control of infectious diseases and immunisation.

UNIT VII

(a) Health services for Rural Population : Sanitation, drinking water and drainage of rain water. Health Services during fairs and festivals. Role of National and International agencies during and after epidemic, draught, floods etc.

(b) HIV/AIDS : Causes, symptoms, prevention and control measures.

UNIT VIII

(a) Home Nursing : Duties and responsibilities of home nurse, room furniture, equipments and sanitary facilities for sick person.

(b) Care of sick Person : Care of garments and bedding, Bathing, dressing, combing hairs, food and feeding, temperature and pulse rate, administering medicines, use of bed pan, urine pan, ice bag etc. Preparation and administering of enema, Paultices fomentation. Isolation and care of infectious diseases at home.

Reference Book :

1. Health and Science : Dr. Satyadeo Arya
2. Swasthya Shiksha : Dr. G.P. Sherry
3. Swasthya Vigyan, Prathamik Chikista and Griha Paricharya
: Dr. Nisha Garg

Paper II Family Resources Management

UNIT I Home Management

1. Definition, philosophy, concept and role of home management.
2. Basic knowledge about home management process, planning, controlling and evaluation.

UNIT II Family Resources

1. Types - Human and non-human resources.
2. Money Management - Income, Expenditure and supplementary income.

3. Family Budget
4. Wants - Types, characteristics and affecting wants.

UNIT III Housing

1. Family housing needs - Protective, economic and social.
2. Factors effecting selection and purchase of site for house building - legal aspects, location, physical features, soil conditions, cost service.
3. Arrangement of rooms and kitchen.

UNIT IV Interior Decoration

1. Meaning and principles of interior decoration.
2. Elements and principles of art.
3. Design - decoration and structural.
4. Colour - Properties, classification and colour schemes.
5. Furniture - types and arrangement
6. Lighting
7. Flower arrangement
8. Accessories.

Reference Books

1. Management for Modern Families : Gross and Crandall
2. Management in Family Living : Nickel and Dorsey
3. Griha Prabandh : B.D. Harpalani
4. Griha Vyavastha evam Griha Kala : G.P. Sherry

Practical

M.M. 30

1. Disinfecting of room and clothing by different methods.
2. Care of sick person, bed making, care of mouth, sponge bath, use of back rest, application of ice bag, fomentation hot water bag, poultice, serving of food, use of bed pan, enema can, prevention of bed sores etc.
3. Floor decoration : Alpana
4. (a) Pot painting or pot decoration.
(b) Flower arrangement or flower making

5. Cleaning and Polishing of house hold articles : Brass, Copper, Silver, Plastic, Tiles, Glass.

6. One embroidered article.

Sessional Work

Marks Allotment

Practical and Viva voce : MM 20

Session Works 10

Total 30

B.A. Part II (Home Science)

Exam 2009 - 2010 and onwards

Fundamentals of Food and Nutrition.

Paper I

MM 35

Unit I Introduction to foods and nutrition

- (a) Definitions - Foods, nutrition, nutrients.
- (b) Classification and Functions of Food.
- (c) Energy factors affecting total energy requirements of the body.
- (d) Basal Metabolism - Definition, factors affecting rate of B.M.R.
- (e) Balanced diet and factors affecting balanced diet.

UNIT II

Essential constituents of Food - Their Classification, sources, functions, requirements, and deficiency diseases :

- (a) Protein
- (b) Carbohydrate
- (c) Fat
- (d) Vitamins
- (e) Minerals
- (f) Water

UNIT III

Merit and demerit of Bacteria, yeast and mould.

UNIT IV

Basic Food Groups - Importance of Basic Food groups in the diet Nutritive contribution of food stuffs and their importance in Indian Diet like cereals and millets, pulses, nut and oil seeds, vegetables, fruits, milk and milk products, Egg, Meat, Fish, fats and oils, sugar and jaggery, spices and condiments.

UNIT V

- (a) Various cooking methods and their effect on nutritive value.
- (b) Retention of nutritive value of foods during preparation.
- (c) Food Adulteration - Meaning and Common adulterants in food.
- (d) Food poisoning, food contamination, handling and storing food safely.

REFERENCE BOOK

1. Essentials of Foods and Nutrition (Vol. I and Vol. II) : M.Swaminathan
2. Human Nutrition and Dietetics : Davidson and Passmore.
3. Ahar Awam Poshan Vigyan : Mrs. B.K. Bakshi.

Paper II Child Development

MM 35

Unit I Introduction to child development

- (a) Definition and scope of child Development.
- (b) Principles of development
- (c) Stages of development and development task of each stage.
- (d) Factors affecting development.

Unit II Prenatal Period

- (a) Meaning and importance of mother-care and child care.
- (b) Female reproductive organs (internal) and menstrual cycle.
- (c) Conception and signs of pregnancy, complications of pregnancy.
 - (i) Hyperemesis gravidarum.

- (ii) Abortions
- (iii) Toxaemia of Pregnancy
- (iv) R.H. Factors
- (v) Anemia
- (vi) Family Planning
- (d) Care of the Pregnant Mother
- (e) Stages of Prenatal Development : Zygotic, Embryonic and Foetal Stages.
- (f) Types of Delivery.
- 3. Nutrition during school going child with special emphasis on packed lunch.
- 4. Nutrition during adolescence
- 5. Nutrition during adulthood (men and women) : sedentary work, moderate work, heavy work.
- 6. Nutrition during old age.
- 7. Nutrition during pregnancy
- 8. Making an article for child, ex. soft toys, clothes, bed linen etc.
- 9. Nutrition during lactation.

Unit II Sessional Work

| | |
|-------------------------|----|
| Marks Allotment | |
| Sessional Work | 10 |
| Practical and Viva voce | 20 |
| Total | 30 |

B.A. Part III (Home Science)

Exam 2010 - 2011 and onwards

Paper I Introduction to Textiles and Clothing.

MM 50

Unit I Textiles

1. Introduction to textiles.
2. Classification of textile fibres.
3. Manufacture, properties and uses of cotton, linen, wool, silk, rayon, nylon, polyester and acrylic fibers.

4. Identification of textile fibers.

Unit II Study of Yarns

1. Yarn Construction
2. Different types of yarns.

Unit III Weaving

1. Weaving process - To study the parts and functions of a loom
2. Different types of basic and decorative weaving.

Unit IV Finishes

1. Physical - Singeing, napping, brushing, shearing, sizing, shrinking, tentering and calendaring.
2. Chemical Bleaching and mercerizing.
3. Special purpose finishes - Wrinkle resistant, water repellent, flame retardant, dyeing and printing etc.

CLOTHING

Unit I Equipment

Equipment and supplies used in clothing construction with special reference to sewing machine

Unit II Serlection of Fabrics

Factors influencing selection of fabrics, budget, age, season, occupation, figure, fashion, occasion etc.

Unit III Principles of Clothing construction

1. General principles of clothing construction
2. Drafting and making paper patterns.
3. Preparation of fabrics for garment making, laying out of patterns, cutting and making.

Reference Books :

1. Textile, fabrics and their selection : Wingate
2. Art of Sewing : Annajacob
3. Vastra Vigyan and Paridhan : Dr. Pramila Verma
4. Textile and Clothing : Neerja Yadav
5. Household Textiles and Laundry Work : Durga Doulekar

Paper II Extension Education

MM 50

Unit I Concept of Extension Education

1. History of Extensiion education in India and abroad.
2. Meaning, nature, importance and scope of extension education.

3. Extension education and social development.
4. Role of extension education in Home Science.

Unit II

Philosophy, principles and objectives of extension education.

Unit III

1. Method of extension education.
2. Factors affecting choice and use of methods.

Unit IV

Types of Audio-visual aids and their importance.

Unit V

1. Rural sociology and its importance for extension worker
2. Characteristics of rural upliftment.

Unit VI

Group organization and leadership - Qualities of a leader, function and role of a leader in extension education.

Unit VII

Planning and evaluation of extension education. Education programme meaning, principle, nature and scope of planning and evaluation of extension and its role in India.

Unit VIII Adult education.

Book Recommended

1. Extension education : Mrs. Geeta Pushp Shaw
2. Prasat Shiksha : Dr. Harplani
3. Bharat Men Prasar Shiksha : Dr. Veerendra Dube

Practical

MM 50

Unit I 1. Tie and Dye

2. Block printing or screen/stencil printing
3. Stitching

(a) Girl's frock (2-5 years)

(b) 1. Ladies saree blouse and petticoat, 2. Kurta Payjama (Churidar) 3. Salwar

Unit II Preparation of Audio-visual aid (any one)

1. Poster and Chart,
2. Puppet,
3. Flash carel or flip book

Allotment of Marks

| | |
|-----------------------|----|
| Sessional work | 20 |
| Practical & Viva voce | 30 |
| Total | 50 |

B.A. MUSIC COURSE

| | | |
|-----------------------------------|------------------------------|--------------------|
| Duration | - Three Years | |
| Total Numbers of Papers | - 10 (Total Marks | 100+100+150 = 350) |
| Number of Theory Papers | - 4 (40+40+30+30 = 140) | |
| Number of Practical Papers | - 6 (30+30 = 60, 30+30 = 60, | 45+45 = 90 = 210) |

Year wise distribution of papers

First Year

| | |
|--------------------|------------------|
| 2 practical papers | - 30+30 = 60 |
| 1 theory paper | - 40 Total - 100 |

Second Year

| | |
|--------------------|------------------|
| 2 practical papers | - 30 + 30 = 60 |
| 1 theory paper | - 40 Total = 100 |

Third Year

| | |
|--------------------|----------------------------|
| 2 practical papers | - 45 + 45 = 90 |
| 2 theory papers | - 30 + 30 = 60 Total = 150 |

The practical examination in each paper should be held in presence of two examiners, One internal and one external.

Detail Courses
B.A. Course Classical Vocal Music
First Year

Theory Paper :

Marks : 40

1. Study of theoretical details of Ragas and Talas prescribed for practical course of 1st year and their comparative study. Ragas - Yaman, Alhaiya Bilawal, Asavari, Bhairvi, Bhupali, Brindavni Sarang and Talas - Trital, Ektal, Chautal, Jhaptal, Dadra, Kaharva
2. Reading and writing of notations of songs (Bandish) prescribed in the practical course of 1st year.
3. Writing of Talas in notation with Dwigun, Tigun and Chaugun layakari.
4. Definition of technical terms : Nad, Shruti, Swara, Sthana, Saptak, Poorvang, Uttarang, Varna, Alankar, Vadi, Samvadi, Anuvadi, Vivadi and Definitions of Raga, Thata, Meend (Sut), Khatka, Murki and their characteristics.
5. General knowledge of the musical compositions - Dhrupad, Dhamar, khayal, Tarana, Tappa, Thumri, Hori, Chaturang, Geet, Bhajan, Gazal.
6. General knowledge of the biographies and the contributions of the following musicians : Amir Khusro, Swami Haridas, Tansen, Nayak Gopal, Jaidev, Tyagraj.
7. Knowledge of your own Instrument "Tanpura).

Practical Paper - I

Marks : 30

1. Study of following ragas :
 - (i) Yaman
 - (ii) Alhaiya Bilawal
 - (iii) Bhairav
 - (iv) Asavari
 - (v) Bhairvi
 - (vi) Bhupali
 - (vii) Brindavani Sarang
 - (a) Four vilambit khayals in any of the above mentioned Ragas.
 - (b) Sargams and Madhyalays Khayalas with Alap, Tana in all the above Ragas.
2. Study of the following Talas.
 - (i) Trital
 - (ii) Ektal
 - (iii) Chautal
 - (iv) Jhaptal

(v) Dadra

(vi) Kaharva

Note : Compositions of the prescribed seven ragas may preferable by studied in the talas mentioned above

Practical Paper II

Marks : 30

1. Intensive study of any one rage covering vilambit and Drut Khayal out of the ragas prescribed in practical paper - I
2. Study of one Dhruwad and one Dhamar with Dwigun, Tigun, Chaugun laya
3. Study of Tarana, Bhajan, Ghazal, Folk Song, Patriotic song, Prayer one form each.
4. Ability to demonstrate (orally by giving Tali and Khali on hand) Talas prescribed in practical paper - I with their Dwigun, Tigunm and Chaugun,

**B.A. Course Classical Vocal Music
Second Year**

Theory Paper

Marks : 40

1. Study of theoretical details of Ragas and Talas prescribed for practical course of IInd year and their comparative study. Ragas - Bihag, Desh, Bageshree, Bhimpalasi, Malkauns, Jaunpuri, Deshkar and Talas Tilwada, Jhumra, Dhamar, Sulta, Roopak, Tivra
2. Reading and writing of notations of songs (Bandish) prescribed in the practical course of 2nd year.
3. Writing of talas in notation with tigon layakari along with layakaris prescribed in the 2nd year.
4. Study of the following technical terms - Kutap, Vrinda, Vaggeyakar, Gandharva, Gayak, Nayak, and merits and demerits of vaggeyakar as prescribed in sangeet - ratnakar.
5. Musical Intervals between the notes of saptak, major tone, minor tone, semi tone and value of the each of the three tones and study of consonance and dissonance.
6. General knowledge of Karnataka Sangeet (Varnam, Kriti, Javali, Padam)
7. General knowledge of the various folk song as kajari, Baul, Chaiti, Bhatiyali, Mand, Garba, Lavani, Hori etc.
8. Comparative study of the Bhatkhande and Vishnu Digamber's notation system.

Practical Paper - I

Marks : 30

1. Study of following Ragas :
(i) Bihag

(ii) Desh

(iii) Bageshree

(iv) Bhimpalasi

(v) Malkauns

(vi) Jaunpuri

(vii) Deshkar

(a) Four Vilambit Khayals in any of the above mentioned Ragas.

(b) Madhyalaya Khayal with alaps tans in all the above mentioned Ragas.

2. Study of the following talas :

(i) Tilwada

(ii) Jhumra

(iii) Dhamar

(iv) Sultal

(v) Roopak

(vi) Tivra

Theka with tigon and dedgun (3/2) layakari of the above talas.

Practical Paper - II

Marks : 30

1. Intensive study of any one raga as choice covering vilambit and Drut Khayals out of ragas prescribed in practical paper - I.
2. Study of one Dhrupad and one Dhamar with Tigon and Dedgun laya
3. Study of Tarana, Bhajan, Ghazal, Folk song, patriotic song and one from each.
4. Ability to demonstrate (orally by giving tali and khali on hand) Talas prescribed in practical paper - I with their tigon and dedgun (3/2) laya.
5. Knowledge of the ragas, Talas and Theory portion of B.A. first year syllabus.

**B.A. Course
Classical Vocal Music
Third Year**

Theory Paper I

Marks : 30

1. Study of theoretical details of ragas and talas prescribed for practical course of the 3rd year and their comparative study. Ragas - Chhayanaat, Jaijaiwanti, Pooriya, Bahar, Darbari

- Kanada, Muyan Ki Malhar, Miyan Ki Todi and Talas - Ada-Chautal, Deepchandi, Panjabi - Trital, Jat-tal

(i) Reading and writing of notations of songs (Bandish) prescribed in the practical course of 3rd year.

(ii) Writing of talas in notation with 2/3 and 3/4 layakaries along with layakaries prescribed in the 1st and 2nd year.

Tal prescribed for

1st year - Teental, Fktal, ehautal, Thaptal, Dadra, Kaharwa

IIInd year - Tilwada, Jhumra, Dhamar, Sooltal, Roopak, Teevra.

2. Study of Shruti - Swaras :

a. Definition of shruti its characteristics, samvad vidad and their relation with shruties.

b. Introduction to chatuh - Sharna, Praman Shruti as stated by Bharat.

c. Method of placing the Shuddha and vilkrit Swaras on Veena by Pt. Ahobal and Pt. Shrinivas. Their classification.

3. Classification of ragas (rag - vargikaran)

I Rag-Ragini - Vargikaran

II That - Rag - Vargikaran

III Ragang - Vargikaran

4. Elementary Knowledge of Gramas, Murchanas, Jatis and their characteristics and varieties.

Theory Paper II

Marks : 30

1. Nibaddha - Anibaddha - Alapti (Ragalap and Roopkalap) Their definition and varieties.

2. Analysis of the Styles of the following Gharanas and their history : Gwalior, Agra, Kirana, Patiyala, Jaipur.

3. Biographics and contributions of following musicians :

a. Pt. V.N. Bhaskhande

b. Pt. V. D. Palushkar

c. Pt. Omkar Nath thakur

4. Contributions of the following Granthakarasa (authors) and introduction of any two Granths (titles)

a. Natyashashtra of Bharat.

b. Brihaaddeshi of Matang.

- c. Sanget Ratnakar of Sharangdeo.
5. Essay on any of the following topics :
- Guru - Shishya parampara Vs. Institutional system of the music teaching.
 - Music and literature.
 - Role of music in national Integration.
 - Role of music in the development of personality.
 - Place of music in fine arts.
 - The bearing of folk music on classical music.
 - Propagation of music through audio - visual aids.
 - Importance of Music festivals / Seminars and conferences.
 - Evolution of notation - system.
 - Importance of music in General education.

Practical Paper - I

Marks : 45

1. Study of the following Ragas :
- Chhayanat
 - Jaijaiwanti
 - Pooriya
 - Bahar
 - Darbari - Kanada
 - Miyani ki malhar
 - Miyani ki Todi
 - Four vilambit Khayals in any of the above mentioned Ragas.
 - Madhalaya Khayals with alaps, tans, and boltanas in all the above Ragas,
2. Study of the following talas :
- Ada - Chautal
 - Deepchandi
 - Panjabi - Trital
 - Jat - tal

(Thekas with dugun, tigun, chaugun of the above talas)

Practical Paper - II

Marks : 45

1. Intensive study of any two ragas as choice Ragas covering vilambit and drut Khayals out of the ragas prescribed in Practical paper I.
2. Study of the one Dhrupad and one Dhamar with dugum, tigon, Chaugun and a few :Upaj:
3. Study of one Tarana, One Bhajan, One Ghazal, One Folk song, One Prayer.
4. Ability to demonstrate (Orally by giving tali, Khali on hand) Talas prescribed in Practical paper - I with their Prescribed layakaries.
5. Knowledge of the ragas, Talas and theory portion of B.A. I and part II.

Detail Courses
B.A. Course Classical
Instrumental Music (Sitar)
First Year

Theory Paper

Marks : 40

1. Study of theoretical details of Ragas and Talas prescribed for practical course of 1st year and their comparative study. Ragas - Yaman, Alhaiya Bilawal, Bhairaw, Asavari, Bhairvi, Bhupali, Brindavani Sarang and Talas - Trital, Ektal, Chautal, Jhaptal, Dadra, Kaharva
2. Reading and writing of notations of gats prescribed in the practical course of 1st year.
3. Writing of talas in notation with Dwigun, Tigun and Chaugun layakari.
4. Definition of technical terms : Nad, Shruti, Swara, Sthana, Saptak, Poorvang, Uttarang, Varna, Alankar, Vadi, Samvadi, Anuvadi, Vivadi and Definitions of Raga, Thata, Meend (Sut), Khatka Murki, Ghaseet, Krintan, Jam-Jama and their characteristic.
5. General knowledge of the musical compositions - Dhrupad, Dhamar, Gat, Jhaala, Tappa, Thumri, Hori, Chaturang, Geet, Bhajan, Gazal.
6. General knowledge of the biographies and the contributions of the following musicians Amir Khusro, Swami Haridas, Tansen, Nikhil Banerji, Allauden Khan, Pt. Ravi Shankar.
7. Knowledge of our Instrument "Sitar"

Practical Paper - I

Marks : 30

1. Study of following ragas :
 - (i) Yaman
 - (ii) Alhaiya Bilawal

- (iii) Bhairav
- (iv) Asavari
- (v) Bhairvi
- (vi) Bhupali
- (vii) Brindavani Sarang
- (a) Four Masitkhani gats in any of the above mentioned Ragas.
- (b) Rajakhani Gats with Alap. Toras in all the above Ragas.

2. Study of the following Talas :

- i. Trital
- ii. Ektal
- iii. Chautal
- iv. Jhaptal
- v. Dadra
- vi. Kaharva

Note : Compositions (Gats) of the prescribed seven ragas may preferable be taught in the talas mentioned above

Practical Paper II

Marks : 30

- a. Intensive study of any one raga covering vilambit and drut gats out of the ragas prescribed in practical paper - I
- b. Study of four madhylaya gats in talas other than trital.
- c. Study of Jhala, Dhun, Alankar.
- d. Ability to demonstrate (orally by giving Tali and Khali on hand) Talas prescribed in practical paper - I with their Dwigun, Tigun and Chaugun.

**B.A. Course Classical
Instrumental Music (Sitar)
Second Year**

Theory Paper Marks : 40

1. Study of theoretical details of Ragas and Talas prescribed for practical course of IIInd year and their comparative study. Ragas - Bihag, Desh, Bageshree, Bhimpalasi, Malkauns, Jaunpuri, Deshkar and Talas Tilwada, Jhumra, Dhamar, Sultal, Roopak, Tivra
2. Reading and writing of notations of gats prescribed in the practical course of 2nd year
3. Writing of talas in notation with tigung layakari along with layakaris prescribed in the 2nd year.
4. study of the following technical terms - Kutap, Vrinda, Vaggeyakar, and merits and demerits of vaggeyakar as prescribed in sangeet - ratnakar, bot of mizarav.
5. Musical Intervals between the notes of saptak, major tone, minor tone, semi tone and value of the each of the three tones and study of consonance and dissonance.
6. General knowledge of Karnataka Sangeet (Varnam, Kriti, Javali, Padam)
7. Kinds of Jhala
8. Comparative study of the Bhatkhande and Vishnu Digamber's notation system.

Practical Paper - I

Marks : 30

1. Study of following Rages :
 - (i) Bihag
 - (ii) Desh
 - (iii) Bageshree
 - (iv) Bhimpalasi
 - (v) Malkauns
 - (vi) Jaunpuri
 - (vii) Deshkar
 - (a) Four Masitkhani gats in any of the above men tioned Ragas.
 - (b) Razakhani gats with Alaps Toras and Jhala in all the above mentioned Ragas.
2. Study of the following talas :

- i. Tilwada
- ii. Jhumra
- iii. Dhamar
- iv. Sultal
- v. Roopak
- vi. Tivra

Theka with tigon and dedgun (3/2) layakari of the above talas.

Practical Paper - II

Marks : 30

1. Intensive study of any one raga as choice covering Masitkhani and Razakhani gats out of ragas prescribed in practical paper - I
2. Study of four madhyaya Gate in Talas other than three Talas out of the Ragas prescribed in Practical paper I.
3. Ulat and Sulat Jhala.
4. Ability to demonstrate (orally by giving tali and khali on hand) Talas prescribed in practical paper - I with their tigon and dedgun (3/2) laya.
5. Knowledge of the ragas, Talas and Theory portion of B.A. first year syllabus.

**B.A. Course Classical
Instrumental Music (Sitar)
Third Year**

Theory Paper – I

Marks : 30

1. Study of theoretical details of ragas and talas prescribed for practical course of the 3rd year and their comparative study. Ragas - Chhayanaat, Jaijaiwanti, Pooriya, Bahar, Darbari-Kanada, Miyan ki malhar, Miyan ki Todi and Talas - Ada - Chautal, Deepchandi, Panjabi - Trital, Jat-tal
(i) Reading and writing of notations of Gats prescribed in the practical course of 3rd year.
(ii) Writing of talas in notation with 2/3 and 3/4 layakaries along with layakaries prescribed in the 1st and 2nd year.

Talprescribed for

Ist Year - Teental, Ektal, Chautal, Jhaptal, Dadra, Kaharwa

IInd Year - Tilwara, Jhoomra, Dhamar, Sooltal, Roopak, Teevra.

2. Study of Shruti - Swaras :

- d. Definition of shruti, its characteristics, samvad vivad and their relation with shruties.
 - e. Introduction to chatuh-Sharna, Praman Shruti as stated by Bharat.
 - f. Method of placing the Shuddha and vilkrit Swaras on Veena by Pt. Ahobal and Pt. Shrinivas. Their classification.
3. Classification of ragas (rag-vargikaram)
 - I. Rag - Ragini- Vargikaran.
 - II. That-Rag-Vargikaran
 - III. Ragang - Vargikaran.
 4. Elementary Knowledge of Gramas, Murchanas, Jatis and their characteristics and varieties.

Theory Paper II

Marks : 30

1. Nibaddha - Anibaddha - Alapti (Ragalap and Roopkalap) Their definitions and varieties.
2. Analysis of the styles of the Gharanas of Sitar and their history.
3. Biographics and contributions of following musicians :
 - a. Inayat Khan
 - b. Allauddin Khan
 - c. Wazir Khan
 - d. Vilayat Khan
 - e. Pt. Omkar Nath Thakur
4. Contributions of the following Granthakarasa (authors) and introduction of any two Granths (titles)
 - a. Natyashashtra of Bharat.
 - b. Brihaaddeshi of Matang.
 - c. Sangeet Ratnakar of Sharangdeo.
5. Essay on any of the following topics :
 - a. Guru - Shishya parampara Vs. Institutional system of the music teaching.
 - b. Music and literature.
 - c. Role of music in National integration.
 - d. Role of music in the development of personality.
 - e. Place of music in fine arts.
 - f. Propagation of music through audio-visual aids.
 - g. Importance of Music festivals/Seminars and conferences.
 - h. Evolution of notation - system.
 - i. Importance of music in General education.

Practical Paper - I

Marks : 45

1. Study of the following Ragas :
 - i. Chhayanat
 - ii. Jaijaiwanti
 - iii. Pooriya
 - iv. Bahar
 - v. Darbari-Kanada
 - vi. Miyan ki malhar
 - vii. Miyan ki Todi
2. Four Masitkhani Gats in any of the above mentioned Ragas.
3. Raza Khani Gats with alaps, todas and Jhalas in all the above Ragas.
2. Study of the following talas :
 - a. Ada - Chautal
 - b. Deepchandi
 - c. Panjabi-Trital
 - d. Jat-tal

(Thekas with dugun, tigun, chaugun of the above talas)

Practical Paper - II

Marks : 45

1. Intensive study of any two ragas as choice Ragas covering Masit Khani and Raza Khani out of the ragas prescribed in Practical paper I.
2. Study of Four Raja Khani Gats in Talas other than Three Talas of the Ragas prescribed in practical paper I.
3. Kinds Of Jhala.
4. Ability to demonstrate (Orally by giving tali, Khali on hand) Talas prescribed in Practical paper I with their Prescribed layakaries.
5. Knowledge of the ragas, Talas and theory portion of B.A. I and Part II.

**Books Recommended for study in all the three years of B.A. course
Classical vocal/Instrumental music**

1. Natyashastra of Bharat
2. Kramik Pustak Malika Rart, I, II, III and IV by Pt. V.N. Bhatkhande
3. Sangitanjali Part I, II, III, IV, V & VI by Pt. Omkarnath Thakur

4. Ragbodh Part I, II & III by Dr. B.R. Deodhar
5. Tantrinad Part I & Bhartiya Sangit Vadya by Dr. Lalmani Mishra
6. Sitar Malika (Hatharas)
7. Sitar Vadan by S.G. Vyas
8. Bela Shishka by Prof. V.G. Jog
9. Bela Bigyan by T.R. Devangan
10. Mridanda - Tabla Vadan by Pt. Govinda Rao.
11. Tabla Vigyan by Dr. Lalmani Mishra
12. Tabla Shastra by Godbole
13. Sangit Visharad (Hathras)
14. Sitar Marg Part I and II by S.P. Banerjee
15. Sangit Bodh by Dr. Sarat Chandra Paranjpe
16. Dhvani aur Sangit by Prof. L. K. Singh
17. Sangit Darshika Part I and II by Shri Nanigopal Banerjee
18. Sangit Parichiti Part I and II by Shri Nilratan Banerjee
19. Hindustani Music - An outline of its physics and aesthetics by G.H. Ranade
20. Sangit Shastra part I and II by M.N. Saxena.
21. Tan Sangraha Vol. I, II & III by Pt. S. N. Ratanjankar
22. Tan Malika by Raja Bhaiya Punchwale
23. Hamare Sangit Ratna by Laxmi Narayan Gagr.
24. Music Profile by Sushila Mishra
25. Vishnu Digambar Paluskar by Pt. Vinaya Chandra Moudgalaya
26. Vishnu narayan Bhatkhande by Pt. S. N. Ratanjnakar
27. Vaggeyakar Omkatnath Thakur by Dr. Pradip Kr. Dikshit
28. Tor Sangitkar by Dr. B. R. Deodhar.
29. Gharana by Vaman Rao H. Deshpande
30. Bansuri Shiksha Part I by C.L. Srivastava
31. Sangit Paribhasha by Pt. Ratanjhakar
32. Bharatiya sangit : Itihas O Paddhati by Sukumar Ray
33. Bharatiya Sangitkar Katha by Prabhat Kr. Goswami
34. Rag O Roop by Swami Prajnanand

35. Sangit O Sankriti by Swani Prajnanand
36. Bangalir Rag - Sangit charcha by Dilip Kumar Mukhopadhyay
37. Sitar and its Nibaddha forms by Stefan Slavek
38. Dhrupad by Indurama Srivastava
39. Nad by Sandip bagachi
40. Raga Parichaya Part I, II, III & IV Harish Chandra Srivastava
41. Abhinav Sangitanjali by Prof. R. A. Jha (in five parts)
42. Swar aur ragon ke vikas me Vadyon ka yogdan by Prof. Indrani Chakravati
43. Sangit Manjusha by Prof. Indrani Chakravati
44. Music - its methods and technique of teachhing in higher Education by Prof. Indrani Chakravati.
45. Sitar and its teachings by Prof. Deby Chaudhury
46. Ustad Mushtaq Ali Khan and Indian Music by Prof. Debu Chaudhari
47. Senia Gharana and its contribution to Indian music by Prof. Saroj Ghosh
48. Kanadha ke Prakar by Dr. saroj Ghosh
49. Sangit Ratnakar Vol. 1 and 2 Tr. By Prof. P.L. Sharma and Dr. R. K. Singh
50. Brihaddishi Vol. 1 and 2 Tr. Prof. P.L. Sharma
51. Musical forms in Sangita Ratnakar by Prof. N. Ramanathan
52. All books by Prof. Subhadra Chaudhari
53. Muslim Bharat ke Sangit Chintan - Shri Rajeshwar Mitra
54. All Journals / Magazines of Music

SYLLABUS FOR B.A. COURSE IN TABLA AND MRIDANG (PAKHAWAJ)

First Year - Theory papers are common for Tabla and Mridang (Pakhawaj)

Theory Paper

Marks : 40

1. History of the origin of Tabla or Mridanga (Pakhwaj).
2. Technique of producing the syllables (Varna) on Dayan and Banya individually and jointly.

3. Definition of the following terms : Sangit, Tal vadya, Avananddha Vadya, Ghan vadya, Sushir Vadya, Laya, Tal Matra, Sam, Khali, Bhari, Tali, Vibhag, Avartan, Theka, Layakari, Thah, Dugun, Tigun and chaugun.
4. Definitions and explanation of the distinctive features and applications of the following : Peshkar, Quida, Gat, Mukhda, Rela, tukda, Mohar, Tihai, Palta.

Paper Ist - Trital, Jhaptal, Dadra

Paper IInd - Chautal, Sooltal, Roopak, Ada-chautal, Dhamar.

5. Method of writing notation of all tables prescribed in practical paper.
6. Comparative study of the features and the application of Damdar, Bedam and chhakkardar Tihais.
7. Life history and contribution to the field of table or mridang of the following : Wajid Hussian Khalifa, Pandit Sakham, Ayodhya Prasad, Shamta Prasad.

Practical Paper I

Marks : 30

1. Practice of producing different syllables (Varna) on Dayan and Bayan.
2. Study of the thekas of the following Talas in Thah, Dugun, Tigun and Chaugun laya with oral rendering (Padhant).
 - a. Trital b. Jhaptal c. Dadra
3. Study of simple tihai, Quida, Gats, Tukdas and Mukhadas in Trital, Jhaptal and Ektal with Paltas in each.
4. Oral rendering of the Tihai, Quida, Mukhras learnt with Tali and Khali.
5. Tuning of table or mridang.

Note : Ability to accompany vocal and instrumental.

Practical Paper II

Marks : 30

1. Study of the thekas with simple compositions and their Renderings in the following talas :
 - a. Chautal b. Sooltal c. Rupak d. Ada - Chautal e. Dhamar
2. Tuning of tabla or Mridang
3. At least four variations of the thekas of Dadra and Kaharva.
4. Solo Playing in Trital, Jhaptal and Sooltal with Simple quide, Gats, Tukada, Mukhada with oral renderings (Padhant).

Second Year

Theory papers are common for tabla and mridang (pakhwaj)

Theory Paper

Marks : 40

1. Merits and demerits of Tabla and Mridanga players.
2. Definitions and principles of application of the following terms : Laggi, Lari, Paran, Uthan, Chakkardar tihai.
3. General knowledge and practical usefulness of different tal - vadyas (Percussion instruments)
4. Writing notation of all Talas Trital, Jhaptal, Ektal, Dadra & Kaharwa, prescribed in the practical course of second year and their layakaris in Dugun, Trigun and Chaugun.
5. Comparative and Knowledge of Application of the following : Dab-gans, Wazen, Ati Vilambit, Ati Drut, Jati (Five kinds), Yati (Five Kinds), Graha (four kinds).
7. Life History and contribution of the following :
 - a. Ustad Ahmad Jan Thirakwa
 - b. Ustad Habibuddin Khan
 - c. Kanthe Maharaj
 - d. Ramashahay
 - e. Ustad Natthu Khan
 - f. Ustad Karamatullah Khan

Practical Paper - I

Marks : 30

1. Ability to play thekas of the prescribed Talas of first year in Dugun, Tigun and Chaugun Layas.
2. Advanced playing in Trital, jhaptal, Ektal, Dadra and Kaharva.
3. Two advanced Quidas, four Tukdas, Two Relas, Two Mukhras and Simple Tihais in, Ektal and Jhaptal.
4. Variations of the Thekas of Dadra and Kaharva
5. Oral renderings of all the Talas and Bols.

Practical Paper - II

Marks : 30

1. Study in relas in Rupaktal and Ektal.
2. Advanced study of solo playing in Jhaptal.

3. Advanced Quidas, Gata, Mukhdas, Relas, Tukda and Tihais in Trital
4. Study of Thekas of 1) Deepchandi 2) Jhumra 3) Teora 4) Pancham-sawari
5. Solo playing in Ektal and Rupaktal
6. Oral renderings of all talas and Bols prescribed in second year.

THIRD YEAR
THEORY PAPERS ARE COMMON FOR TABLA AND
MRIDANG (PAKHAWAJ).

Third Year

Marks : 30

Theory Paper - I

1. Definition and knowledge of application of the following : Gat - Quida, Gat - Paran, Navahakka, Tipalli and Choupalli Gats, Bant and chalan
2. Knowledge of Jati Bhed (Tistra, Chatastra, Misra, Khanda and Sankirna)
3. Study of Adi, Kuwadi, Biadi and Savai Laya
4. Writing in notation of all Talas, Matta, Gajajhampa, Shikhar, Rudra and Luxmi Bols etc. prescribed for third year practical course along with their different Layakarīs.
5. Comparative study of North Indian and the South Indian Tal systems and notaiton systems
6. Theoretical details of all practical portions of the syllabus.
7. Comparative study of Khulla and Bandh Baj.

Theory Paper - II

Marks : 30

1. Definition, principles and importance of Upaj in Tabla of Mridang playing.
2. Comparitive study of the Tal Lipi systems of Pandit Bhathande & Pt. Vishnu Digambar.
3. General knowledge and the study of distinctive features of different Gharanas of Tabla or Mridang.
4. Comparitive study of the different modern trends of tabla or Mridang playing.
5. System of accompaniment with Thumri, Gazal, Dadra and other light music as distinct from the system of accompaniment with Kheyal and other classical Vocal and Instrumental Music. System of accompaniment in Dhrupad and Dhamar with Mridang.
6. Life history and contributions of the following
 - a. Ustad Kale Khan
 - b. Ustad Shammu Khan

- c. Ustad Munne Khan
- d. Ustad Mashit Khan
- e. Ustad Allah Rakkha

Practical Paper - I

Marks : 45

1. Advanced study of Peshkars, Quidas, Mukhdas, Tukdas and relas (at least three in each) with Paltas in Trital.
2. Four Tukdas and two Parans (Simple and Chakardar) with advanced types of Tihais in Choutal and Sooltal.
3. Tukdas, Gats, Relas, Mukhdas, Quidas (Two each) and advanced Tihais in Rupak Pancham Sawari, Deepchandi and Jhumra.
4. Thekas in the following Talas in Barabar, Dugun, Trigun and Chaugun Layas with simple Tukdas and Tihais :
 - a. Matta
 - b. Gajajhampa
 - c. Shikhar
 - d. Rudra
 - e. Luxmi
5. Oral renderings in all Tals and Bols Prescribed.

Practical Paper - II

Marks : 45

1. Solo demonstration along with oral renderings in any two Talas of the course selected by the student. 25
2. Solo demonstration along with oral renderings in any two Talas of the course selected by the examiner. 20

**Syllabus for the practical parers of
B.A. in mridang (Pakhawaj)**

First Year

Practical Paper - I

Marks - 30

1. General exercises for both the hands (Hasta - Sadhan)
2. The Thekas of the following Talas in Thah or Barabar, Dugun, Trigun Laya " Choutal, Jhaptal, Teora and Trital

3. Variations of the above Thekas
4. One Rela in each of the above Talas
5. Two Parans in each of the above Talas
6. One simple Mohra in each of the above mentioned Talas
7. Simple Tihais in all the above mentioned Ragas
8. Oral renderings of all the Talas prescribed above showing Khali, Bhari by hand and counting the Matras in fingers.

Note : Students should be provided with facilities for practice of accompaniment with practice for solo demonstration.

Practical Paper - II

Marks - 30

1. Study of Thekas of the following Talas in Thah or barabar, Dugun, Thugun and Chougun layas : Choutal, Dhamar, Sooltal and Teora
2. Two simple (Sada) Parans in each of the above mentioned Talas
3. Two Parans in Tigun Laya in each of the above mentioned Talas
4. Two Relas in each of the above Talas.
5. One Chakradar Paran in each of the above Talas.
6. One Mohra in each of the above Talas
7. Simple Tihais in each of the above Talas
8. Oral rendering with Tali and Khali of all the Talas and Bols mentioned above
9. Tuning of the instrument

SECOND YEAR

Practical Paper - I

Marks 30

1. Study of thekas of the following Talas in Thah or Barabar, Dugun, Trigun and Chougun Layas in the following : Pancham Swari, Matta, Gajajhampa and Choutal
2. Variations of the above Thekas
3. Paltas of "Dhinanaks" in all of the above mentioned Talas'
4. One mohra in each of the above mentioned Talas
5. Two simple (Sada) Parans in each of the above mentioned Talas
6. One Chakradar Paran in each of the above Talas

7. One Rela in each of the above Talas
8. One Paran in Tigon Laya (Tigon - Laya Ki Paran) in each of the above Talas
9. Simple Bedam and Damdar Tihais in each of the above Talas : Oral renderings of all Talas and Bols prescribed above.

Practical Paper - II

Marks - 30

1. Study of Thekas of the following Talas in Thah or Barabar, Dugun, Tigon and Chougun
Athgun Layas : Shikhar, Rudra, Farodast, Dhamar and Chautal
2. Variations of the above thekas
3. One Chakradhar and two simple Sada (Prans) in each of the above Talas
4. One Adilaya-ki-Paran in each of the above Talas
5. Tihais of advanced Layas in all of the above Talas (Bedam and Damdar)
6. Introduction to "Sath-Parans" if any one of the presceibed Talas
7. Mohras or Mukhdas in all of the above mentioned Talas
8. One Rela in each of the above Tals
9. Paltas of "Dhinanaks" in the above mentioned Talas
10. oral renderings in all prescribed Talas abd Bols

THIRD YEAR

Practical Paper - I

Marks - 45

1. Study of Thekas of the following Talas in Thah or Barabar, Dugun, Trigun and Chougun
Athgun Layas : Basant, Brahma, Laxmi, Ganesh and Vishnu
2. Variations of the above Thekas of the above mentioned Talas.
3. One Chakradar and two Simple Sada (Parans) in each of the above Talas
4. Advanced parans of Tukdas in Trital starting from various Matras
5. One Adi-laya-ki-paran in each of the above Talas prescribed
6. Sath-Pranas in all the Talas prescribed above
7. One Tukda or Mukhda in each of the talas mentioned above
8. Advanced Tihais in all the Talas prescribed
9. Oral rendering of all the prescribed Talas and Bols
10. Perfect tuning of the instrument

Practical Paper - II

Marks - 45

First Half (25 Marks)

1. Solo demonstration along with oral renderings in two Talas of the course selected by the student

Second Half (20 marks)

2. Solo demonstration along with oral renderings in any two Talas of the course selected by the examiner.

Books Recommended in Tabla/Mridang

- | | |
|-------------------------------|---|
| 1. Girish Chandra Srivastava | Tal Parichaya, Part I and II |
| 2. J N Pathak | Sangit Nibandha Mala |
| 3. R N Talegaonkar | Sulabh Sangit Shastra Part I, II |
| 4. M G Godbole Pathak Publ. | Tabla Shastra |
| 5. M G Godbole | Tal Deepika |
| 6. B S Saxena | Tal Meemansa |
| 7. Dr. P. Dhadeech | Abhinava Tal Manjari |
| 8. M L Joshi | Tal Vigyan |
| 9. Shanti Gobardhan | Tal Vigyan |
| 10. S. C. Paranjpe | Bhartiya Sangit Ka Itihas |
| 11. Arun Kumar Sen | Bhartiya Tala Ka Shastriya Vivechan |
| 12. Pt. Govinda Rao | Mridanga - Tabla Vadan |
| 13. Manuji Mishra | Tal Dipika |
| 14. Dr. Lalmani Mishra | Tabla Vigyan |
| 15. Lakshminarayan Garg | Hamare Sangit Ratna |
| 16. Arvind Mulgaonkar | Tabla (Marathi) |
| 17. Harish Chandra Srivastava | Vadya Shastra |
| 18. Dr. Aban E Mistry | Pakhawaj and Tabla ke Gharana Aur Parampara |
| 19. Girish Chandra Srivastava | Tal Kosh |

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. 1st Year

Subject : Computer Application

Paper Code : 162

Theory Max. Marks : 35

Paper 1st : COMPUTERS FUNDAMENTALS

An Introduction, Data, Information, Processing of CPU, Computer hard ware, soft ware, Firm ware, Live ware, I/O devices, Memory management, Classification of Com puters by Size and Purpose, Compiler, Interpreters, Uses in Society.

Introduction to Networking, Languages, Batch Processing, Multiprogramming, Time-Sharing, Multitasking, On Line Processing and Real-Time Computing.

Computer Arithmetic : Computer Arithmetic and No. system, Character Codes (ASCII and EBCDIC), Truth table, Logic gates (AND or NAND NOR) and Logic diagram, Introduction to Flip-Flop, TTL circuits, Clock and timers, Shift register, Counters, CMOS circuits, Data Processing circuits.

MicroSoft-Disk operating system : Introduction, Version of DOS, Fundamentals of Dos, Physical Structure of the disk, Compatibility of drives, Disks and Dos version, Preparing Disks for use, Device names, Getting started with Dos, Dos Commands, Common error messages in DOS.

BASIC : Meaning and Importance of Basic, Constants and Variables, Expressions in Basic Printers controls, Jumping, Branching and looping, Subscripted Variables, Function and Subroutines, Matrix Algebra, String Management in Basic.

Practical : Practical work done on - Dos, Basic.

Text Book : Computer Today By : Suresh K. Basandra

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. 1st Year

Subject : Computer Application

Paper Code : 163

Theory Max. Marks : 35

Paper 2nd : COMPUTER ARCHITECTURE AND PC-SOFTWARE

Basic block diagram of computer, Introduction to Microprocessor, Various types of display & other peripherals used in IBM Pc's, Display cards VGA, CGA, HGA, MGA, Instruction formats : Fetch & Execute cycle, Stack organization, Arithmetic algorithm, I/O organization.

WINDOWS 95/98 : Advantages of Windows 95, Logging on to windows, Start button and taskbar, Starting & Quitting a program, Opening a document, Finding files and folders, Changing system settings, Starting a program by using the Run command, Shutting down windows, seeing what's on your computer, Organizing files and folders, Working within document, saving work, setting up a printer, Printing a document, copying & Moving files quickly, Moving & Copying files by using the right mouse button and by dragging, Program start automatically, Sharing folders or printers, Create picture by using paint, Write for wordpad.

MS-WORD : Word Processor, Type, components, Features, Advantage, Applications, Editing a document, Move & Copy text, Formatting text, Paragraph finding & replacing text, Spelling checking, Tabs, Enhancing documents, Columns, Tables, Mail-Merge.

MS-EXCEL : Introduction to Spread-Sheet, Excel, Advantages, Applications, Editing cells and using commands & Functions, Moving & Copying, Inserting & Deleting rows & Columns, Formatting a worksheet, Printing the worksheet, Creating Charts, Mathematical & Statistical functions.

DESK TOP PUBLISHING (DTP) : What is DTP, Common features, DTP software Programs names : Pagemaker - (File, Edit, Layout, Types, Utilities, Element, Window), Corel Draw (File, Edit, View, Layout, Arrange, Effects, Test, Special)

HTML (Hyper Text Markup Language) : An Introduction, Objective, URI, Structure of HTML document, Structuring web page, Paragraph & line break tags, Adding Commands, Formatting text, Creating Lists, Creating Hyper Text Links, Creating Link List, Inserting in Line images, Creating images links, Horizontal rules, Address text, Working with text, Text alignment, Changing font sizes & Colours, using a background image, Markqueetag, Tables, Frames, Forms.

Practical : Practical work done on - Windows, Ms-Word, Ms-Excel, Pagemaker, CorelDraw, HTML.

Text Books : 1) PC-Software By R.K. Taxali

2) Computer today By S.K. Basandra

3) The Complete reference HTML By Thomas A. Powell.

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IInd Year

SUBJECT : COMPUTER APPLICATION

Paper Code : 164

Theory Max. Marks : 35

Paper Ist : OPERATING SYSTEM & COMPUTER NETWORKS.

- Introduction to categories of software, operating system and its functions.

- Memory Management : Preliminaries, Bare Machine, Resident monitor, Swaping, Multiple partitions, Paging, Segmentation, Buffering, Spooling, Memory fregmentation, MVT & MFT job scheduling.

- Deadlock : Deadlock problem, Deadlock Characterization, Deadlock Prevention, Deadlock avoidance, Deadlock detection, Recovery from Deadlock CPU Scheduling.

- File Systems : File concepts, File support, Access method (Sequential, Direct Indexed sequential), Allocation methods, Directory systems, File Protection, Implementation issues.

- Various types of Processing - Batch, On- line, Real Time, Off-line, Time-sharing, Distributed system, Office-Automation.

- Data Communication : Fundamentals, Overview of computer networks, ISO reference model, Network classification, Physical layer protocol - Transmission media - Magnetic tape, Twisted pair, Fiber optics, Wireless, Transmission and switching - FDM, TDM, Circuit, Message, Packet switching, Datalink layer protocol-Services, Framing, Error control, flow control, Error detection and correction, Simplex and Duplex, Sliding window, Local Area Networks, Medium access sublayer - Aloha, CSMA, Persistent and Nonpersistent, CSMA with collision detection, Collision free protocol, BRAP, MLMA, Binary countdown.

Practical : 'C' Programming in Unix/DOS environment.

Text Books : 1) Operating System By Peterson

2) Networking By Tanenbaum

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IInd Year

SUBJECT : COMPUTER APPLICATION

Paper Code : 165

Theory Max. Marks : 35

Paper 2nd : E-COMMERCE

UNIT 1st : Introduction, Electronic Commerce, Business Intelligence, Electronics Commerce Strategy, Interorganizational System, Electronic Data Interchange (EDI).

Unit 2nd : Electronic Commerce Methodology Business Process Redesign (BPR) Electronic Commerce Technology, Business Application of the Internet, Future Impact of the Internet on Business, Electronic - Business Success Strategies.

UNIT 3rd : What is internet, objective, History of Internet, What you can do with the Internet, Connecting to internet; Web Browsers : How does the Internet Work : World Wide Web; Search Engines; Internet Relay Chat; Telnet; FTP Applications; TCP/IP introduction, internet Standard, Electronic Mail introduction, advantages, How E-mail works, Email Options.

UNIT 4th : Introduction to OOPS, benefits, Applications, Java features, How Java differs from C and C++, Java and Internet, Java and WWW, Web Browser, Hardware and software requirements, Java supports systems, Java environment.

UNIT 5th : Overview of Java languages, Constants, variables, Datatypes, Operators, expressions, Decision making, Branching, Looping, Classes, Objects and methods, Arrays, Strings, Managing errors and exceptions, Introductory Applet Programming, Managing I/O Files.

Practical : Programming in Java.

Test Books : 1) Management Information Systems - By - Basandra Suresh K.

2) Java programming - By – Balaguruswamy E..

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IIIrd Year

Subject : Computer Application

Paper Code : 166

Theory Max. Marks : 30

Paper 1st : DATA BASE MANAGEMENT SYSTEM

Introduction, Traditional approach to information processing, Data base concepts and its approach to Data processing, features of DBMS, Software, users, why database ? What is DBMS, Elements of DBMS, How does a DBMS works.

Data base models, Relational data base models, Hierarchical Data base, Network Data base, Database design, Applications, Problems in DBMS, environment, Selecting Database software, Basic of Relational Data Base Management.

Relational Algebra (Union, Intersection, Difference, Cartesian Product Select, Project, Join, Divide), Entity - Relationship model - components, (Entities, Attributes, relationship) Cardinality, weak entities, recursive entities)

Normalization, The need for the normalization, conversion to 1st, 2nd and 3rd normal form, file access method - Sequential file, Direct access file, Indexed - sequential access file, Role of DBMS, Why relational Database, Structure of RDBMS, Next generation data base system, Knowledge based system, Computer facilities, Features of Distributed Vs Centralized data base, Role of DBA. Introduction to ORACLE, Interfacing with Oracle : SQL & SQL *Plus, Designing a database, Creating tables, Adding Data, Querying the data base, Defining & Using views, Operators and Functions, Understanding SQL *forms, Using SQL* report writer, Using SQL * Menu.

Practical : Oracle / SQL *Plus

Books Referred :

Text Book : Information technology Today By S. Jaiswal

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IIIrd Year

Subject : Computer Application

Paper Code : 167

Theory Max. Marks : 30

Paper 2nd : DATA FILE STRUCTURE AND ALGORITHM (USING C/PASCAL)

Introduction Lexical elements, Entering and executing program, I/O Operations and Expressions, Control Structures, Functions, Arrays & Strings.

Pointers, Structures and Unions, Recursion, Files, Preprocessors and Commandline arguments.

Introduction and Theoretical Concepts of Data types, Elementary data structure, List, Stacks, Queues, Trees, Searching, Sorting.

Introductory Practical Approach to Lists data structure, Manipulation of Linear Linked list, Circular & Doubly Linked List, Double Linked Circular list.

What is algorithms, Algorithm for Breadth First Traversal, Depth First Traversal, 8-Puzzle Problem, Sorting Algo (Insertion, Bubble, Merge, Radix, Quick, Heap), Searching Algo. - (Linear, Binary).

Practical : Pascal or C Lang.

Text Book Referred :

- Authors : 1) Schauma's Series.
 2) E. Balaguruswamy.
 3) Ellis Horowitz & Sartaj Sahni
 4) V. Rajaraman

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IIIrd Year

Subject : Computer Application

Paper Code : 168 (A)

Theory Max. Marks : 30

Paper IIIrd : COMPUTER MATHEMATICS

Introduction to elementary transportation and assignment problems, Differential, Maxima and Minima of Function : Integral and its Application.

Mean, Mode, Median, Standard Deviations, Correlation and Regression; Basic Concepts of probability.

Introductory Concepts in Decision Theory, Game Theory, Queuing Theory, Simulation (Markov Analysis), Introduction to Linear Programming; Graphical Solution and Simplex method of linear programming. Introduction to network concepts and PERT and CPM Techniques.

Introduction to graphs and Multigraphs, Degree of a Vertex, Connectivity, Special Types of Graphs, Labeled Graphs, Tree Graphs, Rooted Trees, Directed Graphs, Connected Digraphs
Linear Equation in one unknown, Two Unknowns.

Books Referred : Computer Mathematics

BUNDELKHAND UNIVERSITY, JHANSI

Syllabus of B.A. IIIrd Year

Subject : Computer Application

Paper Code : 168 (B)

Theory Max. Marks : 30

Paper IIIrd : MANAGEMENT INFORMATION ANALYSIS AND DESIGN

Unit 1st : Information & Management - Type of information, Why do we need a Computer based information, System, Management structure, Management & Information requirements, Qualities of Information.

UNIT 2nd : Information Gathering - Strategy to gather information, Information sources, The role & task of a system analyst, Attributes of a system analyst, Tools used by a system analyst, Software structures, Software procedure, Modularity, Coupling, Computer configuration determination, Program structure, Electronic Data Interchange.

UNIT 3rd : Management Information Concepts - An overview of MIS, Information needs of managers, Properties of useful Management Information, An MIS orientation structure of MIS, Development of MIS.

Unit 4th : Planning Issues & the MIS - Issues involved in Planning for an MIS. How an MIS can help Managerial Planning, Planning & Decision making practices supported by an MIS, An MIS Master plan, Data base requirement.

UNIT 5th : Organizing Issues & The MIS - The centralization / Decentralization of authority, The Centralization / Dispersal of data processing activities, The Centralization / Dispersal of stored data, The location of computing resources in the organization, Organizing the MIS department,

Control issues and the MIS managerial control implications, Internal Control issues, Controlling the MIS department,

Text Books referred :

1. V. Rajaraman
2. Gordon B. Davis
3. James A. Senn
4. Utpal K. banerjee & R.K. Sachdeva

CORE MODULE SYLLABUS FOR ENVIRONMENTAL STUDIES FOR UNDER GRADUATE COURSES OF ALL BRANCHES OF HIGHER EDUCATION

Unit I : The Multidisciplinary nature of environmental studies

Definition. scope and importance

(2 lectures)

Need for public awareness.

Unit 2 : Natural Resources :

Renewable and non-renewable resources :

Natural resources and associated problems.

- a) Forest resources : Use and over exploitation, deforestation. case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- b) Water resources : Use and over-utilization of surface and ground water, floods, drought, Conflicts over water, dams, benefits and problems.
- c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- d) Food resources World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- c) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources Case studies.

f) Land resources : Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

(8 lectures)

Unit 3 : Ecosystems

- Concept of an ecosystem.
- Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem :-
 - a. Forest ecosystem
 - b. Grassland ecosystem
 - c. Desert ecosystem
 - d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lectures)

Unit 4 : Biodiversity and its conservation

- Introduction - Definition : genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity : consumptive use, productive use, social ethical. aesthetic and option values
- Biodiversity at global, National and local levels.
- India as a mega - diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity : habitat loss, poaching of wildlife, man wildlife conflicts.
- Endangered and endemic species of India
- Conservation of biodiversity : In situ and Ex-situ conservation of biodiversity.

(8 lectures)

Unit 5 : Environmental Pollution

Definition

- Causes, effects and control measures of :-
 - a. Air pollution

- b. Water pollution
 - c. Soil pollution
 - d. Marine pollution
 - e. Noise pollution
 - f. Thermal pollution
 - g. Nuclear hazards
- Solid waste Management : Causes, effects and control measures of urban and industrial wastes.
 - Role of an individual in prevention of pollution
 - Pollution case studies
 - Disaster management : floods earthquake, cyclone and landslides.

(8 lectures)

Unit 6 : Social Issues and the Environment

- From Unsustainable to Sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people, its problems and concerns. Case studies.
- Environmental ethics : Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation.
- Consumerism and waste products.
- Environment Protection Act.
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and control of pollution) Act.
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

(7 lectures)

Unit 7 : Human Population and the Environment

- Population growth, variation among nations.
- Population explosion - Family Welfare Programme.
- Environment and human health.
- Human Rights.

- Value Education.
- HIV/AIDS.
- Women and Child Welfare.
- Role of Information Technology in Environment and human health
- Case Studies.

(6 Lectures)

Unit 8 : Field works

- Visit to a local area to document environmental assets - river / forest / grassland / hill / mountain
- Visit to a local polluted site - Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds.
- Study of simple ecosystems - pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours)

SIX MONTHS COMPULSORY CORE MODULE COURSE IN ENVIRONMENTAL STUDIES : FOR UNDERGRADUATES

Teaching Methodologies

The Core Module Syllabus for Environmental Studies includes class room teaching and field Work. The syllabus is divided into eight units covering 50 lectures. The first seven units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit eight is based on field activities which will be covered in five lecture hours and would provide students first hand knowledge on various local environmental aspects. Field experience is one of the most effective learning tools for environmental concerns. This moves out of the scope of the text book mode of teaching into the realm of real learning in the field. where the teacher merely acts as a catalyst to interpret what the student observes or discovers in his/her own environment. Field studies are as essential as class work and form an irreplaceable synergistic tool in the entire learning process.

Course material provided by UGC for class room teaching and field activities be utilized.

The universities / Colleges can also draw upon expertise of outside resource persons for teaching purpose.

Environmental Core Module shall be integrated into teaching programmes of all undergraduate courses.

Annual System : The duration of the course will be 50 lectures. The exam will be conducted along with the Annual Examination.

Semester System : The Environment course of 50 lectures will be conducted in the second semester and the examination shall be conducted at the end of the second semester.

Credit System : The core course will be awarded 4 credits.

Exam Pattern : In case of awarding the marks, the question paper should carry 100 marks,

The structure of the question paper being :

Part - A Short answer pattern - 12½ Marks

Part - B Essay type with inbuilt choice - 25 Marks

Part – C Field Work - 12½ Marks