

BA. (General) Part-III

1. ENGLISH

PAPER-A

Max. Marks : 45
Int. Evaluation : 5
Time : 3 Hours

Prescribed Books :

1. Poetry : The Eternal Muse edited by Dr. Brajesh Sawhney, Reader, Dept. of English, K.U.K. and Dr. Neena Malhotra, Head, Dept. of English, S.D. College Ambala Cantt.
2. Play : Macbeth by William Shakespeare
The following editions are recommended :
 - (i) New Cambridge Shakespeare
 - (ii) New Arden
 - (iii) Verity Edition
 - (iv) Clarendon
 - (v) Signet Classics

Scheme of Examination :

- Q.1 (a) One passage (with internal choice) for explanation with reference to the context from **The Eternal Muse** will be set.
(b) Similarly, there will be one passage (with internal choice) for explanation with reference to the context from **Macbeth**. (4+4=8 marks)
- Q.2. Two short questions (with internal choice) each on poetry and the play requiring critical understanding of the poems and the play. (4+4 = 8 marks)
- Q.3. One essay-type question (with internal choice) on the book of Poems requiring first-hand appreciation of the poems. (10 marks)
- Q.4. One essay-type question (with internal choice) on the play, requiring first-hand appreciation of the text (including appreciation of the theme/character/plot). (9 marks)
- Q.5 (a) 5 out of 10 short-answer type questions on the poems in **The Eternal Muse** to be attempted. (5 marks)
(b) 5 out of 10 short-answer type questions on **Macbeth** shall have to be attempted. (5 marks)

2 - no 2
2

4 x 2 (each)

Amendment in allocation of marks recommended subject to the approval of the UGBOS.

Devi Shrivastava

PAPER-B

Max. Marks : 45
Int. Evaluation : 5
Time : 3 Hours

Prescribed Books :

1. A Text-book of English Grammar and Composition edited by
(i) Dr. S.C. Sharma, Head, Dept. of English, University College, Kurukshetra.
(ii) Sh. Shiv Narain, Sr. Lecturer in English, University College, Kurukshetra.
(iii) Sh. Pankaj Sharma and (iv) Dr. Gulab Singh, Hindu College, Sonapat.
The Text Book of Grammar will focus on the following items :
(a) Essay : 400 words 8 10 marks
(b) Letter/Application (Excluding personal letters) 6 8 marks
(c) Precis 5 7 marks
(d) Vocabulary : Synonyms, Antonyms, One Word Substitution 10.5 5 marks
(e) Correction of incorrect sentences/Do as directed 5 5 marks
2. *B* The Spectrum of Life : A Selection of Modern Essays consisting of 10-12 essays of moderate length to be edited by Dr. M. K. Bhatnagar, Prof. and Head, Dept. of English, M.D.U. Rohtak. (10 marks) *10*

Scheme of Examination :

- Q.1 (a) The students shall be required to attempt an essay of approximately ³⁵⁰400 words, on any topic out of the four given in the question-paper. The topics may be of description, literary or general nature. (10 marks) *8 marks*
- Q.2. One question with internal choice will be set asking the students to write a letter/application. (Personal/Business Correspondence) (8 marks) *6 marks*
- Q.3. Precis of a given prose passage of about 150 to 200 words (with internal choice). (7 marks) *6 marks*
- Q.4. Grammar (Vocabulary : Synonyms, Antonyms, One-word-substitution and correction of incorrect sentences including items covered in the exercises contained in the book of essays). (10 marks) *✓*
- Q.5. One essays type question with internal choice on **The Spectrum of Life : A Selection of Modern Essays.** (10 marks) *✓*

Amendments Recommended subject to the approval of the U.G. BOS.
Dy. Chairman

2. हिन्दी (अनिवार्य)

पूर्णांक : 20

आन्तरिक मूल्यांकन : 10

समय : 3 घण्टे

1. हरियाणवी लोकधारा :
 - 1.1 हरियाणवी लोकधारा पुस्तक से व्याख्या के लिए चार अवतरण पूछे जायेंगे। परीक्षार्थियों को इनमें से दो की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या सात-सात अंकों की होगी।
 - 1.2 हरियाणवी लोकधारा पाठ्य-पुस्तक में से किन्हीं दो रचनाकारों का साहित्यिक परिचय पूछा जायेगा जिनमें से परीक्षार्थियों को एक का परिचय लिखना होगा। यह प्रश्न आठ अंकों का होगा।
 - 1.3 पाठ्य-पुस्तक की 'अनुशीलनी' में से निर्धारित प्रश्नों में से कोई दो प्रश्न पूछे जायेंगे, जिनमें से एक का उत्तर देना होगा। यह प्रश्न आठ अंकों का होगा।
 - 1.4 पाठ्य-पुस्तक के पृष्ठ संख्या 109 से 120 (हरियाणवी लोकगीत) तथा पृष्ठ संख्या 121 से 149 तक (हरियाणवी लोककथा) नामक पाठ छात्रों के लिए पठनयी रहेंगे, वार्षिक परीक्षा में इनमें से कोई प्रश्न नहीं पूछा जायेगा।
 - 1.5 व्याख्या के लिए पद्यांश सभी निर्धारित-27 कवियों में से कहीं से भी पूछे जा सकते हैं।
 - 1.6 साहित्यिक परिचय तथा प्रश्नोत्तर केवल निम्नलिखित 11 कवियों में से ही पूछे जायेंगे :- 1. गरीबदास, 2. नितानन्द, 3. अहमदबख्श थानेसरी, 4. दीपचन्द, 5. बार्जेभगत, 6. लख्मीचन्द, 7. मांगेराम, 8. रामिकशन व्यास, 9. फौजी मेहर सिंह, 10. जगदीश चन्द्र वत्स, 11. हरिकेश पटवारी।
2. प्रयोजनमूलक हिन्दी और काव्यांग :
 - 2.1 प्रयोजन-मूलक हिन्दी और काव्यांग पुस्तक से चार प्रश्न पूछे जायेंगे, जिनमें से परीक्षार्थियों को दो प्रश्नों के उत्तर देने होंगे। प्रत्येक प्रश्न दस-दस अंकों का होगा।
 - 2.2 काव्यांग से रस (विविध रस भेद और अलंकार) अनुप्रास, श्लेष, यमक, वीप्सा, पुनरुक्ति प्रकाश, उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, मानवीकरण निर्धारित है। इनमें दो रसों के और दो अलंकारों के उदाहरण सहित लक्षण पूछे जायेंगे। परीक्षार्थियों को एक रस और एक अलंकार के उदाहरण लक्षण लिखने होंगे। यह प्रश्न $4\frac{1}{2} + 4\frac{1}{2} = 9$ अंकों का होगा।
 - 2.3 निर्धारित समग्र पाठ्य-पुस्तक से छः लघूत्तरी प्रश्न पूछे जायेंगे। जिनमें से परीक्षार्थियों को

प्रश्नों के उत्तर (250 शब्दों में) देना होगा। प्रत्येक प्रश्न पाँच अंकों का होगा।
प्रश्न-पत्र अंकों का होगा।

3. हिन्दी साहित्य का इतिहास (आदिकाल एवं मध्यकाल) इसमें से चार प्रश्न पूरे जायेंगे, जिनमें से परीक्षार्थियों को दो प्रश्नों के उत्तर देने होंगे। प्रत्येक प्रश्न आठ आठ अंकों का होगा। हिन्दी साहित्य का इतिहास (आदिकाल एवं मध्यकाल) का पाठ्य विषय :

- (1) हिन्दी साहित्य का इतिहास काल विभाजन, (2) आदिकाल का नामकरण, (3) आदिकाल की परिस्थितियाँ, (4) आदिकाल की प्रवृत्तियाँ, (5) भक्तिकालीन परिस्थितियाँ, (6) संत-काव्यधारा की विशेषताएँ, (7) प्रेमाश्रयी काव्यधारा की विशेषताएँ, (8) रामकाव्यधारा की विशेषताएँ, (9) कृष्णकाव्यधारा की विशेषताएँ, (10) भक्तिकाल : स्वर्णयुग, (11) रीतिकाल की परिस्थितियाँ, (12) रीतिकाल का नामकरण (13) रीतिकाल की विशेषताएँ, (14) रीतिमुक्त काव्य की विशेषताएँ।

पाठ्य ग्रन्थ :

- ✓ 1. हरियाणवी लोकधारा, कुरुक्षेत्र विश्वविद्यालय, कुरुक्षेत्र
✓ 2. प्रयोजनमूलक हिन्दी और काव्यांग
✓ 3. हिन्दी साहित्य का इतिहास, म.द.वि. रोहतक
(समय-4 23 फल)

Amendment
recommended
subject to the approval
of U.C.B. in Hindi.
Bina Shukla

Recommended
for purchase

Ashu
8/01/2014

3. हिन्दी (ऐच्छिक)

पूर्णांक : 90

आन्तरिक मूल्यांकन :: 10

समय : 3 घण्टे

1. आंसू : 30 अंक
प्रदत्त चार काव्यांशों में से दो की सप्रसंग व्याख्या करनी होगी। पूछे गये दो समीक्षात्मक प्रश्नों में से एक का उत्तर देना होगा। व्याख्या के लिए बीस (10+10) तथा समीक्षात्मक प्रश्न के लिए दस अंक नियत हैं।
2. महाभोज : 20 अंक
प्रदत्त दो गद्यांशों में से किसी एक की सप्रसंग व्याख्या करनी होगी। पूछे गए दो समीक्षात्मक प्रश्नों में से एक का उत्तर देना होगा। व्याख्या के लिए दस तथा समीक्षा के लिए दस अंक नियत हैं।
3. हिन्दी साहित्य का इतिहास (आधुनिक काल) 30 अंक
निर्धारित प्रश्नों (आधुनिक युग की परिस्थितियाँ, भारत-दुयुगीन काव्य, द्विवेदीयुगीन काव्य,

1. Barnet, J. G. : An Introduction to Contemporary History (Pearson, 1968).
2. Barnowski, J. and Bruce Mazlish : The Western Intellectual Tradition (Ayer Co. Publication, 1960).
3. Bury, J.L.T. : France, 1840 (Routledge, Chapman and Hall, 19...).
4. Carr, E.H. : The Bolshevik Revolution, 1917-23, 3 vols (Macmillan 1950, 1951 and 1953).
5. Davies, H.A. : Outline History of the World ed.
6. Fisher, H.A.L. : A History of Europe (London, Fontana Library, 1969) I
7. Henderson, O.P. : The Industrial Revolution on the Continent.
8. Hill, Christopher : From Reformation to Industrial Revolution (Penguin, 1970).
9. Hill Christopher : Lenin and the Russian Revolution, (Penguin 1978).
10. Hinsley, F.H. (ed.) : Modern History : Material Progress and World Wide Problems.
11. Joll, James : Europe Since 1870 : An International History (Harper-Row, 1973).
12. Langer, W.L. : Diplomacy of Imperialism.
13. Langer, W.L. : European Alliances and Alignments (Greenwood, 1977).
14. Lefebvre, Georges : Coming of the French Revolution (Princeton, 1989).
15. Palmer, R.A. and Cotton Joel. : A History of Modern World, 6th ed. (McGraw, 1982)
16. Parks, H.B. : The United States of America.
17. Randal, J.G. and : The Civil War of Reconstruction, 2nd Ed. (rev.) Health 1969.
18. Rolls, Eric : History of Economic Thought
19. Rude, George : Revolutionary Europe (1984).
20. Saboul, A. : The French Revolution.
21. Stavrianes, L.S. : The World Since 1500 (1928).
22. Taylor, A.J.P. : The Origins of the Second World War.
23. Taylor, A.J.P. : The Struggle for Mastery in Europe (OUP, 1954).
24. Thompson, David, : Europe Since Napoleon (Penguin, 1957, 1966).

9. ECONOMICS

Max. Marks :- ~~90~~ 80

Int. Evaluation :- ~~10~~ 20

Time : 3 Hours

Note : The question-paper will carry a maximum of ⁸⁰90 marks and it will consist of nine questions out of which the candidate would be required to attempt five questions.

Each question will carry (8) marks. The first question will be compulsory and it will include objective type questions (10 marks) and short definitional type questions (8 marks) uniformly spread over both parts of the syllabus. The remaining 8 questions will include 2 questions from each of the four units and candidate would be required to attempt one question from each unit.

Preamble :

The Part-A of this paper entitled "Development and Environmental Economics" is intended to enable the students to know about theories of growth and development. This part also deals with issues relating to sustainable development, environmental protection and pollution control.

The Part-B of this paper entitled "International Economics" is designed to provide the students thorough understanding and deep knowledge about the basic principles that tend to govern the free flow of trade in goods and services at the global level. It also lays stress both on theory and applied nature of the subject that have registered rapid changes during the last decade.

**Part-A
Development and Environmental Economics**

Unit-I

Economics growth and development; Determinants and measurement of development; Vicious circle of poverty, Development with unlimited supply of labour, Balanced and unbalanced growth, Critical minimum effort thesis (Harvery Leibenstein).

Unit-II

Environment as a necessity and luxury; Population-environment linkage; Market failure in case of environmental goods; Environment as a public good; Prevention and control of pollution; Environmental legislation, Meaning, importance and indicators of sustainable development.

**Part-B
International Economics**

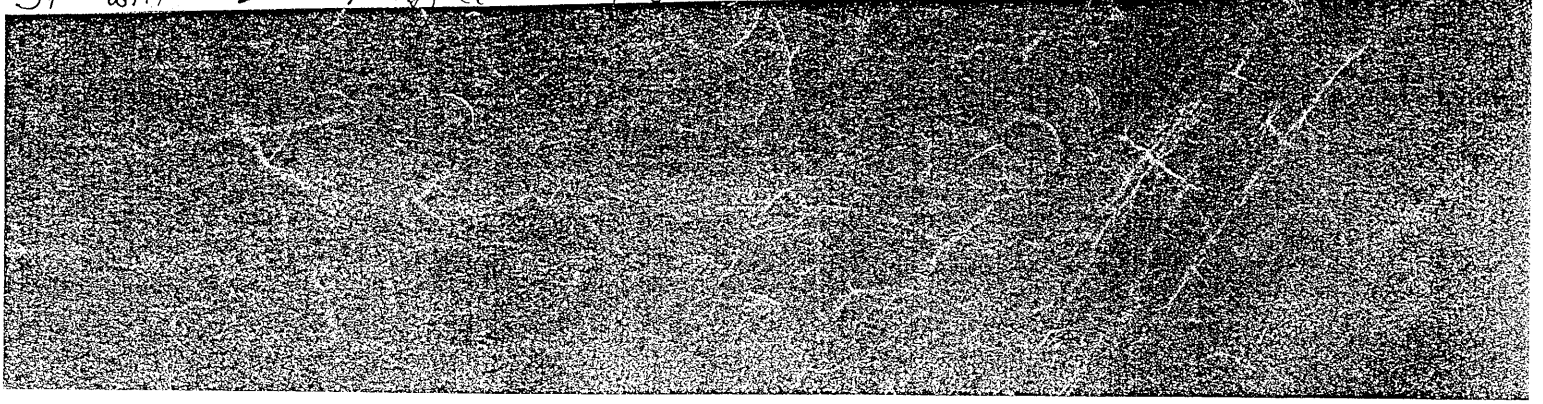
Unit-III

Inter-regional and international trade, Comparative advantage theory; Hecker-Ohlin theory; Gain from trade-their measurement and distribution; Trade as an engine of economic growth.

Unit-IV

Meaning of balance of payments equilibrium; Causes and effects of BOP disequilibrium

The scheme of examinations may please be followed as for the pattern of B.A. 1st Year Economics exam of distance. It will be subjected to the approval of UCBOS. AS/2018



Books :

1. Emilio Jason I. and C. Alison Molntosh (ed) : The New Politics of Population, The Population Concile, New York, 1994.
2. Hatcher Robert et al. : The Essentials of Contraceptive Technology Baltimore John Hopkins Schools of Puple.
3. Bose, Ashish : Demography Diversity in India, B. R. Publishing Corporation, Delhi, 1991.
4. Premi, M. K. et. al : An Introduction to Social Demography, Vikas Publishing House, Delhi, 1983.
5. Rajendra Sharma : Demography and Population Problems, Atlantic Publishers, New Delhi, 1997.
6. Srivastava, O. S. : Demography and Population Studies, Vikas Publishing House, New Delhi, 1997.
7. Chandrasekhar S. (Ed.) : Infant Mortality, Population Growth and Family Planning in India, Georage Allen and Unwin Ltd., London, 1974.
8. Hans Raj : India's Population, Asia Publishing House, Bombay, 1969.
9. Banarjee, D. : Family Planning in India, A critique Perspectives peoples Publishing house, New Delhi.
10. Davidas, Heer : Society population, Prentice-Hall of India Pvt. Ltd., New Delhi, 1979.
11. Agarwal, S.N. : Population Studies with Special Reference to India, Surjeet publications, New Delhi, 1989.

12. PUBLIC ADMINISTRATION

Option-II : Local Government and Administration in India

Max. Marks :- ~~90~~ 80

Int. Evaluation :- ~~10~~ 9.0

Time : 3 Hours

Note : The candidate will be required to attempt five questions, at least one question from each unit.

Syllabus and Courses of Reading

Unit I: One compulsory question of 18 marks with 9 objective type questions.

18

Sahib Singh & Swinder Singh,
Local Govt in India
New Academy Publishing Co.

There will be no change in the existing Units I to IV except one now to be renumbered as Units II to V due to addition of Unit I as above.

Unit-2: *Local Government* : meaning and significance, evolution of Local Governance in India since 1882.

Municipalities : composition, functions, finances, personnel, general working of municipal bodies with special reference to Haryana and Punjab, State Government's control over municipal bodies.

Unit-3: State Department and Directorate of Municipal bodies: its organisation and functions.

Role of the Ministry of Urban Development as well as the Central Council of local Self-Government in regard to municipalities.

Municipal Corporation : Composition, functions and finances. Town and Metropolitan Planning in India. 74th Constitutional Amendment Act, 1992.

Unit-4: *District Administration* : its features, purpose, problem, Deputy Commissioner, his role and position, administrative change in the context of planning and Development at district level, Divisional Commissioner, his role and position, state Headquarter's control over District Administration.

Unit-5: *Rural Local Government* : Zila Parishad, Panchayat Samiti, Panchayat. Their composition, functions finances, personnel, State Government's control over their working, role of political parties in panchayati Raj. 73rd Constitutional Amendment Act, 1992.

Role of State and Union Government in regard to Panchayati Raj institutions in Policy assistance, training and general control. Problems of rural-urban relationship.

Books Recommended :

1. Maheshwari, S. R. : Local government in India.
2. Maheshwari, S. R. : Bharat Mein Sthaniya Shasan.
3. Puri, K.K. : Local Government in India (Hindi).
and Barara, G.S.
4. Sharma, Harish Chander : Bharat Mein Sthaniya Prashasan.
5. Khanna, R.L. : Municipal Government and Administration in India.
6. Avasthi, R. L. : Municipal Administration in India.
7. Khera S. S. : District Administration in India.
8. Bhattacharya Mohit : Essays in Urban Government
9. Khanna, R. L. : Panchayati Raj in India
10. Jain, S.C. : Community Development and Panchayati Raj in India
11. Hoshiar Singh and Khan : Leadership in Municipal Government.
Ziadin
12. Pardeep Sachdeva : Public Administration, Jyoti Book Depot, Karnal

13. MATHEMATICS

OUTLINES OF TEST

	Max. Marks	Time
Paper-I BM-301 : Analysis	30+3	3 Hours
Paper-II BM-302 : Abstract Algebra	30+4	3 Hours
Paper-III BM-303 : Programming Analysis & Numerical Analysis Computer Practical in C based on Numerical Analysis. 10	21+2	3 Hours

Paper-I : BM-301 : Analysis

Max. Marks : 30 26+3
Time : 3 Hours

Section-I (3 Questions)

Riemann integral, Integrability of continuous and monotonic functions. The fundamentals theorem of integral calculus. Mean value theorems of integral calculus.

Improper integrals and their convergence., Comparison tests. Abels's and Dirichlet's tests. Frullani's integral. Integral as a function of a parameter. Continuity, derivability and integrability of an integral of a function of a parameter.

Section-II (2 Questions)

Series of arbitrary terms. Convergence, divergence and Oscillation. Abel's Dirichlet's tests. Multiplication of series. Doble series.

Fourier series, Fourier expansion of piece-wise monotonic functions.

Partial derivation and differentiability of real-valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem.

Section-III (2 Questions)

Stereographic projection of complex numbers.

Continuity and differentiability of Complex functions Analytic functions.

Cauchy-riemann equations. Harmonic functions. Elementary functions. mapping by elementary functions.

Mobius transformations. Fixed points Cross ratio. Inverse Points and critical mappings.

Section-IV (3 Questions)

Definition and examples of metric spaces. Neighbourhoods. Limit points. Interior points. Open and closed sets. Closure and interior. Boundary points. Subspace of a metric space. Cauchy sequences. Completeness. Cantor's intersection theorem. Contraction principle. Construction of real numbers as the completion of the incomplete metric space of rationals. Real numbers as a complete ordered field. Dense subsets, Baire category theorem. Separable, second countable and first countable spaces. Continuous functions. Extension theorem. Uniform continuity. Isometry and homeomorphism. Equivalent metrics. Compactness. Sequential compactness. Totally bounded spaces. Finite intersection property. Continuous functions and compact sets. Connectedness components. Continuous functions and connected sets.

Note : The examiner is requested to set ten questions in all, selecting questions section-wise as indicated in the syllabus. The candidate is required to attempt five questions, selecting at least one question from each section.

Books Recommended :

1. T.M. Apostol : Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
2. R. R. Goldberg, Real Analysis, Oxford & IBH Publishing Co., New Delhi, 1970.
3. S. Lang : Undergraduate Analysis, Springer-Verlag, New York, 1983.
4. D. Somasundaram and B. Choudhary : A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. Shanti Narayan : A Course of Mathematical Analysis, S. Chand & Co., New Delhi.
6. R.V. Churchill & J. W. Brown : Complex variables and Applications, 8th Edition, McGraw-Hill, New York, 1990.
7. Shanti Narayan : Theory of Functions of a Complex Variable, S. Chand & Co., New Delhi.
8. E. T. Copson, Metric Spaces, Cambridge University Press, 1968.
9. G. F. Simmons : Introduction to topology and Modern Analysis, McGraw-Hill 1963.

Paper-II BM-302 : Abstract Algebra

Max. Marks : 30 $\frac{27}{6}$
Time : 3 Hours

Section-I (3 Questions)

Group-Automorphisms, inner-automorphism. Automorphism groups and their computations. Conjugacy relation Normaliser. Counting principle and the class equation of

a finite group. Center for Group Prime order. Abelianizing of a group and its universal property. Sylow's theorems. p -Sylow subgroup. Structure theorem for finite Abelian groups.

Section-II (2 Questions)

Ring theory. Ring homomorphism. Ideals and Quotient Rings. Field of Quotients of an Integral Domain. Euclidean Rings. Polynomial Rings. Polynomials over the Rational Field. The Eisenstein Criterion. Polynomial Rings over Commutative Rings. Unique factorization domain R unique factorisation domain implies so is $R[X_1, X_2, \dots, X_n]$

Section-III (3 Questions)

Definition and examples of vector spaces. Subspaces. Sum and direct sum of subspaces. Linear span. Linear dependence, independence and their basic properties. Basis. Finite dimensional vector spaces. Existence theorem for bases. Invariance of the number of elements of a basis set. Dimension. Existence of complementary Subspace of a subspace of a finite dimension. Existence of complementary Subspace of a subspace of a finite dimensional vector space. Dimensional of sums of subspaces. Quotient space and its dimension. Linear transformations and their representation as matrices. The Algebra of linear transformations. The rank nullity theorem. Change of basis. Dual space, Bidual space and natural isomorphism. Adjoint of a linear transformation. Eigenvalues and eigenvectors of a linear transformation. Diagonalisation. Annihilator or a Subspace Bilinear, Quadratic and Hermitian forms.

Section-IV (2 Questions)

Inner product space-Cauchy-Schwarz inequality. Orthogonal vectors. Orthogonal Complements. Orthonormal sets and bases. Bessel's inequality for finite dimensional spaces. Gram-Schmidt Orthogonalization process.

Modules, Submodules, quotient modules. Homeomorphism and Isomorphism theorems.

Note : The examiner is requested to set ten questions in all, selecting questions section-wise as indicated in the syllabus. The candidate is required to attempt five questions selecting at least one question from each section.

Books Recommended :

1. I. N. Herstein : Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975.
2. N. Jacobson : Basic Algebra, Vols. I & II, W.H. Freeman, 1980 (also published by Hindustan Publishing Company).
3. P. B. Bhattacharya., S. K. Jain and S. R. Nagpal : Basic Abstract Algebra (2nd edition).
4. K. Hoffiman and R. Kunze, Linear Algebra, 2nd edition.

5. S. K. Jain, A. Gunawardena, & P.B. Bhattacharya : Basic Linear Algebra with MATLAB
6. Vivek Sahar and Vikas Bist : Algebra, Narosa Publishing House.
7. I. S. Luthar and E. B. S. Passi : Algebra, Vol. I, Groups Vol. II Rings, Narosa Publishing House.

**Paper-III : BM-303 : Programming in C and Numerical Analysis
(Theory & Practical)
(Non Programmable Scientific Calculator is allowed in this Paper)**

Max. Marks : 30 30/4
Time : 3 Hours

Section-I (3 Questions)

Programmer's model of a computer. Algorithms. Flow Charts. Data Types Arithmetic and Input/Output instructions. Decisions control structures. Decision statements Logical and conditional operators. Loop Case control structures. Functions Recursions Preprocessors. Arrays Puppeting of strings. Structures. Pointers. File formatting.

Section-II (2 Questions)

Solution of Equations : Bisection, Secant, Regular Falsi, Newton's Method. Roots of Polynomials.

Interpolation : Lagrange and Hermite Interpolation, Divided Differences. Difference Schemes, Interpolation Formulas using Differences.
Numerical Differentiation.

Numerical Quadrature : Newton-Cote's Formulas, Gauss Quadrature formulas, Chebychev's Formulas.

Linear Equations : Direct Methods for Solving Systems of Linear Equations Gauss Elimination, LU Decomposition, Cholesky Decomposition), iterative methods. Jacobi Gauss-Seidel, Relaxation Methods).

Algebraic Eigenvalue problem : Jacobi's Method, Givens; method. Householder's Method, Power Method, QR Method Lanczo's Method.

Section-III (2 Questions)

Ordinary Differential Equations : Euler Method, Single-step Methods, Runge-Kutta's Method, Multi-step Method, Milne-Simpson method, Methods based on Numerical

Integration, Methods based on Numerical Differentiation, Boundary value Problems, Eigenvalue problems.

Approximation : Different types of Approximation, Least Square Polynomial Approximations, Polynomial Approximation using Orthogonal Polynomials, Approximation with Trigonometric Functions, Exponential Functions, Chebychev polynomials, Rational Functions.

Section-IV (2 Questions)

Random number generation, congruential generators, statistical tests of pseudorandom numbers.

Random variate generation, inverse transform method, Composition method, acceptance-rejection method, generation of exponential, normal variates, binomial and poisson variates.

Monte Carlo integration, hit or miss Monte Carlo integration, Monte Carlo integration for improper integrals, error analysis for Monte Carlo integration.

Note : The examiner is requested to set ten questions in all, selecting questions section-wise as indicated in the syllabus. The candidate is required to attempt five questions selecting at least one question from each session.

Practicals

Practicals in C is based on Numerical Analysis as in Section-II and III above.

Books Recommended :

1. B. W. Kernighan and D. M. Ritchie, The C programming Languages, 2nd Edition.
2. V. Rajaraman, Programming in C, prentice Hall of India, 1994.
3. Byron S. Gottfried, Theory and problems of Programming with C, Tata McGraw-Hill Publishing Co. Ltd., 1998.
4. C. E. Froberg, Introduction to Numerical Analysis (2nd Edition).
5. Melvin J. Maron, Numerical Analysis : A Practical Approach, Macmillan Publishing Co, Inc, New York.
6. M. K. Jain, S.R.K. Iyengar, R. K. Jain, Numerical Methods-Problems and Solutions, New Age International (P) Ltd., 1996.
7. M. K. Jain, S.R.K. Iyengar, R. K. Jain, Numerical Methods for Scientific and Engineering Computation, New Age International (P) Ltd., 1999.
8. R. Y. Rubistein : Simulation and the Monte Carlo Methods, John Wiley, 1981.

Annex 1

(B.A.M.S.) GENERAL THIRD YEAR
MEDIA WRITING

Max. Marks: 80

Pass Marks: 28
Time: 3 hours

Reporting and Editing for Newspaper, Creative Writing,
News Writing, Definition, Types of News, Inverted Pyramid, Feature writing, definitions
and Type of Features, article writing, Editorial writing, Writing for Radio and T.V.,
Radio News ,Script Writing, Radio Jingles, TV News Writing, TV announcements.
Writing for advertisements, Slogan Writing, Definition of News,
Principals of Reporting, Backgrounder follow up, deadline, dateline, Voice over Peace to
Camera, Principals of Editing, Caption Writing, DTP,
Editorial, Headlines and types of headlines, Need and Impact of Headlines
Free lancing, Review writing, News Analysis, Syndicate Journalism.

Suggested Readings :

1. Introduction to Mass Communication – Keval J. Kumar
2. संचार के सात सौपान – अनिल अंकित
3. Narula Uma Development Communication- Theory and Practice, Har Anand
4. Gupta V.S. Communication and Development Concept, New Delhi.
5. Tewari, I P Communication Technology and Development, Publication
Division, Govt. of India
6. Handbook of New Media, Live Row.

