

(Applicable to the batch of students admitted in the academic year 2025-2026)

B.Com.(Computer Applications) (CBCS)

FACULTY OF COMMERCE, IIMC

B.Com.(Computer Applications) III & IV Semester Syllabus (CBCS) (w.e.f. 2025-26)



FACULTY OF COMMERCE INDIAN INSTITUTE OF MANAGEMENT & COMMERCE Autonomous College (UG & PG)

6-1-91, Khairatabad, Hyd- 500 004, T.S


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**B.COM (Computer Applications)
CBCS COURSE STRUCTURE
w.e.f. 2026-2027**

SL.No.	Code	Course Title	HPW	Credits	Exam Hrs	Marks
(1)	(2)	(3)	(5)	(6)	(7)	(8)
SEMESTER - I						
1.	AEC1	English (First Language)	4	4	3 hrs	70+30I
2.	SLS1	Second Language	4	4	3 hrs	70+30I
3.	MJR101	Financial Accounting-I	5	5	3 hrs	70+30I
4.	MJR102	Business Organization and Management	5	5	3 hrs	70+30I
5.	MJR103	Fundamentals of Information Technology	3T+4P (5)	5	2 hrs	50T+35P + 15I
		Total	23	23		
SEMESTER - II						
6.	AEC2	English (First Language)	4	4	3 hrs	70+30I
7.	SLS2	Second Language	4	4	3 hrs	70+30I
8.	MJR201	Financial Accounting-II	5	5	3 hrs	70+30I
9.	MJR202	Business Laws	5	5	3 hrs	70+30I
10.	MJR203	Programming with C & C++	3T+4P (5)	5	2 hrs	50T+35P + 15I
		Total	23	23		
SEMESTER - III						
11.	AEC3	English (First Language)	4	4	3 hrs	70+30I
12.	SLS3	Second Language	4	4	3 hrs	70+30I
13.	MJR301	Advanced Accounting	5	5	3 hrs	70+30I
14.	MJR302	Business Statistics-I	5	5	3 hrs	70+30I
15.	MJR303	Relational Database Management System	3T+4P (5)	5	2 hrs	50T+35P + 15I
		Total	23	23		
SEMESTER - IV						
16.	AEC4	English (First Language)	4	4	3 hrs	70+30I
17.	SLS4	Second Language	4	4	3 hrs	70+30I
18.	MJR401	Income Tax	5	5	3 hrs	70+30I
19.	MJR402	Business Statistics-II	5	5	3 hrs	70+30I
20.	MJR403	Web Technologies	3T+4P (5)	5	2 hrs	50T+35P+ 15I
		Total	23	23		
SEMESTER - V						
21.	MJR501	a) Cost Accounting/ b) Business Economics/ c) Management Information Systems	5	5	3 hrs	70+30I
22.	MJR502	a) Business Ethics & Corporate Governance/ b) Auditing c) Mobile Applications	3T+4PR (5)	5	3 hrs/2 hrs	50T+35P + 15I/ 70+30I
23.	MDC503 (Offered to other Students)	a) Introduction to Accounting b) Principles of Management	4	4	3 hrs	70+30I


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24.	SEC1	a) Communication Skills/ b) Professional Development Skills c) Entrepreneurship & Startups	2	2	2 hrs	40U+20I
25.	SEC2	a) Professional Development Skills/ b) Communication Skills/ c) Entrepreneurship & Startups	2	2	2 hrs	40U+20I
26.	VAC1	a) Environmental Science/ b) Cyber Security & Laws	2	2	2 hrs	40U+10I
		Total	20	20		
		SEMESTER – VI				
27.	MJR601	a) Management Accounting/ b) Ecommerce c) Multimedia Systems	5	5	3 hrs	70+30I
28.	MJR602	a) Theory and Practice of GST b) Management Information System c) Data Analytics	3T+4P (5)	5	2 hrs	50T+35P + 15I
29.	RMP603	Research Methodology/ Internship/Project Report	2T+4PR 4	4	2 hrs	40U+10I 25PR+15I S+10VV
30.	SEC3	a) Fundamentals of AI Tools/ b) Ability Skills (Competitive Mathematics)	2	2	2 hrs	40U+10I
31.	SEC4 (Dept. specified)	a) Computerized Accounting b) E-filing of Tax Returns	2	2	2	40U+10I
32.	VAC2	a) Cyber Security & Laws/ b) Environmental Science	2	2	2 hrs	40U+10I
		Total	20	20		
		GRAND TOTAL	132	132		

THPW: Teaching Hour Per Week; ESED: End Semester Exam Duration AEC: Ability Enhancement Course; SLS: Second Language Skill; SEC: Skill Enhancement Course; MJR: Major Course; VAC: Value Added Course; MDC: Multi-disciplinary Course; T: Theory; P: Practical; I: Internal Exam U: University Exam; RMP: Research Methodology & Project Report; PR: Project Report; IS: Internship; VV: Viva-Voce Examination.

Note: If a student opts for "a" in SEC in V Semester, the student has to opt for "a" only in VI Semester and so is the case with "b" and "c" in the case of Major/MDC papers also the rule applies.

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AEC: English Language	4	4	16
2	Second Language	4	4	16
3	SEC	4	2	8
4	MDC	1	4	4
5	VAC	2	2	4
6	RMP	1	4	4
7	MJR	16	5	80
	TOTAL	32		132
	Commerce	18		86
CREDITS UNDER NON-CGPA		NSS/NCC/Sports/Extra Curricular	Up to 6 (2 in each year)	
		Summer Internship	Up to 4 (2 in each after I & II years)	

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SEMESTER - III

Paper MJR 301: ADVANCED ACCOUNTING

PAPER CODE: MJR 301

THPW: 5; Credits: 5

Max. Marks: 70 +30I=100

ESED: 3 hrs

Objective: To enable undergraduate students to acquire comprehensive, advanced accounting knowledge concerning partnership frameworks and joint stock companies. The course is structurally aligned with professional accounting standards in India, preparing students to handle complex partnership transitions, manage corporate equity and debt issuances, and construct company final accounts under Schedule III of the Companies Act, 2013.

Course Objectives:

1. Understand partnership accounting for operational changes and ownership transitions
2. Apply accounting procedures for dissolution, insolvency, and corporate conversion of firms
3. Analyze corporate equity and debt structure including shares and debentures
4. Prepare company final accounts as per statutory requirements
5. Apply valuation techniques for goodwill and shares

Course Outcomes:

1. Record partnership transactions including admission, retirement, death, and adjustments of capital
2. Prepare accounts for dissolution of firms, including insolvency and piecemeal distribution using Garner vs. Murray rule
3. Account for issue, forfeiture, and re-issue of shares and debentures per Companies Act, 2013
4. Prepare Company Final Accounts with Schedule III compliance and allocate profits prior to incorporation
5. Compute goodwill and share values using Average Profits, Super Profits, Capitalization, Net Assets, and Yield methods

UNIT - I: PARTNERSHIP ACCOUNTS - I (OPERATIONAL & OWNERSHIP TRANSITIONS):

Foundations of Partnership: Meaning, Legal Framework of the Indian Partnership Act, 1932; Essential clauses and significance of a Partnership Deed; Maintenance of Capital Accounts — Fixed Capital Method vs. Fluctuating Capital Method; Accounting for Interest on Capital, Interest on Drawings, Salaries, and Commission to partners.

Admission of a Partner: Calculation of New Profit Sharing Ratio and Sacrificing Ratio; Treatment of Goodwill (Premium Method, Revaluation Method, and Memorandum Revaluation Method); Valuation and accounting treatment of accumulated profits, unrecorded assets, reserves, and revaluation of assets and liabilities; Adjustment of Partner Capitals based on new ratios.

Retirement and Death of a Partner: Calculation of New Profit Sharing Ratio and Gaining Ratio; Revaluation of assets/liabilities and treatment of goodwill upon retirement; Accounting treatment for the transfer of a retiring partner's balance to a Loan Account; Accounting for the Death of a Partner: Computation of a deceased partner's share of profit up to the date of dissolution (Excluding Joint Life Policy calculations) (*Theory and Numericals*).

UNIT - II: PARTNERSHIP ACCOUNTS - II (DISSOLUTION, INSOLVENCY & CORPORATE CONVERSION):

Dissolution of Partnership Firms: Meaning and Legal distinction between the dissolution of a partnership and the dissolution of a firm; Statutory provisions for the settlement of accounts upon dissolution (Section 48 of the Indian Partnership Act); Preparation of Realisation Account, Partner's Loan Account, Partner's Capital Accounts, and Cash/Bank Account.

Insolvency of Partners: Advanced application of the **Garner vs. Murray rule** (Distribution of capital deficiency caused by insolvency among solvent partners); Accounting treatment excluding the case of insolvency of all partners simultaneously.

Piecemeal Distribution & Corporate Sale: Piecemeal distribution of cash assets to partners during gradual liquidation (Maximum Loss Method and Surplus Capital Method); Conversion and sale of an


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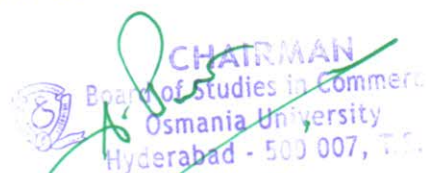
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ongoing partnership firm to a Limited Joint Stock Company — Computation of Purchase Consideration and final closing books of accounts of the firm (*Theory and Numericals*).

UNIT - III: CORPORATE EQUITY, DEBT ARCHITECTURE & SHARE CAPITAL LOGISTICS

Issue of Shares: Overview of the Share Capital structure of corporate entities; Accounting mechanics for the issue of equity and preference shares at Par and Premium; Strict compliance with Section 52 of the Companies Act, 2013 regarding the statutory utilization of the Securities Premium Account; Pro-rata allotment mechanics, handling of calls-in-arrears and calls-in-advance.

Forfeiture & Capital Optimization: Accounting for the Forfeiture of shares and the Re-issue of forfeited shares under varied conditions; Deletion of discount issuances as per Section 53.

Debentures & Capital Reserve Allocations: Issue of Debentures — Accounting entries for the issue of debentures with explicit conditions of redemption (at par, premium); Underwriting of Shares and Debentures: Statutory provisions, determining underwriters' absolute and contingent liabilities (Gross, Net, and Marked applications); Bonus Shares: Meaning, Purpose, SEBI Guidelines for bonus issues, sources of capitalization, and accounting entry design (*Theory and Numericals*).

UNIT - IV: COMPANY FINAL ACCOUNTS & PRE-INCORPORATION RESTRUCTURING:

Company Final Accounts Framework: Structure and statutory mandates of the **Companies Act, 2013**; Thorough analysis and application of **Schedule III (Division I)**; General instructions, formats, and structural protocols for the presentation of the Corporate Balance Sheet (Part-I) and the Statement of Profit and Loss (Part-II).

Corporate Financial Reporting: Preparation of standard corporate Final Accounts including comprehensive modern adjustments (Current Corporate Tax provisions, Transfer to statutory Reserves, Managerial Remuneration adjustments, and Dividend Distribution constraints).

Profits Prior to Incorporation: Conceptual understanding of pre-incorporation and post-incorporation trading horizons; Principles governing the allocation of income and expenses between pre- and post-incorporation phases using Time Basis, Turnover Basis, and Specific Weighted Allocation methods; Accounting treatment and balance sheet presentation of pre-incorporation profits/losses (*Theory and Numericals*).

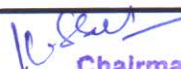
UNIT - V: VALUATION OF GOODWILL AND SHARES:

Valuation of Goodwill: Meaning, features, and corporate/regulatory circumstances necessitating the valuation of goodwill; Comprehensive methods of calculation: Average Profits Method (Simple and Weighted), Super Profits Method, and Capitalization Methods (Capitalization of Average Profits vs. Capitalization of Super Profits).

Valuation of Shares: Fundamental corporate needs for share pricing and asset valuation; Analytical methods of share valuation: Net Assets Method (Intrinsic Value factoring revalued assets), Yield Basis Method (Earning Capacity and Dividend Yield), and Fair Value Method; Interpreting valuation discrepancies between asset-backed and earning-backed assessment models (*Theory and Numericals*).

SUGGESTED READINGS:

1. R.L. Gupta & V.K. Gupta: Principles and Practice of Accounting:, Sultan Chand & Sons.
2. S.P. Jain & Narang: Advanced Accounting: Kalyani Publishers, Reprinted 2025.
3. BM Agarwal and MP Gupta: Advanced Accountancy: Sultan Chand and Son's Volume -1&2, New Delhi
4. R.L.Gupta&Radhaswamy: Advanced Accountancy: Sultan Chand & Sons.
5. S.N.Maheshwari&V.L.Maheswari: Advanced Accountancy (Vol-II): Vikas Publishers.
6. Dr. G. Yogeshwaran, Julia Allen: Advanced Accountancy - PBP
7. Tulasian: Accountancy—III: Tata McGraw Hill Co.
8. Arulanandam: Advanced Accountancy: Himalaya Publishers.
9. S.P. Jain & K.L Narang: Advanced Accountancy—II: Kalyani Publishers.
10. Prof. Kamatam Srinivas: Advanced Accounting: S Publishers, .
11. Sumera Anwar, B. Sunitha, Y.Venkat Reddy Advanced Accounting, First Edition: SV Publications.
12. Guidance Note on the Revised Schedule VI to the Companies Act, 1956, The Institute of Chartered Accounts of India.
13. D. G. Sharma: Advanced Accounting (IPCC): Tax Mann Publications.


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SEMESTER - III

Paper MJR 302: BUSINESS STATISTICS -I

PAPER CODE: MJR 302
THPW: 5; Credits: 5

Max. Marks: 70 +30I=100
ESED: 3 hrs

Objective: To inculcate analytical and computational ability among the students.

Course Objectives:

1. Understand basic statistical concepts and methods of data collection
2. Organize and present data using classification, tabulation, diagrams, and graphs
3. Compute and interpret measures of central tendency for different data series
4. Analyze dispersion and shape of distributions using various statistical measures
5. Construct and apply index numbers for economic and business analysis

Course Outcomes:

1. Plan statistical investigations and collect primary and secondary data with awareness of errors
2. Classify, tabulate, and present data using bar diagrams, histograms, frequency curves, and other tools
3. Calculate and compare Mean, Median, Mode, Geometric Mean, and Harmonic Mean across individual, discrete, and continuous series
4. Measure dispersion using Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation, and interpret skewness and kurtosis
5. Construct index numbers using Laspeyres', Paasche's, and Marshall-Edgeworth methods, and apply tests of adequacy, base shifting, splicing, and deflating

UNIT I: INTRODUCTION, DATA ORGANIZATION AND PRESENTATION:

Meaning and scope of statistics. Importance and limitations of statistics in business and commerce; Statistical investigation: Planning of a statistical enquiry. Sources of data – primary and secondary data. Methods of collecting data. Census and sampling methods. Errors in statistical investigation and approximation; Organization of data: Classification and tabulation of data. Frequency distribution and grouped frequency tables; Diagrammatic and graphical presentation of data: Bar diagrams, component bar diagrams, pie diagrams and line graphs. Histograms, frequency polygon and frequency curve. Interpretation of statistical diagrams and graphs.

UNIT II: MEASURES OF CENTRAL TENDENCY:

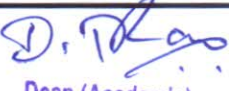
Definition and types of data: Individual series, discrete series and continuous series; Meaning and importance of measures of central tendency; Arithmetic Mean – computation for individual, discrete and continuous series. Combined mean, Weighted Mean; Geometric Mean and Harmonic Mean – meaning, computation and applications.

Partition values – Median, Quartiles, Deciles and Percentiles, and Mode – calculation for different series and graphical location; Comparison of averages – advantages and limitations of different measures of central tendency.

UNIT III: MEASURES OF DISPERSION:

Meaning and significance of dispersion. Characteristics of a good measure of dispersion. Absolute and relative measures of dispersion. Measurement of dispersion through Range, Quartile Deviation, Mean Deviation and Standard Deviation – computation and applications for individual, discrete and continuous series; Relative measures of dispersion – Coefficient of Range, Coefficient of Quartile Deviation and Coefficient of Mean Deviation. Combined Standard Deviation – computation and applications; Applications of dispersion in business and economic analysis. Advantages and limitations of various measures of dispersion.


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UNIT IV: RELATIVE DISPERSION AND SHAPE OF DISTRIBUTION:

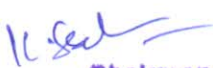
Coefficient of Variation: Meaning and significance, Relative measure of dispersion, Computation and interpretation, Comparison of consistency and stability of two or more series; Lorenz Curve: Meaning and significance, Construction of Lorenz Curve, Measurement of inequality and concentration, Applications in income, wealth and market-share analysis; Skewness: Meaning and significance, Symmetrical and asymmetrical distributions, Positive and negative skewness, Karl Pearson's Coefficient of Skewness, Bowley's Coefficient of Skewness, Interpretation and applications; Kurtosis: Meaning and significance, Types of kurtosis, Interpretation of kurtosis in statistical analysis.

UNIT V: INDEX NUMBERS:

Meaning and importance of index numbers in economic and business analysis. Uses and limitations of index numbers; Problems in the construction of index numbers; Methods of constructing index numbers: Simple index numbers and weighted index numbers – Fisher, Laspeyres', Paasche's and Marshall–Edgeworth methods; Tests of adequacy of index numbers – Unit test, Time Reversal test and Factor Reversal test, Base shifting, splicing and deflating of index numbers.

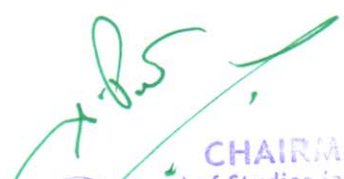
SUGGESTED READINGS:

1. Levin & Rubin: Statistics for Management: Pearson Publications
2. Gupta S.C: Fundamentals of Statistics: Himalaya Publishers
3. Arun Kumar Singh: Business Statistics: Kalyani Publishers, First Edition 2017
4. S. L Aggarwal, S. L. Bhardwaj: Business Statistics: Kalyani Publications
5. E. Narayanan Nadar: Statistics: PHI Learning
6. Dr. Obul Reddy, Dr. D. Shridevi: Business Statistics –I: PBP
7. Dr. J. K. Thukral: Business Statistics: Taxmann Publications
8. Dr. Prashanta Athma, N. Rajyalaxmi: Business Statistics –I: SIA Publishers & Distributors Pvt. Ltd.
9. K. Alagar: Business Statistics: Tata McGraw Hill
10. S. P Gupta: Fundamentals of Statistical: Sultan Chand
11. Dr. Padmaja, K.Kamakshi: Business Statistics-I: SV Publications, First Edition
12. J. K. Sharma: Business Statistics: Vikas Publishers
13. Dr. Nazia Sultana: Business Statistics- I: S Publishers
14. Kapoor V.K: Statistics-Problems and Solutions: S. Chand
15. Sancheti D.C. & Kapoor: Statistics - Theory, Methods and Applications: V.K
16. S. K. Chakravarty: Business Statistics: New Age International Publishers
17. Andasn,Sweenly,Williams: Statistics: Cingage.


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SEMESTER - III

Paper MJR 303: RELATIONAL DATABASE MANAGEMENT SYSTEM

Hours Per Week: (3T+4P)

Credits: 5

Exam Hours: 2

Marks: 50U+35P+15I=100

Objective: To acquire basic conceptual background necessary to design and develop simple database system, Relational database mode, ER model and distributed databases, and to write good queries using a standard query language called SQL.

Course Objectives:

1. Understand DBMS architecture, advantages over file systems, and role of DBA
2. Apply ER and relational models, keys, constraints, and convert ER diagrams to relational schema
3. Normalize databases to 3NF/BCNF and evaluate file organization and indexing techniques
4. Use SQL for DDL, DML, DCL, TCL, joins, views, subqueries, and table handling
5. Analyze transactions, concurrency control, recovery, security, and distributed client-server databases

Course Outcomes:

1. Differentiate file-based systems vs DBMS and explain 3-level architecture, data dictionary, and DBA functions
2. Design ER models and implement relational schemas with primary, foreign keys, and integrity constraints
3. Apply normalization rules to remove redundancy and choose suitable file organization and indexing methods
4. Write SQL queries using order by, group by, joins, nested queries, and manage views, sequences, and indexes
5. Implement concurrency control using 2PL, deadlock prevention, recovery techniques, and explain DDBMS, fragmentation, replication, and client-server architecture

UNIT-I: BASIC CONCEPTS:

Database Management System - File based system - Advantages of DBMS over file based system - Database Approach - Logical DBMS Architecture - Three level architecture of DBMS or logical DBMS architecture - Need for three level architecture - Physical DBMS Architecture - Database Administrator (DBA) Functions & Role - Data files indices and Data Dictionary
- Types of Database. Relational and ER Models: Data Models - Relational Model - Domains - Tuple and Relation - Super keys - Candidate keys - Primary keys and foreign key for the Relations - Relational Constraints - Domain Constraint - Key Constraint - Integrity Constraint - Update Operations and Dealing with Constraint Violations - Relational Operations - Entity Relationship (ER) Model - Entities - Attributes - Relationships - More about Entities and Relationships - Defining Relationship for College Database - E-R Diagram - Conversion of E-R Diagram to Relational Database.

UNIT-II: DATABASE INTEGRITY AND NORMALISATION:

Relational Database Integrity - The Keys - Referential Integrity - Entity Integrity - Redundancy and Associated Problems - Single Valued Dependencies - Normalisation - Rules of Data Normalisation - The First Normal Form - The Second Normal Form - The Third Normal Form - Boyce Codd Normal Form - Attribute Preservation - Lossless-join Decomposition - Dependency Preservation. File Organisation : Physical Database Design Issues - Storage of Database on Hard Disks - File Organisation and Its Types - Heap files (Unordered files) - Sequential File Organisation - Indexed (Indexed Sequential) File Organisation - Hashed File Organisation
- Types of Indexes - Index and Tree Structure - Multi-key File Organisation - Need for Multiple Access Paths - Multi-list File Organisation - Inverted File Organisation.

UNIT-III: STRUCTURES QUERY LANGUAGE (SQL):

Meaning - SQL commands - Data Definition Language - Data Manipulation Language - Data Control Language - Transaction Control Language - Queries using Order by - Where - Group by - Nested Queries. Joins - Views - Sequences - Indexes and Synonyms - Table Handling.

UNIT-IV: TRANSACTIONS AND CONCURRENCY MANAGEMENT:

Transactions - Concurrent Transactions - Locking Protocol - Serialisable Schedules - Locks Two Phase Locking (2PL) - Deadlock and its Prevention - Optimistic Concurrency Control. Database Recovery and Security: Database Recovery meaning - Kinds of failures - Failure controlling methods - Database errors - Backup & Recovery Techniques - Security & Integrity - Database Security - Authorization.



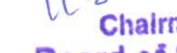
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UNIT-V: DISTRIBUTED AND CLIENT SERVER DATABASES:

Need for Distributed Database Systems - Structure of Distributed Database - Advantages and Disadvantages of DDBMS - Advantages of Data Distribution - Disadvantages of Data Distribution - Data Replication - Data Fragmentation. Client Server Databases: Emergence of Client Server Architecture - Need for Client Server Computing - Structure of Client Server Systems & its advantages.

ADVANCED TOPICS: Overview: Parallel Database - Multimedia Database - Mobile Database - Web Database - Multidimensional Database. Data Warehouse - OLTP Vs OLAP - NoSQL Database.

LAB: SQL QUERIES BASED ON VARIOUS COMMANDS.

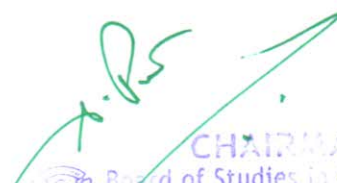
SUGGESTED READINGS:

1. R.Elmasri & S.B. Navathe : Database Systems: Pearson.
2. ISRD Group, Introduction to Database Management System: McGraw Hill.
3. K. Prashanth Kumar: Relational Database Management System: Kalyani Publishers, Year of Publication: 2017, Reprinted 2024.
4. Ms Sunanda Gutti: Relational Database Management: S Publishers
5. R.Ramakrishnan & J.Gehrke: Database Management System: McGraw Hill.
6. J.A.Hoffer, V.Rames & H.Topi, Modern Database Management: Pearson Publishers.
7. Silberschatz, Korth & Sudarshan, Database System Concepts: McGraw Hill.
8. Parteek Bhaia Simplified Approach to DBMS: Kalyani Publishers.
9. Nirupma Pathak: Database Management System: Himalaya.
10. Pannerselvam: Database Management Systems: PHI.
11. Srivastava & Srivastava: Relational Database Management System: New Age
12. PHPMySQL Spoken Tutorials by IIT Bombay.
13. I.Abramson: Oracle Database: A Beginner's Guide McGraw Hill.
14. G. Kavitha Reddy, Dr. P. Nageshwar, Relational Database Management System: SV Publications, Second Edition


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SEMESTER - IV

Paper MJR 401: INCOME TAX

PAPER CODE: MJR 401
THPW: 5; Credits: 5

Max. Marks: 70 +301=100
ESED: 3 hrs

Objective: To acquire conceptual and legal knowledge about Income Tax provisions relating to computation of Income from different heads with reference to an Individual Assessee.

Course Objectives:

1. Understand the history, concepts, and basic framework of Income Tax Act 1961 and Income Tax Act 2025
2. Compute income from salaries and house property with applicable deductions
3. Determine profits and gains from business or profession including depreciation and presumptive taxation
4. Analyze capital gains and income from other sources and apply relevant exemptions
5. Compute total income of individuals considering clubbing, set-off, carry forward of losses, and deductions

Course Outcomes:

1. Explain canons of taxation, residential status, scope of total income, and compare old and new tax regimes
2. Calculate taxable salary and house property income after considering allowances, perquisites, annual value, and deductions
3. Compute business and professional income by identifying allowable expenses, disallowed expenses, and deemed profits
4. Determine short-term and long-term capital gains and compute income from other sources with applicable deductions
5. Compute gross total income, claim deductions under Chapter VI-A, apply AMT, and calculate tax liability under both regimes

UNIT-I: INTRODUCTION:

Brief History of Income Tax Acts in India with a special reference to Income Tax Act 1961 and Income Tax Act 2025 - Canons of Taxation - Direct and Indirect Taxes – Definitions and Basic Concepts: Assessee – Deemed Assessee – Assessee-in default – Person – Income – Agricultural Income - Rules for Integration of Agricultural and Non Agricultural Incomes - Heads of Income - Gross Total Income – Total Income - Assessment Year - Previous Year Concept of Tax Year as per Income Tax Act 2025 - Incomes Exempt from Tax - Charge of Income Tax -Residential Status - Scope of Total Income - Old Tax Regime and New Tax Regime (Theory Only)

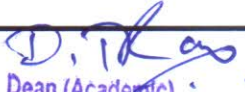
UNIT-II: INCOME FROM SALARIES AND INCOME FROM HOUSE PROPERTY

Definition of Salary – Characteristics of Salary – Allowances - Perquisites - Profits in lieu of Salary – Provident Funds – Deductions – Problems on Computation of Income from Salary. Definition of House Property – Annual Value – Determination of Annual Value for Let-out House and Self-occupied House – Arrears of Rent and Unrealised Rent Received -Property Owned by Co-owners - Deductions – Problems on Computation of Income from House Property.

UNIT- III: PROFITS AND GAINS OF BUSINESS OR PROFESSION

Definition of Business and Profession – Procedure for Computation of Income from Business – Rules – Revenue and Capital Nature of Incomes and Expenses – Allowable Expenses – Expenses Expressly Disallowed – Deemed Profits – Valuation of Stock – Presumptive Taxation - Proforma of Computation of Professional Income- Chartered Accountant -Advocate - Medical Practitioner - Problems on computation of Income from Business and Profession.


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Depreciation: Meaning – Conditions for charge of depreciation – Assets used for Business – Block of Assets – Rates of Depreciation (Theory only)

UNIT- IV: CAPITAL GAINS AND INCOME FROM OTHER SOURCES:

Introduction - Meaning – Basis of charge – Short term and Long term Capital Assets – Transfer of Capital Asset – Deemed Transfer – Transactions not Regarded as Transfer – Determination of Cost of Acquisition – Procedure for Computation of Long-term and Short-term Capital Gains/Losses – Exemptions in Respect of Certain Capital Gains – Problems on Computation of Capital Gains.

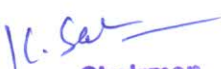
Incomes from Other Sources – Interest on Securities – Deductions - Amounts not Deductible - Problems on Computation on Income from Other Sources.

UNIT-V: COMPUTATION OF TOTAL INCOME OF INDIVIDUALS:

Income of Other Persons Included in the Total Income of Assessee – Aggregation of Income – Provisions of Set-off and Carry Forward of Losses – Computation of Gross Total Income – Deductions to be made from Gross Total Income – Alternate Minimum Tax - Problems on Computation of Total Income and Tax Liability as per both Old and New Regimes.

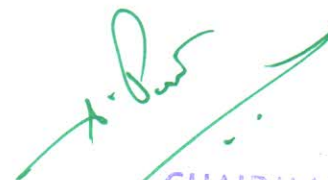
SUGGESTED READINGS:

1. V.P. Gaur & D.B Narang: Income Tax Law and Practice: Kalyani Publishers.
2. Dr. Vinod K. Singhania & Dr. Kapil Singhania: Direct Taxes Law & Practice: Taxmann Publishers
3. Dr. M.N. Ravi: Taxation: PBP.
4. V.P Gaur: Income Tax: Kalyani Publishers, Tenth Revised Edition 2017
5. B.B. Lal: Income Tax: Pearson Education.
6. R.G. Saha: Taxation: Himalaya Publishing House Pvt. Ltd.
7. Johar: Income Tax: McGrawHill Education.
8. Balachandran & Thothadri: Taxation Law and Practice: PHI Learning.
9. Ahuja Girish: Direct Tax Law and Practice
10. Dr. P.V. Ramana Rao & Dr. A. Sudhakar: Income Tax: National Publishing Co.
11. K. Phani Chakravarthy, Maruthi Rao Patil Biradar: Income tax: SV Publications, First Edition


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SEMESTER - IV

Paper MJR 402: BUSINESS STATISTICS - II

PAPER CODE: MJR 402

THPW: 5; Credits: 5

Max. Marks: 70 +30I=100

ESED: 3 hrs

Objective: To inculcate analytical and computational ability among the students.

Course Objectives:

1. Understand correlation concepts and methods to measure relationships between variables
2. Apply regression analysis for estimation, prediction, and business forecasting
3. Analyze time series data and measure trend and seasonal variations
4. Understand probability theory, laws, and their application in decision making
5. Examine probability distributions and their use in business and economic analysis

Course Outcomes:

1. Compute and interpret Karl Pearson's and Spearman's correlation, covariance, and coefficients of determination
2. Derive regression equations, estimate regression coefficients, and use standard error of estimate for forecasting
3. Measure trend using graphic, semi-averages, moving averages, and least squares methods, and compute seasonal variations
4. Apply addition and multiplication theorems, conditional probability, and Bayes' Theorem to business problems
5. Fit and apply Binomial, Poisson, and Normal distributions, and use Central Limit Theorem for practical analysis

UNIT I: CORRELATION:

Meaning and types of correlation – positive, negative, simple, multiple, partial, linear and non-linear correlation. Correlation and causation. Methods of studying correlation: Scatter diagram, Concurrent Deviation Method, Karl Pearson's coefficient of correlation and Spearman's rank correlation coefficient. Covariance and its relationship with Correlation. Standard error and probable error of the coefficient of correlation. Coefficient of determination, coefficient of non-determination and coefficient of alienation. Interpretation, applications and limitations of correlation in business and economic analysis.

UNIT II: REGRESSION ANALYSIS:

Meaning and significance of regression analysis. Difference between correlation and regression. Types of regression – linear and non-linear regression. Lines of regression – regression line of Y on X and regression line of X on Y; Regression equations and regression coefficients – derivation of regression equations, estimation of regression coefficients, properties of regression coefficients, and relationship between correlation coefficient and regression coefficients. Standard Error of Estimate – meaning, computation and interpretation. Prediction and forecasting using regression equations. Applications of regression analysis in business and economic decision-making. Limitations of regression analysis.

UNIT III: TIME SERIES ANALYSIS:

Meaning and importance of time series in business and economic analysis. Components of time series – Trend, Seasonal, Cyclical and Irregular Variations; Measurement of Trend: Graphic Method, Semi-Averages Method (for even and odd number of years/periods), Moving Averages Method (3-year, 4-year, 5-year and 7-year moving averages; centering of moving averages where necessary); Least Squares Method (Linear Trend); Measurement of Seasonal Variations: Simple Averages Method, Ratio-to-Moving Average Method, Link Relative Method, Applications, Uses and Limitations of Time Series Analysis in business and economic studies.


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UNIT IV: PROBABILITY THEORY:

Meaning and importance of probability. Random experiments, sample space and events. Types of events – simple and compound events, mutually exclusive events, collectively exhaustive events and independent events. Basic concepts of set theory relevant to probability. Approaches to probability – classical, empirical and subjective approaches; Laws of probability – Addition Theorem and Multiplication Theorem. Conditional probability and Bayes' Theorem. Applications of probability in business and decision-making.

UNIT V: PROBABILITY DISTRIBUTIONS:

Binomial Distribution: Assumptions and characteristics, Properties of Binomial Distribution, Computation of probabilities, Fitting of Binomial Distribution; Poisson Distribution: Assumptions and characteristics, Properties of Poisson Distribution, Computation of probabilities, Fitting of Poisson Distribution; Normal Distribution: Characteristics and properties of Normal Distribution, Standard Normal Distribution, Computation of probabilities using Normal Distribution tables, Applications of Normal Distribution in business and economics, Central Limit Theorem – concept and significance.

SUGGESTED READINGS:

1. Levin & Rubin: Statistics for Management: Pearson Publications,
2. Gupta S.C: Fundamentals of Statistics: Himalaya
3. Arun Kumar Singla: Business Statistics II: Kalyani Publishers, Year of Publication: 2018, Reprinted 2025.
4. P. N. Jani: Business Statistics: Theory & Application, PHI Learning
5. S. L. Aggarwal: Business Statistics II: Kalyani Publications
6. Dr. O.B. Reddy, Dr. D. Shridevi: Business Statics – II: PBP
7. Dr. J. K. Thukral: Business Statistics: Taxmann Publications
8. Dr. Prashanta Athma, N. Rajyalaxmi: Business Statistics –II: SIA Publishers & Distributors Pvt. Ltd.
9. K. Alagar: Business Statistics: Tata Mc Graw Hill
10. S. P Gupta: Fundamentals of Statistical: Sultan Chand
11. J. K. Sharma: Business Statistics: Vikas Publishers
12. Vora: Business Statistics: Tata Mc Graw Hill
13. Kapoor V.K: Statistics-Problems and Solutions: S. Chand
14. Sancheti D.C. & Kapoor V.K: Statistics-Theory, Methods and Applications:
15. S. K. Chakravarty: Business Statistics: New Age International Publishers
16. Dr. G. Laxman, Vasudeva Reddy & K. Goud, Business Statistics: Taxmann Publications, Hyderabad.
17. Dr. Nazia Sultana: Business Statistics-II: S Publishers
18. S. Bhagya Laxmi, Gampala Sudhakar: Business Statistics-II: SV Publications, First Edition


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SEMESTER - IV

Paper MJR 403: WEB TECHNOLOGIES

Hours Per Week: (3T+4P)

Credits: 5

Exam Hours: 2

Marks: 50U+35P+15I=100

Objective: To gain skills of usage of Web Technologies to design Web pages.

Course Objectives:

1. Understand fundamentals of web technology, HTML structure, tags, attributes, and web design principles
2. Apply CSS and Dynamic HTML to create styled, interactive, and multimedia-enabled web pages
3. Use JavaScript for client-side scripting, including data types, functions, objects, and DOM manipulation
4. Implement event-driven programming using JavaScript events and event handlers
5. Create and style XML documents, apply XML stylesheets, and use DOM and XML query language

Course Outcomes:

1. Develop static web pages using HTML elements like forms, tables, lists, frames, images, and hyperlinks
2. Design dynamic web pages using CSS types, syntax, filters, and DHTML for style and text manipulation
3. Write JavaScript code using variables, operators, functions, arrays, date, math objects, and handle DOM
4. Build interactive pages by applying events like OnClick, OnLoad, OnMouseOver, OnKeyPress, OnSubmit, and others
5. Create well-formed XML documents with stylesheets, hyperlinks, and perform data access using XML DOM and query language

UNIT-I: INTRODUCTION:

Introduction to web technology – HTML – types of HTML tags-basic Structure of HTML – Web design principles – HTML attributes – styles – Hypertext - Formatting text – Forms & formulating instructions & formulation elements – Commenting code – Back grounds – Images-Hyperlinks – Lists –Tables – Frames

UNIT-II: AN OVER VIEW OF DYNAMIC WEB PAGES & DYNAMIC WEB PAGE:

An over view of dynamic web pages – technologies: Introduction to Dynamic HTML programing - Cascading style sheets (CSS) – types and advantages of CSS – CSS basic syntax and structure - Changing Text and Attributes - Dynamically changing style - Text Graphics and placements - Creating multimedia effects with filters and Transactions.

UNIT-III: JAVA SCRIPT&:

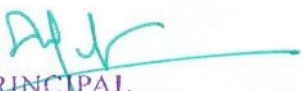
Java Script: Introduction - Client side Java script - Server side Java script - Core features - Data types and variables – Operators - Expressions and statements – Functions – Objects – Array - Date and math related objects - Document object model - Event handling.

UNIT-IV: EVENTS AND EVENT HANDLERS:

Events And Event Handlers: General information about Events – Event – OnAbort – OnClick – Ondbl click – OnDrag drop – Onerror – Onfocus – Onkey Press – Onkey Up – Onload – Onmouse Down – Onmouse Move – Onmouse Out – Onmouse Over – Onmove – Onrest – Onresize – Onselect – Onsubmit – Onunload.


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UNIT-V: EXTENSIBLE MARKUP LANGUAGE (XML):

Extensible Markup Language (XML): Introduction - Creating XML Documents - XML style Sheet - Hyperlinks in XML Document Object Model - XML Query Language.

LAB WORK: CREATING A WEBSITE WITH DYNAMIC FUNCTIONALITY USING CLIENT- SIDE AND SERVER SIDE SCRIPTING.

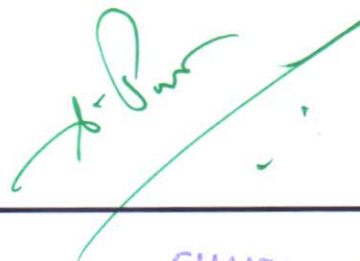
SUGGESTED READINGS:

1. Web Technology: Indrakanti Sekhar, V.N. Battu, Himalaya Publishers.
2. Internet & World Wide Web How to Program: Deitel&Deitel, Pearson.
3. Web Technologies: Puneet Kumar: Kalyani Publishers, Year of Publication: 2021, Reprinted 2026.
4. Web Technology: Kavitha Reddy, S Publishers
5. Web programming: Chris Bates.
6. HTML & XML An Introduction NIIT, PHI.
7. HTML for the WWW with XHTML & CSS: Wlizabeth Castro, Pearson
8. Internet and Web Technologies: Raj Kamal, McGraw Hill.
9. Web Technology: A Developer's Perspective: Gopalan&Sivaselvan, PHI.
10. Internet Technology and Web Page Design: R.Singh&M.Sonia, Kalyani.
11. Web Technology and Design by Xavier, New Age International Pub.
12. **Webtechnologies:** Bandari Vinod Babu, S.Sudharshan Goud, SV Publications, Second Edition


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