Programme Education Objectives (PEO)

- To enhance knowledge and skills of the students and make them as employable.
- > To explore the talents of the students by encouraging them to participate in Intra and inter collegiate competition.
- > To inculcate the practice of work as a team by guiding them to organize the department events.
- > To employ critical thinking, analytical problem solving skills in the basic areas of Commerce and Technology.
- > To update the knowledge of students on contemporary changes and issues in the field of Commerce and Technology.

Programme Specific Outcomes (PSO): (On completion of the B.Com(ISM) the student will be able to)

- ➤ Graduates will acquire a sound knowledge on commerce, Management subjects with practical application.
- > Graduates will be well equipped on creating website creation and software development.
- > Graduates will be transmitted as employable in the field of IT and ITES.

Programme Outcomes (POs): (On completion of the Programme the learner will be able to)

- Acquire conceptual understanding of the subject. Problem solving and application of skills in the relevant field.
- > Develop critical and analytical thinking.
- ➤ Undertake/ engage in employment oriented activities, development activities and allied activities particularly in response to the needs of the society.
- Instilling entrepreneurial spirit among the students along with ethics and business orientation.
- ➤ Understand the needs and to acquire the required competencies to support local, regional and national development.

Questions to be selected according the knowledge level as Per Bloom's Taxonomy (K1 to K5)

Section	Verbs to be used	Knowledge Level
A	Analyze, Classify, Determine, Show Discuss, Evaluate, Explain, Illustrate, Justify, Prepare, , Sketch, Solve & State	K2 – Understand K 3 - Applying K 4 Analyzing K 5 - Evaluation
В	Analyze, Classify, Determine, Elaborate, Interpret, Construct, Appraise, Develop, Assess, Differentiate, Elucidate, Solve, Enumerate, Compare, Justify Formulate, Deduce,	K 3 - Applying K 4 - Analyzing K 5 - Evaluating

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
I	23UIASM01	Financial Accounting and IFRS	Major	5	1	-	3

	Course Learning Objectives (CLO): The purpose of learning this course is to:					
CLO - 1	To recollect the basics of accounting and preparation of final account					
CLO - 2	To learn the rectification of errors and reconciliation of bank and cash Account					
CLO - 3	To ascertain profit of nonprofit organization					
CLO - 4	To understand the various accounting standards					
CLO - 5	To learn the financial reporting standards					

UNIT	CONTENT
I	Fundamentals of Financial Accounting:(Theory only) Accounting -Objectives -Limitations - Person interested in accounting information - Accounting Concept and Convention - Single entry VS double entry system - Depreciation - Causes - Need for depreciation - Methods of Depreciation- Form of Business: Branch Vs Departmental accounting - Hire Purchase and Installment System - Partnership - Bill of exchange. Accounting Cycle: (Problem) Journal - Subsidiary Book - Ledger - Preparation of Trial Balance.
II	Preparation of final accounts: Provision for doubtful debts – Accrued income – Income received in advance – Prepaid expenses – Outstanding expenses – Writing off fictitious assets. Rectification & Reconciliation: Errors - Type of Errors - Rectification of errors - Single sided and Double-sided Errors - Preparation of Bank Reconciliation System.
III	Accounting for non-Profit Organization: Capital Income Expenditure and Revenue Income and Expenditure - Receipt and Payment account – Income and expenditure account – Balance sheet.
IV	Accounting Standards: Objective of Accounting Standards – Ind. AS Vs IAS - Classification of Enterprises – Applicability of Accounting Standards – AS1 to AS 29.
V	IFRS: Objectives – Importance – Uses of IFRS - Standard IFRS Requirements – GAAP Vs IFRS – IFRS 1 to 17 – XBRL.

	Question Paper Pattern & Instructions to the Question Paper Setter							
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks	
A	K1, K2 & K3	2	5	7	5	5	25	
В	K2, K3, K4 & K5	2	5	7	5	10	50	
	Total	4	10	14	10	-	75	

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate
Proportion of Questions between Theory & Problem 30:70
SECTION A & B: Minimum 1 question is to be asked from each unit

Recommended Book

• T.S. Reddy & A.Murthy - Advanced Accountancy, Margham publication, Chennai

Books for Reference

- Gupta R.L., Radhaswamy M.– Advanced Accountancy, Sultan Chand& Sons, Delhi
- T.S. Reddy & A.Murthy Advanced Accountancy, Margham publication, Chennai
- S.P Jain &K.L Narang Financial Accounting, Kalyani Publisher, Chennai
- CA Ravi Kanth Miriyala &CA Sunitanjani Miriyala, Taxmann"s Ind AS Ready Reckoner
- Jagadish R. Raiyani Jagadish R Raiyani International Financial Reporting Standards (IFRS) and Indian Accounting Practices, New Century Publications
- Learning Resources:
- https://www.icai.org/post.html?post_id=17757
- https://www.ifrs.org/issued-standards/list-of-standards/
- https://www.iasplus.com/en/resources/ifrsf/history/resource25

Course O	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	CO1 Enhanced knowledge in basics of accounting and preparation of final account.				
CO2	CO2 Learnt the rectification of errors and reconciliation of bank and cash account.				
CO3	CO3 Confidence in ascertainment of profit of nonprofit organization.				
CO4	Familiar with the various accounting standards.				
CO5	Proficiency in preparing financial reporting as per IFRS standards.				

Mapping Programme Outcomes with Course Outcomes								
PO1 PO2 PO3 PO4 PO5								
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
I	23UISAL01	Managerial Behaviour	Allied	4	ı	-	5

	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To understand the management concept					
CLO - 2	To know the different strategies in planning and organizing					
CLO - 3	To learn the techniques of directing and coordinating					
CLO - 4	To learn the fundamentals of OB					
CLO - 5	To know the thoughts of Swami Vivekananda on individual behavior					

UNIT	CONTENT
I	Introduction To Management: Meaning - Definition -Nature - Function - Levels -Management and Administration -Fayol"s Principles of Management. Planning: Meaning - Definition - Nature of Planning - Importance - Types of Plans - Planning Process -MBO - Features - Merits and Demerits.
II	Organizing: Concept, Nature, Process and Significance - Departmentalization Authority and Responsibility; Delegation and Decentralization; Formal and Informal Organization - Span of Control. Directing: Features - Techniques - Motivation: Nature and Importance - Types, Maslow, Herzberg and Mc Gregor "s X &Y Theories of Motivation- Leadership - Importance; Qualities of Good Leader - Leadership Styles: Autocratic - Democratic - Laissez Faire.
III	Co-Ordination: Characteristics- Importance - Techniques- Types - Steps of Coordination - Control: Features - Importance- Techniques - Steps in controlling Process - MBE.
IV	Organizational Behaviour - Characteristics, Nature, Key Elements of OB, Models of OB; Group Behaviour: Types of Groups - Group Norms - Group Cohesiveness - Group Decision Making - Organizational Conflicts- Organizational Climate & Culture Comparison of Organizational Culture and Climate – Moonlighting – Work life Balance.
V	Individual Behaviour: Factors Influencing Individual Behavior Personality - Perception- Attitudes and Values. Swami Vivekananda's Thoughts on Management: Swami Vivekananda and Management - Leadership and Organization- Self Motivation - Eight Corporate lessons from Swami Vivekananda life.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

- Jaya Sankar, Organizational Behavior, Margham Publications, Chennai
- Jaya Sankar, J. Business Management, Margham Publication, Chennai.

Recommended Book

- Prasad, L.M. Principles & Practice of Management, Sultan Chand& Sons, New Delhi.
- N. Premavathy, Principles of Management, Sri Vishnu Publications, Chennai.
- J.Jayasankar, Organisational Behaviour, Margham Publications, Chennai.
- Dr. C. V Balaji, Organisational Behaviour, Margham Publications, Chennai.

- https://collegetutor.net/notes/Principles of management full notes pdf
- https://www.measimba.ac.in/pdf/course-materials/PMF1C-OB.pdf
- https://www.studocu.com/in/document/madurai-kamaraj-university/bba/full-notes/2774417

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Familiar with the management concept				
CO2	Understood different strategies in planning and organizing				
CO3	Learnt the techniques of directing and coordinating				
CO4	CO4 Learnt the fundamentals of OB				
CO5	CO5 Understood the thoughts of Swami Vivekananda on individual behavior				

	Mapping Programme Outcomes with Course Outcomes					
	PO1 PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
I	23UISAM02	Programming with C & C++ (T+P)	Major	3	-	2	4

Course Learning Objectives (CLO): The purpose of learning this course is:				
CLO - 1	To learn the basics of programming.			
CLO - 2	To learn programming using C and C++ Language.			
CLO - 3	To implement programs using different statement in C and C++ Language.			
CLO - 4	To implement programs using OOPS.			
CLO - 5	To implement programs using Polymorphism and Exception.			

UNIT	CONTENT
1	Introduction to C: C Fundamentals - C Tokens - Keywords And Identifiers - Constants - Variables - Data Types - Operators - Expression - Managing Input And Output Operations, Conditional Statements, Looping Statements
П	Arrays : Types Of Arrays, Functions & Types Of Functions, Storage Classes, Structures, Union, Pointers, Files & Error Handling.
III	Introduction to C++: C++ Fundamentals - Managing Input and Output Operations. OOPS: Basic Concepts - Benefits - Applications - Classes and Objects - Access Specifies - Array of Classes.
IV	Constructors: Functions- Operator Overloading- Inheritance with Types.
V	Polymorphism: Types- Templates- Exception Handling.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

K1: Remember; K2: Understand; **K3**: Apply; **K4**: Analysis; & **K5**: Evaluate **SECTION A & B**: Minimum 1 question is to be asked from each unit

Book for Reference:

- "Programming in C", Oxford University Press
- Bjarne Stroustrup, The C++ Programming Language, 4th Edition Pearson Education Inc, 2013 **Recommended Books:**
- Programming in ANSI C 4th Edition E. Balaguruswamy Tata McGraw Hill.
- Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.
- Object Oriented Programming with C++ 4th Edition E. Balaguruswamy Tata McGraw Hill
- Herbert Schildt, "Teach Yourself C++", III edition, Tata McGraw Hill 5th Reprint 2000.

Lab Practical:

- 1) Conditional statement: "if" statement. "Switch "statement
- 2) Looping statement: "for "statement, "while" statement, and "do"...While "statement
- 3) Arrays: One Dimensional Array, Two Dimensional Arrays, Character Arrays.
- 4) Union
- 5) Pointers: Pointers and Expression, pointers and Arrays, pointers and Functions
- 6) Files: Single File creation, Multiple File creations.
- 7) Implement the Following:
 - Function overloading, Friend function & Static member functions.
 - Unary operator overloading, Binary operator overloading & Arithmetic operator overloading.
 - Single inheritance & Hybrid inheritance
 - Multiple inheritance, Multilevel inheritance& Hierarchical inheritance.
 - Virtual functions
 - This pointer
 - Pointer to object.
 - Function template & Class template.
 - Multiple catches in exception handling.

- https://www.javatpoint.com/c-programming-language-tutorial
- https://www.tutorialspoint.com/cprogramming/index.html
- https://fresh2refresh.com/c-programming.

Expected	Expected Course Outcomes (ECO): At the end of this course, learners will be able to:					
CO1	Obtained knowledge about basic programming					
CO2	Create basic programs using C and C++ languages					
CO3	Create programs using logical operation in C and C++ languages					
CO4	Obtained knowledge to implement programs using OOPS					
CO5	Able to utilize polymorphism and Exception Handling.					

	Mapping Programme Outcomes with Course Outcomes						
	PO1	PO2	PO3	PO4	PO5		
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Code	Course Title	Course Type	L	T	P	C
I	23UISAX01	Stock Market Operation	NME	1	1	-	2

Course I	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To understand the functions of stock exchange and stock index					
CLO - 2	To learn conditions bull market					
CLO - 3	To learn conditions of bear market					
CLO - 4	To understand various activities of stock trading					
CLO - 5	To gain knowledge on online trading					

UNIT	CONTENT
I	Introduction to Stock Exchanges: Meaning of Stock Exchanges – Features - Functions – Importance – Stock Exchanges in India – Participants in the stock exchanges – Market Index -
	Types
II	An Overview of Bull Market: Meaning of Bull Market - Indicators of Bull market - Strategies
	for Trading a Bull Market
III	An Overview of Bear Market: Meaning of Bear Market - Indicators of Bear market
	Strategies for Trading a Bear Market.
IV	Stock Trading: Steps in Stock Trading -Online Trading Vs Offline Trading - Trading account
	Vs DEMAT Account – Benefits.
	Online Trading Techniques: Strategies for online trading - Trade Settlement – Types - Intraday
V	Trading - Features - Margin Trading - Features - Advantages - Types - SEBI guidelines for
	margin Trading - Insider Trading.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• Dr.L.Natarajan - Securities Laws & Market Operations, Margham Publications, Chennai

Recommended Books:

- P.S. Balaram & Smt. T. Sri Lakshmi Stock Market Operations, Himayala Publishing House, New Delhi.
- Dr.L.Natarajan Securities Laws & Market Operations, Margham Publications, Chennai. –
- Dr S Gurusamy Securities Laws and Market Operations, Vijay Nicole, Chennai.

- https://backup.pondiuni.edu.in/sites/default/files/security%20market%20operations-260214.pdf
- https://cbseacademic.nic.in/web_material/publication/cbse/45CapitalMarketOperations-XII.pdf
- https://ebooks.lpude.in/commerce/mcom/term_4/DCOM507_STOCK_MARKET_OPERATIO
 https://ebooks.lpude.in/commerce/mcom/term_4/DCOM507_STOCK_MARKET_OPERATIO
 https://ebooks.lpude.in/commerce/mcom/term_4/DCOM507_STOCK_MARKET_OPERATIO

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Clarity over the functions of stock exchange and indices				
CO2	Enhanced knowledge of bull market				
CO3	Enhanced knowledge of bear market				
CO4	Idea about of stock trading strategies				
CO5	Knowledge on online trading and Familiar with the functions of SEBI				

	Mapping Programme Outcomes with Course Outcomes					
	PO1 PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
II	25UISAM03	Human Resource Management and Industrial Relation	Major	4	1	-	4

Course I	Course Learning Objectives (CLO): The purpose of learning this course is to:					
CLO - 1	To understand the process of HRP					
CLO - 2	To know the methods of Training and appraisals					
CLO - 3	To gain knowledge on strategic HRM					
CLO - 4	To understand the importance of Industrial relation					
CLO - 5	To study about labour welfare					

CONTENT						
Introduction to Human Resource Management: Features – Scope – - Functions - Evolution.						
Human Resource Planning: - Job Description – Job Analysis – Job Specification - Recruitment						
- Sources of Recruitment – Process of Selection - Methods of Selection.						
Training: Meaning - Objectives - Methods – Training and Development						
Appraisal: Performance Appraisal -Objectives - Method – Promotion and Transfer						
Strategic Human Resource Management - Nature, Objectives, Importance of SHRM,						
Barriers to SHRM - Overcoming Barriers of SHRM - Traditional vs. Strategic HR Green						
HRM.E - HRM - Needs, Objective, Types, E - HRM Activities, Advantages and Disadvantages						
Industrial Relation: Concept - Nature - Objectives- Parties of Industrial Relations						
Industrial Dispute and Settlement: Objectives and Functions of Trade Union - Collective						
Bargaining, Meaning, Nature and Methods- Workers Participation in Management.						
Labour Welfare: Industrial Health and Hygiene - Industrial Accidents and Safety -						
Occupational Diseases Social Security - Social Assistance and Social Assurance.						

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

• Dr. J Jayashankar - Human resource management - Margham Publication, Chennai

Recommended Books:

- P. Subha Rao Essentials of Human Resource Management and Industrial Relations, Himalaya Publishing house, Mumbai.
- Dr. Gaurav Sankalp Human Resource Management including (Industrial Relations), Sahitya Bhawan Publications
- Nirmal Kumar Human Resource Management and Industrial Relations, Himalaya Publishing house, Mumbai.
- S C Srivastava Industrial Relations and Labour Laws, Vikas Publications, New Delhi
- Dr. J Jayashankar Human resource management Margham Publication, Chennai.

- https://mrcet.com/downloads/MBA/digitalnotes/Human%20Resource%20Management.pdf
- https://backup.pondiuni.edu.in/sites/default/files/HR%20Management-230113.pdf
- http://www.mbaexamnotes.com/industrial-relations-and-labour-laws.html
- https://www.mlsu.ac.in/econtents/1185 Industrial%20Relations%20and%20Labour%20Laws.pdf

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Equipped knowledge on the process of HRP				
CO2	Familiar with the methods of Training and appraisals				
CO3	Well known about strategic HRM				
CO4	Importance of Industrial relation				
CO5	Aware of labour welfare measures				

Mapping Programme Outcomes with Course Outcomes							
	PO1 PO2 PO3 PO4 PO5						
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Code	Course Title	Course Type	L	T	P	C
II	23UISAM04	Company Accounts and Auditing	Major	5	-	-	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To gain knowledge about raising and redemption of capital and and valuation of goodwill and					
	shares					
CLO - 2	To understand reconstruction of companies and the preparation of consolidated balance sheet of					
	holding and subsidiary companies					
CLO - 3	To learn the preparation final accounts of bank and the liquidation					
CLO - 4	To understand the audit procedure and plan					
CLO - 5	To study the methods of auditing of company accounts					

UNIT	CONTENT
I	Shares: Meaning - Types - Procedure for Issue of Shares - Methods of Issues - Debentures - Types of Debentures - Shares Vs Debentures - Procedure for Redemption of Shares and Debentures - Open Market Buying of Shares - Ex - Interest and Cum Interest Purchase of Debentures (only Theory)Goodwill & Shares: Valuation of Shares and Goodwill - Profit Prior to Incorporation
II	Reconstruction of Companies: Internal Reconstruction – External Reconstruction – Amalgamation - Absorption(only Theory). Holding company: Preparation of Holding Company Accounts - Minority Interest - Capital Reserve.
III	Preparation of Financial Statement : Preparation of Company Final Account - Preparation of Banking Company Accounts. Liquidation of Companies : Order of Payment - Liquidators Statement of Accounts
IV	Auditing: Meaning and Objectives of Auditing - Types of Audits- Internal Check - Internal Audit - Audit Process. Audit Plan: Audit Programme - Audit Note Book- Working Papers and Evidence - Preparation Before Commencing of Audit.
V	Audit of Company Accounts: Vouching - Techniques of Vouching - Verification of Assets and Liabilities - Appointment of Company Auditor: Qualification- Powers - Rights - Duties - Liabilities

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	2	5	7	5	5	25
В	K2, K3, K4 & K5	2	5	7	5	10	50
	Total	4	10	14	10	-	75

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate

Theory & Problem Proportion: 30:70

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• T.S. Reddy & A.Murthy, Corporate Accounting - Margham Publications - Chennai.

Recommended Books:

- 1. N. S. Zad Company Accounts and Auditing Practices, Taxmann Publications Private Limited, New Delhi.
- 2. Dr. Avadhesh Ojha CS Amit Baxi CS Pragya Bhandari Company Accounts and Audit, Tax Publishers, Noida.
- 3. Jain & Narang, Corporate Accounting KalyaniPublishers New Delhi.
- 4. T.S. Reddy & A.Murthy, Corporate Accounting Margham Publications Chennai.
- 5. Practical Auditing, Dinkar Pagare, Sultan Chand & Sons, New Delhi.

Learning Resources:

https://www.icsi.edu/media/webmodules/publications/5.%20Company%20Accounts%20and%20Auditing%20Practices.pdf

https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-12 070219.pdf.

Expecte	Expected Course Outcomes (ECO): At the end of this course, learners will be able to:					
CO1	knowledge gained on raising and redemption of capital valuation of goodwill and shares					
CO2	Understood the reconstruction of companies and preparation of consolidated balance sheet of					
	holding and subsidiary companies					
CO3	Learnt the preparation final accounts of bank businesses and the liquidation					
CO4	knowledge on the audit procedure and plan					
CO5	Student Equipped on auditing of company accounts					

	Mapping Programme Outcomes with Course Outcomes					
	PO1 PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
II	24UISAL02	JAVA Programming (T+P)	Allied	3	1	2	5

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To learn the basics of Java Programming					
CLO - 2	To learn about Classes and Packages					
CLO - 3	To learn about Java Application Development					
CLO - 4	To implement socket programming using java					
CLO - 5	To utilize AWT Layout Manager.					

UNIT	CONTENT
I	Introduction to Java - Features of Java - Object Oriented Concepts - Lexical Issues - Data Types - Variables - Arrays - Operators - Control Statements.
II	Classes - Objects - Constructors - Overloading methods - Access Control - Static and fixed methods - Inner Classes - String Class - Inheritance - Overriding methods - <u>U</u> sing super - Abstract class.
III	Packages – Access Protection – Importing Packages - interfaces – Exception Handling - Throw and Throws - Thread - Synchronization - Messaging - Runnable Interface - Inter thread Communication - Deadlock - Suspending, Resuming and stopping threads - Multithreading.
IV	I/O Streams – File Streams - Applets – String Objects – String Buffer – Char Array - Java Utilities - Code Documentation.
V	Networks basics – Socket Programming - Proxy Servers - TCP/IP Sockets - Net Address - URL - Data grams - Working with windows using AWT Classes - AWT Controls - Layout Managers and Menus.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Section Knowledge level Theory Problems Total questions Questions Marks per question Question		Total Marks				
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Lab Exercise:

- 1. Finding area and Perimeter of a circle. Use Buffered Reader class.
- 2. Substring Removal from a String. Use String Buffer Class.
- 3. Determining the order of numbers generated randomly using Random Class.
- 4. Implementation of Point Class for Image manipulation.
- 5. Usage of Vector Classes.
- 6. Usage of Calendar Class and manipulation.
- 7. String Manipulation using Char Array.
- 8. Working with Frames and various controls.
- 9. Working with Dialogs and Menus.
- 10. Working with Panel and Layout.
- 11. Incorporating Graphics.
- 12. Working with Colors and Fonts.

Recommended Books:

- "Java Programmer"s Reference", Herbert Schildt with Joe O'Neil, Tata McGraw Hill, 1998.
- "Internet Programming", Kris James Ph.D., and Ken Cope, Galgotia Publication, Reprint 2000
- "Java Complete Reference", 'Patrick Naughton and Herbert Schildt, 3rd Edition, Tata
- McGraw Hill Publishing Company Ltd., 1999.
- K. Arnold and J. Gosling The Java Programming Language Second Edition, Addison.
- Wesley, 1996.

Book for Reference:

• Programming with Java, E. Balagurusamy, Tata McGraw-Hill, 2015, Fifth Edition.

•

- https://www.tutorialspoint.com/java/index.htm
- https://www.javatpoint.com/java-tutorial

	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Obtained knowledge the basics of Java Programming				
CO2	Have knowledge about Classes and Packages				
CO3	Develop applications using Java				
CO4	Program using java socket programming.				
CO5	Apply AWT Layout Manager for Application Development.				

Mapping Programme Outcomes with Course Outcomes					
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	S	M	S	S	M
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	M	S	S	M

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
II	23UISAX02	Foreign Exchange Management	NME	1	-	-	2

Course Learning Objectives (CLO): The purpose of learning this course is:				
CLO - 1	To know the functions of Foreign Exchange			
CLO - 2	To understand the features of Foreign Exchange Market			
CLO - 3	To gain the knowledge on Exchange Rates			
CLO - 4	To know about the Exchange Rate Management			
CLO - 5	To study the various Foreign Exchange Risk			

UNIT	CONTENT
I	Introduction: Meaning – Functions – Advantages – Limitations – Importance.
II	Foreign Exchange Market: Meaning – Features – Functions – Types – Participants.
III	Exchange rate: Meaning – Types – Merits and Demerits of Fixed and Fluctuating exchange rate – TT buying and selling rate – Bill buying and selling rate
IV	Exchange Rate Management in India: Objectives - Methods of control of Exchange rate - FEDAI - Determinants of exchange rate.
V	Foreign exchange risk and exposure Overview: Introduction – Types of exchange risk & exposure - Internal techniques of exposure – Futures, Hedging & Options.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Section Knowledge level Theory Problems questions		Questions to be answered	Marks per Question	Total Marks		
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

K1: Remember; K2: Understand; **K3**: Apply; **K4**: Analysis; & **K5**: Evaluate **SECTION A & B**: Minimum 1 question is to be asked from each unit

Book for Reference:

• Dr. S. Sankaran - Foreign Exchange & Financing of Foreign Trade – Margham Publications, Chennai.

Recommended Books:

- C. Jeevanandam- Foreign Exchange Practice, Concepts And Control, Management, Sultan Chand & Sons, New Delhi.
- 2. Dr. T. Aryamala International Trade, Vijay Nicole, Chennai.

- https://www.icsi.edu/media/webmodules/publications/FTFM Final.pdf
- https://backup.pondiuni.edu.in/sites/default/files/Forex-mgt%26cd-260214.pdf

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Knowledge on Foreign Exchange			
CO2	understands the features of Foreign Exchange Market			
CO3	Familiar with Exchange Rates			
CO4	Knowledge on Exchange Rate Management			
CO5	Awareness on s various risk in Foreign Exchange			

	Mapping Programme Outcomes with Course Outcomes					
	PO1 PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
III	25UISAM05	Digital Business and Marketing	Major	4	1	-	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To get idea about e-business					
CLO - 2	To understand the basic concepts and framework of e-commerce					
CLO - 3	To have a idea about marketing					
CLO - 4	To get overall exposure in marketing mix					
CLO - 5	To learn the modern forms of marketing and significance of Digital Marketing					

UNIT	CONTENT
I	An overview of E - Business: History and Developments - Characteristics, advantages and disadvantages, adoption, and impact of E - Business - Future challenges and opportunities. Types of e - Transactions - B2B, B2C, C2C, C2B etc., Electronic Storefronts - E - Marketplace - Electronic Storefronts, e - Marketplace - Affiliate and Hybrid Models - Use of Social networks for business
II	Payment Systems: NFC, payment Service providers - E- Payment gateways - Standards, integration, banking, and legal issues - Banking and dispute resolution policies.
III	Marketing: Functions - Importance - Advantages- Disadvantages- Unethical practice of Marketing - Modern form of Marketing - Traditional Vs Digital - Social Media Marketing - SEO techniques. Consumer Behaviors: Market Segmentation - Target Marketing - Market Positioning Strategies of Marketing.
IV	Marketing Mix: Product - Classification- New Product development - Product Life Cycle - Product Line and Product Mix - Branding - Packaging Pricing - Promotion Importance and Types of promotion - Channels of Distribution - Types - Factors Affecting the Choice of a Channel of Distribution.
V	Advertising: Objectives – Kinds – Factors Determining Advertising – Advantages – Limitation. Salesmanship: Meaning - Steps involved in personal selling – Qualities of a salesman - Kinds of salesman.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section Knowledge level		Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

- Dr. Jayashankar Marketing, Margham Publication, Chennai.
- Dr. S. V Srinivasa Vallaban E-commerce, Vijay Nicole Imprints, Chennai.

Recommended Books:

- W. K. Sarwade & Anuranjan Misra A textbook on E-commerce Neha Publishers & Distributors
- Dr. K Abirami Devi & Dr. M Alagammai E-Commere -. Margham Publication
- Dr. Jayashankar Marketing, Margham Publication, Chennai.
- Jamie Turner Digital Marketing Essentials You Always Wanted to Know.
- Dr. Saroj Kumar and Tirupti Singh Chowdry Digital Marketing And E Commerce, Thakur Publication, Lucknow.

- https://www.gasckovilpatti.com/studymaterial/commerce/II%20MCOM%20E%20COMMERCE%20pKCM33.pdf
- https://backup.pondiuni.edu.in/storage/dde/dde_ug_pg_books/E-%20Commerce.pdf
- https://www.vssut.ac.in/lecture notes/lecture1428551057.pdf
- https://www.measimba.ac.in/pdf/course-materials/PMF2K.pdf
- http://www.mdudde.net/books/mcom/mcom-f/marketing-management-final(crc).pdf

Expecte	Expected Course Outcomes (ECO): At the end of this course, learners will be able to:					
CO1	Students got an idea about e-business.					
CO2	Understood the basic concepts and framework of e-commerce.					
CO3	Familiar about marketing.					
CO4	Overall exposure in marketing mix.					
CO5	Learnt the modern forms of marketing and study the significance of digital marketing.					

	Mapping Programme Outcomes with Course Outcomes						
	PO1	PO1 PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
Ш	24UISAM06	Financial Management and Security Analysis	Major	5	-	-	3

Course Lo	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1 To study the fundamentals of financial management and concept of capital structure and leverage						
CLO - 2	To understand the factors determines capital structure and working capital management					
CLO-3	LO - 3 To provide knowledge on basics of investment and fundamental analysis					
CLO - 4	CLO - 4 To get familiar on technical analysis portfolio selection and construction.					
CLO - 5	To get an idea about derivatives					

UNIT	CONTENT
ī	Financial Management: Objectives - Functions – Importance – Scope - Sources of Finance. Capital Structure: Importance - Factors Influencing Capital Structure - Features of Optimum
1	Capital Structure Theories of Capital structure Excluded).
II	Cost of Capital: Significance- Factors determining cost of capital - Cost of Debt - Cost of Preference Capital - Cost of Equity - Cost of Retained Earnings - Weighted Average Cost of Capital. Leverage: Meaning - Computation of Financial, Operating and Combined Leverage.
III	Capital Budgeting Decisions: Payback Period - Accounting Rate of Return - Discounted Payback Period - Net Present Value - Internal Rate of Return - Profitability Index. Working Capital Management - Concepts of Operating Cycle - Determinants of Working Capital - Estimation of Working Capital.
IV	Investment - Meaning - Objectives - Advantages - Limitations - Classification - Investment Vs Gambling Vs Speculation - Causes - Role of Stock Exchanges - Stock Market Indices - Online Trading. Fundamental& Technical Analysis: Economic Analysis - Industry Analysis - Company Analysis - Technical Analysis: Assumptions - Tools - Efficient Market Theory - Random Walk Theory.
V	Portfolio Construction : - Process of Portfolio Construction - Markowitz Portfolio Theory - Derivatives : Purpose of Derivative of Marketing - Forward - Futures - Options - Swaps - Digital currency - Mechanism - Advantages - Limitations.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	3	4	7	5	5	25
В	K2, K3, K4 & K5	3	4	7	5	10	50
	Total	6	8	14	10	-	75

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate
Theory & Problem Proportion: 40:60

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

- Murthy A, Financial Management, Margam Publications, Chennai
- Dr. L. Natarajan Investment management Margham Publication, Chennai.

Recommended Books:

- M. Pandey, Financial Management, Vikas Publishing House, New Delhi.
- S.N.Maheswari, Financial Management, Sultan Chand & Sons, New Delhi.
- Murthy A, Financial Management, Margam Publications, Chennai.
- Punithaathi Pandian Security Analysis & Portfolio Management, Vikas Publishing House, New Delhi.

- http://kamarajcollege.ac.in/Department/BBA/III%20Year/e002%20Core%2018%20-%20Financial%20Management%20-%20VI%20Sem.pdf
- https://www.iare.ac.in/sites/default/files/lecture_notes/IARE_FM_Lecture%20_Notes_2-converted.pdf
- https://www.icsi.edu/media/webmodules/Financial%20and%20Strategic%20Management.pdf
- https://kanchiuniv.ac.in/coursematerials/IM%20UNIT-%20I%20(2).pdf.

Course	Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Enhanced knowledge on fundamentals of financial management and concept of capital structure					
COI	and leverage					
CO2	Understood the factors determines capital structure and working capital management					
CO3	Well-equipped knowledge on basics of investment and fundamental analysis					
CO4	Familiarity on technical analysis portfolio selection and construction.					
CO5	Well known about derivatives					

Mapping Programme Outcomes with Course Outcomes								
	PO1	PO1 PO2 PO3 PO4 PO5						
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
Ш	25UISAM07	Relational Database Management System	Major	5	1	-	3

Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To learn the basics of Databases			
CLO - 2	To learn about Entity-Relationship Model.			
CLO - 3	To understand the concepts of Normalization			
CLO - 4	To operate oracle database Engine			
CLO - 5	To Manipulate Database using Queries.			

UNIT	CONTENT
I	Introduction to Database System: Data Models, Schemas, Instances, the three schema architectures and data independence, Database Languages and interfaces, Database System environment, Centralized and client / Server Architecture for DBMS, Classifications of Database Management Systems.
II	Entity Relational Model: Definition – Data View- Constraints - Keys - E - R Diagram - Weak Entity Set - Extended E - R Features
III	Normalization: Introduction - Functional Dependency - First Normal Form - Second Normal Form - Third Normal Form - Boyce Codd Normal Form - Multivalued Dependency - Fourth Normal Form - Good and Bad Decomposition.
IV	ORACLE: Introduction - SQL: SQL Commands - DDL Commands - DML Commands - TCL Commands - Operators. Functions: Single row numeric functions - Single row date functions - Single row conversion functions - Other Single row functions - Aggregate Functions.
V	Joins: Simple Joins - Complex Joins - Multi Table Joins - Cartesian Joins - Outer Joins. Sub Queries: Single Row Sub Queries - Multi Row Sub Queries - Correlated Sub Queries - Scalar Sub Queries - Multi Column Sub Queries.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

- Database Management System Concepts 4th Edition Silberschatz, Korth, Sudharshan Tata
- McGraw Hill. Kevin Loney, "Oracle 11g, The Complete reference", Oracle Press Edition I, 2019.

Recommended Books:

- Introduction to Oracle9i Chip Thomas, Biju Thomas BPB Publications.
- An introduction to database systems, Bipin C. Desai, Galgotia Publications Pvt Ltd, 1991.
- An Introduction to Database Systems, C.J. Date, Third Edition Addison Wesley 1983.

- https://docs.oracle.com/cd/E11882_01/server.112/e40540.pdf
- https://www.oracletutorial.com/
- https://www.javatpoint.com/oracle-tutorial/

Course O	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Have knowledge about basics of Databases				
CO2	Understood model databases using Entity-Relationship Model.				
CO3	Able utilize concepts of Normalization in designing Databases				
CO4	Manage database using SQL queries				
CO5	Able Join multiple tables using SQL queries.				

	Mapping Programme Outcomes with Course Outcomes							
	PO1	PO1 PO2 PO3 PO4 PO5						
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
III	25UISAM08	Programming using PHP (T+P)	Major	3	1	2	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To learn the basics of PHP programming.					
CLO - 2	To learn about logical Operators and Error Handling.					
CLO - 3	To Manipulate Files using PHP					
CLO - 4	To apply Session Management and Cookies Management.					
CLO - 5	To implement Database connectivity using PHP					

UNIT	CONTENT
I	Introduction to PHP Programming: Significance, Installation and Configuration, Advantages and Disadvantages of PHP, Client - Side Scripting, Server - Side Scripting, Variables, Data Types, Various Types of Function, Creating your own Function, Strings In PHP, String Functions.
II	Operators and Error Handling: Operators, Conditions, Loops, Using for Each, Creating And Using Arrays, Multidimensional Array, Associative Array
III	File System: Classes, File System, Passing Information Between Pages Object Oriented Programming With PHP, Working with Date Time, Code Re - Use, require (), Include (), and the Include Path
IV	Understanding PHP : File Permissions, File Reading and Writing Functions, File System Functions, File Uploads, Sending Mail & Use of Email Server. HTTP, GET Arguments, POST Arguments.
V	Database Connectivity: HTML Tables and Database Tables, Database Manipulation, Validating User Input Using Java script.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75
	K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate						

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• Vikram Vaswani, 2017. A beginner"s guide PHP, 1st Edition, McGraw Hill Education

Recommended Books:

- 1.The Complete Reference PHP, by Steven Holzner, TAYA McGraw Publication.
- 2.Beginning PHP and MYSQL, by W. Jason Gilmore, A press Publication.
- 3.Beginning PHP, Apache, My SQL Web Development Michael K. Glass, Yann Le Scouarnec,

Lab Exercises

- 1. Get name of the user from a form and show greeting text.
- 2. Write a PHP program to check whether given number is palindrome or not.
- 3. Write a PHP program to check whether given number is Armstrong or not.
- 4. Write a PHP program to find largest values of two numbers using nesting of function.
- 5. Write a Mathematical calculator program.
- 6. Write a Age calculator program.
- 7. Write a PHP program to check whether given number is String palindrome or not.
- 8. Write a PHP program using function.
- 9. Create a PHP page for login page without sql connection.
- 10. Write a PHP program to Write a file
- 11. Write a PHP program to calculate Date and Time function.
- 12. Write a PHP program to design CV

- https://www.w3schools.com
- https://www.udemy.com/course/php-mysql-tutorial/

Expected Course Outcomes (ECO): At the end of this course, learners will be able to:					
CO1	Have knowledge about the basics of PHP				
CO2	Able to Develop applications using PHP				
CO3	Managing files using PHP				
CO4	Managing cookies and sessions using PHP				
CO5	Connecting front end and back end interfaces.				

	Mapping Programme Outcomes with Course Outcomes						
	PO1	PO2 PO3 PO4 PO					
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Code	Course Title	Course Type	L	T	P	С
III	24UISAL03	Statistics for Business Decision Making	Allied	5	-	-	5

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To study the Measures of Central tendency of the data					
CLO - 2	To understand the measures of dispersion					
CLO - 3	To have a proper understanding of sampling distribution and non-parametric test.					
CLO - 4	To learn various parametric tests					
CLO - 5	To gain knowledge on correlation and regression					

UNIT	CONTENT
I	Introduction: Introduction - Classification and tabulation of statistical data - Diagrammatic and
1	graphical representation of data. Measures of Central tendency - Mean, Median and Mode.
11	Measures of Dispersion: Range, Quartile deviation, Mean Deviation, Standard Deviation -
II	Measures of Skewness, Karl Pearson"s and Bowley"s Method.
	Sampling distribution: Hypothesis Testing - One sample and two sample tests for means and
	proportion of large sample (Z test), One sample and two sample tests for means of small
III	samples (t - test). Non - Parametric Tests: Goodness of fit Rank sum test. Kolmogorov -
	Smirnov - test for, comparing two populations. Mann - Whitney U test and Kruskal Wallis test -
	One sample run test.
	Parametric test: F - test for two sample - Chi - square test for single sample standard deviation
IV	standard deviations - Chi - square tests for independence of attributes - Goodness of fit - Sign
	test for paired data
	Correlation and Regression: Correlation - Coefficient of Determination - Karl Pearson"s
\mathbf{V}	Coefficient of Correlation - Spearman"s Rank Correlation - Regression - Estimation of
V	Regression line - Regression Lines and Coefficients - Method of Least Squares - Standard
	Error of estimate.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	2	5	7	5	5	25
В	K2, K3, K4 & K5	-	7	7	5	10	50
	Total	2	12	14	10	-	75

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate
Theory & Problem Proportion: 15:85

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• P.R. Vital, Business Statistices & Operation Research Margham Publication, Chennai

Recommended Books:

- Richard I. Levin, David S. Rubin, Masood H.Siddiqui, Sanjay Rastogi, Statistics for Management,
- Prem. S. Mann, Introductory Statistics, Wiley Publications, 9th Edition, 2015.
- T N Srivastava and Shailaja Rego, Statistics for Management, Tata McGraw Hill, 3rd Edition 2017.
- P.R. Vital, Business Statistices & Operation Research Margham Publication, Chennai
- S. P. Rajagopalan & Sattanathan Business Statistics and Operation Research -. Vijay Nickole , Chennai.

- http://kamarajcollege.ac.in/Department/Commerce/II%20Year/002%20Core%206%20-%20Business%20Statistics%20-%20III%20Sem.pdf.
- https://ug.its.edu.in/sites/default/files/Business%20Statistics.pdf.
- https://www.ddegjust.ac.in/studymaterial/mcom/mc-106.pdf.

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Familiar with Measures of Central tendency of the data				
CO2	Understood the measures of dispersion				
CO3	Clear understanding of sampling distribution and non-parametric test.				
CO4	CO4 Learnt various parametric tests				
CO5	Enhanced knowledge on correlation and regression				

	Mapping Programme Outcomes with Course Outcomes						
	PO1	PO2 PO3 PO4 PO5					
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Title	Course Code	Course Type	L	T	P	C
IV	Modern Banking and Financial Services	24UISAM09	Major	4	-	ı	3

	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To get knowledge about Banking system and banker –customer relationship					
CLO - 2	To learn the features of negotiable instruments and ancillary services					
CLO - 3	To get an idea about technology in banking					
CLO - 4	To study the functions of capital and Forex market					
CLO - 5	To understand the various financial services offered					

UNIT	CONTENT
I	Overview Of Indian Banking System: Meaning Functions of commercial Banks— Classification - Functions of Central Bank - Banker and Customer Relationship - CRR - SLR - PLR - REPO - Reverse REPO. Deposit and Loans: Types of Deposits - Forms of lending -
II	Bank lending principles – Securities for lending Negotiable Instruments: Cheque - Crossing of Cheque - Types - Endorsement of Cheque - Demand draft VS Banker Cheque. Ancillary services: Letter of Credit - Bank Guarantee - Discounting of Bills.
III	Technology In Banking - Core Banking - NEFT - RTGS - SWIFT - IMPS - UPI - Interbank Payment System - Laser Wallet Technology, Cheque Truncation – Debit Vs Credit Cards - Mobile and Digital Banking - Fraud Prevention Measures.
IV	Financial Services: Bill Discounting - Forfeiting - Venture Capital - Leasing - Types - Factoring - Types. C redit Rating : Need for Credit Rating - Advantages and Limitations of Credit Rating - Factors Affecting Credit Rating - Credit Rating Agencies in India.
Unit - 5	Forex Market: Functions - Significance of Foreign Exchange - Different Type of Exchange Rates - Factors Influencing Exchange Rate - Methods of Controlling Exchange Rate. FERA Vs FEMA - FEDAI - Role of Forex Banks in Export and Import.

Question Paper Pattern & Instructions to the Question Paper Setter							
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

• Santhanam B, Financial Services, Margam Publications.

Recommended Books:

- N. C. Majumdar (Author) A Textbook on Fundamentals of Modern Banking, New Central Book Agency;
- Sundaram & Varshney Banking, law, theory and practice
- B.Santhanam Banking & Financial systems
- Gurusamy S, Essentials of Financial Services, Vijay Nicole Imprints, Chennai.
- Santhanam B, Financial Services, Margam Publications.
- Padmalatha Suresh & Justin Paul Management of Banking and Financial Services, Pearson India.

- http://www.untagsmd.ac.id/files/Perpustakaan_Digital_1/BANK%20AND%20BANKING%20
 Modern_Banking.pdf
- https://www.studocu.com/in/document/university-of-kerala/co-operation/banking-full-notes-this-study-material-is-to-improve-students-knowledge/31406604
- https://josephscollege.ac.in/lms/Uploads/pdf/syllabus/Syllabus_BFS.pdf

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Obtained knowledge about Banking system and banker –customer relationship.				
CO2	Learnt the features of negotiable instruments and ancillary services.				
CO3	Got an idea about technology in banking.				
CO4	Understood the functions of capital and Forex market.				
CO5	Understood the various financial services offered.				

	Mapping Programme Outcomes with Course Outcomes					
	PO1	PO2	PO3	PO4	PO5	
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
IV	24UISAM10	Cost and Management Accounting	Major	5	-	-	3

Course l	Course Learning Objectives (CLO): The purpose of learning this course is:					
CLO - 1	To understand the basics of cost and management accounting and preparation of cost sheet					
CLO - 2	To understand the methods of material and labour cost control					
CLO - 3	To get familiar with preparation of Cash Flow analysis					
CLO - 4	To learn the analysis of financial statement through ratios					
CLO - 5	To learn various types of budget and marginal costing					

UNIT	CONTENT
I	Introduction to Cost and Management Accounting: Meaning - Objectives and Scope of Cost and Management Accounting - Cost Vs Management Accounting - Cost Classification - Preparation Cost Sheet.
II	Material Cost: Procedure - EOQ - Fixation of Stock Levels - Stores Ledger - LIFO, FIFO-Inventory Management in Tally. Labour Cost: Time Rate System - Piece Rate Systems - Taylor - Merrick - Halsey - Gant Task Bonus Plan - Labour Turnover.
Ш	Financial Statement Analysis: Meaning of Financial Statement - Importance of Financial Statement Analysis - Techniques of Financial Statement Analysis (Only Theory) Cash Flow Statement - Meaning - Cash flow Vs Fund Flow Statement - Preparation of Cash Flow Statement
IV	Ratio Analysis: Meaning – Advantages & Limitations – Classification of Ratios – Profitability Ratios – Turnover Ratios – Liquidity Ratios - Long Term Solvency Ratio.
V	Budgeting & Budgetary Control: Budgets - Classification of Budgets - Advantages& Limitations of Budgetary Control - Preparation of Budgets: Sales - Production - Materials - Labour - Overheads - Cash Budget -Fixed & Flexible Budget. Marginal Costing: Definition of Marginal Costing - Features - Assumption - Break Even Analysis - PV Ratio Analysis - Margin of Safety.

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks
A	K1, K2 & K3	2	5	7	5	5	25
В	K2, K3, K4 & K5	2	5	7	5	10	50
	Total	4	10	14	10	-	75

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate

Theory & Problem Proportion: 30:70

SECTION A & B: Minimum 1 question is to be asked from each unit for Section A & B

Recommended Books

 T.S. Reddy and Y. Hari Prasad Reddy - Cost and Management Accounting, Margham Publication, Chennai

Recommended Books:

- P C Tulsian, Bharat Tulsian & Tushar Cost and Management Accounting, Sultan Chand & Sons, New Delhi
- T.S. Reddy and Y. Hari Prasad Reddy Cost and Management Accounting, Margham Publication, Chennai
- S.N.Maheshwari Cost & Management Accounting, Sultan Chand & Sons, New Delhi
- S.P Jain & Narang Cost and Management Accounting, Kalyani Publisher, Chennai
- M. N. Arora Cost and Management Accounting, Himalaya Publishing house, Mumbai.

- https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-10-January-2021.pdf
- https://www.icsi.edu/media/webmodules/publications/FULL_BOOK_PP-CMA-2017-JULY_4.pdf
- https://www.srinivasaacademy.com/downloads/235/42 Paper3CostandManagementAccountingModule1.pdf
- http://sdeuoc.ac.in/sites/default/files/sde_videos/core%20BBA.pdf

Course	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	CO1 Understood the basics of cost and management accounting and preparation of cost sheet				
CO2	Learnt the methods of material and labour cost control				
CO3	Familiar with preparation of Cash Flow analysis				
CO4	Understood the analysis of financial statement through ratios				
CO5	Learnt various types of budget and marginal costing				

Mapping Programme Outcomes with Course Outcomes					
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	S	M	S	S	M
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	M	S	S	M

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
IV	25UISAM11	ASP. NET PROGRAMMING (T+P)	Major	3	-	2	3

Course Learning Objectives (CLO): The purpose of learning this course is to:					
CLO - 1	To learn the basics of ASP.NET framework				
CLO - 2	To learn programming using ASP				
CLO - 3	To use Active Data objects				
CLO - 4	To use ASP.NET in binding Databases				
CLO - 5	To use Asp.Net Web services				

UNIT	CONTENT
I	Introduction: .NET Technologies: Features of .NET, .NET Framework, CLO, ASP.Net design View, HTML View, and Default Files used in ASP.NET. Concept of Master Pages, Intrinsic Objects of ASP.Net, Structure of ASP.NET Page, Cascading Style Sheet: Embedded, Inline, External.
II	Controls In ASP.NET: Overview of Dynamic Web Page, Understanding ASP.NET Controls, Applications, Web Servers, Installation of IIS. Web Forms, Web Form Controls - Server Controls, Client Controls. Web Form Controls, Validation Client - Side Validation, Server - Side Validation, Validation Controls
III	Overview of ADO.NET and XML: ADO.NET Architecture and Connectivity, Accessing Data Using Data Adapters and Datasets, Using Command & Data Reader, Binding Data to Data Bind Controls, Displaying Data in Data Grid, XML Basics, Attributes, Fundamental XML Classes, XML Validations, XML in ADO.NET, The XML Data Document, Data Binding and its Types.
IV	ASP.NET Applications: Creating, Tracking, Caching, Error Handling, Securing ASP.NET Applications - Form Based Applications, Window - Based Application.
V	Web Services: Introduction, State Management - View State, Session State, Application State, Building ASP.NET Web Services, Working With ASP.NET Applications, Creating Custom Controls, Invoking COM/COM+, Active X Components

	Question Paper Pattern & Instructions to the Question Paper Setter						
Section Knowledge level Theory Problems questions 1 1				Total Marks			
A	K1, K2 & K3	7	-	7	5	5	25
В	K2, K3, K4 & K5	7	-	7	5	10	50
	Total	14	-	14	10	-	75

Book for Reference:

• Denielle Otey, Michael Otey, ADO.NET: The Complete reference, McGraw Hill, 2008.

Recommended Books:

- ASP.NET Unleashed by Stephen Walther, SAMS publications
- ASP.NET, Wrox Publications

Lab Exercises

- 1. Create Simple application using web controls
- 2. Work with States of ASP.NET Pages & Ad rotator Control
- 3. Use of calendar control, Tree view control & Validation controls
- 4. Query textbox and Displaying records & Display records by using database
- 5. Data list link control & Data binding using dropdown list control
- 6. Inserting record into a database & Deleting record into a database
- 7. Data binding using data list control & Data list control templates
- 8. Data binding using data grid & Data grid control template
- 9. Data grid hyperlink & Data grid button column
- 10. Data list event & Data grid paging
- 11. Creating own table format using data grid

- https://www.w3schools.com/asp/webpages intro.asp
- https://www.c-sharpcorner.com/csharp-tutorials

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Have knowledge about the basics of ASP.NET framework			
CO2	Develop applications using ASP			
CO3	Apply Active Data objects using ASP.NET			
CO4	Learnt to bind data using Databases			
CO5	Able to apply web service using ASP.NET			

Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5							
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Major Type	L	T	P	C
IV	25UISAM12	Cloud Computing &Internet of Things	Major	4	-	-	4

Course Learning Objectives (CLO): The purpose of learning this course is to:				
	To learn the basics of Cloud Computing.			
CLO - 2	To study various cloud services			
CLO - 3	To understand about collaborating cloud services			
CLO - 4	To learn about Internet of Things and Business Intelligence			
CLO - 5	To learn about Application Development in IOT			

UNIT	CONTENT
I	Introduction: Cloud - definition, benefits, usage scenarios, History of Cloud Computing - Cloud Architecture Types of Clouds - Business models around Clouds - Major Players in Cloud Computing - issues in Clouds.
II	Cloud services: Types of Cloud services: Software as a Service - Platform as a Service - Infrastructure as a Service - Database as a Service - Monitoring as a Service - Communication as services. Service providers - Google, Amazon, Microsoft Azure, IBM, Sales force
III	Collaborating using cloud services: Email Communication over the Cloud - CRM Management - Project Management - Event Management - Task Management - Calendar - Schedules - Word Processing - Presentation Spreadsheet - Databases - Desktop - Social Networks and Groupware
IV	IOT Architecture: Open - source architecture (OIC) - OIC Architecture & Design principles - IOT Devices and deployment models.
V	IOT APPLICATIONS: IOT applications for industry: Future Factory Concepts, Brownfield IOT, Smart Objects, and Smart Applications. Study of existing IOT platforms /middleware, IOT - A, Hydra etc.

	Question Paper Pattern & Instructions to the Question Paper Setter								
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks		
A	K1, K2 & K3	7	-	7	5	5	25		
В	K2, K3, K4 & K5	7	-	7	5	10	50		
	Total	14	-	14	10	-	75		

Book for Reference:

 Arshdeep Bahhga and Vijay Madisetti, 2017. Cloud Computing Hands on Approach, 1st Edition, University Press.

Recommended Books:

- Anthony T Velte, Toby J Velte, Robert Elsenpeter, "Cloud Computing: A Practical Approach", Tata McGraw - Hill 2010
- Michael Miller, "Cloud Computing: Web Based Applications That Change the Way You Work and Collaborate Que Publishing", August 2008.
- John Rittinghouse & James Ransome, "Cloud Computing, Implementation, Management and Strategy", CRC Press, 2010.
- Dieter Uckelmann, Mark Harrison, Michahelles, Florian (Eds), "Architecting the Internet of Things", Springer, 2011.

- https://www.javatpoint.com/cloud-computing-tutorial
- https://www.simplilearn.com/tutorials/cloud-computing-tutoria

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Have knowledge about the basics of Cloud Computing.			
CO2	Understand about various cloud services			
CO3	Understand about cloud services and its collaborations.			
CO4	Have knowledge about Internet of Things and Business Intelligence			
CO5	Understand about Application Development in IOT			

Mapping Programme Outcomes with Course Outcomes									
	PO1 PO2 PO3 PO4 PO5								
CO1	S	S	S	S	S				
CO2	S	M	S	S	M				
CO3	S	S	S	S	S				
CO4	S	S	S	S	S				
CO5	S	M	S	S	M				

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
IV	24UISAL04	Quantitative Techniques and Aptitude	Allied	5	1	ı	5

Course L	Course Learning Objectives (CLO): The purpose of learning this course is to:					
CLO - 1	To equip the students in number ability					
CLO - 2	To enhance the ability of students in quantitative aptitude					
CLO - 3	To get familiar in logical reasoning					
CLO - 4	To improve the reasoning and general intelligences skills					
CLO - 5	To enrich the knowledge in accounting aptitude					

UNIT	CONTENT
I	Number Ability: Decimals - Fractions — Division Method - Simplification - Unit Place Concept - Odd/Even Concept - LCM& HCF - Surds - Average - Percentage - Sequence and Series - Problems on Numbers - Problems on Age.
II	Quantitative Ability (Applied & Engineering Mathematics): Logarithm - Permutation and Combinations - Probability - Simple and Compound Interest - Time, Speed and Distance - Time & Work - Ratio and Proportion - Area - Mixtures and Allegation
III	Logical Reasoning (Deductive Reasoning): Analogy - Blood Relation - Directional Sense - Number And Letter Series - Seating Arrangements - Coding - Decoding - Calendars - Clocks - Venn Diagrams - Seating Arrangement - Syllogism - Mathematical Operations
IV	Reasoning and General Intelligence: Cause and Effect – Statement and Assumptions – Statement and Conclusions
V	Accounting Aptitude: Profit, Loss and Discount - Simple Interest - Compound Interest - Installment - Partnership - True Discount and Banker's Discount - Stocks and Shares.

Question Paper Pattern & Instructions to the Question Paper Setter								
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks	
A	K1, K2 & K3	-	25	30	25	1	25	
В	K2, K3, K4 & K5	-	12	12	10	5	50	
	Total	-	37-	42	35	-	75	

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate SECTION A - Minimum 5 question is to be asked from each unit SECTION B: Minimum 2 question is to be asked from each unit

Book for Reference:

• Quantitative Aptitude for Competitive Examinations - R.S. Aggarwal

Recommended Books:

- The Pearson Guide To Quantitative Aptitude For Competitive Examination Dinesh Khattar
- Quantitative Aptitude Quantum CAT Sarvesh K. Verma
- Wiley"s Quantitative Aptitude Book P.A. Anand
- Teach Yourself Quantitative Aptitude Arun Sharma

- https://ambitiousbaba.com/quantitative-aptitude-topic-wise-pdf-download-here/
- https://unacademv.com/content/railway-exam/study-material/quantitative-aptitude/

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Equipped in number ability				
CO2	Enhanced ability of students in quantitative aptitude				
CO3	Well familiar in logical reasoning				
CO4	Improvement in reasoning and general intelligences skills				
CO5	Enriched knowledge in accounting aptitude				

Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5							
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
\mathbf{V}	25UISAM13	Business Taxation	Major	4	1	-	4

Course I	Learning Objectives (CLO): The purpose of learning this course is:
CLO - 1	To learn the fundamental aspects of taxation
CLO - 2	To understand the Implementation of GST system in India
CLO - 3	To know the procedure for registration
CLO - 4	To understand the GST assessment procedure
CLO - 5	To learn the assessment of custom duty

UNIT	CONTENT
I	Introduction: Tax Meaning and Definition of Tax – Features of Tax - Objectives of Taxation - Cannons of Taxation - Classification of Taxation - Direct And Indirect Taxation - Different Type of Taxes Levied By Central, State and Local Govt Defects of Indian Taxation System - Types of Assessment.
II	Introduction of GST In India; GST Models: Single GST& Dual GST; Types of GST- CGST - SGST /UTGST - IGST - Levy and Collection of GST - Registration Under GST - Exemption from GST, GST Tax Rate.
III	GST Assessment Procedure : Input Tax Credit (ITC), Eligibility and Conditions for Taking Input Tax Credit -E - Way Bill, - Types of GST Returns - Types of Assessment & Assessment Procedures
IV	Administration of GST: Role and Functions of GST Council, Tax Authorities and Their Powers – Refund of Tax.
V	Custom Duty: Meaning - Objectives - Types - Valuation of Goods under Custom Act - Assessment - Refund - Remission - Abatement - Clearance of Imported And Exported Goods. Excise Duty: Meaning - Types - Movement of goods - Methods of determining excise duty - Advance Ruling - Duty Drawback - Search, Seizure, Confiscation and Penalties.

Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks		
A	K1, K2 & K3	2	5	7	5	5	25		
В	K2, K3, K4 & K5	1	6	7	5	10	50		
	Total	3	11	14	10	-	75		

Book for Reference:

• T. S. Reddy & Hari Prasad Reddy – Business Taxation, Margham Publication **Recommended Books:**

- Sundar. K & Paari. K, Practical Auditing, Vijay Nicole Imprints Pvt. Ltd. Chennai
- Dr. H.C. Mehrotra & Prof. V.P. Agarwal Goods and Services Tax, Sahitya Bhawan Publications
- Shweta Jain GST Law & Practice, Taxman Publisher, New Delhi
- T. S. Reddy & Hari Prasad Reddy Business Taxation, Margham Publication
- Dr. Radha, Business Taxation, Prasanna Publication

- https://www.icai.org/post.html?post_id=16946
- https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-11-NEW-GST-Revised.pdf
- https://egvankosh.ac.in/handle/123456789/55483
- https://www.icai.org/post.html?post_id=5840

Course	Outcomes (COs): At the end of this course, learners will be able to:
CO1	Improved knowledge on taxation system
CO2	Aware of Implementation of GST system in India
CO3	Familiar with the procedure for registration
CO4	Enhanced knowledge on the GST assessment procedure
CO5	Learnt the assessment of custom duty

	Mapping Programme Outcomes with Course Outcomes							
	PO1	PO2	PO3	PO4	PO5			
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	T	P	C
V	24UISAM14	Programming Using Python (T+P)	Major	3	-	2	5

Course Learning Objectives (CLO): The purpose of learning this course is:				
CLO - 1	To learn the basics of Python Programming language			
CLO - 2	To study about logical operations in python			
CLO - 3	To learn about python Application Development			
CLO - 4	To perform Library operations using python			
CLO - 5	To implement error handling in python			

UNIT	CONTENT
I	Introduction to Python Language: Significance - IDLE, Dynamic Types, Naming Conventions, String Values, String Operations, String Slices, String Operators, Numeric Data Types,
	Conversions, Built in Functions
***	Data Collections and Language Component: Control Flow and Syntax, Indenting, condition
II	Statement, Relational Operators, Logical, Operators, True or False, Bit Wise Operators, the while Loop, break and continue, The for Loop.
	Object and Classes: Classes in Python, Principles of Object Orientation, Creating Classes,
III	Instance Methods, File Organization Special Methods, Class Variables, Inheritance,
	Polymorphism, Type Identification, Custom Exception Classes
IV	Functions and Modules: Defining Your Own Functions, Parameters, Function Documentation, Keyword and Optional Parameters, Passing Collections to a Function, Variable Number of
1 V	Arguments, Scope and Functions, Passing Functions to a Function.
	I/O and Error Handling in Python: Writing Data to a File, Reading Data from a File,
V	Additional File Methods, Using Pipes as Data Streams, Handling IO Exceptions, Working with
	Directories, Metadata Errors, Run Time Errors the Exception Model Exception Hierarchy,
	Handling Multiple Exceptions.

Question Paper Pattern & Instructions to the Question Paper Setter								
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks	
A	K1, K2 & K3	7	-	7	5	5	25	
В	K2, K3, K4 & K5	7	-	7	5	10	50	
	Total	14	-	14	10	-	75	

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate

Theory & Problem Proportion: 20:80

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• Python: The Complete Reference, Martin C. Brown McGraw Hill Education; Forth edition

Recommended Books:

- Dive into Python, Mike
- Learning Python, 4th Edition by MarkLutz. 4. Programming Python, 4th Edition by sushanz.

Lab Exercises

- 1. Demonstration of different number data types in python.
- 2. Performing different arithmetic operations on numbers in python.
- 3. Creating, concatenate and print a string and accessing sub- string from a given string.
- 4. Demonstrating different number data types in python.
- 5. Performing different arithmetic operations on numbers in python.
- 6. Creating, concatenate and print a string and accessing sub- string from a given string.
- 7. Script to print the current date.
- 8. Creating, append and remove lists in python.
- 9. Demonstrating working with tuples in python.
- 10. Demonstrating working with dictionaries in python.
- 11. Finding largest of three numbers.
- 12. Converting temperature to and from Celsius to Fahrenheit.

- https://www.tutorialspoint.com/python data science/index.html.
- https://realpython.com/tutorials/data-science.
- https://cognitiveclass.ai/learn/data-science-with-python.

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	CO1 Learnt the basics concepts Python Programming language				
CO2	Able to perform logical operations in python				
CO3	Learnt about Application Development using Python				
CO4	Capable Utilize Library operations in python				
CO5	Familiar in error management in python				

Mapping Programme Outcomes with Course Outcomes							
	PO1	PO2	PO3	PO4	PO5		
CO1	S	S	S	S	S		
CO2	S	M	S	S	M		
CO3	S	S	S	S	S		
CO4	S	S	S	S	S		
CO5	S	M	S	S	M		

Sem.	Course Code	Course Title	Course Type	L	T	P	C
V	25UISAM15	Direct Taxation	Major	5	-	-	4

Course Lo	Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To understand basics of income tax and ascertainment of residential status of person				
CLO - 2	To Compute the salary income				
CLO - 3	To assess the income from House property and Business and profession				
CLO - 4	To learn the provision for computation of income from capital gain and other source				
CLO - 5	To assess the taxable income of an individual				

UNIT	CONTENT
I	Direct Taxation: Meaning - Features – Types of Direct taxes – Advantages and Disadvantages. Income: Definition - Gross Total Income – Exempted Income – Agricultural Income - Person Residential Status - Scope of Total Income.
II	Computation of Income from Salary: Basis of Charge - Characteristics of Salary - Gross, Net Salary - Allowance - Provident Fund - Perquisites - Provident Fund - Gratuity - Commuted Pension - Encashment of Leave Salary - Profit in Lieu of Salary - Deduction from Salary.
III	Computation of Income from House Property: Basis of Charge - Determination of Annual Value - Income from Let - Out Property - Self Occupied Property - Deemed to Be Let Out Property - Deductions. Computation of Income from Business or Profession: Meaning of Business and Profession - Basis of Charge - Inadmissible Expenses and Revenues - Inadmissible Receipts and Payments.(Depreciation Excluded)
IV	Computation of Income from Capital Gain & Other Sources: Basis of Charge - Short- and Long-Term Capital Assets - Transfer not Considered as sale - Indexed Cost of Acquisition and Improvement - Exemptions. Computation of Income from Other Sources: Dividend and Interest Income - Casual Income - Grossing Up - Family Pension - Other Incomes.
V	Computation of Gross Total Income: Set off and Carry Forward - Deduction U/S 80 C, 80DD, 80U, 80G And 80 GG – Assessment of Individual.

	Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks			
A	K1, K2 & K3	2	5	7	5	5	25			
В	K2, K3, K4 & K5	2	5	7	5	10	50			
	Total	4	10	14	10	-	75			

K1: Remember; K2: Understand; K3: Apply; K4: Analysis; & K5: Evaluate Theory & Problem Proportion: 30:70

SECTION A & B: Minimum 1 question is to be asked from each unit

Book for Reference:

• Income tax law and Practice by Reddy & Reddy, Marghum publications

Recommended Books:

- Income tax law and Practice by Reddy & Reddy, Marghum publications.
- Income tax law and Practice by Bhagwati Prasad VishnuPrakash am publication.
- Income tax law and Practice Gaur & Narang, Kalyani publishers, Chennai.
- Income tax Law& Practice by Dinakar Pagare Sultan Chand & Sons.
- Vinod K. Singhania & Kapil Singhania Direct Taxes Law & Practice, Taxman publisher

- https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-7-Jan-2022.pdf
- https://kamarajcollege.ac.in/wp-content/uploads/Elective-Income-Tax-Law-Practice-I.pdf
- https://www.rccmindore.com/wp-content/uploads/2020/12/Income-Tax-Law-And-Practice1.pdf

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Learnt basics of income tax and ascertainment of residential status of person.			
CO2	Able to compute the salary income.			
CO3	Familiar with computation of income from House property and Business and profession.			
CO4	Learnt the provision for computation of income from capital gain and other source.			
CO5	Able to assess the taxable income of an individual.			

Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5							
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	T	P	C
V	24UISAE01	Data Warehousing & Data Mining	Elective	5	1	-	5

Course L	Course Learning Objectives (CLO): The purpose of learning this course is:				
CLO - 1	To learn the basics of Databases				
CLO - 2	To learn about Entity-Relationship Model.				
CLO - 3	To understand the concepts of Normalization				
CLO - 4	To operate oracle database Engine				
CLO - 5	To Manipulate Database using Queries.				

UNIT	CONTENT
I	Basic Concepts- Data Warehousing Components - Building a Data Warehouse - Database Architectures for Parallel Processing - Parallel DBMS Vendors - Multidimensional Data Model - Data Warehouse Schemas for Decision Support, Concept Hierarchies - Characteristics of OLAP Systems - Typical OLAP Operations, OLAP and OLTP.
II	Introduction To Data Mining Systems - Knowledge Discovery Process - Data Mining Techniques - Issues - Applications- Data Objects and Attribute Types, Statistical Description of Data, Data Preprocessing - Cleaning, Integration, Reduction, Transformation and Discretization, Data Visualization, Data Similarity and Dissimilarity Measures.
III	Mining Patterns: Mining Frequent Patterns, Associations and Correlations - Mining Methods - Pattern Evaluation Method - Pattern Mining in Multilevel, Multi - Dimensional - Space - Constraint Based Frequent Pattern Mining, Classification using Frequent Patterns
IV	Decision Trees : Induction – Bayesian Classification - Rule Based Classification - Classification by Back Propagation - Support Vector Machines - Lazy Learners - Model Evaluation and Selection - Techniques to Improve Classification Accuracy.
V	Clustering Techniques: Cluster Analysis - Partitioning Methods - Hierarchical Methods - Density Based Methods - Grid Based Methods - Evaluation of Clustering - Clustering High Dimensional Data - Clustering With Constraints, Outlier Analysis - Outlier Detection Methods.

Question Paper Pattern & Instructions to the Question Paper Setter																
Section Knowledge level Theory Problems Total questions to be answered Question Marks Total questions to be answered Question Marks																
A	K1, K2 & K3	7	-	7	5	5	25									
В	K2, K3, K4 & K5	7	-	7	5	10	50									
	Total	14	-	14	10	-	75									
	IZ1. D 1/2	2. II 14	1. T/2. A	1 TZ 4 . A 1-	0 IZE. D	14-	V1. Domombon, V2. Undomatond, V2. Apply, V4. Applymin, P. V5. Evolveto									

Book for Reference:

 Pang-Ning Tan, Michael Steinbach, Vipin Kumar 2020, Introduction to data mining, Pearson Education

Recommended Books:

- Jiawei Han and Micheline Kamber, —Data Mining Concepts and Techniques, Third Edition, Elsevier, 2012.
- Alex Berson and Stephen J.Smith, —Data Warehousing, Data Mining & OLAPI, Tata McGraw Hill Edition, 35th Reprint 2016.
- K.P. Soman, Shyam Diwakar and V. Ajay, —Insight into Data Mining Theory and Practicel, Eastern Economy Edition, Prentice Hall of India, 2006.
- Ian H.Witten and Eibe Frank, —Data Mining: Practical Machine Learning Tools and Techniques, Elsevier, Second Edition.

- https://docs.microsoft.com/en-us/analysis-services/data-mining/data-mining-ssas
- https://www.intechopen.com/online-first/78106
- https://www.slideshare.net/GRajendra/r-programming-lab-manual

Course	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Obtained knowledge about basics of Databases				
CO2	Model databases using Entity-Relationship Model.				
CO3	CO3 Understood conceptsof Normalization in designing Databases				
CO4	CO4 Able to manage database using SQL queries				
CO5	Learnt to join multiple tables using SQL queries.				

Mapping Programme Outcomes with Course Outcomes									
	PO1 PO2 PO3 PO4 PO5								
CO1	S	S	S	S	S				
CO2	S	M	S	S	M				
CO3	S	S	S	S	S				
CO4	S	S	S	S	S				
CO5	S	M	S	S	M				

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
V	24UISAE02	Block chain Technology	Elective	5	1	-	5

Course Lea	Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To understand the basics of Block chain Management				
CLO - 2	To Learn about Bit coin and crypto currency				
CLO - 3	To understand the needs of Smart Technology				
CLO - 4	To understand the uses and security of Block chain.				
CLO - 5	To understand applications of Block chain Technology				

UNIT	CONTENT
I	Introduction to Block chain: Origin of Block chain – Block chain solution – Components of Block chain –Block in a Block chain – Technology and CO3 Future – Block chain Types and Consensus Mechanism: Decentralization and Distribution – Types of Block chain – Consensus Protocol – Crypto currency.
II	Crypto Currency: Bitcoin, Altcoin and Token: Bitcoin and the Crypto currency – Crypto currency Basics – Types of Crypto currencies – Crypto currency usage – Public Blockchain System: Public Blockchain – The Bitcoin Blockchain – Ethereum Blockchain
III	Smart Contracts: Smart Contract – Characteristics of Smart Contract – Types of Smart Contracts – Types of Oracles – Smart Contracts in Ethereum – Private Blockchain System: Key characteristics – Private Blockchain and Open Source – State Machine – PAXOS, RAFT, Byzantine Fault – Multi chain
IV	Initial Coin Offering: Block chain Fundraising Methods – Launching an ICO – Investing in an ICO – Pros and Cons of ICO – Evolution of ICO – ICO platforms – Security in Block chain: Security Aspects – Security and Privacy challenges – Performance and Scalability – Identity Management and Authentication.
V	Applications of Block chain: Block chain in Banking and Finance – Block chain in Education – Block chain in Energy – Block chain in Healthcare – Blockchain in Real-estate – Blockchain and IOT – Limitations and Challenges of Blockchain

	Question Paper Pattern & Instructions to the Question Paper Setter								
Section Knowledge level Theory Problems Total questions Questions Marks per questions Question					Total Marks				
A	K1, K2 & K3	7	-	7	5	5	25		
В	K2, K3, K4 & K5	7	-	7	5	10	50		
	Total	14	-	14	10	-	75		

Book for Reference:

• Don Tapscott, Alex Tapscott, "Blockchain Revolution" Paperback, 1st Edition, 2018

Recommended Books::

- Chandramouli Subramanian, Asha A George, Abhilash K A and Meena Karthikeyan, "Blockchain Technology", Universities Press, 2020
- Kumar Saurabh, Ashutosh Saxena "Blockchain Technology Concepts and Applications", Wiley, 2020

- https://www.javatpoint.com/blockchain-tutorial
- https://www.tutorialspoint.com/blockchain/index.htm

Expected Course Outcomes (ECO): At the end of this course, learners will be able to:					
CO1	Understood the basics of Block chain Management				
CO2	Have knowledge about Bit coin and crypto currency				
CO3	Have knowledge about the needs of Smart Technology				
CO4	CO4 Have knowledge about the uses and security of Block chain.				
CO5	Understood the applications of Block chain Technology				

Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5							
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem	Course Code	Course Title	Course Type	L	T	P	С
VI	25UISAM16	Business Research Methods	Major	5		-	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To learn the fundamental aspects of research				
CLO - 2	CLO - 2 To understand the components of research design				
CLO - 3	To learn the methods of data collection				
CLO - 4	To provide an idea of analyzing the data				
CLO - 5	To enable them to prepare a mini project				

UNIT	CONTENT
I	Business Research : Definition and Significance - Purpose of Research Types of Research - Research process - Ethics in research - Subjectivity and Objectivity in research.
II	Research design: Types of research design - Variables in Research - Measurement and scaling - Different scales - Statement of Problem - Research objectives - Research hypotheses
III	Data Collection: Types of data - Methods of primary data collection - Construction of questionnaire and – Sampling plan - Determinants optimal sample size – sampling techniques - Sampling methods.
IV	Data analysis:- Editing - Coding - Data entry - Validity of data - Qualitative Vs Quantitative data analyses - Parametric and Non - Parametric test - Applications of Bivariate and Multivariate statistical techniques, - Factor analysis - Discriminate analysis - Cluster analysis - Multiple regression and Correlation - Application of statistical software for data analysis. (Application in SPSS)
V	Preparation of Research report : Definition - Types - Contents of report - Need for executive summary - Chapterization - Contents of chapter - Report writing.

	Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks			
A	K1, K2 & K3	7	-	7	5	5	25			
В	K2, K3, K4 & K5	7	-	7	5	10	50			
	Total	14	-	14	10	-	75			

Book for Reference:

• C. R. Kothari & Gaurav Garg - Research Methodology - , New Age International Publisher

Recommended Books:

- C. R. Kothari & Gauray Garg Research Methodology , New Age International Publisher
- Ranjith Singh Research Methodology, RT Publication, Chandigarh
- S R Gotari Research Methodology Methods and Techniques, New Age International Publishers
- Ranjit Kumar Research Methodology, Pearson India
- R. Paneerselvam, Research Methodology, Prentice Hall India Learning Private Limited

- https://www.caluniv.ac.in/academic/Commerce/Study/S-IV-BRM.pdf
- $\bullet \quad \underline{https://www.sscasc.in/wp-content/uploads/downloads/MCOM/Business-Research-\underline{Methods.pdf} \\$
- https://www.iare.ac.in/sites/default/files/lecture notes/IARE BRM Lecture Notes.pdf
- https://old.amu.ac.in/emp/studym/99999204.pdf
- https://kamarajcollege.ac.in/wp-content/uploads/Core-Research-Methodology.pdf

Course	Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Learnt the fundamental aspects of research.				
CO2	Understood the components of research design.				
CO3	Familiar with the methods of data collection.				
CO4	Able to analyze the data.				
CO5	Able to prepare a mini project.				

Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5							
CO1	S	S	S	S	S			
CO2	S	M	S	S	M			
CO3	S	S	S	S	S			
CO4	S	S	S	S	S			
CO5	S	M	S	S	M			

Sem.	Course Code	Course Title	Course Type	L	Т	P	С
VI	25UISAM17	Big Data Analytics using R	Major	5	-	-	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To learn the basics of Data Analytics.				
CLO - 2	To understand the structures of Hadoop.				
CLO - 3	To learn about job& Task allocation using map Reduction Techniques.				
CLO - 4	To understand Hadoop Eco –System.				
CLO - 5	To perform Data-Analytics operations using R.				

UNIT	CONTENT
I	Introduction to Data : Types of Digital Data, Introduction to Big Data, Big Data Analytics, History of Hadoop, Apache Hadoop, Analyzing Data with Unix tools, Analyzing Data with Hadoop, Hadoop Streaming, Hadoop Echo System, IBM Big Data Strategy, Introduction to Info sphere Big Insights and Big Sheets.
II	Introduction to HDFS: HDFS (Hadoop Distributed File System) The Design of HDFS, HDFS Concepts, Command Line Interface, Hadoop file system interfaces, Data flow, Data Ingest with Flume and Scoop and Hadoop archives, Hadoop I/O: Compression, Serialization, Avro and File - Based Data structures.
III	Jobs & Tasks: Map Reduce Anatomy of a Map Reduce Job Run, Failures, Job Scheduling, Shuffle and Sort, Task Execution, Map Reduce Types and Formats, Map Reduce Features.
IV	Hadoop Eco System Pig: Hadoop Eco System Pig: Introduction to PIG, Execution Modes of Pig, Comparison of Pig with Databases, Grunt, Pig Latin, User Defined Functions, Data Processing operators.
V	Data Analytics with R Machine Learning: Introduction, Supervised Learning, Unsupervised Learning, Collaborative Filtering. Big Data Analytics with BigR.

	Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks			
A	K1, K2 & K3	7	-	7	5	5	25			
В	K2, K3, K4 & K5	7	-	7	5	10	50			
	Total	14	-	14	10	-	75			

Book for Reference:

• Seema Acharya, Subhasini Chellappan," Big Data Analytics", John Willey & Sons Inc, 2015

Recommended Books:

- Tom White "Hadoop: The Definitive Guide" Third Edit on, O"reily Media, 2012.
- SeemaAcharya, SubhasiniChellappan, "Big Data Analytics" Wiley 2015. References.
- Michael Berthold, David J. Hand, "Intelligent Data Analysis", Springer, 2007.
- Jay Liebowitz, "Big Data and Business Analytics" Auerbach Publications, CRC press (2013)
- Tom Plunkett, Mark Hornick, "Using R to Unlock the Value of Big Data: Big Data Analytics with Oracle R Enterprise and Oracle R Connector for Hadoop", McGraw Hill/Osborne Media (2013), Oracle press.

- https://www.tutorialspoint.com/big_data_tutorials.htm
- https://www.javatpoint.com

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Have knowledge about basics of Data Analytics.			
CO2	Have knowledge about structures of Hadoop.			
CO3	CO3 Utilize Map reduction Techniques for Job & Task allocation			
CO4	Have knowledge about Hadoop Eco –System.			
CO5	Implement Data-Analytics operations using R.			

Mapping Programme Outcomes with Course Outcomes										
	PO1 PO2 PO3 PO4 PO5									
CO1	S	S	S	S	S					
CO2	S	M	S	S	M					
CO3	S	S	S	S	S					
CO4	S	S	S	S	S					
CO5	S	M	S	S	M					

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
VI	23UISAM18	ERP Systems	Major	3	-	2	4

Course L	Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To learn the basic aspects of ERP				
CLO - 2	To understand the Basic Architectural Concepts				
CLO - 3	To know the Company, group, ledger and voucher creation				
CLO - 4	To understand the purchase and sales order processing and payroll				
CLO - 5	To learn creation of GST Masters in Tally				

UNIT	CONTENT
I	Introduction to ERP: Concept - Benefits of ERP - Business Engineering and ERP — Principle of Business Engineering — Business Engineering with Information Technology. ERP Implementation: — Overview — ERP Implementation Technology — Guidelines for ERP Implementation.
II	ERP and the Competitive Advantages: ERP domain MPGPRO – IFS/Avalon – Industrial and Financial Systems – Baan IV SAP- Market Dynamics and Dynamic Strategy. Commercial ERP Package: Description – Multi-Client Server Solution – Open Technology – User Interface-Application Integration.
Ш	Introduction to Tally ERP9: Creating a Company – Creating Ledgers Creating Groups Bill wise Debtors and Creditors Ledgers - Vouchers: Payment Voucher - Receipt Voucher - Contra Voucher – Journal – Voucher. Inventory: Integrating Accounts and Inventory - Stock Group - Godown and Locations - Stock Category - Units of Measure - Stock Items
IV	Order Processing: Purchase Order Process - Receipt Note (Inventory) - Rejection-Out Voucher, Rejection-In Voucher - Debit and Credit Notes - Bank Reconciliation - TDS. Payroll Accounting: Understanding Payroll - Pay Heads and Categories - Employee Details and Salary Details - Salary Payment - Pay sheet and Pay Slips
V	GST application in Tally: Activating Tally in GST - Setting Up GST - GST Taxes & Invoices - SGST, CGST & IGST - Creating GST Masters in Tally.

Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks		
A	K1, K2 & K3	7	-	7	5	5	25		
В	K2, K3, K4 & K5	7	-	7	5	10	50		
	Total	14	-	14	10	-	75		

Book for Reference:

• Rizwan Ahmed, (2016), Tally ERP 9, Margham Publications, Chennai

Recommended Books:

- Rajesh J.Ray(2010), "Enterprise Resource Planning: Text & Cases: 1st Edition" MC Graw Hill Publisher.
- Nadhani A K, (2016), Implementing Tally, BPB Publications.
- Rizwan Ahmed, (2016), Tally ERP 9, Margham Publications, Chennai
- Nandhani, (2015), Computerized Accounting under Tally, Implementing Tally, BPB publication.
- Namrata Agrawal, (2008), Tally 9", Dreamtech Publishers.
- Tally Software Package Manual.

Lab Practical:

- 1. Ledger creation sums
- 2. Voucher entry sums posting
- 3. Adjustment sums BRS
- 4. Inventory sums
- 5. Accounts with Inventory sums
- 6. GST sums
- 7. Bank Reconciliation sums
- 8. Payroll
- 9. TCS & TDS
- 10. Purchase and Sales order processing

- https://ncsmindia.com/wp-content/uploads/2012/04/TALLY-9.0-PDF.pdf
- http://www.unishivaji.ac.in/uploads/distedu/sim1/B.%20Com.%20III%20Adv.%20Acc.%20Se m.%20VI%20P.%20IV%20Unit-4.pdf
- https://www.rccmindore.com/wp-content/uploads/2021/01/GST Hons III 2021.pdf

Course Outcomes (COs): At the end of this course, learners will be able to:					
CO1	Familiar with ERP				
CO2	Through Knowledge on Architectural Concepts				
CO3	Complete knowledge on Company, group, ledger, and voucher creation				
CO4					
CO5	Able to creates GST Masters in Tally				

	Mapping Programme Outcomes with Course Outcomes								
	PO1 PO2 PO3 PO4 PO5								
CO1	S	S	S	S	S				
CO2	S	M	S	S	M				
CO3	S	S	S	S	S				
CO4	S	S	S	S	S				
CO5	S	M	S	S	M				

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
VI	25UISAM19	Management Information Systems	Major	5	1	1	5

Course Learning Objectives (CLO): The purpose of learning this course is to:				
CLO - 1	To learn the basics of Data.			
CLO - 2	To understand the Analysis and Design.			
CLO - 3	To learn about Database Management Systems.			
CLO - 4	To understand various Technologies.			
CLO - 5	To perform new IT Initiatives.			

UNIT	CONTENT
I	Introduction to Management Information System: Concept, Need, Strategic Role – Evolution of Management Information System – Components of Management Information System - Information Flow.
II	Transaction Processing and Support System: Transaction Processing System - Office Automation Systems - Decision Support Systems - Executive Information Systems - Artificial Intelligence and Expert Systems
III	System Analysis and Design: System development methodologies, Systems Analysis and Design, Data flow Diagram (DFD), Decision table, Entity Relationship – System Development life cycle – Role of system analyst.
IV	Integrated Systems, Security and Control: Knowledge based decision support systems, integrating social media and mobile technologies in Information system, Security, IS Vulnerability, Disaster Management, Computer Crimes, Securing the Web.
V	Functional Information Systems : Production, Finance, Human Resource And Marketing - Managing Information Resources – Business Process outsourcing - Concept Functions

Question Paper Pattern & Instructions to the Question Paper Setter									
Section	Knowledge level	Theory	Problems	Total questions	Questions to be answered	Marks per Question	Total Marks		
A	K1, K2 & K3	7	-	7	5	5	25		
В	K2, K3, K4 & K5	7	-	7	5	10	50		
	Total	14	-	14	10	-	75		

Book for Reference:

• Robert Schultheis and Mary Sumner, Management Information Systems – The Manager" s View, Tata McGraw Hill, 2008.

Recommended Books:

- Kenneth C. Laudon and Jane P Laudon, Management Information Systems Managing the Digital Firm, 15 th edition, 2018.
- Panneerselvam. R, Database Management Systems, 3rd Edition, PHI Learning, 2018.

Learning Resources:

• https://www.tutorialspoint.com/mis.html

Course Outcomes (COs): At the end of this course, learners will be able to:				
CO1	Learn the basics of data and information system.			
CO2	Understand the system development methodologies.			
CO2	Understand database management system and its types.			
CO4	Learn the various technologies in information system and its security.			
CO5	Gains knowledge on effective applications of information systems in business.			

Mapping Programme Outcomes with Course Outcomes									
	PO1 PO2 PO3 PO4 PO5								
CO1	S	S	S	S	S				
CO2	S	M	S	S	M				
CO3	S	S	S	S	S				
CO4	S	S	S	S	S				
CO5	S	M	S	S	M				

Sem.	Course Code	Course Title	Course Type	L	Т	P	C
VI	25UISAE03	Project & Viva Voce	Major	5	1	-	5

Course Learning Objectives (CLO): The purpose of learning this course is to:			
CLO - 1	To learn the ethics and fundamental aspects of research		
CLO - 2	To understand the research design		
CLO - 3	To learn the methods of data collection		
CLO - 4	To provide an idea of analyzing the data		
CLO - 5	To enable them to prepare a mini project		

Project Content				
Chapter - I	Introduction and Research Design			
Chapter - II	Review of Literature			
Chapter - III	Theoretical background of the study			
Chapter - IV	Data Analysis and Interpretation			
Chapter - V	Findings, Suggestions and Conclusion			

Project Evaluation Pattern:				
	Project Review – 1 - Chapter 1, 2 & 3	10		
Internal (A)	Project Review – 2 - Chapter 4& 5	10	25	
	Mock Viva Voce	5		
E (1(D)	External Evaluation of Project Report	50		
External (B)	External - Viva Voce	25	75	
Grand Total (A+B)			100	

Book for Reference:

- C. R. Kothari & Gaurav Garg Research Methodology , New Age International Publisher **Recommended Books:**
 - S R Gotari Research Methodology Methods and Techniques, New Age International Publishers
 - R. Paneerselvam, Research Methodology, Prentice Hall India Learning Private Limited.

- https://www.researchgate.net/publication/26588243 Analysing the References of Final Year Project Reports
- https://www.tifr.res.in/~cccf/data/InternDocs/How to write a structured Project Report.pdf

Expected Course Outcomes (ECO): At the end of this course, learners will be able to:			
CO1	Learnt the fundamental aspects of research		
CO2	Understood the components of research design		
CO3	Familiar with the methods of data collection		
CO4	Able to analyze the data		
CO5	Able to prepare a research project		

Mapping Programme Outcomes with Course Outcomes						
	PO1	PO2	PO3	PO4	PO5	
CO1	S	S	S	S	S	
CO2	S	M	S	S	M	
CO3	S	S	S	S	S	
CO4	S	S	S	S	S	
CO5	S	M	S	S	M	