HEMCHAND YADAV VISHWAVIDYALAYA, DURG (C.G.)

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SCHEME OF EXAMINATION & SYLLABUS of

B.Sc. Final Year Session 2021-22



(Approved by Board of Studies) Effective from July 2021

Maths - 1

B.A./B.SC. Part-III PAPER - III - (OPTIONAL) PRINCIPLES OF COMPUTER SCIENCE

- UNIT-I Data Storage Storage of bits. Main Memory. Mass Storage. Coding Information of Storage. The Binary System. Storing integers, storing fractions, communication errors.
 Data Manipulation The Central Processing Unit. The Stored-Program Concept. Programme Execution. Other Architectures. Arithmetic/Logic Instructions. Computer- Peripheral Communication.
- UNIT-II Operating System and Networks The Evolution of Operating System. Operating System Architecture. Coordinating the Machine's Activities. Handling Competition Among Process. Networks. Networks Protocol.

 Software Engineering The Software Engineering Discipline. The Software Life Cycle. Modularity. Development Tools and Techniques. Documentation. Software Ownership and Liability.
- UNIT-III Algorithms The Concept of an Algorithm, Algorithm Representation. Algorithm Discovery. Iterative Structures. Recursive Structures. Efficiency and Correctness. (Algorithms to be implemented in C++). Programming Languages Historical Perspective. Traditional Programming Concepts, Program Units. Language Implementation. Parallel Computing. Declarative Computing.
- UNIT-IV Data Structures Arrays. Lists. Stacks. Queues. Trees. Customised Data Types. Object Oriented Programming.
 File Structure Sequential Files. Text Files. Indexed Files. Hashed Files. The Role of the Operating System.
 Database Structure General Issues. The Layered Approach to Database Implementation. The Relational Model. Object-Oriented Database. Maintaining Database Integrity. E-R models
- UNIT-V Artifical Intelligence Some Philosophical Issues. Image Analysis. Reasoning, Control System Activities. Using Heuristics. Artificial Neural Networks. Application of Artificial Intelligence.

 Theory of Computation Turning Machines. Computable functions. A Non computable Function. Complexity and its Measures. Problem Classification.

REFERENCES:

1. J. Glen Brookshear, Computer Science : An Overview, Addition -Wesley.

2. Stanley B. Lippman, Josee Lojoie, C++ Primer (3rd Edition), Addison-Wesley.



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B.A./B.SC. Part-III PAPER - III - (OPTIONAL) (II) DISCRETE MATHEMATICS

- UNIT-I Sets and Propositions Cardinality. Mathematical Induction, Principle of inclusion and exclusion.

 Computability and Formal Languages Ordered Sets. Languages. Phrase Structure Grammars.

 Types of Grammars and Languages. Permutations. Combinations and Discrete Probability.
- UNIT-II Relations and Functions Binary Relations, Equivalence Relations and Partitions. Partial Order Relations and Lattices. Chains and Antichains. Pigeon Hole Principle.

Graphs and Planar Graphs - Basic Terminology. Multigraphs. Weighted Graphs. Paths and Circuits. Shortest Paths. Eulerian Paths and Circuits. Travelling Salesman Problem. Planner Graphs. Trees.

- UNIT-III Finite State Machines Equivalent Machines. Finite State Machines as Language Recognizers.

 Analysis of Algorithms Time Complexity. Complexity of Problems. Discrete Numeric Functions and Generating Functions.
- UNIT-IV Recurrence Relations and Recursive Algorithms Linear Recurrence Relations with constant coefficients. Homogeneous Solutions. Particular Solution. Total Solution. Solution by the Method of Generating Functions. Brief review of Groups and Rings.
- UNIT-V Boolean Algebras Lattices and Algebraic Structures. Duality, Distributive and Complemented Lattices. Boolean Lattices and Boolean Algebras. Boolean Functions and Expressions. Prepositional Calculus. Design and Implementation of Digital Networks. Switching Circuits.

REFERENCES:

 C.L. Liu, Elements of Discrete Mathematics, (Second Edition), McGraw Hill, International Edition, Computer Science Series, 1986



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B.A./B.SC. Part-III

PAPER - III - (OPTIONAL) (III) PROGRAMMING IN C AND NUMERICAL ANALYSIS

(Theory & Practical)

Theory component will have maximum marks 30. Practical component will have maximum marks 20.

UNIT-I 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. Puppetting of strings. Structures. Pointers. File formatting.

Numerical Analysis

- UNIT-II Solution of Equations: Bisection, Secant, Regula 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.
- UNIT-III Linear Equations: Direct Methods for Solving Systems of Linear Equations (Guass Elimination, LU Decomposition, Cholesky Decomposition), Iterative Methods (Jacobi, GaussSeidel, Relaxation The Algebraic Eigenvalue problem: Jacobi's Method, Givens' Method, Householder's Method, Power Method, QR Method, Lanczos' Method.
- UNIT-IV Ordinary Differential Equations: Euler Method, Single-step Methods, Runge-Kutta's Method, Multistep Methods, 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 Approximation, Polynomial Approximation using Orthogonal Polynomials, Approximation with Trigonometric Functions, Exponential Functions, Chebychev Polynomials, Rational Functions.

Monte Carlo Methods

Random number generation, congruential generators, statistical tests of pseudo-random numbers. Unit-V 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.

REFERENCES:

- 1. Henry Mullish and Herbert L. Cooper, Spirit of C: An Introduction to Modern Programming, Jaico Publishers, Bombay.
- 2. B.W. Kernighan and D.M. Ritchie. The C Programming Language 2nd Edition, (ANSI features) Prentice
- 3. Peter A Darnel and Philip E. Margolis, C: A Software Engineering Approach, Narosa Publishing House,
- 4. Robert C. Hutehisonand Steven B. Just, Programming using C Language, McGraw Hill, 1988.
- Les Hancock and Morris Krieger, The C Primer, McGraw Hill, 1988.
- V. Rajaraman, Programming in C, Prentice Hall of India, 1994.
- V. Rajaraman, Programming in C, Prentice man of mona, 1991.
 Byron S. Gottfried, Theory and Problems of Programming with C, Tata McGraw-Hill Publishing Co. Ltd.,
- 8. C.E. Froberg, Introduction to Numerical Analysis, (Second Edition), Addison-Wesley, 1979.
- 9. James B. Scarborough, Numerical Mathematical Analysis, Oxford and IBHPublishing Co. Pvt. Ltd. 1966.
- 10. Melvin J. Maron, Numerical Analysis A Practical Approach, Macmillan publishing Co., Inc. New York,
- 11. M.K. Jain, S.R.K. Iyengar, R.K. Jain, Numerical Methods Problems and Solutions, New Age International (P) Ltd., 1996.

- 12. M.K. Jain, S.R.K. lyengar, R.K. Jain, Numerical Methods for Scientific and Engineering Computation,
- New Age International (P) Ltd., 1999. 13. R.Y. Rubistein, Simulation and the Monte Carlo Methods, John Wiley, 1981.
- 14. D.J. Yakowitz, Computational Probability and Simulation, Addison-Wesley, 1977.

PAPER - III - (OPTIONAL) (IV) PRACTICAL PROGRAMMING IN C AND NUMERICAL ANALYSIS

LIST OF PRACTICAL TO BE CONDUCTED...

- 1. Write a program in C to find out the largest number of three integer numbers.
- 2. Write a program in C to accept monthly salary from the user, find and display income tax with the help of following rules:

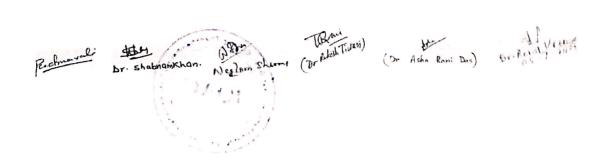
i di eo i	
Monthly Salary	Income Tax
9000 or more	40% of monthly salary
7500 or more	30% of monthly salary
7499 or less	20% of monthly salary

- 3. Write a program in C that reads a year and determine whether it is a leap year or not.
- 4. Write a program in C to calculate and print the first n terms of fibonacci series using looping statement.
- 5. Write a program in C that reads in a number and single digit. It determines whether the first number contains the digit or not.
- 6. Write a program in C to computes the roots of a quadratic equation using case statement.
- 7. Write a program in C to find out the largest number of four numbers using function.
- 8. Write a program in C to find the sum of all the digits of a given number using recursion.
- Write a program in C to calculate the factorial of a given number using recursion.
- 10. Write a program in C to calculate and print the multiplication of given 2D matrices.
- 11. Write a program in C to check that whether given string palindrome or not.
- 12. Write a Program in C to calculate the sum of series:

$$1 + x + \frac{1}{2!}x^2 + \frac{1}{3!}x^3 + \dots + \frac{1}{n!}x^n$$

- 13. Write a program in C to determine the grade of all students in the class using Structure. Where structure having following members - name, age, roll, sub1, sub2, sub3, sub4 and total.
- 14. Write a program in C to copy one string to another using pointer. (Without using standard library
- 15. Write a program in C to store the data of five students permanently in a data file using file handling.





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M.A. (Greography)

SCHEME OF EXAMINATION & SYLLABUS of

M.A./M.Sc.(Geography) Semester Exam

Session 2021-22

(Approved by Board of Studies)

Effective from July 2021

Hemchand YadavVishwavidyalaya, Durg (C.G.)

M.A./M. Sc. GEOGRAPHY SEMESTER III

M.A. /M. Sc. Geography Semester III shall consist the following papers:

S. No.	Paper	Title	M. M.		
140.	•	Title	Written	Inte. Asse.	Total
1.	XI	Population Geography	80	20	100
2.	X II	Settlement Geography	80	20	100
3.	XIII (A)	Remote Sensing Techniques	80	20	100
	OR	OR			
4.	XIII (B)	Biogeography and Ecosystem	80	20	100
5.	XIV	Research Methodology	80	20	100
	XV	Practical-III: Remote Sensing and Quantitative Techniques			100

1. The M.A. /M. Sc. Semester III examination in Geography shall consist of 500 marks. There shall be four theory papers each of 100 marks and one practical of 100 marks as' follows:

Paper XI

Population Geography

Paper XII

♣Settlement Geography

Paper XIII (A)

Remote Sensing Techniques

OR

Paper XIII (B)

Biogeography and Ecosystem

Paper XIV

Research Methodology

Paper XV

Practical - III: Remote Sensing and Quantitative Techniques

- 2. The theory papers shall be of three hours duration.
- 3. Candidates will be required to pass separately in theory and practical examinations.
- 4. (a) In the practical examination the following shall be the allotment of time and marks

(i) Practical record

20%

(ii) Lab work (up to Four hours)

70%

(iii) Viva on i.& ii. Above

10%

- (b) The external and internal examiners shall jointly submit marks.
- (c) All the candidates shall present at the time of the practical examination their practical record regularly signed by the teachers concerned.











SEMESTER - III

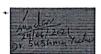


PAPER – XIII (A) REMQTE SENSING TECHNIQUES

- UNIT-1 Historical development of remote sensing as a technology Relevance of remote sensing in Geography Concepts and basics: Energy source, energy and radiation principles, energy interactions in the atmosphere and earth surface features, remote sensing systems: platform sensors and radiation records. Microwave sensing interpretation of SLAR imageries, thermal imageries.
- UNIT-II Remote Sensing Satellite: platforms LANDSAT, SPOT, NOAA, RADARSAT, IRS, INSAT: principles and geometry of scanners and CCD arrays, orbital characteristics and data products MSS, TM, LISS I & II, SPOTPLA & MLA, SLAR.
- UNIT-III Image Processing: Types of imagery, techniques of visual interpretation, ground verification transfer of interpreted thematic information to base maps-digital processing: rectification and restoration, image enhancement contrast manipulation, Classification: Supervised and Unsupervised, post-classification analysis and accuracy assessment.
- UNIT-IV Applications: Air photo and image interpretations, arid mapping land use and land cover, land evaluation, urban land use, landform and its processes, weather studies and studies of water resources: integration of Remote Sensing and GIS. Remote sensing and hazard management, remote sensing and environmental management.

SUGGESTED READINGS:

- 1. American Society of Photogrammetry: Manual of Remote Sensing. ASP, Falls Church V.A., 1983.
- 2. Barrett E.C. and L.F. Curtis: Fundamentals of Remote Sensing and Air Photo Interpretation on, Memillan, New York, 1992.
- 3. Compbell J.: Introduction to Remote Sension, Guilford, New York, 1989.
- 4. Curran, Paul J.: Principles of Remote Sensing. Longman, London, 1985.
- 5. Hord R.M.: Digital Image Processing of Remotely Sensed Date, Academic, New York, 1983.
- 6. Luder D., Aerial Photography Interpretation: Principles and Application, Cc Graw Hill, New York, 1959.
- 7. Pratt W.K. Digital Image Processing. Wiley, New York, 1978.
 - 8. Rao D. P. (eds.): Remote Sensing for Earth Resources, Association of Exploration Geophysicist, Hederabad, 1998.
 - 9. Thomas M. Lollesand and Ralph W. Kefer, Remote Sensing and Image Interpretation, Wiley & sons, New York, 1994.
 - 10. Aronoff S. Geographic Information Systems: A. Management Perspective, Publication Offiawa, 1989.
 - 11. Burrough P.A. Principles of Geographic Information Systems for Land Reson Assessment Oxford University Press, New York, 1986.
 - 12. Fraser Taylor D.R. Geographic information Systems. Pergamor Press, Oxford 1990.
 - 13. Maquire D.J.M.F. Goodchild and D.W. Rhind (eds.). Geographic information System 'Principles arid Application. Taylor & Francis, Washingron, 1991.
 - 14. Mark S. Monmonier. Computer assisted Cartography, Prentice-Hall, Englewood Cliff, Jersey, 1982.
 - 15. Peuquet D...1. And D.F. Marble, Introductory Reading in Geographic. Information System Taylor & Francis, Washington, 1990.
 - 16. Star J. and J. Estes, Geographic Information Systems: An Introduction, Prentice Engley New Jersey, 1994.
 - 17. चौनियाल, देवी दत्तः सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली.







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PAPER - XIII (B)

BIOGEOGRAPHY AND ECOSYSTEM

- UNIT-1 Definition and scope of Biogeography Environment, Habitat and Plant-animal association, Biome Types.
- UNIT-11 Elements of plant geography, distribution of forests and major communities. Plant successions in newly formed land forms. Zoogeography and its Environmental Relationship. Palaeo botanical and Palaeo climatological records of environmental change.
- UNIT-III Ecosystems: concept and components, Ecosystem-form and function: tropic level, ecological pyramids, ecological niche, energy and nutrients in the ecosystem, hydrological cycle, food chains and food webs. Major terrestrial ecosystems of the world: agriculture, forests, grassland and desert. Population growth and environment.
- UNIT-IV Biodiversity and its Conservation. Preservation and conservation of the ecosystem through resource management, Environment legislation. The Stockholm conference, the Earth summit, Environmental laws in India (the Wild Life Act, Water Act, Forest Act, Environment Protection Act and National Environment Tribunal Act).

SUGGESTED READINGS -

- 1. Agrawal D.P.: Man and Environment in India through Ages, Book & Books, 1992.
- 2. Bradshaw, M.J.: Earth and Living Planet, ELBS. London, 1979.
- 3. Cox, C.D. and Moore, P.D.: Biogeography: An Ecological and Evolutionary Approach 5th edn. Blackwell, 1993.







29/06/2001



Hemchand Yadav Vishwavidyalaya, Durg (C.G.)

M.A./M. Sc. GEOGRAPHY SEMESTER IV

M.A./M.Sc. Geography Semester IV shall consist the following papers:

		only demester in small contract		M. M.	
S. No.	Paper	Title	Written 80	Int. Ass.	Total 100
1.	XVI	Urban Geography.	80	20	100
2.	X VII	Agricultural Geography	80	20	100
3.	XVIII (A)	Geographical Information System OR			
4.	OR	Environmental Geography	80	20	100
	XVIII (B) XIX	Field Work (Physical and Socio- Economic)			100
5.	AIA	Practical-IV :Geographical Information System and			100
6.	XX	Quantitative Techniques			
		- L C	shall consist	of 500 mark	s.

- The M.A./M.Sc. Semester IV examination in Geography shall consist of 500 marks.
- There shall be three theory papers and one Field Work report each of 100 marks and one 1. practical of 100 marks as follows.

pr S. No. 1. 2.	ractical of 100 mar Paper XVI XVII XVII (A)	Title Urban Geography Agricultural Geography Geographical Information System
3.	XVIII (A)	OR
4. 5. 6.	XVIII (B) XIX XX	 Environmental Geography Field Work (Physical and Socio- Economic) Practical-IV: Geographical Information System and Quantitative Techniques

- The theory papers shall be of three hours duration.
- Candidates will be required to pass separately in theory and practical examinations. 2.
- Candidates will be required to submit their Field Report in three copies in hard 3. bound at least one hundred pages for Valuation.
- (a) In the practical examination the following shall be the allotment of time 5.
- and marks

and n		20%
(i)	Practical record	2070
	Lab Work (up to Four Hours)	70%
(ii)		10%
(iii)	Viva on i & ii above	1070

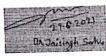
- (b) The external and internal examiners shall jointly submit marks.
- (c) All the candidates shall present at the time of practical examination their practical record regularly signed by the teacher concerned.













SEMESTER - IV

PAPER - XVIII (A)

GEOGRAPHICAL INFORMATION SYSTEM

- Spatial Science: Geography as a spatial science, maps and spatial information UNIT – I dynamics of spatial information, elements of information technology, Geographic objects and their relations definition and development of GIS, computer environment
- UNIT II Spatial Data: Elements of spatial data: data sources: Primary and secondary census and sample data, quality and error variations Raster and vector data structures, data conversion comparison of raster and vector data bases, methods of spatial interpolation - GIS data formats for the computer environment.
- UNIT III GIS Technology: Coordinate system-basic principles of cartography and computer assisted cartography for GIS - remote sensing data as a data source for GIS integration of GIS and remote Sensing-GPS and GIS: technology, data generation and limitations – visualization in GIS-Digital Elevation Models (DEM and TINS).
- UNIT IV GIS Application: GIS as a Decision Support System -expert system for GIS-basic flow chart for GIS application - GIS standard legal system and national GIS policy application of GIS in Land Information System, Urban Management, Environmental Management and Emergency Response System.

SUGGESTED READINGS:

- American Society of Photogrammetry: Manual of Remote Sensing. ASP, Falls Church V.A., 1983. 1.
- Barrett E.C. and L.F. Curtis: Fundamentals of Remote Sensing and Air Photo Interpretation on, 2. Memillan, New York, 1992.
- Compbell J.: Introduction to Remote Sension, Guilford, New York, 1989. 3.
- Curran, Paul J.: Principles of Remote Sensing. Longman, London, 1985. 4.
- Hord R.M.:Digital Image Processing of Remotely Sensed Date, Academic, New York, 1983. 5.
- Luder D., Aerial Photography Interpretation: Principles and Application, CcGraw Hill, New York, 6. 1959.
- Pratt W.K. Digital Image Processing. Wiley, New York, 1978. 7.
- Rao D. P. (eds.): Remote Sensing for Earth Resources, Association of Exploration Geophysicist, 8. Hederabad, 1998.
- Thomas M. Lollesand and Ralph W. Kefer, Remote Sensing and Image Interpretation, Wiley & 9. sons, New York, 1994.
- Aronoff S.Geographic Information Systems: A. Management Perspective, Publication Offiawa, 10. 1989.
- Burrough P.A. Principles of Geographic Information Systems for Land Reson Assessment 11. Oxford University Press, New York, 1986.
- Fraser Taylor D.R. Geographic information Systems. Pergamor Press, Oxford 1990. 12.
- Maquire D.J.M.F. Goodchild and D.W. Rhind (eds.). Geographic information System 13. 'Principles arid Application. Taylor & Francis, Washingron, 1991.
- Mark S. Monmonier. Computer-assisted Cartography, Prentice-Hall, Englewood Cliff, Jersey, 1982. 14.
- Peuguet D. .1. and D.F.- Marble, Introductory Reading in Geographic. Information System Taylor & 15. Francis, Washington, 1990.
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SEMESTER - IV PAPER - XVIII (B) ENVIRONMENTAL GEOGRAPHY

- Environment: Meaning, definition, concepts and theories related to environment. Environment and its components: Classification, Characteristics and their interdependent relationship, Development of the environmental studies and their UNIT-I approaches: Development of environmentalism in Geography.
- Environment and development. Ecological concepts; Geography as human ecology; Ecosystem: meaning definition, Concept and components. Main terrestrial UNIT - II ecosystems of the world-forests and agriculture.
- Environmental hazards- natural and human made, environmental pollution: meaning definition, nature and types-air, water, noise and others. Ecological impacts of UNIT – III pollution. Resource use and ecological imbalance with special reference to soil, forests and water resources.
- UNIT IV Environmental Management: meeting, importance and approaches, need for environmental policy and laws. Preservation and conservation of environment through resource management (Green revolution, Chipko movement, National Parks). Environmental Actions: concept, need and importance Stockholm Conference, Earth Summit, E.I.A. definition and methods and need for EM Environmental education and People's participation.

Suggested Readings:

- 1. Agrawal, Anil and Sunita Narain. Dying Wisdom: The Fourth citizen Report. Centre for Science and Environment, New Delhi, 1998.
- 2. Burton I.; R.W. Kates & G.F. Whiley. The Environment as Hazards. O. U.P. New York, 1978, Carledge, Bryen. Population and the Environment, O.U.P., New York, 1995.
- 3. Chandna, R.C. Environmental Awareness Kalyani Punlishers, New Delhi, 1998.
- 4. Dawson, J. and J.C. Doornkamp, eds.: Evaluating the Human Environment. Edward Amold, London, 1975
- 5. Detwyler, J.R.: Man,s impact on Environment. Pelican, 1970.
- 6. Edington, J.M. & M.A. Edington: Ecology and Environmental Planning. Chapmap & Hall, London, 1977.
- 7. Goudie, Andrew. The Human Impact on the Natural Environment, Blackwell Oxford, U.K. 1994
- 8. Jain, R. K., L.V. Urban and G.S. Stacy; Environmental Impact Analysis-A New Dimension in Decision-Making. Van Norstrand Reinhold Co. New York, 1977.
- 9. Khoshoo, T.N. Environmental Concepts and Strategies. Ashish Publishing House, New Delhi.
- 10. Mohan, M. Ecology and Development. Rawat Publications; Jaipur, 2000.
- 11. Munn, R.E. Environmental Impact Assessment: Principles and Procdures. John Wiley & Sons, New York, 1979.

12. Narain, Sunita. The Citizen Fifth Report. Centre for Science and Environment, New Delhi, 2003.







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SCHEME OF EXAMINATION & **SYLLABUS** Of

B.Com. Final Year Session 2021-22

(Approved by Board of Studies) Effective from July 2021

Hemchand Yadav Vishwavidyalaya, Durg (C.G.) **SYLLABUS**

B.COM. PART-III

GROUPING OF SUBJECTS AND SCHEME OF EXAMINATION

Subject		Max.	Min.	
Foundation Course		A		
I. Hindi Language		75	26	
II. English Language		75	26	
Compulsory Groups				
Group-I				
I. Income Tax	75]	4 111 0		
II. Auditing	75	150	50	
Group-II				
 Indirect Taxes with GST 	75	150	50	
II. Management Accounting	75	150		
Group-III Optional				
Option Group A (Finance Area)				
 Financial Management 	75	4 57 5	50	
II. Financial Market Operations	75	150		
Option Group B (Marketing Area)				
I. Principles of Marketing	75]			
II. International Marketing	75	150	50	
Option Group C (Commercial Area)				
 Information Technology and 	75)			
its Applications in Business	}	150	50	
II. Essential of e-Commerce	75			
Option Group D (Money Banking &				
Insurance Area)	F 1			
I. Fundamental of Insurance	75 \	150	۳A	
II. Money & Banking System	75 ∫	120	50	
. Inant.				

OPTIONAL GROUP A (Finance Area) TITLE OF PAPER - FINANCIAL MANAGEMENT

PAPER - I

OBJECTIVE

The objective of this course is to help students understand the conceptual framework of financial management.

M.M. 75

- Financial Management: Financial goals; Profit vs wealth maximization; Financial functions-investment, financing, and dividend decisions; Financial planning.
- UNIT-II Capital Budgeting: Nature of investment decisions, Investment evaluation criteria, payback period, accounting rate of return, net present value, internal rate of return profitability index; NPV and IRR comparison.
- UNIT-III Cost of Capital: Significance of cost of capital; Calculating cost of debt; Preference shares, equity capital, and retained earnings; Combined (weighted) cost of capital. Operating and financial Leverage: Their measure; Effects on profit, analyzing alternatefinancial plans, combined financial and operating leverage.
- UNIT-IV Capital Structure: Theories and determinates. Dividend Policies: Issues in dividend policies; Walter's model; Gordon's model; M.M.Hypothesis, forms of dividends and stability in dividends, determinats.
- UNIT-V Management of Working Capital: Nature of working capital, significance of workingcapital, operating cycle and factors determining of working capital requirements,

Management of working capital - cash, recevables, and inventories.



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OPTIONAL GROUP A (Finance Area) TITLE OF PAPER - FINANCIAL MARKET OPERATIONS

PAPER - II

OBJECTIVE

This course aims at acquainting the students with the working of financial markets in

M.M. 75

- UNIT-I Money Market: Indian money market's composition and structure; (a) Acceptance houses, (b) Discount houses and (c) Call money market; Recent trends in Indianmoney market.
- Capital Market: Security market (a) New issue market, (b) Secondary market: Functions and role of stock exchange; listing procedure and legal requirements; Public issue - pricing and marketing; Stock exchanges -National Stock Exchange, Bombay stock exchange.
- Securities contract and Regulations Act: Main provgisions.Investors Protection: Grievancesconcerning stock exchange dealings theirremoval; Grievance cells in stock exchanges; SEBI; Company Law Board: Press: Rmedy through courts.
- Functionaries on Stock Exchanges: Brokers, sub brokers, market makers, UNIT-IV jobbers, portfolio consultants, institutional investors, and NRIs.
- Financial Services: Marchant banking Functions and roles; SEBI guide-UNIT-V lines; Creditrating - concept, functions, and types.





B.COM PART III OPTIONAL GROUP B (Marketing Area) TITLE OF PAPER -PRINCIPLES OF MARKETING PAPER - I

OBJECTIVE

The Objective of this course is to help students to understand the concept of marketing and its applications.

M.M. 75

- UNIT-I Introduction: Nature and scope of marketing; Importnace of marketing as a business function, and in the economy; Marketing concepts traditional and modern; Selling vs. Marketing; Marketing mix; Marketing environment.
- Consumer Behaviour and Market Segmentation: Nature, scope, and significance of consumer behaviour; Market segmentation concept and importance; Bases for market segmentation.
- UNIT-III Product: Concept of product, consumer, and industrial goods; Product planning and development; Packaging role and functions; Brand name and trade mark; after sales service; Product life cycle concept. Price: Importance of price in the marketing mix; Factors affecting price of a product/service; Discounts and rebates.
- Distributions Channels and Physical Distribution; Distribution channels Concept and role; Types of distribution channels. Factors affecting choice of a distribution channel; Retailer and holesaler; Physical distribution of goods; Transportation, Warehousing, Inverntory control; Order processing.
- UNIT-V Promotion: Methods of promotion; Optimum promotion mix; Advertising media the irralative merits and limitations; Characteristics of an effective advertisement; Personal selling; Selling as a career; Classification of successful sales person; Functions of sales man.

 Recent development in marketing social marketing, online marketing.

Recent development in marketing – social marketing, online marketing, direct marketing, Services marketing, Green marketing.

- Professor

OPTIONAL GROUP B (Marketing Area) TITLE OF PAPER -INTERNATIONAL MARKETING PAPER - II

OBJECTIVE

are course aims at acquainting student with the operations of marketing in dermation alenvironment.

M.M. 75

- UNIT-I International Marketing: Nature, definiton, and scope of international marketing; Domestic marketing vs. International marketing; International environment external internal.
- dentifying and Selecting Foreign Market: Foreign market entry mode decisions. Product Planning for international Market: Product designing; Standardization vs. adaptation; Branding and packaging; Labeling and quality issues; after sales service. International pricing: Factors Influenceing International price; Pricing process-processand methods; International price quotation and payment terms.
- UNIT-III Promotion of Product/Services Abroad: Methods of international promotion; Direct mail and sales literature; Advertising; Personal selling; Trade fairs and exhibitions.
- UNIT-IV International Distribution: Distribution channels and logistics decisions; Selection and appointment of foreign sales agents.
- Export Policy and Practices in India: Exim policy an overview; Trends in India's foreign trade; Steps in starting an export business; Product selection; Market Selection; Export pricing; Export finance; Documentation; Export procedures; Export Assistance and incentives. Marketing Control Process



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OPTIONAL GROUP C (Commercial Area) TITLE OF PAPER - INFORMATION TECHNOLOGY AND ITS APPLICATIONS IN BUSINESS

PAPER - I

OBJECTIVE

The objective of the course is to famillatize the students with the innovation reformation technology and how it affects business. An understanding of the group rules of these technologies will enable the students to appreciate the nitty-gritty temmerce.

M.M. 75

- Information Revolution and information Technology (IT): Deployment of Business; Basic features of IT; Impact of IT on business environment and social fabric; Invention of writing; Written books; Printing Press and movable type Gutenberg's invention; Radio; telephone, wireless and satelite communication computing and dissemination of information and knowledge and convergence technologies (Internet with Wireless-WAP).
- Fundamentals of Computer: Data, information and EDP: Data, information and concept of data and information; Levels of information from data; processing; Electronic data processing; Electronic machines;
 - a. Number Systems and Codes: Different number systems binary, octal decimal, hexagonal, and their conversion codes used in computers; Bed, EBCDIC, ASCII; Gray and conversions.
 - b. Computer Arithmetic and Gates: Binary arithmetic, complements, addition subtraction; Conversion from one system to another; Logic Gates, truthtable and applicationsminimisation, and K-maps.
 - c. Computer Processing System: Definition of computer; Hardware/Software concepts; Generation of computers; Types of computers; Elements of computer; CPU and its functions, various computer systems.
 - d. I/O devices: Basic concepts of I/O devices; various input devices Keyboard, mouse; MICR, OCR, microphones.
 - e. Various output devices: VDU, printer, plotter, spooling, L.S.
 - f. Storage Devices: Primary and secondary memory; Types of memory capacityand its enhancement; Memory devices and comparisons; Auxiliary storage, tapes, disks (insegnetic and potical); various devices and their comparison.

g. System Software - Roale of Software, Different System Software: O.S., utilization element of O.S. - Its types and variations; DOS and windows. h. Computer and Networks: Need of communication; Data transmission; Baud; Bandwidth; Communication Channel; Multiplexing; Basic network concepts; O.S.I. model; Types of topologies; LAN, WAN, Client server concept.

UNIT-III Computer-based Business Applications

- a. Word Processing: Meaning and role of word processing in creating of documents, editing, formatting, and printing documents, using tools such as spelling check, thesaurus, etc. in word processors (MS-Word).
- b. Electronic Spreadsheet: Structure of spreadsheet and its applications to accounting, finance, and marketing functions of business; Crating a dynamic/sensitive worksheet; Concept of absolute and relative cell reference; Using builtinfunctions; Goal seeking and solver tool; Using graphics and formatting of Worksheet; sharing data with other desktop applications; Strategies of cratingerror-free worksheet (MS-Excel, Lotus 123). Practical knowledge on WingsAccounting (Software).
- c. Programming under a DBMS environment: The concept of data base management system; Data field, records, and files, Sorting and indexing data; Searching records, designing queries, and reports; Linking of data files; Understanding programming environment in DBMS; Developing menu drivenapplications in query language (MS-Access).

UNIT-IV Electronic Data Interchange (EDI), Introduction to EDI; Basics of EDI; EDI standards; Financial EDI (FEDI); FEDI for international trade transaction; Applications of EDI; Advantages of EDI; Future of EDI.

UNIT-V The Internet and its Basic ConceptsInternet-concept, history development in India; Technological foundation of internet; Distributed computing; Client-server computing; Internet protocol suite; Application of distributed computing; Client-server computing; Internet protocol suite in the internet environment; Domain Name System (DNS); Domain Name Service (DNS); Generic top-lelveldomian (gTLD); Country code top-level domain (ccTLD); - India; Llocation of second-level doomains; IP addresses; Internet protocol; Applications of Internet in business, education, governance, etc. Information System Audit Basic idea of information audit; Difference with the traditional concepts of audit; Conduct and applications of IS audit in internet environment.

OPTIONAL GROUP C (E-Commerce Area)

TITLE OF PAPER -ESSENTIAL OF E-COMMERCE

PAPER - II

DBJECTIVE

he objective of this course is to familiarize the students with the basics of e-commerce and to comprehend its potential.

M.M. 75

UNIT-I Internet and Commerce: Business operations; E-Commerce practices; Concepts b2b, b2c, b2g, g2h; Benefits of e commerce to organization, consumers, and society; Limitation of e-commerce; Management issues relating to e-commerce.

Operations of E-Commerce: Credit card transaction; Secure Hypertext Transfer Protocol (SHTP); Electronic payment systems; secure electronic transaction (SET); Set's encryption; Process; Cybercash; Smart cards; Indian payment models.

- UNIT-II Applications in B2C: Consumer's shopping procedure on the internet; Impact on disintermediation and re-inermediation; Global market; Strategy of traditional department stores; Products in b2c model; Success factors of e-brokers; Broker based services on-line; Online travel tourism services; Benefits and impact of e-commerce on travel industry; Real estate market; Online stock trading and its benefits; Online banking and its benefits; Online financial services and their future; Educations benefits, implementation, and impact.
- Applications in B2B; Applications of b2b, Key technologies for b2b; Architectural models of b2b; Characteristics of the supplier-oriented marketplace, buyer-oriented market place, and intermediary-oriented marketplace; Benefits of b2b on procurement re-engineering; Just in Time delivery in b2b; Internet-based EDI from traditional EDI; Integrating EC with back-end information systems; Marketing issues in b2b.
- Applications in Governance: EDI in governance; E-government; E-governance applications of the internet; Concept of government to business, business to government and critisen-to-government; E-governance models; Private sector interface; We-governance.

Mode-toordermanufacturing model; Do-it yourself model; Information service model; Emergin hybrid models; Emerging models in India.

Security and Legal aspects of E-commerce.

Suggested Reading:

- 1. AgarwalaKamlesh. N. and AgarwalaDeekhsa: Bridge to Online Storefornt; MacmillanIndia, New Delhi.
- 2. AgarwalaKamlesh. N. and AgarwalaDeeksha: Business on the Net Introduction to the E-commerce; Macmillan India New Delhi.
- 3. AgarwalaKamlesh N. and AgarwalaDeeksha: Bulls, Bears and TheMouse: AnIntroduction to Online Stock Market Trading; Macmillan India New Delhi.
- 4. Tiwari Dr. Murli D.: Eductaion and E-Governance; Macmillan India, New Delhi.
- 5. Minoli Daniel, MinoliEmma: Web Commerce Technology Handbook; Tata McGraw Hill, New Delhi.
- 6. MinoliDeniel, Internet & Internet Engineering: Tata McGrow Hill, 1999.
- 7. BhatnagarSubhash and Schware Robert (Eds): Information and CommunicationTechnology in Development; Sage Publications India, New Delhi.
- 7. Amor, Daniel: E-business R evealuation, The : Living and Working in an InterconnectedWorld; Prentice Hall, U.S.
- 8. Afuah, A., and Tuccu, C.: Internet usiness models and Strategies; McGraw Hill, New York.



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PTIONAL GROUP D (Money Banking & Insurance Area) TITLE OF PAPER FUNDAMENTAL OF INSURANCE

PAPER - I

course enables the students to know the fundamentals of insurance.

M.M. 75

- Introduction to Insurance: Purpose and need of insurance; Insurance as a UNIT-I social security tool; Insurance and economic development.
- Fundamentals of Agency Law: Definiton of an agent; Agents regulations; Insurance intermediaries; Agents compensation.
- Procedure for Becoming an Agent : Prerequisite for obtaining a license; Cancellation of incense; suspension/termination of agent appointment; Code of conduct; Unfair Duration of license; practices. Functions of the Agent: Proposal form and other forms for grant of cover; Financial and medical underwriting; Material information; Nomination and assignment; Procedure regarding settlement of policy claims.
- Company Profile: organizational set-up of the company; Promotion strategy; Market share; Important activities; Structure; Product; Actuarial UNIT-IV profession; Product pricing actuarial aspects; Distribution channels.
- /Fire Marine insurance/ of Life Fundamentals/Principles /Medical/General Insurance; Contracts of various kinds; Insurable Interest. Online insurance procedure

Suggested Reading:

- 1. Mishra M.N.: Insurance Principle and Practice; S. Chand and Co., New Delhi.
- 2. Insurance Regulatory Development Act. 1999.
- 3. Life Insurance Corporation Act. 1956.
- 4. Gupta OS: Life Insurance; Frank brothers, New Delhi.
- 5. Vinayakam N., Radhaswamy and Vasudevan SV: Insurance Principles and Practice,
- S. Chand and Co. New Delhi.
- 6. Mishra MN: Life Insurance Corporation of India, Vols I, II & III; Raj Books, laipur.
- 7. BalchandShriwastava, Agra.
- 8. Dr. M.L. Singhai, RAmesh Book Depot, Jaipur

OPTIONAL GROUP D (Money Banking & Insurance Area) TITLE OF PAPER - MONEY & BANKING SYSTEM PAPER -II

OBJECTIVE

This course enables the students to know the working of the Indian Money & banking system.

M.M. 75

- Money: Function, Alternative Measures tomoney supply in India their UNIT-I different components. Meaning and changing relative importance of each.
- Indian Banking System: Structure and organization of banks; Reserve Bank of India; Apex banking Institutions; Commercial banks; Regional UNIT-II rural banks; Cooperativebanks; Development banks.
- Banking Regulation Act, 1947: History; Social control; Banking Regulation Act asapplicable to banking companies and public sector banks; Banking UNIT-III Regulation Act asapplicable to Cooperative banks.
- Regional Rural and Cooperative Banks in India: Functions; Role of regional UNIT-IV rural andcooperative banks in rural India; Progress and performance.
- Reserve Bank of India: Objectives; Organization; Functions and working: UNIT-V Monetarypolicy; Credit control measures and their effectiveness. State Bank of India, Project History, Objectives, Functions & Organization working& progress. Internet banking system

Suggested Reading:

- 1. Basu A.K.: Fundamentals of Banking-Theory and Practice; a Mukherjee and Co., Calcutta.
- 2. Sayers R.S.: Modern Banking: Oxford University Press.
- 3. Panandikar S.G. And Mithani D.M.: Banking in India; orient Longman.
- 4. Reserve Bank of India: Functions and Working.
- 5. Dekock: Central Banking; Crosby lock wood Staples, London.
- 6. Tannan M.L.: Banking Law and Practice in India: India Law House, New Delhi.
- 7. Knubchandani B.S.: Practice and Law of Banking; Macmillan, New Delhi.
- 8. Shekhar and Shekhar: Banking Theory and Practice; Vikas Publishing House, New Delhi.
- 9. Harishchandra Sharma.
- 10. M.L. Singhai.