M.COM (IS) (CBCS)
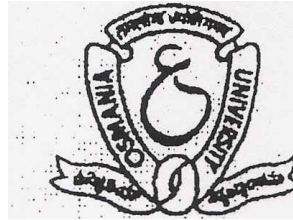
(w.e.f. 2016-'17)

FACULTY OF COMMERCE, OSMANIA UNIVERSITY
HYDERABAD - 500 007 (TS)

2016

DEPARTMENT OF COMMERCE, O.U.
M.Com.(IS) COURSE STRUCTURE (CBCS)
(Applicable to the batch of students admitted in the academic year 2016-17 and onwards)

FIRST SEMESTER

Sl. No.	Code	Title of the Paper	THP	Credits	ESED	IA	Marks			Total
							Assignment	End-Sem Exam	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1.	MCIS 1 : Core – I	Accounting Standards and Reporting	5	4	3 Hrs	15	5	80	100	
2.	MCIS 2 : Core – II	Financial Management	5	4	3 Hrs	15	5	80	100	
3.	MCIS 3 : Core – III	Organization Theory & Behavior	5	4	3 Hrs	15	5	80	100	
4.	MCIS 4 : Elective – I :	Specialization **	(3T+4P) /5T	5	3 Hrs	15 IA	35 LPE	50/80	100	
5.	MCIS 5 : Elective–II :	Specialization **	3T+4P	5	3 Hrs	15 IA	35 LPE	50	100	
	Seminar : …………………………………….		2	1	-	-	-	25*	25	
Total			(23T+8 P)/25T	23		75	15 IA + 70 LPE	365/ 395	525	

*25=15W+10PR

SECOND SEMESTER

Sl. No.	Code	Title of the Paper	THP	Credits	ESED	IA	Marks			Total
							Assignment	End-Sem Exam	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
6.	MCIS 6: Core – I	Advanced Managerial Accounting	5	4	3 Hrs	15	5	80	100	
7.	MCIS 7: Core – II	Investment Management	5	4	3 Hrs	15	5	80	100	
8.	MCIS 8: Core – III	Human Resource Management	5	4	3 Hrs	15	5	80	100	
9.	MCIS 9: Elective–I :	Specialization **	(3T+4P) /5T	5	3 Hrs	15 IA	35 LPE	50/80	100	
10.	MCIS 10: Elective-II:	Specialization **	3T+4P	5	3 Hrs	15 IA	35 LPE	50	100	
	Seminar : ………………………….		2	1	-	-	-	25*	25	
Total			(23T+8 P)/25T	20		75	15 IA + 70 LPE	365/ 395	525	

*25=15W+10PR

Note: Specialization Papers in Semesters I & II (i.e., **Operating System and E-Commerce**) will have 5 Hours of theory teaching and End Semester Exam for 80 Marks, IA for 15 Marks and Assignment for 5 Marks.

THIRD SEMESTER

Sl. No.	Code	Title of the Paper	THP	Credits	ESED	Marks			Total
						IA	Assignment	End-Sem Exam	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
11	MCIS: 11 Core – I	Research Methodology & Statistical Analysis	5	4	3 Hrs	15	5	80	100
12	MCIS: 12 Core – II	Marketing Management	5	4	3 Hrs	15	5	80	100
13	MCIS: 13 Core – III	Cost Accounting and Control	5	4	3 Hrs	15	5	80	100
14	MCIS: 14 Elective-I:	Specialization **	(3T+4P) /5T	5	3 Hrs	15 IA	35 LPE	50/ 80	100
15	MCIS: 15 Elective - II	Specialization **	(3T+4P) /5T	5	3 Hrs	15 IA	35 LPE	50/ 80	100
16	ID Paper	Business Organization & Management	4	4	3 Hrs	15	5	80	100
	Seminar ………………………………..		**2**	**1**	-	-	-	25*	25
Total			**(27T+8 P)/31T**	**27**		**90**	**20 IA + 70 LPE**	**445/ 505**	**625**

*25=15W+10PR

FOURTH SEMESTER

Sl. No.	Code	Title of the Paper	THP	Credits	ESED	Marks			Total
						IA	Assignment	End-Sem Exam	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
17	MCIS:16 Core – I	ERP	5	4	3 Hrs	15	5	80	100
18	MCIS:17 Core – II	Business and Corporate Taxation	5	4	3 Hrs	15	5	80	100
19	MCIS:18 Core – III	ME & BEP	5	4	3 Hrs	15	5	80	100
20	MCIS:19 Elective–I:	Specialization **	(3T+4P) /5T	5	3 Hrs	15 IA	35 LPE	50/80	100
21	MCIS:20 Elective-II:	Specialization **	3T+4P	5	3 Hrs	15 IA	35 LPE	50	100
22	MCIS: 21	Project Work	8	4	3 Hrs	-	-	50VV + 50D	100
	Seminar : ………………………………………		**2**	**1**	3 Hrs	-	-	25*	25
Total			**(31T+8 P)/33T**	**27**		**75**	**15 IA + 70 LPE**	**465/ 495**	**625**
GRAND TOTAL			**(104T+ 32P) / 114T**	**100**		**315**	**65 IA + 280 LPE**	**1640/ 1790**	**2300**

*25=15W+10PR

Note: Specialization Papers in Semesters III & IV (i.e., **Data Communication and Networks, Cyber Laws and E-Business Management**) will have 5 Hours of theory teaching and End Semester Exam for 80 Marks, IA for 15 Marks and Assignment for 5 Marks.

Inter Disciplinary (ID) Paper in Third Semester is offered to the Non-Commerce PG Students.
THP= Teaching Hours Per Week; ESED=End-Semester Examination Duration; VV=Viva-Voce;
LPE = Lab Practical Examinations; D=Dissertation; T=Theory; P=Practical; W=Write-up; PR=Presentation

** AREA OF SPECIALIZATION

Sl. No.	Specialization	Semester-I	Semester-II	Semester-III	Semester-IV
I	**IS – Applications & Analysis**	**(1) BIS:** Business Information System **(2) OOPs:** Object Oriented Programming using C++	**(3) E - Com :** E – Commerce **(4) RDBMS:** Relational Data Base Management System	**(5) DCN:** Data Communication and Net work **(6) AD. EX:** Advanced Excel	**(7) BDS:** Business decisions using SPSS **(8) WD:** Web Designing
II	**IS - Management**	**(1) OS:** Operating System **(2) Java programming**	**(3) Acc ERP:** Accounting Enterprise Resource Planning **(4) RDBMS :** Rational Data Base Management System	**(5) SE:** Software Engineering **(6) Cy. Laws:** Cyber Laws	**(7) E-Business Management** **(8) Web Designing**
			The allotment of THP 3T +2P; IA=15; LPE=35; EE=50; Total =100 Marks.		

Note:

1) O,A, B, C, D, E and F grades are awarded on the basis of marks secured as per the directive given by the University.

2) For each paper there will be semester examination for 80 marks and 20 marks for internal assessment [15 marks for tests (average of the two tests) and 5 marks for assignment in the subject].

3) BOM is an inter-disciplinary paper which is offered for non-commerce students.

Project Guidelines:

1) The aim of the Project is to give an opportunity to students to learn independently and show that they can identify, define and analyze problems or issues and integrate knowledge in a business context. It reflects the ability of a student to understand and apply the theory, the concepts and the tools of analysis to a specific situation.

2) The project is a practical, in-depth study of a problem, issue, opportunity, technique or procedure or a combination of these aspects of business. The students are required to define an area of investigation, carve out research design, gather relevant data, analyze the data, draw conclusions and make recommendations. The project must be an original piece of work that will be undertaken in post-graduate study, over a period of two semesters.

3) The topic is to be selected carefully with the help of supervisor.

4) All the material that relates to your project, including completed questionnaires or tapes from interviews, should be shown to your supervisor and be kept until the examination board has confirmed your results. Do not throw this material away once your project is submitted, as you might be asked to present it as part of the Viva Voce Examination, before your project results are confirmed.

5) The supervisor's role is to appraise ideas and work of the student. Student must take overall responsibility for both the content of project and its management. This includes selection of an appropriate subject area (with the approval of the supervisor), setting up meetings with the supervisor, devising and keeping to a work schedule (to include contingency planning), and providing the supervisor with samples of your work.

6) The project reports would be examined by the external examiner and based on the report and Viva Voce examination conducted at the end of IV semester, a student will be awarded marks. Unless the marks reports reach the controller of examinations, a student will not get his degree.

7) The External Examiner will be appointed by the controller of examinations based on the panel of the examiners recommended by the Board of Studies in Commerce (PG), OU, Hyderabad.

8) The External Examiners will examine the following in Project Report:

a) Literature Survey on the Topic Chosen.

b) Method of Data Collection.

c) Presentation – Style, Comprehensiveness, Table presentation, Graphs, Charts.

d) Analysis and inference and implication of the study.

e) Overall linkage between objectives, methodology, findings and suggestions.

f) Bibliography and References.

*****-*****

SEMESTER - I
ACCOUNTING STANDARDS AND REPORTING

PAPER CODE: MCIS 1 : Core-I   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To familiarize and acquaint the student with accounting standard sand various financial reporting practices.

UNIT-I: INTRODUCTION
Accounting: Concept – Evolution – Accounting as Information System – Users of Accounting Information – Accounting Environment.
Accounting Theory: Concept – Role – Classification – Approaches – Accounting Principles.

UNIT-II: ACCOUNTING STANDARDSIN INDIA - I
Accounting Standards Framework: Concept – Importance - Types–Difficulties – Enforcement – Accounting Standards Board in India.
Accounting Standards Overview (AS-1 to AS-10): AS-1: Disclosure of accounting policies – AS-2: Valuation of inventories –AS-3: Cash flow statement – AS-4: Contingencies and events occurring after balance sheet date – As-5: Net profit or loss for the period, prior period items and changes in accounting policies – AS-6: Depreciation Accounting – AS-7: Construction Contracts – AS-9: Revenue Recognition – AS 10: Accounting for Fixed assets.

UNIT-III: ACCOUNTING STANDARDS IN INDIA - II
Accounting Standards Overview (AS11 to AS-20): AS-11: The effects of changes in foreign exchange rates- AS-12: Accounting for government grants – AS-13: Accounting for investments – AS-14: Accounting for amalgamations – AS-15: Employee benefits – AS-16: Borrowing costs – AS-17: Segment reporting – AS-18: Related party disclosures – AS-19: Leases – AS-20: Earning per share.
Accounting Standards Overview (AS-21 to AS-32): AS-21:Consolidated financial statements – AS-22: Accounting for taxes on income – AS-23: Accounting for investments in associates in consolidated financial statements – AS-24: Discontinuing operations – AS-25: Interim Financial Reporting – AS-26: Intangible assets – AS-27: Financial reporting of interests in join ventures – AS-28: Impairment of assets – AS-29: Provisions, Contingent liabilities and contingent assets; AS-30: Financial Instruments: Recognition and Measurement; AS-31: Financial Instruments: Presentation – AS-32:Financial Instruments: Disclosures.

UNIT-IV: INTERNATIONAL FINANCIAL REPORTING STANDARDS(IFRS):
Uniform Global Financial Reporting: Need – Differences between IAS, Indian GAAP and US GAAP – Translation of Indian GAAP Statements in to US GAAP and IFRS – International Accounting Standards Board. **IFRS:** Meaning – An overview of IFRS – Convergence with IFRS – Benefits of Convergence – Challenges of Convergence – Role of ASB in post convergence Scenario.

UNIT-V: FINANCIAL REPORTING:
Developments on Financial Reporting Objectives: True blood Report (USA), Corporate Report (UK),Stamp Report (Canada).
Financial Reporting: General Purpose – Qualities – Significance of Corporate Annual Reports – Recent Trends in Corporate Reporting in India.

SUGGESTED READINGS:
1.Jawaharlal"Accounting Theory and Practice" Himalaya Publishing Company;
2.Rawat D.S. "Accounting Standards" Taxmann Allied Services Private Limited;
3.Kamal Garg "IFRS Concepts and Applications" Bharat Law House Pvt. Limited;
4.Ghosh T.P. "IFRSs For Finance Executives", Taxmann Allied Services Private Limited;
5.Porwal L.S. "Accounting Theory" TataMcGraw Hill Publishing Company;
6.Jain S.P. &Narang K.L: Accounting Theory & Management Accounting, Kalyani.
JOURNALS: 1. Charted accountant, ICAI;2. Management Accountant, ICWAI;
NEWS PAPERS: 1. Times of India, 2. Business Line, 3. The Hindu, 4. Economic Times.

FINANCIAL MANAGEMENT

PAPER CODE: MCIS 2 : Core-II   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To introduce the subject of Financial management; and to acquaint the student with various techniques of Financial Management.

UNIT-I:AN OVERVIEW OF FINANCIAL MANAGEMENT

Financial Management: Meaning- Evolution–Organization of Finance Function–Financial Decisions – Goals of Financial Management – Agency Problem – Changing Role of Finance Manager (Theory).
Time value of money: Meaning – Rationale of Time Preference for Money – Future Value – Present Value (Including Problems).

UNIT-II: CAPITAL BUDGETING

Capital Budgeting: Meaning – Importance – Process – Kinds of Decisions – Cash Flow Estimation – Techniques of Capital Budgeting – Traditional Techniques – Payback Period – Accounting / Average Rate of Return – Discounted Techniques – Discounted Payback Period – Net Present Value – Internal Rate of Return – Profitability Index – NPV Vs. IRR – Capital Rationing (Including Problems).
Risk Analysis in Capital Budgeting Decisions: Sources and Perspectives of Risk – Traditional Tools – Payback Period – Risk Adjusted Discount Rate – Certainty Equivalent Coefficient of Variation – and Decision Tree Analysis (Including Problems).

UNIT-III: WORKING CAPITAL MANAGEMENT

Working Capital: Meaning – kinds – Determinants – Sources and Levels – Estimation of Working Capital Requirements (Including Problems).
Cash Management: Nature of Cash–Motives of Holding Cash–Objectives of Cash Management– Factors Determining Cash Need–Cash Cycle–Facets of Cash Management–Cash Forecasting and Budgeting–Management of Cash Flows–Determination of Optimum Cash Balance (Including Problems).
Accounts Receivable Management: Meaning – Objectives – Cost Benefit Analysis – Credit Standards – Credit Terms – Collection of Receivables (Including Problems).
Inventory Management: Meaning – Components of Inventory – Motives of Holding Inventory – Objectives of Inventory Management – Tools and Techniques of Inventory Control (Including Problems).

UNIT–IV: FINANCING DECISIOINS

Cost of Capital: Meaning – Significance – Classification of Costs – Computation of Specific Cost of Capital – Cost of Debt – Cost of Preference Share Capital – Cost of Equity Share Capital and Cost of Retained Earnings – Computation of weighted Average and Marginal Cost of Capital (Including Problems).
Leverages: Meaning – Types – EBIT-EPS Analysis – Degree of Operating Leverage – Degree of Financial Leverage – Degree of Combined Leverage – Indifference Point (Including Problems).
Capital Structure: Meaning – Determinants – Theories – Net Income Approach – Net Operating Income Approach – Traditional Approach – MM Approach (Including Problems).

UNIT-V: DIVIDEND DECISIONS

Dividend Policy: Meaning – Types of Dividend Policies – Factors Influencing Dividend Policy – Forms of Dividends (Theory).
Dividend Theories: Relevance Theories – Walter's Model – Gordon's Model – Irrelevance Theory – MM Hypothesis (Including Problems).

SUGGESTED READINGS:

1.Chandra Prasanna: Financial management, 8th Edition, TMH; **2.**Erhardt& Brigham: Corporate Finance: A Focused Approach, Thomson; **3.**Eugene Brigham &Erhardt: Fundamental of Financial Management, Thomson; **4.**Khan M.Y. & Jain PK: Financial management, TMH; **5.**Kulkarni P.V.: Financial Management, Himalaya;**6.**Lasher: Practical Financial Management, Thomson;**7.**Pandey I.M.: Financial Management,Vikas;**8.**Rustagi, R.P. Financial Management, Sultan Chand:**9.**Shashi K. Gupta and R.K. Sharma: Financial Management, Kalyani Publishers; **10.**Solemen Ezra & Pringle John J:An Introduction to Financial Management, Prentice Hall;**11.**Srivatsava R.M.: Essential of Business Finances, Himalaya;**12.**Sudarsan Reddy G:Financial Management , Himalaya; **13.**Van Horn, James C: Financial Management, Prentice Hall.**14.**Rajiv Srivasatava – Financial Management, Oxford University Press

ORGANISATION THEORY AND BEHAVIOUR

PAPER CODE: MCIS 3 : Core-III   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To familiarize the students with the concepts and dimensions of Organization Theory.

UNIT-I: INTRODUCTION
Organization: Definition – Organisation Theories: Classical Theory- Features – limitations. Neoclassical Theory – features – limitations. Contemporary Organisation Theory – features- limitations. Systems Approach – Contingency Approach.

Organisational Behaviour (OB): Features – Scope – Fundamentals Concepts of OB – Challenges and Career Development for OB – Contributing disciplines to the OB.

UNIT-II: UNDERSTANDING INDIVIDUAL AND GROUP BEHAVIOUR
Individual Behaviour: Personality Determinants – Big five Personality factors – Learning Theories. The Perceptual Process – Factors influencing perception – Internal & External; Attitudes and Behaviour- Attitude Formation and Attitude Change.

Group Behaviour: Fundamentals of Groups – Stages of Development- Important Factors influencing Team Effectiveness – Cohesiveness – Norms – Decision Making.

UNIT-III: MOTIVATION, MORALE AND CULTURE
Motivation: Theories of Motivation – Motivational Processes - Content Theories (Maslow, Herzberg, McCleland) – Process Theories (Adam, Victor Vroom and Lawler and Porter) – Learning and Reinforcement Theory.
Morale: Factors influencing Morale.
Organisational Culture: Concepts – Forming a Culture – Sustaining a Culture – Changing a Culture.

UNIT-IV: ORGANISATIONAL POWER & POLITICS -CONFLICT - COMMUNICATION
Power and Politics: Power Bases – Dependency – Individual Versus Organisational Power – Political process in Organisation – Factors contributing – Techniques of Organisational Politics – Managing Political Behaviour.
Conflict: Transition in Conflict Thought – Functional and Dysfunctional Conflict – Process of Conflict – Managing Conflict.
Communication: Significance – Process – Formal and Informal Communication – Barriers to communication – Improving Communication Skills – The Human Impact of Computer – Mediated Communication. (Sources:1. Robbins 2. Greenberg)

UNIT-V: LEADERSHIP AND CHANGE
Leadership: Introduction – Leadership and Management – Leadership Styles.
Theories of Leadership: Traits – Behavioral Model (Managerial Grid) – Contingency (Feilder, Path goal, Tri-dimensional – Inspirational approaches.
Change: Challenges contributing to Change – Types of Change - Approaches – Contemporary Issues in Change.

SUGGESTED READINGS:
1.Robins P. Stephen& Judge: Organizational Behavior, 12/e PHI, New De1hi; **2.**Greenberg and Baron: Behaviour in Organisation; **3.**Daft: Organisation Theory and Design, Thomson; **4.**Fred Luthans: Organizational Behavior, Me Graw Hill, New Delhi; **5**.Nelson: Organisational Behaviour, 3e, Thomson; **6.**Aswathappa: Organizational Behavior, Himalaya Publisher; **7.**Jones G R :Organizational Theory, Pearson Education, New Delhi; **8.**Shashi Gupta & Rosy: Organisation Behaviour— Kalyani Publication; **9.**Hellriegel: Organisational Behaviour, 10e, Thomson; **10.**Sharma VVS: Organisational Behaviour, Jaico Publication.**11.**Zetterquist:OrganizationTheory, Oxford University Press

SPECIALIZATION
IS – APPLICATIONS & ANALYSIS

BUSINESS INFORMATION SYSTEMS

PAPER CODE: MCIS 4: IS-App & Analysis   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To appreciate the role and importance of Information Systems in an Organization and at the various levels of decision making. To understand the elements, functional relationships between the hardware, software and other elements comprising the information system.

UNIT -I : INTRODUCTIONTO INFORMATION SYSTEMS
   a) Introduction to Organization – Decision levels – Managerial roles – Information needs of Management
   b) Information System – Definition – Features – System concepts – Framework for Information Systems- Strategic uses of Management Information Systems – Future of IS in an Organization – Business Process Reengineering.

UNIT II: INFORMATION SYSTEM COMPONENTS
   a) Hardware – Input and Output devices – Computer Memory (Primary, Secondary & Cache) – Memory Access Time – File Structures – Network Components.
   b) Software – Operating System software – Application software – Groupware – Multiprogramming – Multi tasking.
   c) Database – Definition -Data Capture – Data Integrity – Components of Database Management Systems.

UNIT III: INTEGRATION OF INFORMATION SYSTEMS
   a) Distributed Processing – Centralized Data Processing – Decentralized Data Processing – Distributed Databases – Client Server Computing – Internet – Intranet – Electronic Conferencing.
   b) Transaction Processing Systems –Office Automation Systems – Knowledge Management Systems – Decision Support Systems (Features, Components & Tools) – Group Decision Support Systems – Expert systems (Components & Advantages) – Case Studies.

UNIT VI:APPLICATION OF INFORMATION SYSTEMS IN BUSINESS AREAS

   Application of Information Systems at the Operational ,Tactical & Strategic Levels in the   areas of

   Accounting & Finance, Marketing, Human Resources and Production.

UNIT V: MANAGEMENT OF INFORMATION SYSTEMS
   a) Information Systems Security – Risks – Threats – Protection of Information Systems.
   b) Roles & Responsibilities of IS Professionals – Ethical issues.

LAB EXERCISES

I ACCOUNTING :
Creation of company – Preparation of Ledger – Posting – Trial Balance – P & L Account – Balance Sheet(Sole Traders)

II FINANCE :
Capital Budgeting decisions:
Calculations of NPV – IRR – Profitable Index.
Preparation of Budget – Calculation of Cost of Capital.

III MARKETING :
Storing and retrieving of data of customers, sales, dealers, products and geographical areas (Tables & Graphs)

IV PRODUCTION :
Statistical quality control charts – Mean, Range, Standard Deviation and C Chart.

V HUMAN RESOURCE MANAGEMENT:
Employees data base & salary administration.
NOTE:
The programmes have to be taught to the students using Ms – Excel, Access, Power Point & Accounting Packages.

SUGGESTED READINGS:
1. Management Information Systems – The Manager's View, Robert Schulthesis,Mary Summer. Tata McGraw Hill Publications
2. Management Information Systems – Gerald V Post David, L Anderson, Tata McGraw Hill.
3. Management Information Systems – Jaiswal S
4. Management Information Systems – O Brien, Tata McGraw Hill.
5. IT The Breaking Wave –Denis P Curtin.
6. MIS, - Managing the digital firm – Landon &Gendom, Pearson Prentice Hall.
7. O Brien, Introduction to IS,TMH.
8. Management Information System – Jaiswal& Mittal , Oxford University Press

SUGGESTED READINGS FOR LAB :
1. MS Office, - Sanjay Saxena
2. MS Office Excel, - Frye, PHI publications
3. MS Office Access - step by step , PHI publications
4. Reading Material on Accounting Packages

OBJECT ORIENTED PROGRAMMING THROUGH C^{++}

PAPER CODE: MCIS 5: IS -App & Analysis   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: The course emphasizes a strategic problem solving approach to programming. The fundamental constructs of the paradigm - identification, creation and use of high level classes are explained. Algorithmic constructs are introduced as means to support class implementation.

UNIT-I: INTRODUCTION TO COMPUTING
Introduction to computers and programming languages: Algorithms - Top down design Stepwise Refinement - Flow Charts - Data types - Variables - Operators - Expressions Evaluation of Expressions -Introduction to Objects and Classes - Simple Programs.

UNIT-II: INTRODUCTION TO CONTROL STRUCTURES AND DATA TYPES
Structural Constructs - Grouping - Selection - Repetition - Programs using control structures - Arrays and Pointers.

UNIT-III: CONCEPTS OF FUNCTIONS AND CONSTRUCTORS
Functions - Parameter passing - Storage classes – References - Macros and Pre-processor – Classes – Attributes - Member Functions - Object Instantiation – Constructors - Scope Resolution.

UNIT-IV: CONCEPTS OF OVERLOAD AND POLYMORPHISM
Overloading – Inheritance Visibility Modifiers - Abstract Classes and Methods – Runtime Polymorphism.

UNIT-V: TEMPLATES AND FILE OPERATINS
Exception Handling – Templates - Standard Library - File I/O Operations.

LAB EXERCISES
1. Program to read two integers and display their sum.
2. Program to read an alphabet and display its next character in the ASCII list.
3. Program to find square root of a number
4. Program to check whether a given number leap year are not
5. Program to find the roots of quadratic equation
6. Program to calculate factorial of a number
7. Program to find LCD (Least Common Divisor) of two given numbers
8. Program to check whether a given number is palindrome or not.
9. Program to implement following class hierarchy (Single inheritance)
10. Program to calculate areas of various shapes.

SUGGESTED READINGS:
1. Dietel & Dietel, C++ How to Program, Pearson.
2. Herbet Shildt, "The complete Reference C++" - Tata McGraw Hill.
3. Bronson, A First Book on C++ - Thomson.
4. Malik, C++ Programming from Program Analysis to Program Design – Thomson.
5. Forarzan, Computer Science A Structured Approach C++ - Thomson.

SPECIALIZATION
IS – MANAGEMENT

OPERATING SYSTEMS

PAPER CODE: MCIS 4: IS- Mgt.   **TOTAL MARKS: 80+15+05 = 100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: The course enables the students with a thorough knowledge of processes, scheduling concepts, memory management, I/O and file systems in an operating system.

UNIT -I: INTRODUCTION TO OPERATING SYSTEMS

OS structure and strategies, Process concept, interprocess communication, Threads, Multithreaded Programming. Process Scheduling : Scheduling Criteria, Scheduling Algorithms, Multi Processor scheduling, Thread Scheduling.

UNIT –II MEMORY MANAGEMENT

Memory Management, Swapping, contiguous allocation, paging, Static and dynamic partition, demand paging, page replacement Algorithms, thrashing, segmentation, segmentation with paging.
File System Interface : File Concept, Access Methods, Directory Structure, File System Mounting File Sharing, Protection.

UNIT –III:PROCESS SYNCHRONIZATION

Critical Section Problem, Semaphores, Monitors, **Deadlocks:** Necessary conditions, resource allocation graph, Methods for handling deadlocks, preventions, avoidance, detection and recovery Protection –Goal domain of protection, access matrix.

UNIT –IV:FILE SYSTEM

Types of files in Unix - Structure of the file system - File System types - Parent & child relationship Directory handling and navigation (mkdir, rmdir,pwd and cd) -
The Path variable - Absolute and relative
pathnames – The directories – Creating - Viewing (cat) - copying (cp) - renaming (mv) and deleting (rm) files - Listing files(ls) - Viewing through pg - tail and head command.
File Attributes: Structure of the inode - Brief discussion on partitions and file systems - Analyzing the ls-l output - File type and permissions (chmod) - Significance of directory permissions - Hard and soft Links (ln and ln-s). Concept of ownership - The/etc/passwd and
/etc/group files - Changing ownership (chown and chgrp) - Modification and access times - Default file and directory permissions (umask).

UNIT-V: Vi EDITOR:

The three modes - Basic navigation (h, j, k, l) - Moving to a specific line number (G) The repeat factor The Input mode commands (i, a, r,s and o) - Saving and quitting (:w, :x and :q) - Text deletion (x and X) Using operators in deleting and copying text (d, y and p) - Undoing and repeating commands (u and .) Pattern search (/ and n) and substitution (:s) - Moving text from one file to the other – Customization features – abbreviation (:abb), key mapping (:map) and setting vi parameters (:set) - The file .exrc) - creation of user - deletion of user.

SUGGESTED READINGS:
1. Abraham Silberschatz, Peter B.Galvin,GregGange, Operating system Concepts, Willery India, 2006.
2. Andrew S. Tanenbaum, Moderan Operating Systems, 2nd Edition, Pearson Education, Asia- 2011.
3. Design of the Unix Operating Systems - Maurice J. Bach, Third Edition 2000 PHI.
4. Unix Concepts and Applications–Sumitadha Das, Third Edition 1998, Tata McGraw Hill.
5. The guides and handbooks available at www.tldp.org
6. Understanding Operating Systems – Flynn, Thomson.
7. Unix & Shell Programming – Foronzan, Thomson.
8. "A User guide to Unix System", Thomas Rebecca yate, Second Edition,2002, Tata McGraw Hill.
9. Stephen Prata "Advanced Unix -A programmers Guide"
10. Palmer: Guide to Operating System - Thomson.

JAVA PROGRAMMING
PAPER CODE: MCIS 5: IS-Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To introduce the principles and concepts behind the object oriented programming and explain how complex scenarios can be handled easily using Object Oriented Technology.

UNIT-I: INTRODUCTION TO JAVA
Introduction to Object oriented programming – Java – History – Features, Data types – Integers, Floating Point, Character, Boolean, Byte, Variables, Array, Operators, Control Statements – If, Switch - Loops – While, Do – While, For, Break Statements.
(Simple application based examples).

UNIT-II: CLASSES & OBJECTS
Introduction to Classes, Declaring Classes, Rules for naming classes, creating an Object - Methods – main ( ), rules for main ( ) method, Overloading methods, overloading constructors, Access Control and access Specified, concept of Static Abstract, Types of Modifiers (Simple application based examples).

UNIT-III: INHERITANCE & APPLETS
Introduction to Inheritance basics, Member access using super class, using abstract classes, call by value, call by reference, overriding methods.
Introduction to applets – types – some sample applets.
(Simple application based example)

UNIT-IV: PACKAGES, INTERFACES AND EXCEPTIONAL HANDLING
Introduction to Packages - Creation of Package, defining a package, user defined package, class path setting, importing a package. Interface – Creating an interface, using an interface, extending an interface. Exceptional Handling: Introduction – Syntax for Exceptional Handling , try and catch blocks, exceptional types, throw and the user defined exceptions. Servlet environment and role HTML to servlet communications, servlet to applet communication (Simple application based Example)

UNIT –V: JDBC
JDBC Drivers – Statements – Catching Database results, sorting classes, controlling transactions, mapping database types, mapping data types
(Simple application based examples)

LAB EXERCISES
1. Simple Arithmetic Calculation.
2. Decision making
3. Looping
4. String Manipulation
5. Constructor Overloading
6. Create Simple Package
7. Implementing thread using thread class
8. Interface and Exception handling
9. Working with Colors and Fonts
10. Drawing various shapes using Graphical Statement
11. Usage of Buttons, Labels, Text Components in suitable application

SUGGESTED BOOKS:
1. Complete Reference – Herbert Schildt … Tata McGraw Hill.
2. Internet and Java Progamminmg – R. Krishna Moorthy.
3. Java by Balaguru Swamy.

SEMESTER – II

ADVANCED MANAGERIAL ACCOUNTING

PAPER CODE: MCIS 6 : Core-I   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To familiarize and acquaint the student with application of advanced managerial accounting techniques.

UNIT-I: FINANCIAL STATEMENTS& ANALYSIS TECHNIQUES:
Financial Statements: Meaning – Objectives – Types – Uses – Limitations.
Financial Statements Analysis: Meaning – Objectives – Techniques – Uses – Limitations.
Ratio Analysis: Meaning – Types– Du Pont Analysis (Including Problems).
Funds Flow Analysis: Meaning – Preparation of Funds Flow Statement – Cash Flow Analysis: Meaning – Preparation of Cash Flow Statement as per Accounting Standard No.3 (Including Problems).

UNIT-II: HUMAN RESOURCES ACCOUNTING AND RESPONSIBILITY ACCOUNTING:
Human Resources Accounting: Concept – Objectives – Approaches – Limitations (Theory only).
Responsibility Accounting: Concept – Steps – Responsibility Centre – Types of Responsibility Centres– Preparation of Responsibility accounting reports (Including Problems).

UNIT-III: INFLATION ACCOUNTING AND INCOME MEASUREMENT& ANALYSIS:
Inflation Accounting: Concept – Limitations of historical cost based financial statements – Methods of Inflation Accounting: Current Purchasing Power Method – Current Cost Accounting Method (Including Problems).
Financial reporting: Income Concepts - Measurement and Reporting of Revenues, Expenses, Gains and Losses (Theory only) – Analysis of Changes in Gross Profit (Including Problems).

UNIT-IV: FINANCIAL MEASURES OF PERFORMANCE AND BALANCED SCORE CARD:
Financial Measures of Performance: Introduction – Return On Investment (ROI): Concept – Uses and Limitations – Economic Value Added (EVA): Concept – Significance of EVA – Measurement of EVA (Theory only).
Balanced Score Card (BSC): Concept – Objectives – Perspectives of BSC - Multiple Scorecard Measures to a Single Strategy (Theory Only).

UNIT V: MANAGERIAL DECISION MAKING:
Introduction: Cost concepts for decision making – Marginal Costing and Decision Making.
Pricing decisions: Normal price - Minimum price – Depression price - Special price.
Product decisions: Profit planning - Level of Activity - Dropping a product line - Introducing a new product line - Product/Sales mix decisions - Make or Buy decisions - Key/Limiting Factors (Including Problems).

SUGGESTED READINGS:
1)Sharma RK & Shashi K. Gupta: Management Accounting- Principles & Practice, Kalyani Publishers;**2**)Jawaharlal: Accounting Theory & Practice, Himalya; **3**)Gupta S.P. : Management Accounting,SahityaBhavan;**4**)Jain S.P & Narang K.L: Accounting Theory &Management Accounting,Kalyani;**5**)Robert S. Kaplan & Anthony A. Atkinson: Advanced Management Accounting, Prentice-Hall; **6**)Rawat D.S: Accounting Standards,Taxmann;**7**)Rustagi R.P: Management Accounting, Galgotia; **8)** Ghosh T.P: Accounting Standards and Corporate Accounting Practices, Taxmann; **9**)Ronald W. Hilton: Managerial Accounting, TMH;**10**)BelverdE.Needles, Jr: Financial Accounting, Houghton Mifflin Company, USA.

JOURNALS & NEWS PAPERS: 1)Journals: Charted Accountant, ICAI; Management Accountant, ICWAI; Economic Times. **2) New Papers:** Times of India; Business Line; The Hindu.

INVESTMENT MANAGEMENT

PAPER CODE: MCIS 7 : Core-II   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To familiarize the student with the principles and practice of Investment Management and acquaint the students with the functioning of the Indian Capital Market.

UNIT-I :INTRODUCTION TO INVESTMENT MANAGEMENT:
Investment: Meaning – Characteristics – Importance – Objectives – Factors of Sound Investment – Investment Environment – Investment Media – Principles of Investment – Speculation – Gambling – Investment Process (Theory).
Financial Assets: Meaning – Classification – Shares – Debentures – Bonds – Innovative Financial Assets-Properties of Financial Assets (Theory).

UNIT-II:INDIAN CAPITAL MARKETS - AN OVERVIEW:
Primary Market: Meaning – Growth and Development – Role of NIM – Methods of Issues – Parties Involved – Allotment Process – Investor Protection – Recent Trends (Theory).
Secondary Market: Meaning – History – Functions – Regulatory Framework – Listing and Delisting of Securities – Trading Procedure – Stock Exchanges in India – Growth of Stock Exchanges in India – SEBI – Its Functions and Role (Theory).

UNIT-III:RISK AND RETURN ANALYSIS:
Return: Meaning – Holding Period Return – Equivalent Annual Return – Expected Value of Return – Measuring Returns from Historical Data – Measuring Average Returns over Multiple Period – Arithmetic Average – Geometric Average – Rupee Weighted Average Return (Including Problems).
Risk: Meaning – Sources of Risk – Market Risk – Interest Risk – Interest Rate Risk – Purchasing Power Risk – Business Risk – Financial Risk – Types of Risk – Systematic Risk – Unsystematic Risk – Risk Aversion and Risk Premium – Measurement of Risk – Range as a Measure of Risk – Standard Deviation as a Measure of Risk –β as a Measure of Risk (Including Problems).

UNIT-IV: PORTFOLIO ANALYSIS:
Portfolio Analysis: Meaning – Traditional Vs Modern Portfolio Analysis – Return on Portfolio – Risk on Portfolio – Diversification of Investments – Reduction of Portfolio Risk through Diversification – Security Returns Perfectly Positively Correlated – Security Returns Perfectly Negatively Correlated – Security Returns Uncorrelated (Including Problems)
Markowitz Model: Assumptions – Parameters – Effect of Combining Two Securities – Interactive Risk Through Covariance – Coefficient of Correlation – Change in Portfolio Proportions – Concept of Dominance – Limitations of Markowitz Model (Including Problems).

UNIT-V: PORTFOLIO SELECTION:
Portfolio Selection: Meaning – Feasible Set of Portfolios – Efficient Set of Portfolios Selection of Optimal Portfolios (Including problems).
Sharpe Single Index Model: Measuring Security Return and Risk – Measuring Portfolio Return and Risk – Multi Index Model (Including Problems).

SUGGESTED READINGS:
1.Agarwal: A Guide to Indian Capital Market, New Delhi; **2.**Avadhani, V.A: lndian Capital Markets, Himalaya; **3**.Mayo: Investments, 7e Thomson; **4.**Bhalla, V.K: Investment Management. S. Chand & Co.; **5.**Reilly: Investment Analysis and Portfolio Management, Thomson; **6.**Kevin, S: Security Analysis Portfolio Management, PHI; **7.**Fabozzi, Frank J: Investment Management, Prentice Hall; **8.**Fischer, Donald, E. and Ronald, J.Jordan: Security Analysis & Portfolio Management, PHI; **9.**Strong: Portfolio Construction and Management, PHI; **10.**Sharpe etal: Investments, PHI; **11.**Machi Raju, H.R: Working of Stock Exchanges in India: Wiley Eastern Ltd; **12.**Preeti Singh: Investment Management, Himalaya; **13.**Sulochana, M: Depository System - Problems & Prospects, Kalyani.;**14.**Sulochana, M: Investment Management, Kalyani; **15.**Shashi K. Gupta and Rosy Joshi: Security Analysis and Portfolio Management, Kalyani; **16.**Gnagadhar V. And G. Ramesh Babu: Investment Management, Anmol.**17**. Chandra, Investment Analysis & PortoFiolo, 4th Edition, McGraw Hill.

HUMAN RESOURCE MANAGEMENT

PAPER CODE: MCIS 8 : Core-III   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To understand various facets of HRM & comprehend emerging developments in HRM.

UNIT-I: INTRODUCTION:
Human Resources Management (HRM): Concepts – Significance – Objectives – Scope – Functions - Changing role of Human Resource Manager – HRM Policies - Impact of Environment on HRM.
Human Resource Development (HRD): Concept - Scope - Objectives- Brief introduction of Techniques of HRD.

UNIT-II: ACQUISITION OF HUMAN RESOURCE:
Job Design - Approaches - Job Rotation - Job Enlargement - Job Enrichment - Job Bandwidth - Job Analysis: Concepts - Objectives - Components (Job Description and Job Specification) - Methods f Job Analysis.
Human Resource Planning: Concept - Objectives - Factors affecting HR planning - Process of HR Planning - Problems in HR Planning.
Recruitment: Objectives - Sources of recruitment – Selection: Concept – Selection - Procedure – Tests and Interview - Placement - Induction - Promotion - Transfer.

UNIT-III: DEVELOPING AND MOTIVATING HUMAN RESOURCE:
Training - Assessing training needs - Methods and Evaluation of Training.
Development: Techniques of Management Development – Evaluating Effectiveness.
Performance Management: Concept - Performance Appraisal - Concept- - Traditional and Modern Methods of Appraisal – Concepts of Potential Appraisal, Assessment Centers and Career Planning and Development.
Concept of Empowerment – Participative Management: Objectives – Types – Quality Circles – Brief Introduction to forms of Workers Participation in Management in India

UNIT-IV: MAINTENANCE OF HUMAN RESOURCE:
Compensation Management: Objectives – Job Evaluation: Concept – Methods - Essentials of Sound Wage Structure – Concepts of Minimum Wage, Living Wage and Fair Wage – Wage Differentials.
Employee Relations: Objectives – Discipline: Objectives – Grievance: Causes – Procedure; Trade Unions: Objectives - Role of Trade Union in New economy - Collective Bargaining: Types – Essential conditions for the success of Collective Bargaining.

UNIT-V: HRM IN THE KNOWLEDGE ERA:
Knowledge Management: Concept - KM Architecture - Knowledge Conversion - Knowledge Management Process.
Virtual Organizations: Concept - Features -Types - HR Issues. **Learning Organization**: Concept – Role of Leader in Learning Organizations.

SUGGESTED READINGS:
1. Bohlander: Human Resource Management, Thomson
2. David A.DeCenzo and Stephen P.Robins: Personnel/ Human Resource Management, PHI
3. BiswajeetPattanayak: Human Resource Management, PHI
4. Srinivas K. R: Human Resource Management in Practice, PHI.
5. Mathis: Human Resource Management, 10e Thomson
6. Sadri, Jayasree, Ajgaonkar: Geometry of HR, Himalaya
7. SubbaRao P: Personnel and Human Resource Management, Himalaya.
8. VSP Rao:, Human Resource Management, Vikas
9. Mello: Strategic Human Resource Management, 2e Thomson
10. Gupta CB, Human Resource Management, Sultan Chand & Sons.
11. Ulrich, HR Transformation, 1st Edition, McGraw Hill.
12. Haldar: Human Resource Management: Oxford University Press

SPECIALIZATION
IS – APPLICATIONS & ANALYSIS

ELECTRONIC COMMERCE

PAPER CODE: MCIS 9: IS-App & Analysis   TOTAL MARKS: 80+15+05 = 100
PPW: 5, Credits : 4   EXAM DURATION: 3 HRS

OBJECTIVE: To provide the students with an understanding of an effective -Commerce solution architecture, web architecture, interoperable and secure information system.

UNIT – I : ELECTRONIC FRAME WORKS
Electronic Commerce – Electronic Commerce Frame Work , Electronic Commerce and Media Convergence,   Anatomy of E- Commerce appellations, Electronic   Commerce Consumer applications, Electronic Commerce Organization Applications.
Consumer Oriented Electronic Commerce – Consumer- Oriented Applications, Mercantile Process Models, Mercantile Models from the Consumers' Perspective., Mercantile Models from the Merchants' Perspective.

UNIT – II: ELECTRONIC PAYMENT SYSTEMS
Electronic Payment systems – Types of Electronic Payment Systems, Digital Token – Based Electronic Payment Systems , Smart Cards Electronic Payment Systems, Credit Card- Based Electronic Payment Systems, Risk and Electronic Payment systems , Designing Electronic Payment Systems .

UNIT – III : EDI APPLICATIONS
Inter Organizational Commerce And EDI- Electronic Data Interchange , EDI applications in business, EDI-Legal, Security, and Privacy issues, EDI and Electronic Commerce
 EDI Implementation, MIME, and Value added networks.-Standardization and EDI, EDI Software Implementation, EDI Envelope for Message Transport, Value-Added Networks, Internet-Based EDI.
Intraorganizational Electronic Commerce – Internal Information Systems, Work Flow Automation and Coordination, Customization and internal Commerce, Supply chain Management.

UNIT – IV : CORPORATE DATA WAREHOUSE
Corporate Digital Library – Dimensions of Internal electronic Commerce Systems, Types of Digital Documents, Issues behind Document Infrastructure, Corporate Data Warehouse
 Advertising and Marketing on the Internet – Information based marketing, advertising on Internet, on-line marketing process, market research.

UNIT –V : MULTIMEDIA- DIGITAL VIDEO AND ELECTRONIC COMMERCE
Consumer Search and Resource Discovery – Search and Resource Discovery paradigms, Information search and Retrieval, Electronic Commerce catalogues or Directories, information filtering, Consumer-Data Interface3:Emerging Tools.
Multimedia and Digital Video – key multimedia concepts, Digital Video and Electronic Commerce, Desktop video processing, Desktop video conferencing.

SUGGESTED READING:
1. Ravi Kalakota& A . B. Whinstong – " Frontiers of Electronic Commerce", Pearson Education, India, 2006.
2. Daniel Minoli, Emma Minoli: " Web Commerce Technology Handbook" Tata McGraw Hill 2007
3. J Christopher W, Theodore HKC, Global Electronic Commerce: Theory and Case Studies. Universities Press, 2001.
4. Kamlesh K Bajaj, "E – Commerce, Second Edition", Tata Mc Grew Hill Publishers

RELATIONAL DATABASE MANAGEMENT SYSTEM

PAPER CODE: MCIS 10: IS-App & Analysis / Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T+4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To learn about different data storage, organization, design techniques and Implementation techniques

UNIT-I: THE ENTITY –RELATIONSHIP MODEL

Overview of Database Design, Entities Attributes, relationships, Extended ER Model features Introduction to DBMS - Advantages - Data Abstraction - Data models - Features - Converting ER models to relations - Database Manager - DBA Database users.

UNIT-II: RELATIONAL MODEL

Relational Model - Query languages – Keys - Query by Example (QBE) - SQL – Introduction - DDL – DML – DCL - Integrity constraints in SQL.

UNIT-III: NORMALIZATION

Normalization & De-Normalization concepts - Joins and Sub Queries in SQL – Creating Indexes – Views - Sequences and Synonyms.

UNIT-IV: TRANSACTION MANAGEMENT

Recovery & Atomicity: Storage types **-** Failure types - Centralized and Distributed database processing methods   Need for Concurrency control- Desirable properties of Transaction. Concurrency Control – Types of Locks- Two Phases locking- Deadlock- Time stamp based concurrency control.

UNIT-V: PL SQL

PL – SQL: Variables – Printing message – Comment entry. Control Structure If.. Else Statement.. End Block – Case Construct – While Construct. Cursors, Functions, Stored Procedures & Triggers.

LAB EXERCISES

SQL/PL-SQL:

1. Creation of database(Exercising the commands for creation)

2. Simple to complex condition query creation using SQL Plus

3. Demonstration of blocks, cursors & database triggers

FORMS/ REPORTS

4. Creation of forms for the case study assigned.

5. Creation of reports based on different queries

6. Creation password and security features of applications

7. Usage of locking table locking, facilities in applications

NOTE:

(i) Use Case Studies such as Library Information System, Pay roll system, Bank Information

system, Bank information system, Reservation system, Inventory system etc.

(ii) The creation of Sample database for the purpose of the experiments is expected to be pre-decided

by the instructor based on the case study assigned to the students.

SUGGESTED READINGS:
1. Database Management Systems - Raghurama Krishnan, Johannes Gehrke, Third Edition – McGraw Hill, Pearson edition, 2006
2. Database Mangement Systems Henery F Korth, Tata –Mc Graw Hill
3. SQL / PL SQL – Deshpande, Dreamtech Publishers.
4. Fundamentals of Database Systems –Ramez, Elmasri / Navathe Second edition.
5. Oracle PL SQL, The Complete Reference, Loney, McGraw Hill Publishers

SPECIALIZATION
IS – MANAGEMENT

ACCOUNTING ERP

PAPER CODE: MCIS 9: IS- Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To acquire basic knowledge in computerized accounting systems and its applications in the area of business.

UNIT-I CREATION OF A COMPANY, LEDGERS AND GROUPS

Introduction to Computerized Accounting - Creating a Company - Select - Shut and Alter a Company - Features and Configurations Creating Chart of Accounts: Ledgers and Groups; Creating Inventory Masters: Stock Group - Stock Category - Godown - Unit of Measure - Stock Item; Displaying and altering Inventory Masters

UNIT-II VOUCHER ENTRY

Voucher Entry & Invoicing - Accounting Vouchers - Contra Voucher - Payment Voucher - Receipt Voucher - Journal Voucher - Sales Voucher - Credit Note Voucher - Purchase Voucher - Debit Note Voucher - Reversing Journal Voucher - Memo Voucher - Optional Vouchers - Post-dated Vouchers - Creating a New Voucher Type - Pure Inventory Transactions - Entering Inventory Details in Accounting Vouchers – Invoicing - Voucher Class

UNIT-III- COST CENTRES

Cost Centres and Cost Categories – Introduction - Applying Cost Centres to Ledger Accounts – Cost Centre Reports Order Processing & Pre-closure of Orders - Purchase Order Processing - Sales Order Processing

UNIT-IV- REPORTS AND TDS

Reports – Introduction – Features - Financial Statements - Balance Sheet - Profit and Loss Account - Trial Balance - Ratio Analysis - Books and Registers - Day Book - Purchase and Sales Registers - Cash/Bank Book(s) - Statements of Accounts – Outstanding bills and Report of Statistics - Tax Deducted at Source – Introduction – Features - Implementation of TDS - Quick Setup - Recording Transactions - TDS Reports –Computation - Challan Reconciliation – Return– e-TDS Returns

UNIT-V ADVANCED FEATURES OF ERP

Export and Import of Data - Backup and Restore Company Data - E-mailing - Multi-Currency – Remote access - Support Centre - Password Policy

LAB EXERCISES
1.Creation of a Company, Ledgers and Groups
2.Voucher Entries
3.Applications of Cost centres to Ledger Accounts and Reports
4.Generation of Reports: Financial Statements, Ratio Analysis- Books and Registers - Day Book - Purchase and Sales   Registers - Cash/Bank Book(s)- Outstanding bills-TDS Reports-e-TDS Repots

SUGGESTED READINGS:
1. Computerised Accounting using Tally.ERP 9 by Tally Education
2. Computerised Accounting – A Murali Krishna – Vaagdevi Publications
3. Aakash Business Tools – Spoken Tutorial Project – IIT Bombay
4. Computerised Accounting and Business Systems – Kalyani Publications
    Manuals of Respective Accounting Packages

RELATIONAL DATABASE MANAGEMENT SYSTEM

PAPER CODE: MCIS 10: IS-App & Analysis / Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T+4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To learn about different data storage, organization, design techniques and

Implementation techniques

UNIT-I: THE ENTITY –RELATIONSHIP MODEL

Overview of Database Design, Entities Attributes, relationships, Extended ER Model features
Introduction to DBMS - Advantages - Data Abstraction - Data models - Features - Converting ER
models to relations - Database Manager - DBA Database users.

UNIT-II: RELATIONAL MODEL

Relational Model - Query languages – Keys - Query by Example (QBE) - SQL – Introduction - DDL
– DML – DCL - Integrity constraints in SQL.

UNIT-III: NORMALIZATION

Normalization & De-Normalization concepts - Joins and Sub Queries in SQL – Creating Indexes –
Views - Sequences and Synonyms.

UNIT-IV: TRANSACTION MANAGEMENT

Recovery & Atomicity: Storage types **-** Failure types - Centralized and Distributed database
processing methods   Need for Concurrency control- Desirable properties of Transaction.
Concurrency Control – Types of Locks- Two Phases locking- Deadlock- Time stamp based
concurrency control.

UNIT-V: PL SQL

PL – SQL: Variables – Printing message – Comment entry. Control Structure If.. Else Statement..
End Block – Case Construct – While Construct. Cursors, Functions, Stored Procedures & Triggers.

LAB EXERCISES

SQL/PL-SQL:

1. Creation of database (Exercising the commands for creation)

2. Simple to complex condition query creation using SQL Plus

3. Demonstration of blocks, cursors & database triggers

FORMS/ REPORTS

4. Creation of forms for the case study assigned.

5. Creation of reports based on different queries

6. Creation password and security features of applications

7. Usage of locking table locking, facilities in applications

NOTE:

(i) Use Case Studies such as Library Information System, Pay roll system, Bank Information

system, Bank information system, Reservation system, Inventory system etc.

(ii) The creation of Sample database for the purpose of the experiments is expected to be pre-decided

by the instructor based on the case study assigned to the students.

SUGGESTED READINGS:

1. Database Management Systems - Raghurama Krishnan, Johannes Gehrke, Third Edition – McGraw Hill, Pearson edition, 2006

2. Database Mangement Systems Henery F Korth, Tata –Mc Graw Hill

3. SQL / PL SQL – Deshpande, Dreamtech Publishers.

4. Fundamentals of Database Systems –Ramez, Elmasri / Navathe Second edition.

5. Oracle PL SQL, The Complete Reference, Loney, McGraw Hill Publishers

SEMESTER – III
RESEARCH METHODOLOGY AND STATISTICAL ANALYSIS

PAPER CODE: MCIS 11 : Core-I   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: The Objective of this course is to develop research orientation among the students and develop analytical skills.

UNIT-I: INTRODUCTION TO QUANTITATIVE TECHNIQUES & BUSINESS RESEARCH:
Quantitative Techniques: Meaning, Need and Importance - Classification: Statistical Techniques - Operations Research techniques - Role of Quantitative Techniques in Business and Industry - Quantitative Techniques in Decision making - Limitations.
Research: Meaning, Purpose, Characteristics and Types - Process of Research: Formulation of objectives - Formulation of Hypotheses: Types of Hypotheses - Methods of testing Hypotheses - Research plan and its components - Methods of Research: Survey, Observation, Case study, experimental, historical and comparative methods - Difficulties in Business research.

UNIT-II: COLLECTION, PRESENTATION ANALYSIS OF DATA:
Sources of Data: Primary and Secondary Sources -Methods of collecting Primary Data - Designing Questionnaires/Schedules in functional areas like Marketing, Finance, Industrial Economics, Organizational Behavioral and Entrepreneurship (Practically students should be able to design questionnaires for given problem/cases in these areas). Census vs. Sampling - Methods of Sampling Random and Non-Random Sampling methods - Measurement and scaling techniques.
Processing and Presentation of Data: Editing, coding, classification, and tabulation - Graphic and diagrammatic presentation (Theory only). Statistical analysis of Data: Types of analysis (Descriptive analysis and inferential analysis) – Tools: Measures of Central Tendency, Measures of Variation, Skewness, Time series, Index numbers, Correlation and Regression (theory only).

UNIT-III: INTERPRETATION AND REPORT WRITING:
Interpretation: Introduction - Essentials for Interpretation, Precautions in interpretation - Conclusions and generalization - Methods of generalization. Statistical fallacies: bias, inconsistency in definitions, inappropriate comparisons, faulty generalizations, drawing wrong inferences, misuse of statistical tools, failure to comprehend the data. (including small cases).
Report Writing: Meaning and types of reports - Stages in preparation of Report - Characteristics of a good report - Structure of the report'-Documentation: Footnotes and Bibliography - Checklist for the report.

UNIT-IV: PROBABILITY AND PROBABILITY DISTRIBUTIONS:
Probability: Meaning - Fundamental Concepts - Approaches to measurement of Probability -Classical, Relative frequency, subjective and axiomatic approaches - Addition theorem - Multiplication theorems- Bayesian theorem and its simple applications - Mathematical expectation (including problems).
Probability Distributions: Meaning and importance of theoretical frequency distributions Binomial, Poisson and Normal distributions - Properties and uses - fitting Binomial, Poisson and Normal, Distributions (areas method only) (including problems).

UNIT-V: ASSOCIATION OF ATTRIBUTES & CHI SQUARE TEST:
Association Of Attributes: Meaning - Distinction between correlation and association Methods of studying Association - interpretation of results.
Chi Square Test: Definition - Conditions for applying Chi square test, Yates's correction - Uses and limitations of Chi square test - Chi square test for testing the independence of Attributes - Chi square test for goodness of fit (including problems).

SUGGESTED READINGS:
1.Krishna Swamy: Methodology of Research in Social Sciences; **2.**Kothari:Research Methodology; **3.**Zikmund:Business Research Methods; **4.**SC.Gupta:Fundamentals of Statistics;**5.**SP.Gupta:Statistical Methods; **6.**Levin et al: Statistics for Management; **7.**Keller:Statistics for Management & Economics; **8.**Sanchetty & Kapoor: Business Statistics; **9.**Achalapathi KV: Reading in Research Methodology in Commerce &Business Management; **10.**Anderson:Statistics for Business and Economics.

MARKETING MANAGEMENT

PAPER CODE: MCIS 12 : Core-II   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE : The course aims to develop skills in the analysis and resolution of management problems related to the marketing process; economic, psychological and sociological characteristics of demand for various products; marketing research; channels of distribution; personal selling, pricing policies and regulation of marketing.

UNIT-I: MARKETING BASICS:
An Overview of Marketing - Production concept - Product concept - Marketing myopia - Selling concept - Marketing Concept - Societal dimension of marketing - Importance and scope of marketing - The Role of Marketing in Economic Development - Rural Marketing - Rural Markets VS Urban Markets - Marketing Management tasks - Types of demand - Marketing mix - marketing Objectives - Marketing Planning and Strategy - Mega Marketing (Power and Public relations) - Service Marketing

UNIT-II: TARGET MARKETING AND MARKET SEGMENTATION AND CONSUMER BEHAVIOR:
Concept of Target market - Market segmentation - Concept - Types - Patterns - Benefits - Requirements for effective segmentation - Basis for market segmentation - market segmentation analysis for given products - Product positioning.
Concept of consumer behavior - Nature - Scope - Importance - Major factors influencing consumer behavior - Cultural - Social - Economic - Psychological & Personal - Consumer decision process - Post purchase feelings - Brand loyalty - Cognitive Dissonance - Industrial buyer behavior - Marketing Research - Steps.

UNIT-III: PRODUCT MANAGEMENT:
Concept of product - Classification of products - levels of product classification - Product mix and product line decisions - new Product Development Process - Product Life Cycle Stages and implication for marketers - Branding - Packaging and labeling strategies.

UNIT-IV: PRICE AND CHANNEL MANAGEMENT
Role of price in marketing mix - Pricing concept - Objectives of pricing - Factors influencing price determination - New product Pricing - Market Skimming pricing - Market penetration pricing - Pricing of products and services - Pricing Methods. Nature of marketing channels - Channel Structure and participants - Types of marketing intermediaries - Importance of Channel management - Channel Design Decisions Channel conflict and resolutions - Contemporary marketing channels in India - A global perspective.

UNIT-V: PROMOTION MANAGEMENT
Promotion Management - Role of promotion in marketing - Promotion mix - A view of the Communication Process - Advertising - Need - Objectives - Types of advertising - Major decisions in advertising - Objectives - Budget - Strategy - Evaluation - Advertising and Social Marketing - Sales Promotion - Objectives & Tools - Personal Selling – Nature - Role of Sales force - Publicity - Public Relations.

SUGGESTED READINGS:
1. Marketing Management Analysis, Planning & Control - Philip Kotler, 9th edn.
2. Principles of Marketing – Philip Kotler.
3. Fundamentals of Marketing – W.J. Stanton.
4. Marketing Management – J.C. Gandhi.
5. Consumer Behaviour – Schiff Man, Prentice Hall.
6. Managing Services, Marketing Operations and Human Resource – Lovelock.
7. Marketing Management - Czinkota, 2/e - Thomson.
8. Marketing, Planning & Strategy - Jain, Thomson.
9. Consumer Behaviour – Assael, Thomson.
10. Bennett Anthony, The Big Book of Marketing, Tata McGraw Hill
11. Marketing: Baines &Sinha: Oxford university Press

COST ACCOUNTING AND CONTROL

PAPER CODE: MCIS 13 : Core-III   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To impart conceptual knowledge of cost accounting and to equip with skills of ascertainment and control of costs.

UNIT-I: INTRODUCTION:
Cost Accounting: Nature and Scope, Need, Objectives– Cost Concepts – Installation of Costing System – Cost Accounting its relationship with Financial Accounting and Management Accounting Cost Accounting Standards - Cost Classification – Cost Sheet - Books of Accounts – Integral and Non Integral Accounting - Reconciliation of Cost and Financial Accounts (Including Problems).

UNIT-II: PROCESS COSTING:
Process Costing: Meaning, Features, Applicability, Pros and Cons–Unit Costing Vs. Process Costing – Job Costing Vs. Process Costing –Normal Loss and Abnormal Loss - Process Accounts with Stocks – Inter-Process Profit – Equivalent Production – First In-First out Method (FIFO) and Average Method – Joint Products and By-products (Including problems).

UNIT-III: MARGINAL, ABSORPTION AND DIFFERENTIAL COSTING:
Marginal Cost: Meaning, Features -Absorption Cost: Meaning, Pros and cons– Marginal Costing Vs Absorption Costing - Preparation of Income Statement under Marginal Costing and Absorption Costing -
Decision Making: Pricing Decisions, Make or Buy Decisions, Product/Sales Mix Decisions, Key or Limiting Factor, Shut Down or Continue Decisions, Accept or Reject an offer - Differential Costing: Meaning of Differential Cost, Marginal Cost Vs. Differential Cost, Characteristics of Differential Costing, Managerial Applications of Differential Cost Analysis (including problems).

UNIT- IV: BUDGETARY CONTROL:
Budget: Meaning, Essentials – Budgeting - Budgetary Control: Essentials, Advantages, Limitations – Classification of Budgets: Functional Budget: Sales Budget, Production Budget, Direct Material Budget, Direct Labor Budget, Manufacturing Overheads Budget - Capital Expenditure Budget - Cash Budget– Master Budget – Flexible Budget – Performance Budget –Traditional System of Budgeting– Zero Based Budgeting (Including Problems).

UNIT-V: STANDARD COSTING:
Standards: Meaning, Types, Establishment - Standard Costing: Need, Pre-requisites,Pros and Cons - Standard Costing and Budgetary Control – Variance Analysis - Revision of Standards- Control and Efficiency Ratios(Including Problems).

SUGGESTED READINGS:
1.Jain S.P &Narang K.L., "Advanced Cost Accounting" Kalyani Publishers, New Delhi; **2.**Iyengar S.P., "Cost Accounting – principles & Practice" Sultan Chand & Sons; **3.**Prashanta Athma, "Cost and Management Accounting" Himalya; **4**.Khan M.Y & Jain P.K., "Theory and Problems in Cost Accounting" TMH; **5**.Ravi M. Kishore, "Cost Management", Taxmann; **6.**Lall nigam& Jain, "Cost Accounting – Principles and Practice" Prentice-hall; **7.**Manish Dutta, " Cost Accounting – Principles & Practice", Pearson; **8.**Saxena VK &Vashist CD, "Advanced Cost & Management Accounting" Sultan Chand & Sons; **9.**Colin Drury, "Management & Cost Accounting" Thomson Asia Pvt. Ltd, **10.**Asish K. Bhattacharyya " Principles and Practice of Cost Accounting". Prentice Hall, **11.**Arora M.N. "Cost Accounting –Principles & Practice" Vikas Publishing House.

SPECIALIZATION
IS – APPLICATIONS & ANALYSIS

DATA COMMUNICATIONS & NETWORKS

PAPER CODE: MCIS 14: IS-App & Analysis   **TOTAL MARKS: 80+15+05 = 100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To familiarize the students with fundamentals of data communication, computer networks, network applications and services.

UNIT-I: INTRODUCTION TO NETWORKS

Introduction to Computer Networks and Data Communications:

Introduction – Taxonomy - Computer Networks - Basic Configurations - Network Architecture Model - Internet Model.

Fundamentals of Data and Signals - Data and Signals - Converting Data into Signals - Spread Spectrum Technology - Data Codes - Data and Signal Conversions in Action.

Media: Conducted and Wireless - Twisted Pair - Coaxial Cable - Fiber Optic Cable - Wireless Transmissions - Media Selection criteria.

UNIT-II: MAKING CONNECTIONS –MODEMS

Making Connections –Modems - Breaking bandwidth limitations - Modem Pools - Data Link Connections.

Multiplexing Frequency - Division and Time Division Multiplexing - Business Multiplexing in action.

Errors, Error Detection and Error Control- Errors - Error Prevention - Error Control - Error Detection Techniques.

UNIT-III: LOCAL AREA NETWORKS (LAN)

Local Area Networks (LAN) – Introduction - Functions of LAN - Advantages and Disadvantages - Basic Topologies - Medium Access Control Protocol - IEEE802 formats - LAN Systems.

Internetworking - Bridges - Hubs - Switches - Network Servers - Routers.

LAN Software and Support Systems **-** Introduction to Network Operating Systems - Current Networking Operating Systems - Novell Netware - Windows NT – UNIX - LINUX – Utilities - Internet Server Software - Programming tools.

UNIT-IV: WIDE AREA NETWORKS (WAN)

Wide Area Networks (WAN) - Introduction - Types of Network Subnets - Connection Oriented Applications vs. Connectionless Applications.

Routing -Routing Algorithms - Routing Examples.

Network Congestion -Preventing and Handling Network Congestion.

Internet - Internet Services – WWW - Intranets and Extranets - Internet Protocols.

UNIT-V: TELECOMMUNICATION SYSTEMS

Telecommunication Systems - Basic Telephone Systems - Leased Lines Services – ISDN - Frame Relay – ATM – DSN - Computer Telephone Integration.

Network Security -Basic Security Measures - Encryption and Decryption Techniques - Fire Walls - Security Policy Design Issues.

Network Design and Management - System Development Life Cycle - Network Modeling - Feasibility Studies - Capacity Planning - Creating a Base Line - Network Manager - Network Diagnostic Tools.

SUGGESTED READINGS:

1. Data Communications and Computer Networks - A Business Users Approach, Curt M White, Thomson Learning.

2. DC & Networking, Foronzan, McGraw Hills Publications.

3.Computer Networks, Dave, IE Publishers.

   James FKurose, Keith W Ross, Computer Networking A Top – Down Approach, Addison Wesley.

ADVANCED EXCEL

PAPER CODE: MCIS 15: IS-App & Analysis   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T+4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: To impart the knowledge of excel in data presentation and financial and statistical analysis.

UNIT-I: UNDERSTANDING EXCEL
Excel's Files, Ribbon and shortcut, Create a workbook, Enter data in a worksheet, Format a worksheet, Format numbers in a worksheet, Create an Excel table, Filter data by using an Auto filter, Sort data by using an AutoFilter. Essential worksheet Operations: Using Short cut keys, Key board shortcuts. Working with Cells and Ranges: Formatting Cells, Name Manager. Visualizing Data Using Conditional Formatting: Apply conditional formatting. Printing Your Work: Print a worksheet, Using Print Preview and other utilities

UNIT-II: DATES AND TIMES & TEXT
Working with Dates & Time, Creating Formulas that Manipulate text – Upper, Proper, Lower, Concatenate, Text to Column. Creating Formulas that Count, Sum, Subtotal. Create a formula, Use a function in a formula. Creating Formulas that Look up Values: VLookup, Hlookup, Match & index.

UNIT-III : CUSTOM NUMBER FORMATS
Format Cells Window. Using Data Tab and Data Validation: Getting external Data, Remove Duplicates, Apply data validation & using utilities from Data Tab. Protecting Your Work using Review Tab utilities. Performing Spreadsheet What-If Analysis. Create a macro, Activate and use an add-in.

UNIT-IV : FINANCIAL APPLICATIONS
Introduction to formulas: PV, NPV, IRR, PMT, IPMT, NPER, RATE, Creating Balance Sheet, Investment Calculations, Depreciation calculations. Creating charts and Graphics. Chart the data, Creating Sparkline Graphics, Using Insert Tab utilities.

UNIT-V : ANALYSING DATA
Random Number Generation, Validation of data, reduction data, reliability of the data and rotation, Histogram, Descriptive Statistics, Rank and Pearson Correlation, Covariance, Regression, t-test, Z-test, F-Test and Anova.

LAB EXERCISES

1) Exercises on simple Excel sheets creation, Apply filter and sort.

2) Exercises for usage of functional and short cut keys.

3) Exercises using Mathmatical formulas, function and Test Functions.

4) Exercises on creating Sparkline Graphs.

5) Exercises using financial function along with graphs and charts [PV, NPV, IRR, PMT, IPMT, NPER, RATE, Creating Balance Sheet, Investment Calculations, Depreciation calculations].

6) Exercises with statistical function [Descriptive Statistics, Rank and Pearson Correlation, Covariance, Regression, t-test, Z-test, F-Test and Anova].

7) Exercises on data validation, reliability, rotation and reduction.

8) Exercises on customization and analyzing data.

SUGGESTED READINGS:

1. Charts and Graphs Microsoft Excel 2013 – **Bill Felen – Pearson Publication.**
2. Statistics made simple do it yourself on PC – **KVS Sarma – 2nd Edition – PHI.**
3. Microsoft Office 2007- Essential Concepts and Techniques **– Shelly Cashman Vermaat – Cengage Learning.**
4. PC software Under Windows – **Puneet Kumar – Kalyani Publishers.**
5. 100 statistical Tests in R **– N.D. Lewis – Healthes Hills Press, New Delhi.**

SUGGESTED READINGS FOR LAB:

1. Problem – Solving Cases in Microsoft Access and Excel – **Ellen F Monk, Joseph A Brady & Gerard S Cook – Cengage Learning.**
2. Charts and Graphs Microsoft Excel 2013 – **Bill Felen – Pearson Publication.**
3. Statistics made simple do it yourself on PC – **KVS Sarma – 2nd Edition – PHI.**
4. PC software Under Windows – **Puneet Kumar – Kalyani Publishers.**
    100 statistical Tests in R **– N.D. Lewis – Healthes Hills Press, New Delhi.**

<div align="center">

SPECIALIZATION
IS – MANAGEMENT

SOFTWARE ENGINEERING
</div>

PAPER CODE: MCIS 14: IS- Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: The objective of the course is to familiarize the students with the software development process, software quality assessment, and testing for the optimum functionality at reasonable costing.

UNIT-I INTRODUCTION TO SOFTWARE ENGINEERING

Concept of software engineering, software characteristics, software metrics: categories, areas of applications, token count, function point analysis, data structure metrics
Software Development: Phases; Models: Waterfall model, Prototyping model, Spiral model, Rapid Application Development model

UNIT-II: QUALITY FACTORS

Software quality factors, cost estimations, COCOMO, project scheduling, quality assurance plans, project monitoring plans; Software risk management

UNIT-III: SYSTEM DESIGN

System design objectives, effective modular design (coupling, cohesion), design tools and techniques, prototyping, structured programming.

UNIT-IV : CODING AND TESTING

Verification, monitoring and control, testing. Testing fundamentals, test case design, functional and structural testing, test plan, activities during testing, unit and integration testing.

UNIT- V: UML

Brief history of the Unified process - Phases of the Unified process, Unified Process Work Products, Introduction to UML, Important views & diagram to be modeled for system by UML.

LAB EXERCISES

1. Develop requirements specification for a given problem
2. Develop DFD model
3. Develop UML Use case model for a problem
4. Develop sequence diagram
5. Develop Class diagram

SUGGESTED READINGS:

1.   Pressman , **Software Engineering: A Practitioner's Approach 6e**, McGraw Hill
2.   Ghezzi, **Fundamentals of Software Engineering,** Prentice Hall of India, New Delhi.
3.   Jalote, **An Integrated Approach to Software Engineering 3e**, Narosa
4.   Leon & Leon**, Software Engineering**, Vikas Publishing House, New Delhi
5.   Sommervile, **Software Engineering,** Pearson Education.
6.   Fenton &Pfleeger, **Software Metrics**, Thomson Learning
7.   Befrooz: Software Engineering: Oxford university Press

CYBER LAWS

PAPER CODE: MCIS 15: IS- Mgt.   **TOTAL MARKS: 80+15+05 = 100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE : The objective of this course is to enable students understand legal and regulatory framework for doing business in India. The student will also be able to know the Information Technology Act 2000. Along with learning cyber laws the course enables the student to understand Cyber crime, Tools and methods used in cyber crime and Cyber Security.

UNIT-I: CYBERSPACE AND CYBER LAW:
Introduction to cyber space and cyber law, components of cyber law, categories f cyber law, Punishments, Components of cyber law, Internet governing bodies, International aspects of electronic contracting, Global issues of Privacy in cyber space.

UNIT-II: INFORMATION TECHNOLOGY ACT 2000(ITA2000):
History, overview of Information Technology Act of India 2000, Benefits of Cyber Laws, Aims and objectives of ITA2000, Digital Signature and Electronic Signature, Electronic Governance, Electronic Contracts, Regulation of Certifying Authorities, Electronic Signature Certificate, Penalties, Compensation and Adjudication, Cyber Appellate, Computer related Offences and Grey areas of ITA2000.

UNIT-III: INTRODUCTION TO CYBER CRIME:
Definition and Classification of Cyber Crime, Cyber Crime Legal perspective, Indian perspective and Global perspective, Categories of Cyber Crime and Cyber Stalking, Cloud computing, Risk associated with cloud computing,

UNIT-IV: MOBILE AND WIRELESS DEVICES:
Trend mobility, Authentication service security, Attacks on mobile phones, Mobile phone security, Credit Card frauds, Types of Credit Card frauds, Security implications for organizations, Organizational measurement for Handling mobile, Security policies and measures in mobile computing era.

UNIT-V: TOOLS AND METHODS USED IN CYBER CRIME:
Proxy servers and Anonymizers, Phishing, Password cracking, Key loggers and Spy wares, Virus and Worms, Trojan Horse and Backdoors, Steganography, DoS Attacks, SQL Injection, Buffer overflow, Attacks on wireless network.

SUGGESTED READINGS:
1. Ramandeep kaurnagra, **Cyber laws and Intellectual Property Rights**, Kalyani Publishers, 7e, 2015
2. Nina Godbole&SunitBelapure**Cyber Security**, Wiley India Pvt Ltd, 2012.
3. Gerald. R. Ferrera, Reder and linchtenstein, **Cyber laws – Text and Cases**,3e, Cengage learning
4. FaiyazAhamed, **Cyber Law and Information Security,** DreamTech Press, 2013
5. PankajAgarwal, **Information Security and Cyber Laws**, Acme Learning, 2013
6. Manjotkaur, **Essentials of E-Business and Cyber laws**, Kalyani Publishers

Semester - IV
ENTERPRISE RESOURCE PLANNING

PAPER CODE: MCIS 16 : Core-I   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: The objective of the course is to provide the students with guidelines and frameworks that can be applied to increase the probability of the ERP (or any Information Systems) implementation achieving both the project and business objectives.

UNIT-I: INTRODUCTION TO ERP
Definition of enterprise - enterprise resource planning - evolution of ERP systems - material requirement planning - manufacturing requirement planning – Trends - Systems and technology background - ERP systems background – Objectives - Benefits and challenges in ERP - ERP data input - ERP output capabilities - Technology-enables vs. clean sheet re-engineering -   Specialties in ERP systems - Tangible and intangible benefits - Major ERP vendors.

UNIT-II: BUSINESS PROCESS
Business processes - ERP software changes - Designing ERP systems - choosing standard models - artifacts and processes for ERP systems - client-server architecture for ERP - Application architectures - cross functionalities - application integration.

UNIT-III: INTRODUCTION TO BPR
Introduction to BPR - definition and principles BPR - role of IT in BPR - IT support for BPR - strategic alignment of IT and BPR - Process engineering - enterprise business processes - BPR and organizational restructuring - organizational systems - business process integration.

UNIT-IV: ERP SYSTEM IMPLEMENTING
Choosing an ERP system implementing - big bang vs phased-identification of modules -developing guiding principles and detailed project plan - legacy system analysis - as is picture -mapping into ERP - Project team training - To Be design - user acceptance - detailed design - customization - construction and testing, production system development.

UNIT-V: INTRODUCTION TO SCM & CRM
Introduction to SCM & CRM - Meaning - Need - Origin - Elements of SCM - Future trends in SCM - Purchasing issues in SCM - The role of purchasing in an organization - The purchasing process - Sourcing decisions - Roles of supply base - Supplier selection.CRM - CRM definition - Components of CRM - CRM concepts - Goals of CRM - CRM functions - Customer Experience Management - Back office and front office functions. Post implementation issues and development SCM and CRM.

SUGGESTED READINGS:
1. Risk Daniel E. O'Leary, **Enterprise Resource Planning Systems, Life Cycle, Electronic commerce**, University of Southern California.
2. CVS Murthy, **ERP - Text and Case studies**, Himalaya Publications.
3. Monk, **Enterprise Resource Planning**, 2/e - Thomson.
4. Davenport Thomas H, **Process Innovation, reengineering work through information technology**, Harvard Business School Press, Boston, MA 1993.
5. Micheql Hammer and Champy James, **Reengineering the corporation, A manifesto for business revolution**, Harper Business NY.
6. Alexix Leon, **Enterprise Resource Planning**, 2nd Edition, McGraw Hill.
7. Jylldyche, **CRM Hand Book,** Pearson Publishers.
8. Wisner, **Principles of SCM**, Thomson Publishers.

BUSINESS AND CORPORATE TAXATION

PAPER CODE: MCIS 17 : Core-II   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To acquaint the student with the Theoretical and Practical aspects of Assessing Partnership Firms, Companies, Co-operatives and Trusts.

UNIT-I: ASSESSMENT OF PARTNERSHIP FIRMS:
Meaning of Partnership Firm - Conditions for Assessment as a firm U/S 184 and 185 - Treatment of interest and remuneration paid to partners U/S 40(b) - Computation of Total Income - Assessment of Partners of Firm - Change in constitution of Firm Succession of one firm by another firm - Assessment of dissolved or discontinued firm (Theory and Problems).

UNIT-II: ASSESSMENT OF PARTNERSHIP FIRMS ASSESSED AS AOP:
Partnership Firm Assessed as Association of Persons (AFAOP) - Computation of Total Income - Allocation of PFAOP's - Total Income - Treatment of share of income received by partners of PFAOP (Theory and Problems).

UNIT-Ill: ASSESSMENT OF COMPANIES-l:
Meaning of Company - Types of Companies - Computation Procedure - Taxable income - Deductions - Tax Liability - MAT - Carry Forward and set off of losses - Tax on Distributed Profits - Tax on income distributed to Unit holders - Tax on income receipt from venture capital companies and funds (Theory only).

UNIT-IV: ASSESSMENT OF COMPANIES – II & OTHER TAXES:
Companies: Computation of total income of companies - Determination of Tax Liability (Problems).
Other Taxes: Security Transaction Tax - Tonnage Tax (Theory and Problems).

UNIT-V: ASSESSMENT OF CO-OPERATIVES AND TRUSTS:
Cooperative Societies: Meaning - Deduction u/s 80(p) - Other deductions - Computation of Tax (Theory and problems).
Trusts: Definition – Creation – Registration - Types of Trusts - Tax Exemptions - Accumulation of income - Income not exempted - Assessment of Trust (Theory and problems).

SUGGESTED READINGS:
1. Vinod K. Singhania: Taxman's Direct Tax Laws.
2. Bhagawati Prasad: Direct Tax Laws and Practice
3. B.B. Lal and N. Vashisht: Direct Taxes, Income Tax, Wealth Tax and Tax.
4. V.P. Gaur and D.B. Narang Income Tax Law and Practice- Kalyani Publications
5. Manmohan: Direct Taxes withTax Planning aspects
6. Girish Ahuja and Dr. Ravi Gupta: Direct Tax Law and Practice and Tax Planning.

MANAGERIAL ECONOMICS AND BUSINESS ENVIRONMENT

PAPER CODE: MCIS 18 : Core-III   **TOTAL MARKS: 80 +15+05=100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE: To understand the role of economic analysis in formulating policies at the level of the firm. To apply basic economic theories in managerial decision – making.   To understand the macro – environmental factors that may have influence on firm level decision making.

UNIT-I: INTRODUCTION TO MANAGERIAL ECONOMICS AND DEMAND ANALYSIS
The firm – Objectives and constraints – Scope of managerial economics in decision – making. Concept of Economic profits Vs Accounting Profit (including problems).

Differential calculus (to the extent required for managerial decision – making only) – Functional relationships of Marginal revenue and total revenue functions, Marginal Cost & Total cost functions. Concepts of Economic optimization (Simple problems).

Demand theory and Analysis – Individual demand and Market demand – Price Elasticity – Income Elasticity – Cross Elasticity and decision – making (including problems) – Demand estimation – Meaning, significance and methods.

UNIT-II: PRODUCTION AND COST FUNCTIONS
Meaning of Production function – Cobb Douglas Production Function – Production with on variable input – Diminishing marginal returns – optimal employment to factor of a production with two variable inputs – The production iso – quant – The production iso – Costs – Optimal employment of two inputs – Expansion path – Economies of scale and scope (including problems).

Cost function – economic concept of cost shorern cost functions – finding minimum average variable cost through equation – Long run cost function linear and non – linear break even analysis. Profit contribution analysis (including problems).

UNIT-III: MARKET STRUCTURE (THEORY ONLY)
Market structure (i) Numbers and size distribution of sellers and buyers (ii) Product differentiation (iii) Conditions of entry and Exit.

Perfect Competition – Characteristics – The Equilibrium Price Profit maximization in short run and long run – losses and shut down decision – evaluation of perfect competition.
Monopoly – characteristics – Profit maximization in short run and long run allocative efficiency and rent seeking.

Monopolistic Competition Characteristics – Profit Maximization price and out put in the short run and in the long run – Evaluation of Monopolistic Competition
Oligopoly – Characteristics – Price Rigidit – Kinked Demand Model – Evaluation of Oligopoly.
Product line pricing – Pricing products the differ in size, inequalities load factors price differentials.

UNIT IV: THEORETICAL FRAMEWORK OF BUSINESS ENVIRONMENT
Concept, significance and nature of business environment; Elements of environment- internal and external; Changing dimensions of business environment. Techniques of environmental scanning and monitoring. Dualism in Indian Society and problem of uneven distribution of income; Emerging rural sector in India; Social responsibilities of Business;   Economic Systems and Business

Environment; Economic Planning in India – Types of Economic Plan; Prerequisites of successful economic planning; Latest Five Year Plan.

UNIT V: ECONOMIC REFORMS IN INDIA

Industrial Policy – Policies of Pre and Post liberalization era; Industries (Development and Regulation) Act; Competition Policy and Competition Act; Public Sector- Objectives, pattern of growth; Changing role of public sector; Privatization and Disinvestments of public enterprises; Pricing policies in public enterprises.

SUGGESTED READINGS:

1. S.K.Bedi – Business Environment
2. Fransis Cherunilam – Business Environment – Himalya Publishing House.
3. P.K.Ghosh – Business & Government – Sultan Chand & Sons.
4. Adhikiary, M: Economic Environment of Business, Sultan Chand & Sons, New Delhi.
5. Ahluwalia. I.J. Industrial Growth in India, Oxford University Press, Delhi.
6. Alagh, Yoginder K: Indian Development Planning and Policy, Vikas Pub, N.Delhi.

SPECIALIZATION
IS – APPLICATIONS & ANALYSIS

BUSINESS DECISIONS USING SPSS

PAPER CODE: MCIS 19: IS-App & Analysis   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

UNIT-I: INTRODUCTION TO SPSS
SPSS – Introduction, Starting SPSS, Data editor, Toolbar, Menu Bar, Edit Menu, View Menu, Data Menu, Transform Menu, Analyse Menu, Graphs Menu. Creating a Data File, Defining Variables, Variable Labels, Missing Values, SPSS Procedure for Creating a Data File, Frequency Distributions, Editing, Coding, Classification and Tabulation

UNIT-II: DESCRIPTIVE STATISTICS
Graphic Presentation, Measures of Central Tendency, Measures of Dispersion, Skewness
Correlation - Meaning, Methods of computing correlation, correlation coefficients
Regression - Meaning, Methods of computing regression, regression coefficients and
Scatter. Diagram Time series analysis.(Working out problems using SPSS only)

UNIT-III: STATISTICAL ESTIMATION AND HYPOTHESIS TESTING
Concepts: Population, sample and sampling distribution - Central limit theorem - Concept of Standard Error - Confidential limits - Estimation of population parameters - Properties of a good estimator - Point and interval estimation - Hypothesis Formulation and testing procedure - Type I and Type II errors - One tail and two tail tests (theory only).

Sampling of Attributes: Estimation and testing of Number and Proportions of Successes - Difference between two proportions (including problems).

Large Samples: Difference between large and small samples - Estimating population mean – Testing: Significance of Mean - Significance of the difference between means of two samples - Significance of the difference between the standard deviations of two samples (including problems).

Small Samples: 't' test – Assumptions of t- test - Fixing fiducial limits to population mean – Testing: Significance of the mean - Significance of the difference between two independent means - Significance of the difference between two dependent means (including problems). .

Unit IV: ANALYSIS OF VARIANCE AND FACTOR ANALYSIS
F- test: Meaning and Applications – ANOVA: Assumptions - Procedure - One way and two-way analysis of variance (including problems).

Factor Analysis : Objectives of Factor Analysis, Designing Factor Analysis, Assumptions of Factor Analysis, Procedure of deriving Factors, Interpreting the Factors, Validation of Factor Analysis. Discriminate analysis, Multi dimensional Scaling. Checking the internal validity, reliability of data – Cronbanch alpha. (including problems).

UNIT –V NON PARAMETRIC TESTS
Chi – Square Goodness of fit Test, Chi – Square Test of Independence, Kruskal – Wallis Test – Friedman Test,. Wilcoxon Rank sum test, Spearman's Rank Order Correlation, Multiple Response

Analysis, Multiple Dichotomy Analysis, Sign Test, Test of randomness, Mann Whitney U test. Kolmoglov Smirinov test. (including problems).

LAB EXERCISES

1. AN OVERVIEW OF SPSS: Starting an SPSS Session, Creating a New Dataset, Using an Existing Dataset, Manipulating and Merging Datasets, Importing and Exporting Data, Printing Datasets, Descriptive Statistics in SPSS (mean, standard deviation, variance, range, frequencies

2. GRAPHS: Creating and editing graphs and charts, Bar charts, histograms, percentiles

3. Cross Tabulation and chi-square analyses

4. Correlation: Bivariate Correlation

5. Regression

6. Parametric Tests: The T-test procedure-Independent –samples, paired samples, and one sample tests and Anova   procedure

7. Factor Analysis

8. Non-Parametric Tests

SUGGESTED READINGS:
1) Levin&Rubin: Quantitative Approaches in Management, Pearson
2) SC.Gupta: Fundamentals of Statistics, Himalaya
3) D.C.Sancheti & VK.Kapoor: Statistics, Sultan Chand & Sons
4) Anand Sharma: Quantitative Techniques for Decision Making Himalaya
5) SPSS 17.0 for Researchers - Dr. S L Gupta, Hitesh Gupta, 2nd Edition, International Book House Pvt. Ltd.
6) Data Analysis with SPSS, Version 16 – Carrer Nash – Cengage Learning India Pvt. Ltd.
7) Basic SPSS Tutorial – Manfred te Grotenhuis – Sage Publications.
8) Marketing Research – Nargundkar, Tata Mc Graw Hills

SUGGESTED READINGS FOR LAB:
1. SPSS for Windows, Step; George and Mallery, Pearson
2. Data Analysis with SPSS, Carver and Nash, Cengage.

WEB DESIGNING

PAPER CODE: MCIS 20: IS-App & Analysis/Mgt.   TOTAL MARKS: 50+35+15 = 100
PPW: 3T + 4P, Credits : 5   EXAM DURATION: 3 HRS

OBJECTIVE: The Course emphasizes on the skills of designing and creation of web pages, Scripting & Markup language, client side Scripting Language, Server Side Scripting and importance of PHP & My SQL.

UNIT I: INTRODUCTION TO HTML
Introduction to HTML, Structure of HTML Document, Basic HTML Tags working with tables, Working with Form Elements, Working Images. Working with list order list, Un order list, Working with CSS. Inline and Internal External Style sheet.

UNIT II: JAVA SCRIPTS
JAVA Scripts: Introduction What is Client Side Scripting Languages, Data Types Operators Functions Predefined Functions, User Defined Functions, Control Statements IF, Nested IF Loops Break & Continues Statements.

UNIT III: OBJECTS
(Math Objects, Number Objects, Array Objects, Date Objects) Event Handling, On load on Unload on Click, On Focus, On blur On submit On Mouse over, On Mouse Down.

UNIT IV: PHP : INTRODUCTION
PHP : Introduction to PHP, PHP Tags, Statements, white space, PHP Data Types , Using Operators, Making decisions conditionals, Using Arrays , Array Operators, Multidimensional Arrays, /sorting Arrays, Using Functions in PHP, using Parameters, Passing reference and passing value, Object Oriented PHP concepts class and attributes operators , inheritance, Encapsulation Abstract Methods and ClassError Expectation Handling.

UNIT V: MY SQL
My SQL: Designing your web Data base, Relations Database concepts, Web Data base Architecture, Logging to My SQL, Creating Data base Tables , what is SQL, Retrieving data from the data base, DDL,DML, Statements, Views joins, functions

LAB EXERCISES

1. Creating HTML Pages to test different Tags.

    a. Header tags

    b. Formatting tags

    c. Physical Tags

    d. Logical Tags

2. HTML Table Formatting

3. Order list and Un-order Lists

4. Creating Frames

5. Write about CSS,

6. Types of CSS

7. Usage Data and the methods of Data and Time Objects

8. Floating alerts, aligning text and setting box dimension using CSS

9. Using HTML Events

10. Using PHP Data types and operators

SUGGESTED READINGS:

1. PHP and My SQL Web Development, 4th Edition, Luke Welling, Laura Thomson, Publisher: Addison Wesley.
2. Beginning HTML, XHTML, CSS, and JavaScript, Jon Duckett, Publication /Wiley
3. HTML5, Black Book Dream Tech Publications, Wiley India Pvt Limited.
4. Willard, Web Design A Beginners Guide, Tata McGraw Hill
5. Roy: Web technology, Oxford University Press

SPECIALIZATION
IS – MANAGEMENT

E- BUSINESS MANAGEMENT

PAPER CODE: MCIS 19: IS- Mgt.   **TOTAL MARKS: 80+15+05 = 100**
PPW: 5, Credits : 4   **EXAM DURATION: 3 HRS**

OBJECTIVE : To understand the practices and technology to start an online business

UNIT – I : INTRODUCTION TO E-BUSINESS
E- Business, E – Business Vs E – Commerce, Economic force – advantages – myths – E – Business models, design, develop and manage E-Business, Web 2.0 and Social Networking, Mobile Commerce, S – Commerce.

UNIT – II : TECHNOLOGY INFRASTRUCTURE
Internet and World Wide Web, internet protocols – FTP, intranet and extranet, information publishing technology – basic of web server hardware and software.

UNIT – III : BUSINESS APPLICATIONS
Consumer oriented E – Business – E-Tailing and models – Market on web – advertising, e-mail marketing, affiliated programs – E-CRM; online services, Business oriented E-Business, E – Governance, EDI on the internet, Delivery Management System, Web Auctions, Virtual Communities and Web Portals – Social Media Marketing

UNIT – IV : E – BUSINESS PAYMENTS AND SECURITY
E – Payments – Characteristics of payment of systems, protocols, E-Cash, E-Cheque and Micro payment systems – Internet Security – Cryptography – Security Protocols – Network Security.

UNIT – V : LEGAL AND PRIVACY ISSUES
Legal, Ethics and privacy issues – Protection needs and methodology – Consumer Protection, cyber laws, contracts and warranties, Taxation and encryption policies.

SUGGESTED READINGS:
1. ParagKulkarni, SunitaJahirabadkao, PradeepChande - E – Business – Oxford University Press 2012.
2. Hentry Chan & el – E-Commerce – Fundamentals and Applications – Wiley India Pvt. Ltd., 2007.
3. Gary P. Schneider – Electronic Commerce – Thomson Course Technology Fourth Annual Edition, 2007.
4. Bharat Bhasker, Electronic Commerce – Frame Work Technologies and Application, 3rd Edition – Tata McGraw Hill Publications, 2009.
5. Kamlesh K. Bajaj and Debjani Nag – E – Commerce – the cutting edge of Business – Tata McGraw Hill Publications, 7th reprint, 2009.
6. Kalakota et al - Frontiers of Electonic Commerce – Addison Wesley, 2004.
7. MichealPapaloelon and Peter Robert – E-Business – Wiley India, 2006.

WEB DESIGNING

PAPER CODE: MCIS 20: IS-App & Analysis/Mgt.   **TOTAL MARKS: 50+35+15 = 100**
PPW: 3T + 4P, Credits : 5   **EXAM DURATION: 3 HRS**

OBJECTIVE: The Course emphasizes on the skills of designing and creation of web pages, Scripting & Markup language, client side Scripting Language, Server Side Scripting and importance of PHP & My SQL.

UNIT I: INTRODUCTION TO HTML
Introduction to HTML, Structure of HTML Document, Basic HTML Tags working with tables, Working with Form Elements, Working Images. Working with list order list, Un order list, Working with CSS. Inline and Internal External Style sheet.

UNIT II: JAVA SCRIPTS
JAVA Scripts: Introduction What is Client Side Scripting Languages, Data Types Operators Functions Predefined Functions, User Defined Functions, Control Statements IF, Nested IF Loops Break & Continues Statements.

UNIT III: OBJECTS
(Math Objects, Number Objects, Array Objects, Date Objects) Event Handling, On load on Unload on Click, On Focus, On blur On submit On Mouse over, On Mouse Down.

UNIT IV: PHP : INTRODUCTION
PHP : Introduction to PHP, PHP Tags, Statements, white space, PHP Data Types , Using Operators, Making decisions conditionals, Using Arrays , Array Operators, Multidimensional Arrays, /sorting Arrays, Using Functions in PHP, using Parameters, Passing reference and passing value, Object Oriented PHP concepts class and attributes operators , inheritance, Encapsulation Abstract Methods and ClassError Expectation Handling.

UNIT V: MY SQL
My SQL: Designing your web Data base, Relations Database concepts, Web Data base Architecture, Logging to My SQL, Creating Data base Tables , what is SQL, Retrieving data from the data base, DDL,DML, Statements, Views joins, functions

LAB EXERCISES

1. Creating HTML Pages to test different Tags.

      a. Header tags

      b. Formatting tags

      c. Physical Tags

      d. Logical Tags

2. HTML Table Formatting

3. Order list and Un-order Lists

4. Creating Frames

5. Write about CSS,

6. Types of CSS

7. Usage Data and the methods of Data and Time Objects

8. Floating alerts, aligning text and setting box dimension using CSS

9. Using HTML Events

10. Using PHP Data types and operators

SUGGESTED READINGS:

1. PHP and My SQL Web Development, 4th Edition, Luke Welling, Laura Thomson, Publisher: Addison Wesley.
2. Beginning HTML, XHTML, CSS, and JavaScript, Jon Duckett, Publication /Wiley
3. HTML5, Black Book Dream Tech Publications, Wiley India Pvt Limited.
4. Willard, Web Design A Beginners Guide, Tata McGraw Hill
5. Roy: Web technology, Oxford University Press