

BACHELOR OF ARTS
FIRST YEAR
First Semester
English - I
Paper Code BA1001-I

Syllabus and Scheme of Examination

Maximum Marks: 80
Time: 3 Hours

Prescribed Book: literature & Language - I

Rana, Randeep, Jaibir S. Hooda and Loveleen Mohan eds. Language and Literature. Orient Black Swan.

Scheme of Examination

- Question 1.** Explanation with reference to the context: Students will be required to attempt any two out of the given three passages. **2x5=10**
- Question 2.** Short answer type questions: Students will be required to answer any five out of the given eight in about 50 words each. **5x3=15**
- Question 3.** Essay type questions: Students will be required to answer two questions in about 150-200 words each. There will be internal choice in both the questions. **7 ½ x2=15**
- Question 4.** Comprehension: Students will be required to answer the questions that follow the passage taken from the prescribed textbook. **5**
- Question 5.** (A) Grammar: Noun, Pronoun, Adjective, Adverb. This will be “Do as Directed” type question. Students will be required to attempt any ten out of the given fifteen items. **14**
- Question 5** (B) Grammar: tense, voice, This will be “Do as Directed” type question. Students will be required to attempt any 10 out of the given fifteen items. **14**
- Question 6** Essay: students will be required to write an essay in about 200 words on any one out of the four. The topics for essay writing will be similar to but not the same as given in the prescribed textbook. **7**

English - I
Paper Code BA1001-I

Literature & Language –I

- Unit-I Choosing Our Universe
 Are Dams the Temples of Modern India
- Unit-II The Generation Gap
 Language and National Identity
- Unit – III Wounded Plants
 Playing the English Gentleman
- Unit – IV Great Books Born out of Great Minds (Dr. APJ Kalam)
 The Responsibility of Young Men
- Unit- V Bharat Mata

Second Semester
English - II
Paper Code BA2001-II

Syllabus and Scheme of Examination

Maximum Marks: 80
Time: 3 Hours

Prescribed Book: literature & Language - II

Rana, Randeep, Jaibir S. Hooda and Loveleen Mohan eds. Language and Literature. Orient Black Swan.

Scheme of Examination

- Question 1.** Explanation with reference to the context: Students will be required to attempt any two out of the given three passages. **2x5=10**
- Question 2.** Short answer type questions: Students will be required to answer any five out of the given eight in about 50 words each. **5x3=15**
- Question 3.** Essay type questions: Students will be required to answer two questions in about 150-200 words each. There will be internal choice in both the questions. **7 ½ x2=15**
- Question 4.** Comprehension: Students will be required to answer the questions that follow the passage taken from the prescribed textbook. **5**
- Question 5.** (A) Grammar: Verb, Preposition, Modal And Conjunction. This will be “Do as Directed” type question. Students will be required to attempt any ten out of the given fifteen items. **14**
- Question 5** (B) Grammar: Narration and Phrasal Verbs. This will be “Do as Directed” type question. Students will be required to attempt any ten out of the given fifteen items. **14**
- Question 6** Essay: students will be required to write an essay in about 200 words on any one out of the four. The topics for essay writing will be similar to but not the same as given in the prescribed textbook. **7**

Second Semester
English - II
Paper Code BA2001-II

Literature & Language –II

- Unit-I Pigeons at Daybreak
- Unit-II With the Photographer
 The Journey
- Unit–III The Refugee
 Bellows for the Bullock (A Haryanavi Folk Tale)
- Unit – IV Panchlight
 The Child
- Unit- V The Blind Dog
- Unit- VI Essay

**BACHELOR OF ARTS
SECOND YEAR
Third Semester
English - III
Paper Code BA3001-III**

Scheme of Examination:

Maximum Marks: 80

Time: 3 Hours

Prescribed Book: literature & Language – III

Instructions to the Paper Setters and Students.

- Question 1.** Explanation with reference to the context: Students will be required to attempt any two out of the given three passages. **5x2=10**
- Question 2.** Short answer type questions: Students will be required to answer any five out of the given eight in about 50 words each. **5x3=15**
- Question 3.** Essay type questions: Students will be required to answer two questions in about 150-200 words each. There will be internal choice in both questions. **7 ½ x2=15**
- Question 4.** Student will be required to write short notes on any four of the given six poetic forms devices. **10**
- Question 5.** Grammar: Clauses- Noun, Adverbial and Conditional; This will be a “Do as Directed” type question. Students will be required to attempt any twenty out of the given thirty items. **20**
- Question 6** Translation of a short passage from English to Hindi **5**
- Question 7** Dialogue Writing: Students will be required to compose dialogues on one of the given three topics (in about 150 words). **5**

Third Semester
English - III
Paper Code BA3001 - III

Literature & Language –III (Centre Stage)

Unit-I The Envoy

Unit-II The Swan Song

Unit – III The Monkey’s Paw

Unit – IV Before Breakfast

Unit- V Poetic form and Devices
Irony, Imagery, Paradox, Symbolism, Satire, Personification, Allusion, Hyperbole,
Synecdoche, Metonymy

Fourth Semester
English - IV
Paper Code BA4001 - IV

Scheme of Examination:

Maximum Marks: 80
Time: 3 Hours

Prescribed Book: literature & Language – IV

Instructions to the Paper Setters and Students.

- Question 1.** Explanation with reference to the context: Students will be required to attempt any two out of the given three passages. **10**
- Question 2.** Short answer type questions: Students will be required to answer any five out of the given eight in about 50 words each. **5x3=15**
- Question 3.** Essay type questions: Students will be required to answer two questions in about 150-200 words each. There will be one question on the prescribed poems and the other on the prescribed plays. There will be internal choice in both the questions. **7 ½ x2=15**
- Question 4.** Student will be required to write short notes on any four of the given six poetic forms devices. **10**
- Question 5.** Grammar: Pre-fix and suffix;. This will be a “Do as Directed” type question. Students will be required to attempt any twenty out of the given thirty items. **20**
- Question 6** Translation of a short passage from English to Hindi **5**
- Question 7** Dialogue Writing: Students will be required to compose dialogues on one of the given three topics (in about 150 words) **5**

Fourth Semester
English - IV
Paper Code BA4001 - IV

Literature & Language –IV (Fragrances)

Unit-I	Sonnet XVIII
Unit – II	Know Then Thyself
Unit - III	Elegy Written in a Country Churchyard
Unit-IV	The World is too much with us
Unit – V	My Last Duchess
Unit – VI	Where the Mind is Without Fear
Unit- VII	The Bangle Sellers
Unit-VIII	Poetic Forms and Devices Sonnet, Lyric, Ode, Elegy, Dramatic Monologue, Free verse, Rhythm and Rhyme, Alliteration, Simile, Metaphor

HINDI
PAPER CODE BA1002-I
FIRST SEMESTER

हिन्दी – I

Marks: 80

Time: 3Hrs

पाठ्य पुस्तक :

1. 'काव्य शिखर' – प्राचीन एवं मध्ययुगीन काव्य पर आधारित संज्ञक पुस्तक सं. डॉ. नरेश मिश्र, हिन्दी विभागाध्यक्ष म. द. विश्वविद्यालय, रोहतक।

निर्देश :-

1. पहला प्रश्न काव्य शिखर नामक काव्य संग्रह से व्याख्या के रूप में होगा। पाठ्यपुस्तक में निर्धारित कवियों में से किन्हीं चार कवियों की आठ व्याख्याएं पूछी जाएंगी। परीक्षार्थियों को उनमें से किन्हीं चार की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या 7 अंक की होगी और पूरा प्रश्न 28 अंकों का होगा।
अंक 7 X 4 : 28
2. चार कवियों में से को दो कवियों का साहित्यिक परिचय पूछा जाएगा। इस प्रश्न के लिए 16 अंक निर्धारित हैं।
अंक 8 X 2 : 16
3. निर्धारित कवियों में से चार पर अनुशीलनी में से चार आलोचनात्मक प्रश्न पूछे जाएंगे। परीक्षार्थियों को किन्हीं दो का उत्तर देना होगा। इस प्रश्न के लिए 16 अंक निर्धारित हैं।
अंक 8 X 2 : 16
4. अन्तिम प्रश्न काव्य शिखर की अनुशीलनी के व्याकरण पर आधारित होगा, जिसके लिए 20 अंक निर्धारित हैं। इसके अंतर्गत वर्तनी, पर्याय, विलोम, वाक्य के लिए एक शब्द, मुहावरे और लोकोक्ति निर्धारित हैं। इसमें 10 अनिवार्य वस्तुनिष्ठ प्रश्न होंगे। प्रत्येक प्रश्न के लिए चार विकल्प होंगे, जिनमें से एक शुद्ध उत्तर देना होगा।
अंक 10 X 2 : 20

**SECOND SEMESTER
HINDI
PAPER CODE BA2002-II**

हिन्दी – II

Marks: 80

Time: 3Hrs

1. "गद्य-शिखर" नामक गद्य संकलन सं. हिन्दी विभागाध्यक्ष, कु. विश्वविद्यालय जिसमें पांच कहानियां और पांच निबन्ध संकलित हैं।

निर्देश :-

1. निर्धारित पाठ्य पुस्तक गद्य-शिखर में संकलित निबन्धों और कहानियों में से व्याख्या के लिए चार-चार अवतरण दिए जाएंगे, जिनमें से परीक्षार्थियों को प्रत्येक से दो-दो अवतरण की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या 7 अंकों की और पूरा प्रश्न 28 अंकों का होगा।
अंक 7 X 4 : 28
2. निर्धारित कहानीकारों और निबन्धकारों में से एक-एक का साहित्यिक परिचय पूछा जाएगा, जिनमें से परीक्षार्थियों को किसी एक का उत्तर देना होगा। यह प्रश्न 11 अंकों का होगा।
अंक 11 X 1 : 11
3. निर्धारित लेखकों में से किन्हीं चार पर अनुशीलनी में से चार आलोचनात्मक प्रश्न पूछे जाएंगे। परीक्षार्थियों को किन्हीं दो का उत्तर देना होगा। इस प्रश्न के लिए 20 अंक निर्धारित हैं।
अंक 10 x 2 : 20
4. लघूत्तरी प्रश्न द्रुतपाठ में निर्धारित दो कहानीकारों (मोहन राकेश और मालती जोशी) और निबन्धकारों (महावीर प्रसाद द्विवेदी और सरदार पूर्ण सिंह) पर पाठ्य पुस्तक की अनुशीलनी में से ही एक-एक प्रश्न अर्थात् चार प्रश्न पूछे जाएंगे, जिनमें से परीक्षार्थियों को किन्हीं तीन प्रश्नों के उत्तर देने होंगे। प्रश्न परिचयात्मक प्रकृति के होंगे। प्रत्येक प्रश्न 7 अंको का होगा और पूरा प्रश्न 21 अंकों का होगा।
अंक 7 X 3 : 21

**THIRD SEMESTER
HINDI
PAPER CODE BA3002-III**

हिन्दी-III

Marks: 80

Time: 3Hrs

पाठ्य पुस्तक / पाठ्य विषय

1. अभिनव काव्य गरिमा स. डॉ. राम नरेश मिश्र, प्रकाशक खादू श्याम प्रकाशन, रोहतक, दिल्ली।
2. अंधेर नगरी-भारतेन्दु हरिश्चन्द्र।
3. जहाज का पंछी (संक्षिप्त संस्करण) इलाचन्द जोशी।

निर्देश :-

1. काव्य पुस्तक से व्याख्या के लिए छः पद्यावरण पूछे जाएंगे जिनमें से परीक्षार्थियों को चार की व्याख्या करनी होगी। प्रत्येक व्याख्या 6 अंकों की होगी। पूरा प्रश्न 24 अंकों का होगा। **अंक 6 X 4 : 24**
2. काव्य पुस्तक से संबंधित चार कवियों का साहित्यिक परिचय पूछा जाएगा जिनमें से परीक्षार्थियों को किन्ही दो का उत्तर देना होगा। यह प्रश्न 22 अंकों का होगा। **अंक 11X 2 : 22**
3. अंधेर नगरी से छः लघूत्तरी प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को चार प्रश्नों के उत्तर देने होंगे प्रत्येक प्रश्न 4 अंकों का होगा। **अंक 4 X 4 : 16**
4. "जहाज का पंछी" उपन्यास से पाँच आलोचनात्मक प्रश्न पूछे जाएंगे। जिनमें से परीक्षार्थियों को 3 प्रश्नों के उत्तर देने होंगे। प्रत्येक प्रश्न 6 अंकों का होगा। **अंक 6 X 3 : 18**

**FOURTH SEMESTER
HINDI
PAPER CODE BA4002-IV**

हिन्दी-IV

Marks: 80

Time: 3Hrs

1. "अभिनव गद्य गरिमा" कुरुक्षेत्र विश्वविद्यालय।
2. हिंदी साहित्य का इतिहास (आधुनिक काल)।

निर्देश :-

1. "अभिनव गद्य गरिमा" से छः गद्यांश पूछे जाएंगे जिनमें से परीक्षार्थी को चार की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या 6 अंकों की होगी। **अंक 6 × 4 : 24**
2. "अभिनव गद्य गरिमा" से छः लघुत्तरी प्रश्न पूछे जाएंगे। जिनमें से परीक्षार्थियों को किन्हीं चार प्रश्न के उत्तर देने होंगे। प्रत्येक प्रश्न 5 अंकों का होगा। **अंक 5 × 4 : 20**
3. आधुनिक हिन्दी साहित्य के इतिहास से बारह अति लघुत्तरी प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को 9 प्रश्नों का उत्तर देना होगा। प्रत्येक का उत्तर लगभग 50 शब्दों में देना होगा। प्रत्येक प्रश्न 4 अंकों का होगा। पूरा प्रश्न 36 अंकों का होगा। **अंक 4 × 9 : 36**

**FIRST SEMESTER
HISTORY
HISTORY OF INDIA
(Earlier to 1200 AD)
PAPER CODE: BA1003-I**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Section I

1. Survey of the sources.
2. Pre historic hunter-gatherers: Paleolithic culture-sequence and geographical distribution. Mesolithic cultures distribution and cultural developments.
3. Concept of the Neolithic-advent of food production.
4. Harappan Civilisation-Origin, extent, urban planning, Nature of Social and economic condition, urban decline and late Harappan culture.

Section II

The Vedic Age (c. 1500 B.C. to 600 B.C.)

1. Society, Polity, economy, culture and religion as reflected in the Vedic literature
2. Social developments-varna, Jati, marriage and property relations.
3. Rise of territorial states.
4. Rise of new religious movements in north India, Doctrines and social dimension of early Buddhism and Jainism.

Section III

1. The Mauryan Empire-State, administration and economy: Ashoka's Dharma-its nature and propagation; Mauryan art and architecture.
2. Post Mauryan period-Kushanas, Satavahanas, Cholas and Pandyas.
3. Sangam Age-Literature, society and culture.
4. Gupta Empire-administration, agrarian and revenue system, and trade; society, art, architecture, literature, science and technology.
5. Status of Women-marriage, property rights, sati, purdas and devadasi system.
6. Post-Gupta period upto 750AD-Pallavas, Chalukyas and vardhanas.
7. Polity and economy C.A.D 750-1200 Gurjara –Pratihara: Palas; Rashtrakuta.

Section IV

Maps

1. Important sites of the Harappan Civilisation.
2. Ports, trading centres and trade routes of Ancient India.
3. Extent of Ashoka's Empire, Pillars and Edicts.
4. Extent of Harsha's Empire.
5. Extent of Kushana's Empire

Suggested Readings :

- | | |
|----------------------------------|--|
| Jha, D.N. | <i>Prachin Bharat</i> , Hindi Madhyam Karyanvaya Nideshalaya, University of Delhi, 1995 |
| Jha , D.N.and K.M. Srimali (ed.) | <i>Prachin Bharat ka Itihas</i> , Hindi Madhyam Karyanvaya Nideshalaya , University of Delhi, 2007 |
| Majumdar, R.C. | <i>Prachin Bharat</i> , Motilal Banarsidass, Delhi, 1973 |
| Mukharjee, R.K. | <i>Prachin Bharat</i> , Raj Kamal Prakashan, New Delhi, 1990 |

- Pandey, A.B. *Purva Madhyakalin Bharat*, Central Book Depot, Allahabad, 1999 (Rev. edn.)
- Raychaudhry, H.C.: *Political History of Ancient India*, University of Calcutta, 1972
- Sharma, R.S. *Aspects of Political Ideas and Institutions in Ancient India* Motilal Banarasidass, Delhi, 1996 (Rev. Edn.)
- Sharma, R.S. *Prarambhik Bharat ka Aarthik aur Samajik Itihas*, Hindi Madhyam Karyanvaya Nidishalaya, University of Delhi, 2000.
- Thapar, Romila *Adikalin Bharat ki Vyakhya*, Granth Shilpi, Delhi, 2008
- ” *Ancient Indian Social History*, Orient Longman, New Delhi, 2004
- ” *A History of India*, Vol. I, Penguin, 1966
- ” *Ashok aur Maurya Samrajya ka Patan*, Granth Shilpi, Delhi, 1997
- ” *Interpreting Ancient India*, Granth Shilpi, New Delhi, 1985
- ” *Vansh se Rajya Tak*, Granth Shilpi, New Delhi, 2004

**SECOND SEMESTER
HISTORY
HISTORY OF INDIA
(1200 AD to 1526 AD)
PAPER CODE: BA2003 - II**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Section I

1. Invasions of Ghaznavids and Ghorids; Causes of the success and their impact.
2. Rise and expansion of Delhi Sultanate

Section II

1. Delhi Sultanate under the Slave dynasty; Khilji, Tughlaq; Syiad and Lodhi,
2. Society and economy under the Sultanate

Section III

3. Religion and culture under the Delhi Sultanate.
4. Bhakti and Sufi movements during the Delhi Sultanate.
5. Art, architecture during the Sultanate.

Section IV

Maps

1. Political Condition of India on the eve of Delhi Sultanate
2. Extent of Allauddin Khilji's Empire.
3. Extent of Feroj Shah Tuglaq Empire
4. Urban Centres during the Sultanate.

Suggested Reading

Chandra, Satish	<i>Madhyakalin Bharat</i> (Sultanate to Mughals), Vol. I & II, Jawahar Publication, New Delhi, 2000, 2001
Dodwell, H.H. (ed.)	<i>The Cambridge History of India</i> , Vol. V, S. Chand & Co., New Delhi, 1986
Habibulla, A.B.M.	<i>Foundation of Muslim Rule in India</i> , Central Book Depot, Allahabad, 1976
Pandey, A.B.	<i>Uttar Madhyakalin Bharat</i> , Vol. III, Panchsheel Prakashan, Kanpur, 1976
Sharma, G. D.	<i>Madhyakalin Bharat ki Samajik, Arthik aur Rajnitik Sansthayen</i> , Rajasthan Hindi Granth Academy, Jaipur, 1990
Srivastava, A.L.	<i>Madhyakalin Bhartiya Sanskriti</i> , Shivilal & Agrawal Company Prakashan, Agra, 1975
Verma, H.C.	<i>Madhyakalin Bharat</i> , Vol. I & II, Hindi Madhyam, Karyanvaya Nideshalaya, University of Delhi , 2000

**THIRD SEMESTER
HISTORY
HISTORY OF INDIA
(C.A.D 1526 to 1707 AD)
PAPER CODE: BA3003-III**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Section I

1. Reconstructing and Interpreting Medieval India : Definition, Sources

2. Mughal Empire Relations with Rajputs, Sikhs, deccan Kingdom, Maraths, Parsia and Central Asia.
2. Mughal administration and institutions : administrative structure, land revenue system : Manasabdari and Jagirdari.

Section III

1. Economic and technological development : agriculture, industry, trade, commerce and urban centers.
2. Society under Mughals (i) Social classes-ulema; nobility, Zamindars, peasantry, artisans, (ii) Status of Women.
3. Art and architecture under Mughals.
4. Religion and Culture : Religious policies of Akbar and Aurangzeb, Sufism; Bhakti Movement and Composite Culture.

Section III

1. Socio-Religious Life during Medieval Period : Bhakti Movement, Sufi Movement, Din-e-Ilahi, Art and Architecture
2. Decline and disintegration of Mughal Empire
3. Advent of European powers : Portuguese; French; and English.

Section IV

Maps

1. Political Condition of India in 1526.
2. Mughal Empire at the death of Akbar (1605).
3. Centres of Advent of European powers.

Suggested Readings

Chandra, Satish	<i>Madhyakalin Bharat</i> (Sultanate to Mughals), Vol. I & II, Jawahar Publication, New Delhi, 2000, 2001
Dodwell, H.H. (ed.)	<i>The Cambridge History of India</i> , Vol. V, S. Chand & Co., New Delhi, 1986
Habibulla, A.B.M.	<i>Foundation of Muslim Rule in India</i> , Central Book Depot, Allahabad, 1976
Pandey, A.B.	<i>Uttar Madhyakalin Bharat</i> , Vol. III, Panchsheel Prakashan, Kanpur, 1976
Sharma, G. D.	<i>Madhyakalin Bharat ki Samajik, Arthik aur Rajnitik Sansthayen</i> , Rajasthan Hindi Granth Academy, Jaipur, 1990
Srivastava, A.L.	<i>Madhyakalin Bhartiya Sanskriti</i> , Shivlal & Agrawal Company Prakashan, Agra, 1975
Verma, H.C.	<i>Madhyakalin Bharat</i> , Vol. I & II, Hindi Madhyam, Karyanvaya Nideshalaya, University of Delhi , 2000

**FOURTH SEMESTER
HISTORY
HISTORY OF INDIA
(1707A.D. to 1947)
PAPER CODE: BA4003-IV**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Section I

1. Disintegration of central authority: Decline of Mughal Empire and Rise of successor states; British Conquest of India: its nature: a brief survey; Eastern India- Bengal; Southern India- Mysore and Marathas ; North and Western India-Awadh, Sind and Punjab

2. Consolidation of British rule and resistance: Administration and Foreign policy; Early resistance and Revolt of 1857

Section II

1. Society of India: Social condition in 18th century; Indian cultural renaissance; Social impact of British rule

2. Economy of India: Economic condition in 18th century; British land revenue policy; Economic impact of British rule

Section III

1. Emergence of Nationalism: Causes of the emergence of National Movement; Indian National Congress and National Freedom Movement (1885-1947); Revolutionaries

2. Towards Freedom: Constitutional Development: 1909 to 1935; Emergence of Communal and separatists politics; Negotiations for independence and transfer of power

Section IV

Maps

1. India during 1764
2. Important places of 1857 Revolt
3. Centers of socio-religious movements.
4. Important places of Revolutionary Movements.
5. Places associated with significant sessions of Indian National Congress

Suggested Readings:

Bipan, Chandra(ed.)	<i>Bharat ka Swatantrata Sangharsh</i> , Hindi Madhyam Karyanvay Nideshalay, University of Delhi, 1998
Desai,A.R.	<i>Bhartiya Rashtravad ki Samajik Prishthabhumii</i> , Macmillan, Delhi, 1967
Kashyap, Subhash	<i>Swatantrata Andolan ka Itihas</i> , Hindi Madhyam Karyanvay Nideshalay, University of Delhi, 1997
Ray, Satya M.(ed.)	<i>Bharat mein Upniveshwad aur Rashtravad</i> , Hindi Madhyam Karyanvay Nideshalay , University of Delhi, 1986
Sarkar,Sumit	<i>Adhunik Bharat</i> , Rajkamal Publication, Delhi, 1999
Sharma, Ramvilas	<i>Swadhinta Sangram ke Badalte Paripeksh</i> , Hindi Madhyam Karyanvay

- Nideshalay, University of Delhi, 1995
- Spear, Percival *Oxford History of India*, Oxford University Press, New Delhi, 1974
- Stokes, Eric *Peasant and the Raj*, Cambridge University Press, Delhi, 1975
- Sukla, R.L. (ed.) *Adhunik Bharat ka Itihas*, Hindi Madhyam Karyanvay Nideshalay, University of Delhi, 1990
- Tara Chand *History of the Freedom Movement in India*, Vol. 1 to 4, The Publication Division, Ministry of Information and Broadcasting, Delhi, 1961
- Verma, H.C. (ed.) *Madhya Kaleen Bharat*, (1540-1761), Vol. 2 Hindi Madhyam Karyanvay Nideshalay, University of Delhi, 2002

**FIRST SEMESTER
ECONOMICS
MICRO ECONOMICS
PAPER CODE BA 1004-I**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Unit I

Introduction: Nature and scope of economics, choice as an economic problem. **Elasticity of demand:** Price, Income and Cross Elasticity of demand.

Unit II

Consumer's Behavior: Utility- Cardinal and ordinal approaches: Indifference curve: Consumer's equilibrium (Hicks and Slutsky); Consumer's Surplus.

Unit III

Theory of production: Production function, ISO-quant, Law of variable proportions; Returns to scale.

Theory of cost: Different concepts of costs and their interrelations.

Unit IV

Markets: Market structure and commodity pricing; market forms: perfect and imperfect markets; Equilibrium of firm under perfect competitions, monopolistic competition, **Factor pricing:** marginal productivity theory of distribution.

**SECOND SEMESTER
ECONOMICS
INDIAN ECONOMIC PROBLEMS
PAPER CODE BA2004-II**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Unit I

Introduction: Basic Characteristics of Indian economy; problem of poverty; inequality and unemployment.

Unit II

Economic Planning in India: Objectives of planning and its achievements and failures, New economic reforms.

Unit III

Indian Agriculture: Nature and importance; Trends in agricultural production and productivity, Rural credit, Agricultural marketing.

Unit IV

Industry: Industrial development during the planning period; new industrial Policy, Growth and problems of small scale industries.

Suggested Reading

Bach, G.L 1977, Economics, Prentice Hall of India, New Delhi.
Gauio, J.P. and Edward P.L (1996), Micro economics theory, Richard Irwin Home wood.
Handerson J. and R.E. Quandt (1900) Microeconomics Theory ; A mathematical approach, McGraw Hill, New Delhi.
Heath field and Wibe (1907), An introduction to cost and production functions, Macmillan London.
Kouisoyionnis, A (1990) Modern Microeconomics, Macmillan.
Lipsey, R.G and K.A Christal (1999) Principles of Economics (9th Edition) Oxford Univ Press.
Mansfield . E. (1997) Microeconomics (9th Edition), W.W Norton and Company, New York.
Ray, N.C (1918) an introduction to Microeconomics, Mcmillan Company of India Ltd Delhi.

81

Raaj, W.J.I (1962) Price Theory, Mcmillan and Co. Ltd London.
Datt, R. and KPM Sundharam (2001), Indian Economy S.Chand & Co.
Dhingra I.C. (2001) The Indian Economics ; Environment and policy Sultan Chand & Sons, New Delhi.
Misra, S.K. and V.K.Puri (2001) Indian Economy- its Development Experience, Himalaya Publishing House Mumbai.

**THIRD SEMESTER
ECONOMICS
MACRO ECONOMICS - I
PAPER CODE- BA3004-III**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Unit I

National income: Concepts and measurement, Say's Law of Market, Classical theory of employment, Keynes' objection to the classical theory; Keynesian theory of employment, Consumption function.

Unit II

Investment: Autonomous and induced investment; Investment multiplier, Investment Theory of accelerator, MEC.

Unit III

Trade Cycle Theories: Samuelson and Hicks, Control of trade cycles Growth models: Harrod-Domar model and Solow model.

Unit IV

Money: meaning functions and significance, Quantity theory of money and Keynesian theory of money.

**FOURTH SEMESTER
ECONOMICS
MACRO ECONOMICS -II
PAPER CODE- BA4004-IV**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt eight questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 16 marks.

Unit I

Theories of Inflation: Demand Pull and Cost Push; effects and control of inflation.

Unit II

Commercial banks and Central Bank: Functions; Credit creation and control of money supply; Recent reforms in banking sector in India.

Unit III

Public Finance: Nature, Scope and Significance; Principle of maximum social advantage; Classification, canons and effects of Public expenditure, canons and effects of taxation; Impact and incidence of taxes; Recent tax reforms in India.

Unit IV

Public Debt: Sources and effects of public debt; Methods of redemption of Public debt; Recommendations of Tenth Finance Commission.

Reading list

Ackley, G (1976), Macroeconomics, Theory and Policy. Macmillan Publishing Company New York.
Day, A.C.I., (1960), Outline of Monetary Economics, Oxford University Press, Oxford.
Gupta, S.B (1994), Monetary Economics, S. Chand and Co., Delhi. - Heijora, B.J. and F.V. Pleg (2001),
Foundation of Modern Macroeconomics, Oxford University Press, Oxford.
Lewis, M.K. and P.D. Mizan (2000), Monetary Economics, Oxford; University Press, New Delhi.
Shapiro, E (1996), Macroeconomic Analysis; Galgotia Publications, New Delhi.
Ackley, C (1996), Macroeconomics; Theory and Policy Macmillan Publishing Co. New York.
Bhargava, R.N. (1971), The Theory and working of Union Finance in India Chaitanya Publishing House,
Allahabad Gupta, S.B.(1994).

**FIRST SEMESTER
PUBLIC ADMINISTRATION
ELEMENTS OF PUBLIC ADMINISTRATION-I
PAPER CODE: BA1005-I**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No.1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q. No.1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Organisation: Meaning and basis, Principles of Organisation: Hierarchy, Span of Control, Decentralization, Supervision and Control, Communication. Public Relation: Meaning, Methods and significance; Administrative Law; Delegated Legislation; Administrative Tribunals.

Forms of Administrative Organisation: Department; Public Corporation; Parliamentary and Govt. Control over Public Corporation; Independent Regulatory Commission; Staff and Line Agencies.

Suggested Books:

- B.L. Fadia & K. Fadia, Public Administration (Administrative Theories), Sahitya Bhawan Publication, Agra, 2015.
- Bidyut Chakrabarty and Prakash Chand, Public Administration in a Globalizing World: Theories and Practices, Sage, New Delhi, 2012.
- Smita Srivatava, Theory and Practice of Public Administration, Pearson, Noida (U.P), 2011.
- D.Ravindra Prasad and Y. Pardhasaradhi (eds.), Public Administration: Concepts, Theories and Principles (Eng), Telugu Akademi, Hyd, 2011.
- Hoshiar Singh and Pradeep Sachdeva, Public Administration Theory & Practice, Pearson Education India, 2010.
- Siuli Sarkar, Public Administration in India, PHI, New Delhi, 2009.
- Shafritz Jay M. (ed.), Defining Public Administration, Jaipur; Rawat Publications, 2007.
- Dubey, R.K., Aadhunik Lok Prashasan: Modern Public Administration, Laxmi Narayan Agarwal Publishers, Agra, 2007.
- Sharma M.P. & Sadana B.L., Public Administration in Theory and Practice, Allahabad: Kitab Mehal, 2003.
- Avasthi, A. & Maheshwari, S.R., Public Administration, Agra: Laxmi Narain Aggarwal, 2001.
- K.K. Puri and G.S. Brara, Public Administration: Theory and Practice, Bharat Prakashan, Jalandhar, 2000.
- Sharma, P.D. & Sharma, H.C., Theory and Practices of Public Administration, New Delhi: College Book Depot, 1998.
- Naidu, S.P., Public Administration: Concepts and Theories, New Age International Publishers, New Delhi, 1996.
- Bhambri, C.P., Public Administration, Delhi: Vikas Publishers, 1991
- Bhattacharya, M. Public Administration: Structure, Process and Behaviour, Calcutta: The World Press, 1991.
- Negro, F.A. & Nigro, G.N. Modern Public Administration, New York: Harper & Row Publishers, 1980.
- Dimock, M.E. Dimock, G.O. Public Administration, Oxford: IBH Publishing Company, 1975.
- While, L.D., Introduction to the Study of Public Administration, New York: Maxmillan Company, 1958.

**SECOND SEMESTER
PUBLIC ADMINISTRATION
ELEMENTS OF PUBLIC ADMINISTRATION-II
PAPER CODE: BA2005-II**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No.1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q. No.1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Personnel Administration: Recruitment; Training; Promotion; Public Service Commission; Morale; Joint Consultative Machinery (Whitley Councils).

Preparation and passing of Budget, Audit and its Preparation and Significance, Parliamentary Control over Public Finance. Accountability of Public Administration, Legislative and Judicial. E-Governance in Public Administration.

Suggested Books:

- B.L. Fadia & K. Fadia, Public Administration (Administrative Theories), Sahitya Bhawan Publication, Agra, 2015.
- Bidyut Chakrabarty and Prakash Chand, Public Administration in a Globalizing World: Theories and Practices, Sage, New Delhi, 2012.
- Smita Srivatava, Theory and Practice of Public Administration, Pearson, Noida (U.P), 2011.
- D.Ravindra Prasad and Y. Pardhasaradhi (eds.), Public Administration: Concepts, Theories and Principles (Eng), Telugu Akademi, Hyd, 2011.
- Hoshiar Singh and Pradeep Sachdeva, Public Administration Theory & Practice, Pearson Education India, 2010.
- Siuli Sarkar, Public Administration in India, PHI, New Delhi, 2009.
- Shafritz Jay M. (ed.), Defining Public Administration, Jaipur; Rawat Publications, 2007.
- Dubey, R.K., Aadhunik Lok Prashasan: Modern Public Administration, Laxmi Narayan Agarwal Publishers, Agra, 2007.
- Sharma M.P. & Sadana B.L., Public Administration in Theory and Practice, Allahabad: Kitab Mehal, 2003.
- Avasthi, A. & Maheshwari, S.R., Public Administration, Agra: Laxmi Narain Aggarwal, 2001.
- K.K. Puri and G.S. Brara, Public Administration: Theory and Practice, Bharat Prakashan, Jalandhar, 2000.
- Sharma, P.D. & Sharma, H.C., Theory and Practices of Public Administration, New Delhi: College Book Depot, 1998.
- Naidu, S.P., Public Administration: Concepts and Theories, New Age International Publishers, New Delhi, 1996.
- Bhambri, C.P., Public Administration, Delhi: Vikas Publishers, 1991
- Bhattacharya, M. Public Administration: Structure, Process and Behaviour, Calcutta: The World Press, 1991.
- Negro, F.A. & Nigro, G.N. Modern Public Administration, New York: Harper & Row Publishers, 1980.
- Dimock, M.E. Dimock, G.O. Public Administration, Oxford: IBH Publishing Company, 1975.
- While, L.D., Introduction to the Study of Public Administration, New York: Maxmillan Company, 1958.

**THIRD SEMESTER
PUBLIC ADMINISTRATION
BHARTIYA PARSHASHAN-I
PAPER CODE: BA3005-III**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No.1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q. No.1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Feature of Indian Administration; its role in the context of democratic system and socio-economic development. Centre State Relationship- Administrative and Financial relations.

Role of the President, Prime Minister and Cabinet in Indian Administration, Cabinet Secretariat, Organisation and functions of Union Minister and State Secretariat, role of the Chief Secretary in State Administration.

Suggested Books:

- B.L. Fadia & K. Fadia, Indian Administration, Sahitya Bhawan Publication, Agra, 2017.
- Abrar, R., Indian Public Administration, Wisdom Press, New Delhi, 2016.
- Ahmed, Nazim Uddin, Advanced Study of Indian Administration, The Readers Paradise, New Delhi, 2013. Goyal, Vijay Kumar and B.K. Garg, Rural Development Administration, New Delhi: Alfa Publications, 2013.
- Gupta, Jawahar Lal, Indian Administration: Evolution & Development, Wisdom Press, New Delhi, 2013.
- R.K. Arora, Indian Public Administration: Institutions and Issues, New Age International Publishers, New Delhi, 2012 (3rd edition).
- Jha, Rajesh K., Public Administration in India, Pearson Publication, Delhi, 2012.
- Sharma, P.D. & Sharma, B.M., Indian Administration: Retrospect and Prospect, Rawat Publication, Jaipur, 2009.
- Prasad, Kamala, Indian Administration, Politics, Policies and Prospects, New Delhi, Pearson Longman, 2006.
- Chaubey, P.K., Urban Local Bodies in India: Governance with Self-Reliance, New Delhi, IIPA, 2004.
- Dhalimal, S.S., Good Governance in Local Self Government, New Delhi, Deep & Deep, 2004.
- Jain, R.B., Public Administration in India: 21 Century Challenges for Good Governance, New Delhi, Deep & Deep, 2002.
- Maheshwari, S.R., Indian Administration, New Delhi, Orient Longman, 2000.
- Mehta, Vinod, Reforming Administration in India, New Delhi, Har-Anand, 2000.
- Ministry of Personnel Public Grievances and Pension, Annual Reports on Administration, Govt. of India. Kumar, Amnia & Anitha L. Financing of Urban Local Government, Jaipur, Printwell, 1995.

- Mishra, B.B., Government and Bureaucracy in India (1947-1976), New Delhi, OUP, 1986.

**FOURTH SEMESTER
PUBLIC ADMINISTRATION
BHARTIYA PARSHASHAN-II
PAPER CODE: BA4005-IV**

Marks: 80

Time: 3Hrs

Note: Examiner will be required to set NINE questions in all. Question No.1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q. No.1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Preparation of the Indian Budget, its enactment, Parliamentary control over Public Finance in India. Role of Comptroller and Auditor General over Financial Administration, Composition and functions of Public Accounts Committee and Estimate Committee at the Centre. Civil Services: Recruitment, training, promotion, discipline, morale, Union Public Service Commission. District Administration: Its features, role and position of the Deputy Commissioner and Superintendent of Police in District Administration. Accountability of Indian Administration to the Parliament and Judiciary; administration and Citizen, Lokpal and Lok-Ayukta.

Suggested Books:

- B.L. Fadia & K. Fadia, Indian Administration, Sahitya Bhawan Publication, Agra, 2017.
- Abrar, R., Indian Public Administration, Wisdom Press, New Delhi, 2016.
- Ahmed, Nazim Uddin, Advanced Study of Indian Administration, The Readers Paradise, New Delhi, 2013. Goyal, Vijay Kumar and B.K. Garg, Rural Development Administration, New Delhi: Alfa Publications, 2013.
- Gupta, Jawahar Lal, Indian Administration: Evolution & Development, Wisdom Press, New Delhi, 2013.
- R.K. Arora, Indian Public Administration: Institutions and Issues, New Age International Publishers, New Delhi, 2012 (3rd edition).
- Jha, Rajesh K., Public Administration in India, Pearson Publication, Delhi, 2012.
- Sharma, P.D. & Sharma, B.M., Indian Administration: Retrospect and Prospect, Rawat Publication, Jaipur, 2009.
- Prasad, Kamala, Indian Administration, Politics, Policies and Prospects, New Delhi, Pearson Longman, 2006.
- Chaubey, P.K., Urban Local Bodies in India: Governance with Self-Reliance, New Delhi, IIPA, 2004.
- Dhalimal, S.S., Good Governance in Local Self Government, New Delhi, Deep & Deep, 2004.
- Jain, R.B., Public Administration in India: 21 Century Challenges for Good Governance, New Delhi, Deep & Deep, 2002.
- Maheshwari, S.R., Indian Administration, New Delhi, Orient Longman, 2000.
- Mehta, Vinod, Reforming Administration in India, New Delhi, Har-Anand, 2000.

- Ministry of Personnel Public Grievances and Pension, Annual Reports on Administration, Govt. of India. Kumar, Amnia & Anitha L. Financing of Urban Local Government, Jaipur, Printwell, 1995.
- Mishra, B.B., Government and Bureaucracy in India (1947-1976), New Delhi, OUP, 1986.

**FIRST SEMESTER
POLITICAL SCIENCE
POLITICAL THEORY - I
PAPER CODE: BA1006-I**

Marks: 80

Time: 3 Hrs

Note: Examiner will be required to set NINE questions in all, four in part 'A' and four in Part 'B'. In part C, Question No. 9 is compulsory, consisting of 8 objective type questions of 2 marks each spread over the entire syllabus. In addition to question no. 9, candidate will be required to attempt 4 more questions, selecting two questions each from part 'A' and 'B'.

Part-A

Nature and significance of Political Theory
Power and Authority

Part-B

Citizenship, Rights and Liberty
Equality and Justice

Part-C

Eight Object type questions (multiple choice) spread over the entire syllabus.

Suggested Readings

- N.P. Barry, Introduction to Modern Political Theory, London, Macmillan, 1995.
M. Carnoy, The State and Political Theory, Princeton NJ, Princeton University Press, 1984.
G.Catlin, A Study of the Principles of Politics, London and New York, Oxford University Press, 1930.
N.J. Hirschman and C.D. Stefano(eds.), Revisioning the Political Feminist Reconstruction of Tradition concepts in Western
Political Theory, West View Press, Harper Collins, 1996.
D. Heater, Citizenship: The Civic Ideal in World History, Political and Education, London, Orient Longman, 1990.
D. Held, Models of Democracy, Cambridge, Polity Press, 1987, G Mcllellan, D Held and S. Hall (eds.), The Idea of the Modern State, Milton Keynes, Open University Press, 1984.
D. Miller, social Justice, Oxford, The Clarendon Press, 1976.
D. Miller, (ed.), Liberty, Oxford, Oxford University Press, 1991.
D. Miller, Citizenship and National Identities, Cambridge, Polity Press, 2000.
S. Ramaswamy, Political Theory: Ideas and concepts, Delhi Macmillan, 2002.
R.M. Titmuss, Essays on the Welfare State, London, George Allen and Unwin, 1956.
F. Thankurdas. Essays on Political Theory, New Delhi, Gitanjali, 1982.
J. Waldron(ed.), Theories of Rights, New Delhi, Oxford University Press 1984.
S.Wasby, Political Science: The Discipline and its Dimensions, Calcutta, Scientific Book Agency, 1970.

**SECOND SEMESTER
POLITICAL SCIENCE
POLITICAL THEORY - II
PAPER CODE: BA2006-II**

Marks: 80

Time: 3 Hrs

Note: Examiner will be required to set NINE questions in all, four in part 'A' and four in Part 'B'. In part C, Question No. 9 is compulsory, consisting of 8 objective type questions of 2 marks each spread over the entire syllabus. In addition to question no. 9, candidate will be required to attempt 4 more questions, selecting two questions each from part 'A' and 'B'.

Part-A

State: Original and Development
State: Dominant Perspectives
Sovereignty

Part-B

Democracy
Development and Welfare State
Theories of Social change

Part-C

Eight Object type questions (multiple choice) spread over the entire syllabus.

Suggested Readings

- N.P. Barry, Introduction to Modern Political Theory, London, Macmillan, 1995.
M. Carnoy, The State and Political Theory, Princeton NJ, Princeton University Press, 1984.
G.Catlin, A Study of the Principles of Politics, London and New York, Oxford University Press, 1930.
N.J. Hirschman and C.D. Stefano(eds.), Revisioning the Political Feminist Reconstruction of Tradition concepts in Western
Political Theory, West View Press, Harper Collins, 1996.
D. Heater, Citizenship: The Civic Ideal in World History, Political and Education, London, Orient Longman, 1990.
D. Held, Models of Democracy, Cambridge, Polity Press, 1987, G Mcllellan, D Held and S. Hall (eds.), The Idea of the Modern State, Milton Keynes, Open University Press, 1984.
D. Miller, social Justice, Oxford, The Clarendon Press, 1976.
D. Miller, (ed.), Liberty, Oxford, Oxford University Press, 1991.
D. Miller, Citizenship and National Identities, Cambridge, Polity Press, 2000.
S. Ramaswamy, Political Theory: Ideas and concepts, Delhi Macmillan, 2002.
R.M. Titmuss, Essays on the Welfare State, London, George Allen and Unwin, 1956.
F. Thankurdas. Essays on Political Theory, New Delhi, Gitanjali, 1982.
J. Waldron(ed.), Theories of Rights, New Delhi, Oxford University Press 1984.
S.Wasby, Political Science: The Discipline and its Dimensions, Calcutta, Scientific Book Agency, 1970.

**THIRD SEMESTER
POLITICAL SCIENCE
BHARTIYA SARKAR AND RAJNITI - I
PAPER CODE: BA3006-III**

Marks: 80

Time: 3 Hrs

THIRD SEMESTER

Note: Examiner will be required to set NINE questions in all, four in part 'A' and four in Part 'B'. In part C, Question No. 9 is compulsory, consisting of 8 objective type questions of 2 marks each spread over the entire syllabus. In addition to question no. 9, candidate will be required to attempt 4 more questions, selecting two questions each from part 'A' and 'B'.

Part-A

The Making of India's Constitution and its sources. Basic features of India's Constitution. Preamble, Fundamental Rights and Duties and the Directive Principles of State Policy.

Part-B

Centre-State Relations
Supreme Court and the Constitutional Process.
Political Parties : National and Regional Parties.

Part-C

Eight Object type questions (multiple choice) spread over the entire syllabus.

Suggested Readings

- G. Austin, *The Indian Constitution: Corner Stone of Nation*, Oxford, Oxford University Press, 1966.
G. Austin, *Working a Democratic Constitution : The Indian Experience*, Delhi, Oxford University Press 2000.
D.D. Basu, *An Introduction to the Constitution of India*, New Delhi, Prentice Hall, 1994.
D.D. Basu and B. Paarekh (ed). *Crisis and Change in contemporary India*, New Delhi, Sange, 1994.
C.R Bhambhri, *The Indian State: Fifty years*. New Delhi, Shipra, 1997.
P. Brass, *Politics of India Since Independence* Hyderabad, Orient Longman, 1990.
P. Brass, *Language, Region and Politics in North India* London, Cambridge University Press, 1974.
A. Chanda, *Federalism in India: A Study of Union-State Relations*, London, George Allen & Unwin, 1965.
S. Cambridge and J. Harriss, *Reinventing India: Liberalization Hindu Nationalism and Popular Democracy*, Delhi, Oxford University Press, 2001.
B.L. Fadia, *State Politics in India*, 2 vols, New Delhi, Rediant Publishers, 1984.
R.L. Hardgrave, *India: Government and Politics in a Developing Nations*, New York, Harcourt, Braqce and World, 1965.
N.G. Jayal (ed.). *Democracy in India*, Delhi, Oxford University Press, 2001.
S. Kaushik (ed.) *Indian Government and Politics*, Delhi University, Directorate of Hindi Implementation, 1990.
A. Kohli, *Democracy and Discontent: India's Growing Crisis of Governability*, Cambridge, Cambridge University Press, 1991.
R. Kothari, *Politics in India*, New Delhi, Orient Longman, 1970.
R. Kothari, *Party System and Election Studies*, Bombay, Asia Publishing House 1967.
W.H. Morris Jones, *Government and Politics in India*, Delhi, BI Publications, 1974.
A.C.Noorani, *Constitutional Questions in India : The President, Parhament and the States*, Delhi, Oxford University Press, 2000.
M. V. Pylee, *An Introduction to the constitution of India*, New Delhi, 1998.
A. Ray, *Tension Areas in India's Federal System*, Calcutta, The World Press, 1970.
N.C. Sahni (ed.). *Coalition Politics in India*, Jullundher, New Academic Publishing Company, 1971.
J.R. Siwach, *Dynamics of Indian Government & Politics* New Delhi, Sterting Publishers, 1985.
R. Thakur, *The Government & Politics of India*, London, Macmillan, 1995.

**FOURTH SEMESTER
POLITICAL SCIENCE
BHARTIYA SARKAR AND RAJNITI - II
PAPER CODE: BA4006-IV**

Marks: 80

Time: 3 Hrs

Note: Examiner will be required to set NINE questions in all, four in part 'A' and four in Part 'B'. In part C, Question No. 9 is compulsory, consisting of 8 objective type questions of 2 marks each spread over the entire syllabus. In addition to question no. 9, candidate will be required to attempt 4 more questions, selecting two questions each from part 'A' and 'B'.

Part-A

Union Government: President, Parliament, Cabinet and Prime Minister.

Part-B

The Election Commission Electoral Reforms. Major issues in Indian Political, Caste, religion. Language Region, Poverty- Alleviation.

Part-C

Eight Object type questions (multiple choice) spread over the entire syllabus.

Suggested Readings

- G. Austin, *The Indian Constitution: Corner Stone of Nation*, Oxford, Oxford University Press, 1966.
G. Austin, *Working a Democratic Constitution : The Indian Experience*, Delhi, Oxford University Press 2000.
D.D. Basu, *An Introduction to the Constitution of India*, New Delhi, Prentice Hall, 1994.
D.D. Basu and B. Paarekh (ed). *Crisis and Change in contemporary India*, New Delhi, Sange, 1994.
C.R Bhambhri, *The Indian State: Fifty years*. New Delhi, Shipra, 1997.
P. Brass, *Politics of India Since Independence* Hyderabad, Orient Longman, 1990.
P. Brass, *Language, Region and Politics in North India* London, Cambridge University Press, 1974.
A. Chanda, *Federalism in India: A Study of Union-State Relations*, London, George Allen & Unwin, 1965.
S. Cambridge and J. Harriss, *Reinventing India: Liberalization Hindu Nationalism and Popular Democracy*, Delhi, Oxford University Press, 2001.
B.L. Fadia, *State Politics in India*, 2 vols, New Delhi, Rediant Publishers, 1984.
R.L. Hardgrave, *India: Government and Politics in a Developing Nations*, New York, Harcourt, Braqce and World, 1965.
N.G. Jayal (ed.). *Democracy in India*, Delhi, Oxford University Press, 2001.
S. Kaushik (ed.) *Indian Government and Politics*, Delhi University, Directorate of Hindi Implementation, 1990.
A. Kohli, *Democracy and Discontent: India's Growing Crisis of Governability*, Cambridge, Cambridge University Press, 1991.
R. Kothari, *Politics in India*, New Delhi, Orient Longman, 1970.
R. Kothari, *Party System and Election Studies*, Bombay, Asia Publishing House 1967.
W.H. Morris Jones, *Government and Politics in India*, Delhi, BI Publications, 1974.
A.C.Noorani, *Constitutional Questions in India : The President, Parhament and the States*, Delhi, Oxford University Press, 2000.
M. V. Pylee, *An Introduction to the constitution of India*, New Delhi, 1998.
A. Ray, *Tension Areas in India's Federal System*, Calcutta, The World Press, 1970.
N.C. Sahni (ed.). *Coalition Politics in India*, Jullundher, New Academic Publishing Company, 1971.
J.R. Siwach, *Dynamics of Indian Government & Politics* New Delhi, Sterting Publishers, 1985.
R. Thakur, *The Government & Politics of India*, London, Macmillan, 1995.

FIRST SEMESTER - I
Algebra
Code: DM111

Max. Marks : 27
Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (**I-IV**) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Symmetric, Skew-symmetric, Hermitian and skew Hermitian matrices. Elementary Operations on matrices. Rank of a matrices. Inverse of a matrix. Linear dependence and independence of rows and columns of matrices. Row rank and column rank of a matrix. Eigenvalues, eigenvectors and the characteristic equation of a matrix. Minimal polynomial of a matrix. Cayley Hamilton theorem and its use in finding the inverse of a matrix. 1x5=5

Section – II

Applications of matrices to a system of linear (both homogeneous and non-homogeneous) equations. Theorems on consistency of a system of linear equations. Unitary and Orthogonal Matrices, Bilinear and Quadratic forms.

1x5=5

Section – III

Relations between the roots and coefficients of general polynomial equation in one variable. Solutions of polynomial equations having conditions on roots. Common roots and multiple roots. Transformation of equations. 1x5=5

Section – IV

Nature of the roots of an equation Descarte's rule of signs. Solutions of cubic equations (Cardon's method). Biquadratic equations and their solutions. 1x5=5

Section – V

1x7=7

Suggested Reading

1. L.N. Herstein Topics in Algebra, Wiley Eastern Ltd. New Delhi, 1975.
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2002.

3. P.B. Bhattacharya, S.K. Jain and S.R*. Nagpaul, First Course in Linear Algebra, Wiley Eastern, New Delhi, 1983.'
4. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic Linear Algebra with MAATLAB., Key College Publishing(Springer- Verlag),2001.
5. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.
6. Shanti Narayan, A text Books of Matrics, S. Chand & Co., New Delhi.
7. Peter V. O'Neil, Advanced Engineering Mathematics, ITPCompany, USA.
8. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/Academic Press, USA.
9. K.A. Stroud, Advanced Engineering Mathematics, Industrial Press, Inc., New York.
10. K.A. Stroud, Enginnering Mathematics (Indian Edition),
11. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons.
12. Ayers, Modern abstract Algebra, Schaum Outline Series, Tata McGraw Hill.
13. Baumslag, Group Theory, Schaum Outline Series, Tata McGraw Hill.
14. Jai Singh, Abstract Algebra, Schaum Outline Series, Tata McGraw Hill.
15. Lipschutz, 3000 solved problems in Linear Algebra, Schaum Outline Series, Tata McGraw Hill.
16. Lipschutz, Linear Algebra, Schaum Outline Series, Tata McGraw Hill.
17. Moyer, Trigonometry, Schaum Outline Series, Tata McGraw Hill.
18. Rich, Eiementry Algebra, Schaum Outline Series, Tata McGraw Hill.

Calculus
Code: DM112

Max. Marks : 27
Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (*I-IV*) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Successive differentiation. Leibnitz theorem. Maciaurin and Taylor series expansions. Asymptotes.

1x5=5

Section – II

Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in Cartesian and polar coordinates.

1x5=5

Section – III

Reduction formulae. Quadrature.

1x5=5

Section – IV

Rectification. 'Volumes and surfaces of solids of revolution.

1x5=5

Section – V

1x7=7

Books Recommended

1. Murray R. Spiegel, Theory and Problems of Advanced.; Calculus, Schaum's outline series, Tata McGraw Hill.
2. P.K. Jain and S.K. Kaushik, An Introduction tp Real Analysis, i S. Chand & Co. New Delhi, 2000.
3. GT. Simmons, Differential Equations, Tata McGraw, i Hill, 1972.
4. S.L. Ross, Differential Equations, John Wiley and Sons (Student Edition).
5. H.T. H. Piaggio, Elementary Treatise on Differential *Equations* and their Applications, C.B.S. Publisher and; Distributors,
Delhi, 1985.

6. Peter V. O'Neil, Advanced Engineering Mathematics, ITPI Company, USA.
7. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/ Academic Press, USA.
8. K.A. Stroud, Advanced Engineering Mathematics, Industrial Press, inc., New York.
9. K.A. Stroud, Engineering Mathematics (Indian .Edition), Replika Press Pvt. Ltd.
10. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.
11. Khalil Ahmed, Text Book of Integral Calculus and Differential Equations, Anamaya Publishers, New Delhi.
12. Khalil Ahmed, Text Book of Differential Calculus, Anamaya Publishers, New Delhi.
13. Ayres, Calculus, Schaum Outline Series, Tata McGraw Hill.
14. Bronson, Theory and Problems of Differential Equations, Schaum Outline Series, Tata McGraw Hill.

Solid Geometry
Code: DM113

Max. Marks : 26
Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (**I-IV**) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **six** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

General equation of second degree. Tracing of conics. 1X5=4

Section – II

System of conics. Confocal Conics. Polar equation of conic. 1X5=4

Section – III

General coincides, Paraboloids. Plane. Sections of Coincides. Generating lines. 1X5=4

Section – IV

Confocal coincides. Reduction -of Second Degree equation. Sphere, Cone, Cylinder 1X5=4

Section – V

1x6=6

Books Recommended:

1. R.J.T. Bill, Elementary Treatise on Coordinary Geometry of Three Dimensions, MacMillan India Ltd. 1994.
2. P.K. Jain and Khalil Ahmad : A Textbook of Analytical Geometry of Three Dimensions, Wiley Eastern Ltd. 1999.

SECOND SEMESTER
Algebra and Trigonometry
Code: DM121

Max. Marks : 27

Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (*I-IV*) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Mapping, Equivalence relations and partitions. Congruence modulo. Definition of a group with examples and simple properties. Subgroups. Generation of groups. Cyclic groups. Cost decomposition. Langrange's theorem and its consequences. Fermat's and Euler's theorems. 1x5=5

Section – II

Complete Homomorphism and Isomorphism. Normal Subgroups. Quotient groups. The fundamental theorem of homomorphism. Permutation groups. Even and odd permutations. The altering groups A_n . Cayley's theorem. Introduction to rings, Sub rings, integral domains and fields. Characteristic of a ring. 1x5=5

Section - III

De Moivre's Theorem and its Applications. Expansion of trigonometrical functions. Direct circular and hyperbolic functions and their properties. 1x5=5

Section – IV

Inverse circular and hyperbolic functions and their properties. Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series. 1x5=5

Section – V

1x7=7

Suggested Reading

1. L.N. Herstein Topics in Algebra, Wiley Eastern Ltd. New Delhi, 1975.
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2002.
3. P.B. Bhattacharya, S.K. Jain and S.R*. Nagpaul, First Course in Linear Algebra, Wiley Eastern, New Delhi, 1983.'

4. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic Linear Algebra with MAATLAB., Key College Publishing(Springer-Verlag),2001.
5. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.
6. Shanti Narayan, A text Books of Matrices, S. Chand & Co., New Delhi.
7. Peter V. O'Neil, Advanced Engineering Mathematics, ITPCompany, USA.
8. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/Academic Press, USA.
9. K.A. Stroud, Advanced Engineering Mathematics, Industrial Press, Inc., New York.
10. K.A. Stroud, Enginnering Mathematics (Indian Edition),
11. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons.
12. Ayers, Modern abstract Algebra, Schaum Outline Series, Tata McGraw Hill.
13. Baumslag, Group Theory, Schaum Outline Series, Tata McGraw Hill.
14. Jai Singh, Abstract Algebra, Schaum Outline Series, Tata McGraw Hill.
15. Lipschutz, 3000 solved problems in Linear Algebra, Schaum Outline Series, Tata McGraw Hill.
16. Lipschutz, Linear Algebra, Schaum Outline Series, Tata McGraw Hill.
17. Moyer, Trigonometry, Schaum Outline Series, Tata McGraw Hill.
18. Rich, Eiementry Algebra, Schaum Outline Series, Tata McGraw Hill.

Ordinary Differential Equations

Code: DM122

Max. Marks : 27

Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (**I-IV**) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Exact differential equations. First order higher degree equations solvable for x , y , p . Clairaut's form and singular solutions, Geometrical meaning of a differential equation.

1x5=5

Section – II

Orthogonal trajectories. Linear differential equations with constant coefficients: Homogeneous linear ordinary differential equations. Total/differential equations.

1x5=5

Section – III

Linear differential equations of second order, Transformation of the equation by changing-the dependent variable/the independent variable, reduction of order.

1x5=5

Section – IV

Method of variation of parameters and unknown coefficients, Ordinary simultaneous differential equations.

1x5=5

Section – V

1x7=7

Books Recommended

1. Murray R. Spiegel, Theory and Problems of Advanced.; Calculus, Schaum's outline series, Tata McGraw Hill.
2. P.K. Jain and S.K. Kaushik, An Introduction to Real Analysis, S. Chand & Co. New Delhi, 2000.

3. G.T. Simmons, Differential Equations, Tata McGraw, i Hill, 1972.
4. S.L. Ross, Differential Equations, John Wiley and Sons (Student Edition).
5. H.T. H. Piaggio, Elementary Treatise on Differential *Equations* and their Applications, C.B.S. Publisher and; Distributors,
Delhi, 1985.
6. Peter V. O'Neil, Advanced Engineering Mathematics, ITPI Company, USA.
7. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/ Academic Press, USA.
8. K.A. Stroud, Advanced Engineering Mathematics, Industrial Press, inc., New York.
9. K.A. Stroud, Engineering Mathematics (Indian .Edition), Replika Press Pvt. Ltd.
10. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.
11. Khalil Ahmed, Text Book of Integral Calculus and Differential Equations, Anamaya Publishers, New Delhi.
12. Khalil Ahmed, Text Book of Differential Calculus, Anamaya Publishers, New Delhi.
13. Ayres, Calculus, Schaum Outline Series, Tata McGraw Hill.
14. Bronson, Theory and Problems of Differential Equations, Schaum Outline Series, Tata McGraw Hill.

Vector Calculus

Code: DM123

Max. Marks : 26
Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (*I-IV*) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **six** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors.

1x5=5

Section – II

Vector Differentiation. Gradient.

1x5=5

Section – III

Divergence and Curl.

1x5=5

Section – IV

Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.

1x5=5

Section – V

1x6=6

Books Recommended:

1. Murraray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Company, New York.
2. Murraray R. Spiegel, Vector Analysis, Schaum Publisghing Company, New York.
3. N. Saran and S.N. Nigam, Introduction to Vector Analysis, Pothishala Pvt. Ltd., Allahabad.
4. Shanti Narayna, A Text Book of Vector Calculus. S. Chand & Co., New Delhi.

THIRD SEMESTER
Advanced Calculus - I
Code: DM231

Max. Marks: 27
Time : 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (**I-IV**) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Definition of a sequence. Theorems on limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion. Sequential continuity. Properties of continuous functions. Uniform continuity.

1x5=5

Section – II

Series of non-negative terms. Comparison tests. Cauchy's integral test. Ratio tests. Raabe's logarithmic, de Morgan and Bertrand's tests, Gauss test. Alternating series Leibnitz's Theorem. Absolute and conditional convergence.

1x5=5

Section – III

Mean value theorems and their geometrical interpretations. Darboux's intermediate value theorem for derivatives. Taylor's theorem with various forms of remainders. Limit and continuity of functions of two variables.

1x5=5

Section – IV

Partial differentiation, Change of variables. Euler's theorem on homogeneous | functions. Taylor's theorem for functions of two variables.

1x5=5

Section – V

1x7=7

Books Recommended

1. T. M, Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi. 1985.
2. R.R. Goldberg, Real Analysis, Oxford & I.B.H. Publishing Co., New Delhi, 1970.
3. D. Soma Sundaram and B. Choudhary, A First course in Mathematical Analysis. Narosa Publishing House, New Delhi, 1997.

4. Murray R. Spiegel, Theory and Problems of Advanced Calculus. Schaum Publishing Co. New York.
5. S.C. Malik, Mathematical Analysis, Wiley Eastern Ltd., New Delhi.
6. Earl D. Rainville Infinite Series. The Macmillian Company, New York.
7. Shanti Narayan. A Course of Mathematical Analysis. S. Chand and Company, New Delhi.
8. Avanced Engineering Mathematics, ITP : Company, USA
9. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/ ; Academic Press, USA.
10. K.A. Stround, Advanced Engineering Mathematics, Industrial K.A. Stround, Engineering Mathematics (Indian Edition),. Replika Press Pvt. Ltd.
11. Erwin Kreyszig, Advanced Engineering Mathematics John Wiley and Sons.
12. Klialil Ahmed, Text Book of Differential Calculus, Anamaya Publishers, New Delhi.
13. Wrede, Advanced Calculus, Schaum Outline Series, Tata McGraw Hill, New Delhi.

Partial Differential Equations - I

Code: DM232

Max. Marks: 27

Time: 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (I-IV) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Series solutions of differential equations-Power series method, Bessel, Legendre and Hyper geometric equations. 1x5=5

Section – II

Bessel, Legendre and Hyper geometric functions and their properties, recurrence and generating relations. Orthogonally of Bessel functions and Legendre polynomials. 1x5=5

Section – III

Laplace Transformation-Linearity of the Laplace transformation. Existence theorem for Laplace transforms. Laplace transforms of derivatives and integrals. Shifting theorems. Differentiation and integration of transforms. Convolution theorem. 1x5=5

Section – IV

Solution of differential equations and system of differential equations using the Laplace transformation, Fourier transforms and their properties, and their application to solutions of differential equations. 1x5=5

Section – V

1x7=7

Books Recommended

1. D.A. Murry, Introductory Course on Differential Equations, Orient Longman, (India), 1967.
2. IN. Sneddon, Elements of Partial Differential Equations, McGraw Hill Book Company, 1988.
3. Frank Ayres, Theory and Problems of differential Equations, McGraw Hill Book Company, 1972.
4. SX. Ross, Differential Equations, John Wiley and Sons (Student Edition).
5. Peter V.O.'Neii, Advanced Engineering Mathematics, ITP Company, USA. .
6. Alan Jafferey. Advanced Engineering Mathematics, Harcourt Academic Press, USA.
7. K. A. Stroud, Advanced Engineering Mathematics, Industrial Press, Inc., New York.
8. K.A. Stroud, Engineering Mathematics (Indian Edition), Replika Press Pvt. Ltd.

9. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons.
10. C.E. Weatherbiirn differential Geometry, ELBS.
11. Bronson, Theory and Problems of differential Equations, Schaum Outline Series, Tata McGraw Hill, New Delhi.
12. Duchateau, Partial Differential Equations, Schaum Outline series, Tata McGraw Hill, New Delhi.
13. Lipsechutz, Differential Geometry, Schaum Outline Senes, Tata McGraw Hill, New Delhi.
14. Spiegel, Lapalce Transforms, Schaum Outline Senes, Tata McGraw Hill, New Delhi.
15. Spiegel, Theory and Problem of fourier analysis with Applications to Boundary Value Problems, Schaun> Outline Series, Tata McGraw Hill, New Delhi.

Mechanics - I

Code: DM233

Max. Marks: 26
Time: 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (I-IV) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **six** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Conditions of equilibrium of Coplanar forces. Virtual work in two dimensions. 1x5=5

Section – II

Proof of principle of virtual work and its converse for coplanar forces. Forces which may be omitted in forming the Equation of virtual work. 1x5=5

Section – III

Forces in three dimensions. 1x5=5

Section – IV

Stable and unstable equilibrium. 1x5=5

Section – V

1x6=6

Books Recommended

1. S.L. Loney, Statics-Macmillan Company, London.
2. S.L. Loney, An Elementary Treatise on the Dynamics of Particle and Rigid bodies. Cambridge University Press. 1956
3. E. Chorlton, Dynamics, CJ3S Publishers, New Delhi.
4. Peter V.O.'Neil, Advanced Engineering Mathematics, 1TP Company, USA.
5. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/Academic Press, USA.
6. C. A. Stroud, Advanced Engineering Mathematics, Industrial Press. Inc, New York,
7. C.A. Stroud, Engineering Mathematics (Indian Edition), Replika Press Pvt. Ltd.
8. Erwin Kreyszig, Advanced Engineering Mathematics. John Wiley and Sons

FOURTH SEMESTER
Advanced Calculus - II
Code: DM241

Max. Marks: 27
Time: 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (**I-IV**) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Jacobians. Maxima, minima and saddle points of functions of two variables. Lagrange's multiplier method. 1x5=5

Section – II

Envelopes, Evolutes. Indeterminate forms. 1x5=5

Section – III

Beta and Gamma functions. Double and triple integrals. 1x5=5

Section – IV

Dirichlets' integrals. Change of order of integration in double integrals. 1x5=5

Section – V

1x7=7

Books Recommended

1. T. M, Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi. 1985.
2. R.R. Goldberg, Real Analysis, Oxford & I.B.H. Publishing Co., New Delhi, 1970.
3. D. Soma Sundaram and B. Choudhary, A First course in r Mathematical Analysis. Narosa Publishing House, New Delhi, i 1997.
4. Murray R. Spiegel, Theory and Problems of Advanced Calculus. Schaum Publishing Co. New York.
5. S.C. Malik, Mathematical Analysis, Wiley Eastern Ltd., New Delhi.
6. Earl D. Rainville Infinite Series. The Macmillian Company, New York.
7. Shanti Narayan. A Course of Mathematical Analysis. S. Chand and Company, New Delhi.

8. Advanced Engineering Mathematics, ITP : Company, USA
9. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/ ; Academic Press, USA.
10. K.A. Stround, Advanced Engineering Mathematics, Industrial K.A. Stround, Engineering Mathematics (Indian Edition), Replika Press Pvt. Ltd.
11. Erwin Kreyszig, Advanced Engineering Mathematics John Wiley and Sons.
12. Klialil Ahmed, Text Book of Differential Calculus, Anamaya Publishers, New Delhi.
13. Wrede, Advanced Calculus, Schaum Outline Series, Tata McGraw Hill, New Delhi.

Partial Differential Equations - II

Code: DM242

Max. Marks: 27
Time: 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (*I-IV*) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **seven** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Partial differential equations of the first order Lagrange's Solution. Some special types of equations which can be solved easily by methods other than the general method. Charpit's general method of solution and its special cases.

1x5=5

Section – II

Partial differential equations of second and higher orders. Classification of linear differential equation of second order. Homogeneous and non-homogeneous equation with constant coefficients. Partial differential equations reducible to equation with constant coefficients.

1x5=5

Section – III

Curves with torsion, principal normal, osculating circle, binomial, Serret-Frenet formulae.

1x5=5

Section – IV

Locus of centre of curvature, spherical curvature, surfaces, envelopes, edge of regression, fundamental magnitudes of the first order.

1x5=5

Section – V

1x7=7

Books Recommended

1. D.A. Murry, Introductory Course on Differential Equations, Orient Longman, (India), 1967.
2. IN. Sneddon, Elements of Partial Differential Equations, McGraw Hill Book Company, 1988.
3. Frank Ayres, Theory and Problems of differential Equations, McGraw Hill Book Company, 1972.
4. SX. Ross, Differential Equations, John Wiley and Sons (Student Edition).
5. Peter V.O.'Neii, Advanced Engineering Mathematics, ITP Company, USA. .
6. Alan Jafferey. Advanced Engineering Mathematics, Harcourt Academic Press, USA.

7. K. A. Stroud, Advanced Engineering Mathematics, Industrial Press, Inc., New York.
8. K.A. Stroud, Engineering Mathematics (Indian Edition), Replika Press Pvt. Ltd.
9. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons.
10. C.E. Weatherbiirn differential Geometry, ELBS.
11. Bronson, Theory and Problems of differential Equations, Schaum Outline Series, Tata McGraw Hill, New Delhi.
12. Duchateau, Partial Differential Equations, Schaum Outline series, Tata McGraw Hill, New Delhi.
13. Lipsechutz, Differential Geometry, Schaum Outline Senes, Tata McGraw Hill, New Delhi.
14. Spiegel, Lapalce Transforms, Schaum Outline Senes, Tata McGraw Hill, New Delhi.
15. Spiegel, Theory and Problem of fourier analysis with Applications to Boundary Value Problems, Schaum's Outline Series, Tata McGraw Hill, New Delhi.

Mechanics - II

Code: DM243

Max. Marks: 26
Time: 3 Hours

Note: The question paper will consist of **five** sections. Each of the first four sections (*I-IV*) will contain two questions and the students shall be asked to attempt **one** question from each section. **Section-V** will contain **six** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Section – I

Velocities and accelerations along radial and transverse directions and along tangential and normal directions.
Simple harmonic motion. 1x5=5

Section – II

Elastic strings. Motion on smooth and rough plane curves Motion in a resisting medium. Motion of particles of varying mass. 1x5=5

Section – III

Central Orbits, Kepler's laws of motion. 1x5=5

Section – IV

Motion of a particle in three dimensions. Acceleration in terms of different coordinate system 1x5=5

Section – V

1x6=6

Books Recommended

1. S.L. Loney, Statics-Macmillan Company, London.
2. S.L. Loney, An Elementary Treatise on the Dynamics of Particle and Rigid bodies. Cambridge University Press. 1956
3. E. Chorlton, Dynamics, CJ3S Publishers, New Delhi.
4. Peter V.O.'Neil, Advanced Engineering Mathematics, 1TP Company, USA.
5. Alan Jafferey, Advanced Engineering Mathematics, Harcourt/Academic Press, USA.
6. C. A. Stroud, Advanced Engineering Mathematics, Industrial Press. Inc, New York,
7. C.A. Stroud, Engineering Mathematics (Indian Edition), Replika Press Pvt. Ltd.

(प्रथम सेमेस्टर)
संस्कृत - I
PAPER CODE BA1008-I

Time: 3Hrs

Marks: 80

Unit-I संस्कृत वाग्व्यवहारः

अंक 16

संस्कृत व्यवहार साहस्री (प्रकाशक संस्कृत भारती, माता मन्दिर गली, झण्डेवालान, नई दिल्ली)
पुस्तक में से 1 से 8 विषयों तक संस्कृत में सरल प्रश्नोत्तर रूप में लिखित परीक्षा (शिष्टाचारः, मेलनम्, सरलवाक्यानि, सामान्यवाक्यानि, मित्रमिलनम्, यात्रा, प्रवासतः प्रतिनिवर्तनम्, छात्राः)

Unit-II संस्कृत ग्रन्थानुशीलनम्

अंक 48

- (क) हितोपदेशः (मित्रलाभः)
- (ख) दूतवाक्यम् (भासविरचितम्)
- (ग) शुकनासोपदेशः (कादम्बरीतः)
- (पाठ्यांशों की व्याख्या व सार आदि)

Unit-III अनुवाद

अंक 16

हिन्दी से संस्कृत में सरल अनुवाद

दिशा निर्देशः—

Unit I: चौदह में से किन्हीं आठ प्रश्नों के संस्कृत में उत्तर

8x2=16

Unit II: (क) आठ में से चार संदर्भों की व्याख्या

4x4=16

(ख) आठ में से चार संदर्भों की व्याख्या

4x4=16

(ग) आठ में से चार गद्यांशों की व्याख्या

4x4=16

Unit III: चौदह में से आठ वाक्यों का संस्कृत में अनुवाद

8x2=16

(द्वितीय सेमेस्टर)
संस्कृत - II
PAPER CODE BA2008-II

Time: 3Hrs

Marks: 80

Unit-I संस्कृत व्याकरणम्

अंक 48

- (क) शब्दरूप— राम, कवि, भानु, पितृ, लता, मति, नदी, धेनु, वधू, मातृ, फल, वारि, मधु, आत्मन्, दण्डिन्, वाच्, सरित्, सर्व, तद्, एतद्, यद्, किम्, इदम् (तीन लिंगों में), अस्मद्, युष्मद्, एक, द्वि, त्रि, चतुर, पञ्चन् (तीनों लिंगों में)
- (ख) धातुरूप परस्मैपदम् — भू, पठ्, हस्, नम्, गम्, अस्, हन्, क्रुध्, नश्, नृत्, अद्, इष्, पृच्छ्, चिन्त् आत्मनेपदम्— सेव, लभ्, रुच्, मुद्, याच् उभयपदम् — कृ, नी, ह्, भज्, पच्
- (ग) सन्धि — अच् सन्धि, हल् सन्धि, विसर्ग सन्धि

Unit-II छन्द

अंक 27

- अनुष्टुप्, आर्या, इन्द्रवज्रा, उपेन्द्रवज्रा, उपजाति, मालिनी, स्रग्धरा, वंशस्थ, शिखरिणी, मन्दाक्रान्ता, वसन्ततिलका, शार्दूलविक्रीडितम्

Unit III कण्ठस्थश्लोकाः

अंक 5

- कण्ठस्थ चार श्लोकों का शुद्ध लेखन (प्रश्न पत्र में छपे श्लोकों से भिन्न)

दिशा निर्देशः—

- Unit I:** (क) आठ शब्दों में से किन्हीं चार के सम्पूर्ण रूप **4x4=16**
(ख) आठ धातुओं में से किन्हीं चार के पूछे गए दो लकारों में सम्पूर्ण रूप
(लट्, लृट्, लोट्, लङ्, विधिलिङ् लकार) **4x4=16**
(ग) चौदह में से किन्हीं आठ प्रयोगों में सन्धि अथवा सन्धिविच्छेद **8x2=16**
- Unit II:** छः में से किन्हीं तीन छंदों में लक्षण व उदाहरण **9x3=27**
- Unit III:** कण्ठस्थ दो श्लोकों का लेखन (प्रश्न पत्र से भिन्न) **2½x2=5**

(तृतीय सेमेस्टर)
संस्कृत- III
PAPER CODE: BA3008-III

Time: 3Hrs

Marks: 80

Unit-I संस्कृत वाग्व्यवहार: –

अंक 16

संस्कृत व्यवहार साहस्री (प्रकाशक संस्कृत भारती, माता मंदिर गली, झण्डेवालन, नई दिल्ली)
पुस्तक में से 9 से 16 विषयों तक संस्कृत में सरल प्रश्नोत्तर रूप में लिखित परीक्षा ।
(9 परीक्षा, 10 चलचित्रम्, 11 शिक्षकः, 12 स्त्रियः, 13 पाकः, 14 वेशभूषणानि, 15 कार्यालयः, 16 स्वास्थ्यम्)

Unit-II संस्कृत ग्रन्थानुशीलनम्

अंक 48

क) रामायणम् (बालकाण्डम् प्रथम सर्ग)
ख) श्रीमद्भागवद्गीता (द्वितीय अध्याय)
ग) रघुवंशम् (द्वितीय सर्ग)
(श्लोकों की व्याख्या व आलोचनात्मक प्रश्न, सार आदि)

Unit-III पत्रलेखनम्

अंक 16

सरल विषयों पर संस्कृत में पत्र लेखन

दिशा निर्देश:-

Unit I: चौदह में से किन्हीं आठ प्रश्नों के संस्कृत में उत्तर	8x2=16
Unit II: (क) आठ में से चार श्लोकों की व्याख्या	4x4=16
(ख) आठ में से चार श्लोकों की व्याख्या	4x4=16
(ग) i. चार में से दो श्लोक की व्याख्या	2x4=8
ii. चार में से दो प्रश्न अथवा सार	2x4=8
Unit V: चार में से किन्ही दो विषयों पर संस्कृत में पत्र लेखन	2x8=16

(चतुर्थ सेमेस्टर)
संस्कृत - IV
PAPER CODE: BA4008-IV

Time: 3Hrs

Marks: 80

Unit-I संस्कृत व्याकरणम्

अंक 40

- क) समास-अव्ययीभाव, कर्मधारय, द्वन्द्व, बहुव्रीहि
ख) वाच्य-कर्तृवाच्य, कर्मवाच्य, भाववाच्य
ग) कृत्प्रत्यय-क्त्वा, तुमुन्, प्यत्, क्त, क्तवत्, शतृ, शानच्, तव्यत्, अनीयर्
घ) तद्धित प्रत्यय-मतुप्, इनि, ठक्, त्व, तल्, छ
ड) णिजन्त रूप एवं सन्नन्त रूप-भू, पठ्, गम्, पा, लिख, श्रु, धृ, दा, स्था, हन्
धातुओं के लट् लकार, प्रथम पुरुष एकवचन में

Unit-II लघु सिद्धांत कौमुदी

अंक 24

प्रत्याहार सूत्र तथा संज्ञा प्रकरण: (सोदाहरण सूत्र व्याख्या)

Unit-III अनुवाद:

अंक 16

हिन्दी से संस्कृत में सरल अनुवाद

दिशा निर्देश:-

Unit I: (क) चौदह में से आठ के समास अथवा विग्रह

8x1=8

(ख) आठ में से चार वाक्यों में वाच्य परिवर्तन

4x2=8

(ग) चौदह में से आठ में प्रकृति प्रत्यय प्रदर्शन

8x1=8

(घ) चौदह में से आठ में प्रकृति प्रत्यय प्रदर्शन

8x1=8

(ड) चौदह में से आठ में प्रकृति प्रत्यय प्रदर्शन

8x1=8

Unit II: दस में से किन्हीं छः सूत्रों की व्याख्या

6x4=24

Unit III: चौदह में से आठ वाक्यों का संस्कृत में अनुवाद

8x2=16

First Semester
ENVIRONMENT STUDIES
(QUALIFYING SUBJECT)
PAPER CODE:BA1009-I

Theory Paper
Max Marks: 80
Internal marks: 20

Time: 3Hrs

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of 2 marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 16 marks each.

Unit I

The Multidisciplinary nature of environmental studies. Definition, scope and importance. Need for Public awareness

Unit II Natural Resources

Renewable and non-renewable resources:

Natural resources and associated problems: Forest resources : Use and over-exploitation : deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits & problems, Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

Food resources: World food problems, changes, caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

Energy resources : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.

Case studies. Land resources : Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of and individual in conservation of natural resources. Equitable use of resources for sustainable life styles.

Unit III 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).

Unit IV Biodiversity and Its Conservation

- Introduction - Definition: Genetic, species and ecosystem diversity.
- Biogeographically 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 V 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.

Unit VI 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.

Unit VII 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.

– Woman and Child Welfare.

Role of Information Technology in Environment and human health.

Case Studies.

Unit VIII Field Work

- 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 ecosystem-pond, river, hill slopes, etc.

References

1. Agarwal, K.C. 2001, Environmental Biology, Nidi Pub. Ltd. Bikaner.
2. Bharucha, Frach, The Biodiversity of India, Mapin Publishing Pvt: Ltd. Ahmedabad 380013, India, Email: mapin(g)jcenet.net (R).
3. Brunner R.C. 1989, Hazardous Waste Incineration, Mc.Graw Hill Inc. 480p.
4. Clark R.S., Marine Pollution, Slanderson Press Oxford (TB).
5. Cunningham, W.P. Cooper, T.H. Qorhani, E. & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Pub. House, Mumbai 1196p.
6. De A.K. Environmental Chemistry, Wiley Eastern Ltd.

7. Down to Earth, Centre for Science and Environment (R).
8. Gleick, H.P., 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute. Oxford Univ. Press. 473p.
9. Hawkins R.E, Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay. (R)
10. Heywood, V.H. & Watson, R.T 1995. Global Biodiversity Assessment. Cambridge Uni.
11. Jadtrav, H and Bhosale.-VM-. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284p.
12. Mckinney, M.L. and Schoch, RM 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
13. Mhaskar A.K., Matter Hazardous, Tekchno-Science Publications (TB).
14. Miller T.G. Jr. Environmental Sciences, Wadsworth Publishing Co. (TB).
15. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p.
16. Rao M.N. and Datta, A.K; 1987. Waste Water Treatment. Oxford & IBH Publ. Co: Pvt. Ltd.
17. Sharma, B.K. 2001, Environmental Chemistry, Goel Publication House, Meerut.
18. Survey of the Environment, The Hindu (M).
19. Townsend C, Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB).