

(Including Book-Details)

**SCHEME & SYLLABUS  
FOR  
BACHELOR OF ARTS**

**(THREE YEARS DEGREE PROGRAMME)  
ANNUAL**

**B.A.-III (General)**

(Session 2020-21)

(THROUGH DISTANCE EDUCATION)



**Directorate of Distance Education**

**GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY  
HISAR-125001 (HARYANA)**

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20/07/2021

**Bachelor of Arts (B.A)**  
**Three Year Programme (Annual)**  
**B.A – III**

**Compulsory Subjects**

Paper	Nomenclature	Marks
BA301	English	100
BA302	Hindi	100

**Elective Subjects**

Choose any two elective subjects (one from each group)

<b>Group-I</b>		
BA303	Political Science ( <i>Comparative Government and Politics</i> )	100
BA304	Public Administration ( <i>Local Administration and Issues in Public Administration</i> )	100
<b>Group-II</b>		
BA305	History ( <i>History of Modern World</i> )	100
BA306	Mathematics Paper-I <i>Real Analysis</i> Paper-II <i>Abstract Algebra</i> Paper-III <i>Numerical Analysis(Theory) &amp; Programming in C</i>	40 30 30
<b>Group-III</b>		
BA307	Economics ( <i>Development &amp; Environmental Economics and International Trade</i> )	100
BA308	Sociology ( <i>Social Problems</i> )	100

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**Bachelor of Arts  
B.A.-III (Final Year)  
BA 301  
English Compulsory**

**Time: 3 Hours**

**Maximum Marks: 100  
External Marks: 70  
Internal Assessment: 30**

**Course Objectives**

The main aim of this course is to acquire linguistic knowledge and competence essentially required in various life situations.

**Scheme of Examination**

**Instructions for Paper-setters and Students**

**Note:** All questions will be compulsory.

1. Explanation of two extracts out of the two texts (with internal choice) with reference to the context. 4x2=08
2. Short answer-type questions: Students will be required to answer any five questions out of the given eight based on the prescribed texts. 2x4=08
3. Based on the prescribed texts, a candidate is required to attempt two long answer-type questions out of the given two (with internal choice) 4x2=08  
The questions will be designed to test the candidates' critical understanding of the texts.
4. Students are required to write a business/official letter out of the given two. 08
5. Students are required to write a precis of the given passage of about 300 words. 08
- 6 a) Students will be required to write one word substitutions of any five expressions out of the given eight. 2x5=10  
b) Students will be required to attempt two questions on Email/Memo/Circular/RTI out of the given four topics. The questions intend to test the understanding of the basic modes of communication. 2x5=10
- c) Students will be required to transcribe and mark the primary stress on any five out of the given eight sentences. 1x5=05
- d) Students will be required to identify and transform any seven sentences (From one type to another, i.e., simple, compound and complex) out of the given ten. 5x1=5

**Prescribed Texts**

1. *Kanthapura & Art Exercise in Language Use* edited by Umed Singh, Pankaj Sharma, Deepti Dharmani
  2. *The Merchant of Venice and Developing Compositions* by Deepti Dharmani, Pankaj Sharma, Umed Singh
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**Bachelor of Arts  
B.A. -III (Final Year)  
BA302  
Hindi Compulsory**

**Maximum Marks: 100  
External Marks: 70  
Internal Assessment: 30**

**Time: 3 Hours**

**Course Objectives**

The main objective of this course is to enhance and prepare the students with the necessary tools to enrich their Hindi language such as Speaking, Explaining, Typing, Filing and Writing skills.

**Scheme of Examination**

**निर्देश (Instructions for Paper- Setters and Students)**

- निर्धारित पाठ्य-पुस्तको में से व्याख्या के लिए चार अवतरण पूछे जाएंगे जिनमें से परीक्षार्थियों को किन्हीं दो की सप्रसंग व्याख्या करनी होगी । प्रत्येक व्याख्या 6 अंक की होगी । पूरा प्रश्न 12 अंक का होगा ।
- निर्धारित आलोचनात्मक प्रश्नों में से दो प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को एक प्रश्न का उत्तर देना होगा । यह प्रश्न 8 अंक का होगा ।
- निर्धारित पाठ्य पुस्तको एवं आलोचनात्मक प्रश्नों में से छः लघूत्तरी प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को लगभग 150 शब्दों में किन्हीं चार प्रश्नों का उत्तर देना होगा । प्रत्येक प्रश्न के लिए समान अंक निर्धारित हैं । पूरा प्रश्न 12 अंक का होगा ।
- निर्धारित आलोचनात्मक प्रश्नों में से चार प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को दो प्रश्नों का उत्तर देना होगा । प्रत्येक प्रश्न 7-7 अंक का होगा । इस प्रकार यह प्रश्न 14 अंक का होगा ।
- निर्धारित प्रश्नों में से चार लघूत्तरी प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को लगभग 150 शब्दों में किन्हीं दो प्रश्नों का उत्तर देना होगा । प्रत्येक प्रश्न के लिए समान अंक निर्धारित हैं । पूरा प्रश्न 8 अंक का होगा ।
- निर्धारित पाठ्यक्रम में से चार लघूत्तरी प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को किन्हीं दो प्रश्नों का उत्तर देना होगा । प्रत्येक उप प्रश्न के लिए अंक निर्धारित हैं । पूरा प्रश्न 8 अंक का होगा ।
- पूरे पाठ्यक्रम में से 8 वस्तुनिष्ठ प्रश्न पूछे जाएंगे । प्रत्येक प्रश्न 1 अंक का तथा पूरा प्रश्न 8 अंक का होगा ।

**Course Contents**

**इकाई-I**

**आलोचनात्मक प्रश्न**

पाठ्यक्रम में निर्धारित कवियों के साहित्यिक परिचय, अनुभूतियाँ एवं अभिव्यक्तिगत निर्धारित कविताओं पर ही प्रश्न पूछे जाएंगे ।

**इकाई-II**

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पाठ्यक्रम में निर्धारित पाठ्य-पुस्तको में से आलोचनात्मक प्रश्न  
समकालीन काल की परिस्थितियाँ

### इकाई-III

- i. प्रयोजनमूलक हिंदी
- ii. रेडियो, टी.वी0, पत्र, टंकण और हिन्दी कम्प्यूटर

- भारत में रेडियो और टी.वी नेटवर्क का सामान्य परिचयात्मक ज्ञान।
- रेडियो तथा टी.वी. के विविध कार्यक्रम।
- रेडियो-आलेख तथा समाचार-वाचन के समय सावधानियाँ।
- रेडियो तथा टी.वी. में प्रयुक्त हिन्दी।
- संपादकीय विभाग का गठन।
- संपादक के गुण।
- समाचार-संग्रहण।
- समाचार-लेखन व पठन।
- संवाददाता की विशेषताएं।
- समाचार-पत्र की सम्पूर्ण प्रक्रिया का ज्ञान।
- रेडियो और समाचार-पत्र : साम्य-वैषम्य।

### इकाई-IV

फाइलिंग पद्धति और उद्यमिता

अ) फाइलीकरण : अर्थ, परिभाषा, महत्त्व, तत्त्व, वर्गीकरण, पद्धतिया और फाइलों के प्रकार

ब) उद्यमी की आवश्यकता, अर्थ, परिभाषा, कार्य, गुण और महत्त्व

### References/ Suggested Readings

- 1) Haryanvi Lokdhara by Dr, Meera Gautam, Kurukshetra University, Kurukshetra
- 2) Samkalin Hindi Kavita, T. Book, MDU Rohtak
- 3) Hindi Sahitya ka Aadhunik Kal: Kavita, MDU Rohtak
- 4) Hindi Sahitya ka Itihaas, MDU Rohtak
- 5) Pattarkarita by Naresh Mishra Published by Rajpal & Sons (Rajpal Publishing) , ISBN-13: 978-8170287100
- 6) Paryojan Moolak Hindi by Naresh Mishra Published by Rajpal & Sons (Rajpal Publishing) , ISBN-13: 978-8170287100
- 7) Navayantar , Gadya Saurav, Publication Deptt., Kurukshetra University, Kurukshetra

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**Bachelor of Arts**  
**B.A.-III (Final Year)**  
**BA303**  
**POLITICAL SCIENCE**  
**(Comparative Government and Politics)**

**Time : 3 Hours.**

**Maximum Marks: 100**  
**External Marks : 70**  
**Internal Assessment: 30**

**Course Objectives**

The main objective of this course is to find possible similarities which might help or explain the phenomenon of political revolution. Study of politics will focus on a comparison of their institutions, political parties, the role of ideology and leadership varying developmental experience and the performance of their governments.

**Scheme of Examination**

**Note:** (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 14 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 3.5 marks each) spread over the whole syllabus.

**Course Contents**

**Unit-I**

**Approaches to the Study of Comparative Politics**

Nature and Scope of Comparative-Politics, Development of Comparative Politics, Comparative-Politics and Comparative Government, Comparative methods and Comparative-Politics, Approaches to the study of Comparative Politics,

**Constitutions and Constitutionalism:** - Special reference of UK, USA, China and Switzerland

**Unit-II**

**Constitutional Structure: Executive, Legislature and Judiciary**

**Executive:** British King and Prime Minister, the President of the USA, China and Plural Executive of Switzerland.

**Legislature:** Composition and Powers of the British Parliament, US Congress, Swiss Federal Assembly, and National People's Congress of China.

**Judiciary:** US Supreme Court and Judicial Review, Judicial system of UK, China, and Federal Judiciary of Switzerland.

**Unit-III**

**Political Parties and Party Systems:** Political Parties in the USA, U.K. Switzerland and China

**Interest Groups and Pressure Groups:-** Definition of Interest Group, Characteristics of Interest Groups, Classification of Interest Groups, Working System in Interest Groups, Interest Groups and Political party, Meaning of Pressure Groups, Difference between Interest Groups and Pressure Groups, Difference between Pressure Groups and Political Parties, Features of Pressure Groups, Types of Pressure Groups, Functional Techniques of Pressure

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Groups, Determinants of Pressure Groups, Functions and Roles of Pressure Groups, Criticisms of Pressure Groups.

#### Unit-IV

**Political Culture and Political Socialization:** Political Culture- meaning, mapping out the three levels of Political Culture; Political trends in contemporary political cultures.

**Political Modernization:** Globalization and Comparative Politics, Trans-national state, Responses from Developed and Developing Societies, Socialization- meaning, agents of Political Socialization.

**Political Communication:** Meaning and Definitions of Political-Communication, Agencies and Structure of Political-Communication, Role of Political-Communication in Political System.

#### References/ Suggested Readings

1. International Relations (Hindi&English) by Dr. B.L.Fadia , Published by Sahitya Bhawan Publications, N.Delhi.
2. International Politics (Hindi&English) by Dr. B. L. Fadia, Published by Sahitya Bhawan Publications, N.Delhi.
3. Local Self- Government in India by N.P.Shukla, Published by Navyug Books International ISBN No. 9789380731445

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**Bachelor of Arts**  
**B.A.-III (Final Year)**  
**BA 304 (PUBLIC ADMINISTRATION)**  
**(Local Government and Issues in Public Administration)**

**Maximum Marks: 100**  
**External Marks: 70**  
**Internal Assessment: 30**

**Time : 3 Hours**

**Course Objectives**

The basic objective of this course is to promote understanding of political, social, legal, and economic environments in which local, public and government organizations operate. And to understand and analyse policies, programs, problems, and issues and make pertinent recommendations.

**Scheme of Examination**

**Note:** (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 14 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 3.5 marks each) spread over the whole syllabus.

**Course Contents**

**Unit-I**

**Local Government:** Meaning, Features and Significance of Local Government, Study of Local Government in India since 1882.

**Unit-II**

**Reforms in Local Government:** Reforms in Local Government under the recommendations of Balwant Rai committee, Ashok Mehta Committee, G.V.K Rao Committee, L.M. Singhvi Committee, 73rd and 74th Constitution Amendment Acts.

**Unit-III**

**Local Bodies:** Municipal Corporation, Municipal Council and Municipal Committees: their meaning, features, Role and Significance.

**Unit-IV**

**Panchayati Raj Institutions:** Composition, Functions, Sources of Income of Gram Panchayats, Panchayat Samities and Zila Parishads, District Planning Committee: Composition, Functions and Significance, Present Challenges of local government.

**References/ Suggested Readings**

- 1 Public Administration by B.L.Fadiya, Published by Sahitya Bhawan Publications, ISBN-13: 978-8193413753
2. Public Administration by M. Laxmikant, Published by McGraw Hill Education, ISBN-13: 978-1259003639
3. Local government in India by S.R Maheshwari, Published by Lakshmi Narain Agarwal
- 4 Bharat Mein Sthaniya Shasan by S.R Maheshwari Published by Lakshmi Narain Agarwal
- 5 Local government in India (Hindi) Puri, K.K. and Barara, G.S, Published by Jalandhar Bharat Prakashan.

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**Bachelor of Arts  
B.A.-III (Final Year)  
B.A. 305 (History)  
(History of Modern World)**

**Maximum Marks: 100  
External Marks: 70  
Internal Assessment: 30**

**Time: 3 Hours.**

**Course Objectives**

The basic objective of this course is to trace and analyse the development of civilization in Africa, Asia, Europe, and the Americas and explore how societies change over time and examine its effects on the development of government, society, and economic changes.

**Scheme of Examination**

**Note:** (1). The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 14 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 3.5 marks each) spread over the whole syllabus.

**Course Contents**

**Unit- I**

The Renaissance and Reformation in Europe, Decline of Feudalism and the Rise of Capitalism in Europe, Rise of the Absolute State: Britain, France, Spain and Russian, Agricultural Revolution and Industrial Revolution

**Unit- II**

American Revolution (1776) and Glorious Revolution (1688), French Revolution (1789), Modernisation of Japan and its Emergence as a Great Power, Unification of Italy and Germany

**Unit - III**

Opium Wars In China, Battle of Concessions in China, China State Revolution of 1911 and Rise Communist, The Russian Revolution (1917), The American Civil-War (12-April-1861), The First World War: Causes and Peace Settlements

**Unit - IV**

The Second World War: Causes, Impact and Results, Maps: Unification of Italy and Germany, First World War and Second World War, Extent of Industrial Revolution in Europe

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**References/ Suggested Readings**

1. History of Modern Europe since 1789 by Dr. V.D. Mahajan, S.Chand & Company.
2. History of Modern World from AD1500 to 2013 by B.V.Rao. ISBN13:978812077767, Sterling Publishers Pvt. Ltd., New Delhi
3. Modern European History by Charls Downer Hazen, Published by Nabu Press, ISBN-13: 978-1293008485
4. Modern World History by Uddipan Mukherjee, G.K. Publications.
5. Mastering Modern World History by Norman Lowe, Macmillan Education UK

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**Bachelor of Arts  
B.A.-III (Final Year)  
BA306 (Mathematics)  
Paper-I: Real Analysis**

**Maximum Marks: 40  
External Marks: 28  
Internal Assessment: 12**

**Time : 3 Hours.**

**Course Objectives**

The basic objective of this course is to develop a positive attitude towards learning Mathematics and perform mathematical operations and manipulations with confidence, speed and accuracy.

**Scheme of Examination**

Note: (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 6 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 1 mark each) spread over the whole syllabus.

**Course Contents**

**Unit-I**

Riemann integral, Integrability of continuous and monotonic functions, the fundamental theorem of integral calculus, Mean value theorems of integral calculus, Improper integrals and their convergence, Comparison tests, Abel'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

**Unit-II**

Series of arbitrary terms, Convergence, divergence and Oscillation, Abel's and Dirichlet's tests, Multiplication of series, Double series, Fourier series Fourier expansion of piece-wise monotonic functions, Partial derivatives and differentiability of real-valued functions of two variables, Schwarz's and Youg's theorem. Implicit function theorem,

**Unit-III**

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,

**Unit-IV**

Definitions 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 incomplete metric spaces of rational numbers, 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.

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### References/Suggested Readings

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

### Paper-II (Mathematics) BA-306: Abstract Algebra

Max. Marks: 30

Time: 1½ Hours

External Marks: 21

Internal Assessment: 09

**Note:** (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 4 marks. (2) The Question No.1 will be short answer type containing five questions of equal marks (i.e. 1 mark each) spread over the whole syllabus.

#### Unit-I

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.

#### Unit -II

Ring theory- Ring homeomorphism. 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  $R[X_1, X_2, \dots, X_n]$

#### Unit -III

Definition and example of vector spaces. Subspaces. Sum and direct sum of subspaces. Linear span. Linear dependence, independence and their basic properties Basic. Finite dimensional vector spaces. Existence theorem for bases. Invariance of the number of elements of a basic set. Dimension. Existence of complementary Subspaces of a subspaces of a finite dimension. Existence of complementary Subspace of a subspace of a finite dimensional vector space. Dimensional of sums of subspace. 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.

#### Unit -IV

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

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Orthogonalization process. Modules. Submodules. Quotient modules. Homeomorphism and Isomorphism theorems.

**References/Suggested Readings**

1. I.N. Herstein: Topics in Algebra, Wiley Eastern Ltd. New Delhi, 1975
2. N. Jacobsen : 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 (2<sup>nd</sup> edition)
4. K. Hoffman and R. Kunze, Linear Algebra, 2<sup>nd</sup> Edition
5. S.K. Jain, A. Gunawardena & P.B. Bhattacharya : Basic Linear Algebra with MATLAB.
6. Vivek Sahai and Vikas Bist : Algebra, Narosa Publishing House.
7. I.S. Luther and I.B.S. Passi : Algebra, Vol. I, Groups Vol. II – Rings, Narosa Publishing House.

**Paper III: BA-306**

**Numerical Analysis (Theory) & Programming in C**  
(Non- Programmable Scientific Calculator is allowed in this paper)

**Max. Marks: 30**

**Time: 1½ Hours**

**External Marks: 21**

**Internal Assessment: 09**

**Note:** (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 4 marks. (2) The Question No.1 will be short answer type containing five questions of equal marks (i.e. 1 mark each) spread over the whole syllabus.

**Unit-I**

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

**Unit-II**

Solution of Equations : Bisection, Secant, Regular Falsil Newton's Method. Roots of Polynomials. Interpolation : Language 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, Reixtation Methods). Algebra Eigenvalue problem : Jacobi's Method, Given's Method. Heuseholder's Method, Power Method, QR Method Lanczos' Method.

**Unit-III**

Ordinary Differential Equations : Euler Method , Single-step Mehods, Runge-Kutta's Method, Multi-Step Methods, Milne- Simpson method, Methods based on Numerical Intergration, Methods based on Numerical Differentiation, Boundary value Problems Eigenvalue problems. Approximation : Different types of Approximation, Least Square Polynomial Approximation, Polynomial Approximation using Orthogonal Polynimials, Approximation with Trigonometric Functions. Exponential Functions, Chebychev polynomials Rational Functions.

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#### Unit-IV

Random number generation congruential, 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.

#### Practicals :

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

#### References/ Suggested Readings

1. B.W.Kernighan and D.M.Rithcie, The C programming Language, 2<sup>ND</sup> 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 (2<sup>nd</sup> Edition)
5. Melvin J. Maron, Numerical Analysis : A Practical Approach, Macmillan Publishing Co, Inc, New York.
6. M.K. Jain, S.R.K. Lyengar, R.K.Jain, Numerical Methods-Problems and Solutions, New Age International (P) Ltd, 1996
7. M.K. Jain, S.R.K. Lyengar, 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

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**Subject: Scheme and Syllabus of BA Mathematics (3 Year U.G. Programme)**

<b>BA107</b>	<p style="text-align: center;">Mathematics</p> <p>Paper-I <i>Algebra and Trigonometry</i></p> <p>Paper-II <i>Calculus and Ordinary Differential Equation</i></p> <p>Paper-III <i>Vector Analysis and Geometry</i></p>	<p><b>40</b></p> <p><b>30</b></p> <p><b>30</b></p>
<b>BA206</b>	<p style="text-align: center;">Mathematics</p> <p>Paper-I <i>Advance Calculus</i></p> <p>Paper-II <i>Integral Transform and Partial Differential Equation</i></p> <p>Paper-III <i>Mathematical Statistics</i></p>	<p><b>40</b></p> <p><b>30</b></p> <p><b>30</b></p>
<b>BA306</b>	<p style="text-align: center;">Mathematics</p> <p>Paper-I <i>Real Analysis</i></p> <p>Paper-II <i>Abstract Algebra</i></p> <p>Paper-III <i>Numerical Analysis(Theory) &amp; Programming in C</i></p>	<p><b>40</b></p> <p><b>30</b></p> <p><b>30</b></p>

Reference above, it is stated that the said paper carries maximum marks 100. Syllabi and schemes were prepared at different intervals as per requisite. Therefore, a gap and ambiguity remained all the time. To avoid the confusion, a uniform pattern of the same programme is given as below:

Sr. No.	Maximum marks	External/Theory	Internal Marks	PCP Test marks	Assignment Marks(Internal)
	<b>100</b>	<b>70</b>	<b>30</b>	<b>10</b>	<b>20</b>
For Paper code	P-I=40	28	12	(4) 30% of internal	12-4=8
<b>BA107</b>	P-II=30	21	09	(3) 30% of internal	9-3=6
<b>BA206</b>	P-III=30	21	09	(3) 30% of internal	9-3=6
<b>BA306</b>					
	<b>100</b>	<b>70</b>	<b>(12+9+9)=30</b>	<b>(4+3+3)=10</b>	<b>(8+6+6)=20</b>

Provided that If PCP test exists, the scheme for concerned subject would remain the same as stated in the Table-1 otherwise the marks of PCP test will merge in assignment as internal marks i.e. 30 (15+15) for both assignments.

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Course Coordinator (BA-Gen.)

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**Bachelor of Arts**  
**B.A.-III (Final Year)**  
**BA307 (Economics)**  
**(Development & Environmental Economics and International Trade)**

**Maximum Marks: 100**  
**External Marks: 70**  
**Internal Assessment: 30**

**Time: 3 Hours.**

**Course Objectives**

This course examines the global politics of trade, development and the environment against the background of continued economic globalisation and the emergence of new forms of global governance.

**Scheme of Examination**

**Note:** (1) The question paper will consist of nine questions. The candidate shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidate shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 14 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 3.5 marks each) spread over the whole syllabus.

**Unit-I**

Economic Growth and Development: Concept, Approaches to Economic development, Determinants of Economic Development, Difference between Economic Growth and Economic Development, Measurements and Obstacles to Economic Development, Measures of Economic Development: Traditional, UNDP and PQLI.

**Unit-II**

Environment and Economy: Nature and Scope of Environmental Economics, Environmental Linkage, Components and Characteristics of Environment, Relationship between Environment, Human Society and Economy, Environmental Degradation, Sustainable and Environmental-Legislations.

**Unit-III**

Population Problem and Growth Patterns of Population in Developing Countries, Vicious Circle of Poverty, Balanced and unbalanced Growth, Lewis Model of Unlimited Supply of Labour, Balance of Payments.

**Unit-IV**

Introduction to International Trade, Terms of trade, Factors influencing Trade, Trade as an Engine of Growth, Need & Importance of study of International economics, Inter-regional and Inter-national trade, Foreign Exchange, WTO.

**References/ Suggested Readings**

- 1 Development & Environmental Economics and International Trade by T.R.Jain & M.L. Grover, Published by VK Global Publications
- 2 International Economics by T.R. Jain, Published by VK Global Publications
- 3 Development Economics by T.R. Jain & Meenu Jain, Published by VK Global Publications
- 4 Development & Environmental Economics by T.R.Jain & M.L. Grover, Published by VK Global Publications

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**Bachelor of Arts**  
**BA 308**  
**B.A.-III (Final Year)**  
**Sociology (Social Problems)**

**Maximum Marks – 100**  
**External Marks– 70**  
**Internal Assessment – 30**

**Time: 3 Hours**

**Course Objectives**

The basic objective of this course is to describe the social problems as it exists in contemporary society and delineate and assess social problems in an oral or written assignment.

**Scheme of Examination**

**Note:-** (1) The question paper will consist of nine questions. The candidates shall attempt five questions in all. The Question No. 1 will be compulsory. The Candidates shall attempt four more questions selecting at least one question from each Unit. Each question will, therefore, carry 14 marks. (2) The Question No.1 will be short answer type containing four questions of equal marks (i.e. 3.5 marks each) spread over the whole syllabus

**UNIT – I**

**Social Problems:** Concept, Meaning and types, Importance of the Study of Social Problems, Poverty, Alcoholism, Drug addiction, Black Money and Corruption.

**UNIT – II**

**Structural Issues:** Social Justice and Inclusive Development, Inequality of Caste, Class and Gender, Development of Minorities, Backward Classes and Dalits (Scheduled Castes), Communalism

**UNIT – III**

**Gender Issues and Legislative Measures:** Patriarchy and Gender Discrimination, Female-Foeticide, Dowry, Domestic- Violence, Divorce and Protective Measures for women.

**UNIT – IV**

**Social Disorganization:** Unemployment, Crime and Delinquency, Child-Abuse, Drug-addiction, HIV/AIDS, Suicides, Prostitution, Corruption

**References/ Suggested Readings**

- Sociology: An Introduction by Smelser, Neil, J., Wiley Eastern Private Limited
- Sociology: Principles of sociology with an introduction to social thought by Shanker Rao C.N., S. Chand and Company
- Samajshastra (Hindi), M.L.Gupta & D. D. Sharma, Sahitya Bhawan Publications, Agra
- History of Social thought by K.Singh, Prakashan Kendra, Lucknow.

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*Shankar*  
20/07