

BHARATHIAR UNIVERSITY: COIMBATORE 641 046

B. Com (Computer Application) - (CBCS PATTERN)

(For the students admitted from the academic year **2025-2026** and onwards)

Scheme of Examination

Part	Title of the Course	Hours / Week	Examination				Credits
			Duration in Hours	Maximum Marks			
				CIA	CEE	Total	
	Semester I						
I	Language - I	6	3	25	75	100	4
II	English - I	6	3	25	75	100	4
III	Core Paper I - Financial Accounting I	6	3	25	75	100	4
III	Core Paper II – Computer Application Practical I (MS Office)	6	3	25	75	100	4
III	Allied A: Paper I - Business Economics	4	3	25	75	100	4
IV	Environmental Studies*	2	3	-	50	50	2
	Total	30		125	425	550	22
	Semester II						
I	Language – II	6	3	25	75	100	4
II	English – II	4	3	25	25	50@	2
II	Effective English: Language Proficiency for Employability http://kb.naanmudhalvan.in/Special:Filepath/Cambridge_Course_Details.pdf	2		25	25	50#	2
III	Core Paper III - Financial Accounting II	6	3	25	75	100	4
III	Core Paper IV – Database Management System (Practical - II)	6	3	25	75	100	4
III	Allied B: Paper II – Principles of Management	4	3	25	75	100	4
IV	Value Education – Human Rights*	2	3	-	50	50	2
	Total	30		150	400	550	22
	Semester III						
I	Language – III	6	3	25	75	100	4
II	English – III	4	3	25	75	100	4
III	Core Paper V - Corporate Accounting	6	3	25	75	100	4
III	Core Paper VI - Object Oriented Programme with C++ (Theory)	4	3	25	75	100	4
III	Allied C: Paper I – Mathematics for Business	4	3	20	55	75	3
IV	Skill based Subject: Computer Applications: C++ Practical –III	4	3	25	25	50@	2
IV	Tamil** / Advanced Tamil* (OR) Non-major elective – I (Yoga for Human Excellence)* / Women’s Rights*	1	2	-	25	25	1
IV	Health and Wellness	1		25	-	25	1
IV	Naan Mudhalvan Course: Microsoft office Essentials	2		25	25	50	2
	Total	32		195	430	625	25

	Semester IV						
I	Language – IV	6	3	25	75	100	4
II	English – IV	4	3	25	75	100	4
III	Core Paper VII - Cost Accounting	6	3	25	75	100	4
III	Core Paper VIII - Python Practical IV	5	3	25	75	100	4
III	Allied D: Paper II - Statistics for Business	4	3	20	55	75	3
IV	Skill based Subject 2: Executive Business Communication	3	3	25	25	50@	2
IV	Office Fundamentals: Digital Skills for Employability http://kb.naanmudhalvan.in/Special:Filepath/Microsoft_Course_Details.xlsx	2	-	25	25	50#	2
IV	Tamil**/Advanced Tamil* (OR) Non-major elective -II (General Awareness*)	2	3	-	50	50	2
	Total	32		170	455	625	25
	Semester V						
III	Core Paper IX - Management Accounting	6	3	25	75	100	4
III	Core Paper X – Direct Tax	6	3	25	75	100	4
III	Core Paper XI - Software with Visual Basic (Theory)	4	3	25	75	100	4
III	Core Paper XII– Computer Applications: GST with Tally Practical – V	4	3	25	75	100	4
III	Elective I -	5	3	25	75	100	4
IV	Skill based Subject – Business Law	3	3	25	25	50@	2
IV	Naan Mudhalvan Course: Banking, Lending and NBFC Products and Services- 1	2		25	25	50	2
	Total	30		175	425	600	24
	Semester VI						
III	Core Paper XIII - Principles of Auditing	5	3	25	75	100	4
III	Core Paper XIV - Digital Marketing	5	3	25	75	100	4
III	Core Paper XV - Web Design (Theory)	5	3	25	75	100	4
III	Elective II	4	3	25	75	100	3
III	Elective III	5	3	25	75	100	4
IV	Skill Based Subject - Computer Applications: Visual Basic & Web Designing Practical- VI	4	3	25	25	50	3
IV	Project Based Learning: Advanced Platform Technology / Data Analytics & Visualization http://kb.naanmudhalvan.in/Bharathiar University (BU)	2		25	25	50#	2
V	Extension Activities**	-	-	50	-	50	2
	Total	30		225	425	650	26
	Grand Total			1040	2560	3600	144

* No Continuous Internal Assessment (CIA). Only University Examinations.

** No University Examinations. Only Continuous Internal Assessment (CIA).

@ University semester examination will be conducted for 50 marks (As per the existing pattern of examination) and the marks will be converted to 25 marks.

Naan Mudhalvan Course: CEE will be assessed by Industry for 25 marks and CIA will be done by the course teacher

List of Elective Papers (Colleges can choose any one of the paper as electives)		
Elective – I	A	Introduction to ERP
	B	Financial Markets
	C	Business Finance
Elective – II	A	Computer Networks
	B	Brand Management
	C	Entrepreneurial Development
Elective – III	A	Indirect Taxes
	B	Supply Chain Management
	C	Project Work

FIRST YEAR – SEMESTER – I**Core I - Financial Accounting I**

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core I	6				4	6	25	75	100

Learning Objectives

LO1	To understand the basic accounting concepts and standards.
LO2	To know the basis for calculating business profits.
LO3	To familiarize with the accounting treatment of depreciation.
LO4	To learn the methods of calculating profit for single entry system.
LO5	To gain knowledge on the accounting treatment of insurance claims.

Prerequisites: Should have studied Accountancy in XII Std.

Unit	Contents	No. of Hours
I	Fundamentals of Financial Accounting Financial Accounting – Meaning, Definition, Objectives, Basic Accounting Concepts and Conventions - Journal, Ledger Accounts– Subsidiary Books — Trial Balance - Classification of Errors – Rectification of Errors – Preparation of Suspense Account – Need and Preparation - Bank Reconciliation Statement.	18
II	Final Accounts Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts – Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments.	18
III	Depreciation and Bills of Exchange Depreciation - Meaning – Objectives – Accounting Treatments - Types - Straight Line Method – Diminishing Balance method – Conversion method. Annuity Method – Depreciation Fund Method – Insurance Policy Method – Revaluation Method – Depletion Method – Sum of Digits Method – Machine Hour Rate Method. Bills of Exchange – Definition – Specimens – Discounting of Bills – Endorsement of Bill – Collection – Noting – Renewal – Retirement of Bill under rebate – Insolvency of Acceptor – Accommodation.	18
IV	Accounting from Incomplete Records Incomplete Records -Meaning and Features - Limitations - Difference between Incomplete Records and Double Entry System - Methods of Calculation of Profit - Statement of Affairs Method – Preparation of final statements by Conversion method. Average Due Date and Account Current.	18
V	Royalty and Insurance of Claims Meaning – Minimum Rent – Short Working – Recoupment of Short Working – Lessor and Lessee – Sublease – Accounting Treatment. Insurance Claims –Calculation of Claim amount-Average clause (Loss of Stock only)	18

	Total	90
THEORY 20% & PROBLEM 80%		
CO	Course Outcomes	
CO1	Remember the concept of rectification of errors and Bank reconciliation statements	
CO2	Apply the knowledge in preparing detailed accounts of sole trading concerns	
CO3	Analyse the various methods of providing depreciation	
CO4	Evaluate the methods of calculation of profit	
CO5	Determine the royalty accounting treatment and claims from insurance companies in case of loss of stock.	
Textbooks		
1.	S. P. Jain and K. L. Narang Financial Accounting- I, Kalyani Publishers, New Delhi.	
2.	S.N. Maheswari, Financial Accounting, Vikas Publications, Noida.	
3.	Shukla Grewal and Gupta, “Advanced Accounts”, volume 1, S.Chand and Sons, New Delhi.	
4.	Radhaswamy and R.L. Gupta: Advanced Accounting, Sultan Chand, New Delhi.	
5.	R.L.Gupta and V.K.Gupta, “Financial Accounting”, Sultan Chand, New Delhi.	
Reference Books		
1.	Dr.Arulanandan and Raman: Advanced Accountancy, Himalaya Publications, Mumbai.	
2.	Tulsian , Advanced Accounting, Tata McGraw Hills, Noida.	
3.	Charumathi and Vinayagam, Financial Accounting, S.Chand and Sons, New Delhi.	
4.	Goyal and Tiwari, Financial Accounting, Taxmann Publications, New Delhi.	
5.	Robert N Anthony, David Hawkins, Kenneth A. Merchant, Accounting: Text and Cases. McGraw-Hill Education, Noida.	
NOTE: Latest Edition of Textbooks May be Used		
Web Resources		
1.	https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1	
2.	https://www.slideshare.net/ramusakha/basics-of-financial-accounting	
3.	https://www.accountingtools.com/articles/what-is-a-single-entry-system.html	

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	3	2	3	2	2	3	2	2
CO2	3	2	3	3	3	2	2	2	3	2	2
CO3	3	2	3	3	3	2	2	2	3	2	2
CO4	3	2	3	3	2	2	2	2	3	2	2
CO5	3	2	3	3	3	2	2	2	3	2	2

TOTAL	15	10	15	15	13	11	10	10	15	10	10
AVERAGE	3	2	3	3	2.6	2.2	2	2	3	2	2

3 - Strong, 2 - Medium, 1- Low

FIRST YEAR – SEMESTER – I
Core Paper II - Computer Applications Practical -I
MS-OFFICE

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core			6		4	6	25	75	100

Pre-requisite		Basic Knowledge about Computer	Syllabus Version	2025-26
Course Objectives:				
The main objectives of this course is to learn basics of office applications				
Expected Course Outcomes:				
On the successful completion of the course, student will be able to:				
CO1	Create, format, and collaborate on documents			K2
CO2	Use MS Excel for data manipulation and analysis			K4
CO3	Create and deliver effective presentations			K3
CO4	Understanding basics of coding and apply the same in more complex programming in other languages			K4
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5-Evaluate; K6-Create				
	MS – Word			15 Hours
List of Programs:				
1. Write a short paragraph on a topic of your choice and do the following operations: <ul style="list-style-type: none">● Apply the "Heading 1" style to the main title of your document.● Use "Heading 2" for subheadings.● Justify the paragraph● Insert a citation for a book or article referred in the paragraph.● Create a bibliography at the end of the document.● Share the document with a classmate or instructor for collaboration.● Use the "Comments" and "Track Changes" features to review and edit each other's work.				
2. Create a survey form using text boxes, checkboxes, and dropdown menus. <ul style="list-style-type: none">● Protect the form so that it can only be filled out and not edited.● Collect the data for the form created				
3. Create a letter template with placeholders for the recipient's name and address.				

- Use the Mail Merge feature to create letters for a list of recipients.
4. Record a macro that formats a paragraph with a specific font, size, and colour.
Run the macro on a paragraph to test if it works correctly.

MS Excel

15 Hours

5. Enter the following data into a new Excel sheet:

Student Name	Math	Science	English	History
John Doe	85	90	78	82
Jane Smith	92	88	84	91
Sam Brown	75	80	70	68
Lisa White	88	92	89	85

- Add a new column labelled "Average" next to "History."
 - Calculate the average score for each student using the AVERAGE function.
 - Create a bar chart to display the average scores of students
 - Use a color scale to show the variation in average scores.
 - Create a PivotTable to summarize the average score for each subject.
6. Add a new sheet with a list of subjects and their respective credits:

Subject	Credits
Math	4
Science	3
English	3
History	2

- Use VLOOKUP to add a "Credits" column to the original data sheet, matching subjects to their corresponding credits.
7. Create a budget tracker with columns for "Income," "Expenses," "Category," and "Balance."
- Share the workbook with a classmate or instructor for collaboration.
 - Use the "Comments" feature to leave notes for each other.
 - Track changes made by others and review those changes.

Use the Solver add-in to optimize a budget, ensuring that expenses do not exceed income while maximizing savings.

MS – PowerPoint

15 Hours

8. Create an infographic presentation that represents your academic achievements and skills using shapes, icons, and text.
- Convert the bullet points into a SmartArt graphic of your choice.
 - Insert a video that is related to your future goals.
 - Add background music to play throughout the presentation.
 - Upload the presentation to a cloud storage service and share the link with a classmate.
9. Create a new PowerPoint presentation for a photo album.
- Insert at least ten photos and apply the "Photo Album" feature.
 - Add captions to each photo.
 - Use the "Record Slide Show" feature to record your presentation, including voice narration and slide timings.

<ul style="list-style-type: none">● Save the recorded slide show as a video file. <p>10. Create a presentation for a topic of Your choice using Text, Images, SmartArt.</p> <ul style="list-style-type: none">● Use Designer feature to add themes, Infographics and transitions● Open the Slide Master view & modify the slide master to include a custom header with your name and the date on every slide.● Add a footer with the slide number on every slide.● Add a hyperlink to a website related to your topic.● Insert an action button that links back to the first slide.● Use the "Rehearse Timings" feature to practice your presentation and set the timings for each slide.● Set up your presentation to use Presenter View. <p>Present while using Presenter View to take advantage of the speaker notes and slide previews.</p>		
	MS – Access	15 Hours
<p>11. Prepare a payroll for employee database of an organization with the following Details: Employee id, Employee name, Date of Birth, Department and Designation, Date of appointment, Basic pay, Dearness Allowance, House Rent Allowance and other deductions if any. Perform queries for different categories.</p> <p>12. Create mailing labels for student database which should include at least three Table must have atleast two fields with the following details: Roll Number, Name, Course, Year, College Name, University, Address, Phone Number.</p> <p>13. Gather price, quantity and other descriptions for five products and enter in the Access table and create an invoice in form design view.</p>		
	Total Lecture hours	60 Hours
Text Book(s)		
1.	E Balagurusamy. Computing Fundamentals & C Programming – Tata McGraw-Hill, Second Reprint 2008	
Reference Books		
1.	Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson, 2002.	
2.	Henry Mullish & Hubert L.Cooper: The Sprit of C, Jaico, 1996.	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1.	Microsoft 365 Fundamentals Specialization – Course ERA https://www.coursera.org/specializations/microsoft-365-fundamentals	
	C Programming and Assembly Language - NPTEL https://nptel.ac.in/courses/106106210	
3.	https://edu.gcfglobal.org/en/subjects/office/	
4.	https://www.geeksforgeeks.org/c-exercises	
5.	https://codeforwin.org/c-programming/if-else-programming-practice	

FIRST YEAR – SEMESTER - I
Allied A: Paper I - Business Economics

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Allied A	4				4	4	25	75	100

Learning Objectives

LO1	To understand the approaches to economic analysis
LO2	To know the various determinants of demand
LO3	To gain knowledge on concept and features of consumer behaviour
LO4	To learn the laws of variable proportions
LO5	To enable the students to understand the objectives and importance of pricing policy

Prerequisites: Should have studied Commerce in XII Std..

Unit	Contents	No. of Hours
I	Introduction to Economics Introduction to Economics – Wealth, Welfare and Scarcity Views on Economics – Positive and Normative Economics - Definition – Scope and Importance of Business Economics - Concepts: Production Possibility frontiers – Opportunity Cost – Accounting Profit and Economic Profit – Incremental and Marginal Concepts – Time and Discounting Principles – Concept of Efficiency- Business Cycle:- Inflation, Depression, Recession, Recovery, Reflation and Deflation.	15
II	Demand & Supply Functions Meaning of Demand - Demand Analysis: Demand Determinants, Law of Demand and its Exceptions. Elasticity of Demand: Definition, Types, Measurement and Significance. Demand Forecasting - Factors Governing Demand Forecasting - Methods of Demand Forecasting, Law of Supply and Determinants.	15
III	Consumer Behaviour Consumer Behaviour – Meaning, Concepts and Features – Law of Diminishing Marginal Utility – Equi-Marginal Utility – Indifference Curve: Meaning, Definition, Assumptions, Significance and Properties – Consumer's Equilibrium. Price, Income and Substitution Effects. Types of Goods: Normal, Inferior and Giffen Goods - Derivation of Individual Demand Curve and Market Demand Curve with the help of Indifference Curve.	15

IV	Theory of Production Concept of Production - Production Functions: Linear and Non – Linear Homogeneous Production Functions - Law of Variable Proportion – Laws of Returns to Scale - Difference between Laws of variable proportion and returns to scale – Economies of Scale – Internal and External Economies – Internal and External Diseconomies - Producer’s equilibrium	15
V	Product Pricing Price and Output Determination under Perfect Competition, Short Period and Long Period Price Determination, Objectives of Pricing Policy, Its importance, Pricing Methods and Objectives – Price Determination under Monopoly, kinds of Monopoly, Price Discrimination, Determination of Price in Monopoly –Monopolistic Competition – Price Discrimination, Equilibrium of Firm in Monopolistic Competition–Oligopoly – Meaning – features, “Kinked Demand” Curve	15
	TOTAL	75
CO	Course Outcomes	
CO1	Explain the positive and negative approaches in economic analysis	
CO2	Understood the factors of demand forecasting	
CO3	Know the assumptions and significance of indifference curve	
CO4	Outline the internal and external economies of scale	
CO5	Relate and apply the various methods of pricing	
Textbooks		
1	H.L. Ahuja, Business Economics–Micro & Macro - Sultan Chand & Sons, New Delhi.	
2	C.M.Chaudhary, Business Economics-RBSA Publishers - Jaipur-03.	
3	Aryamala.T, Business Economics, Vijay Nocolle, Chennai.	
4	T.P Jain, Business Ecomnomics, Global Publication Pvt.Ltd, Chennai.	
5	D.M.Mithani, Business Economics, Himalaya Publishing House, Mumbai.	
Reference Books		
1	S.Shankaran, Business Economics-Margham Publications, Chennai.	
2	P.L.Mehta, Managerial Economics–Analysis, Problems & Cases, Sultan Chand & Sons, New Delhi.	
3	Peter Mitchelson and Andrew Mann, Economics for Business-Thomas Nelson Australia	
4	Ram singh and Vinaykumar, Business Economics, Thakur publication Pvt.Ltd, Chennai.	
5	Saluram and Priyanks Tindal, Business Economics, CA Foundation Study material, Chennai.	
NOTE: Latest Edition of Textbooks May be Used		

Web Resources	
1	https://youtube.com/channel/UC69_-P77nf5-rKrjcpVEsqQ
2	https://www.icsi.edu/

	Hire Purchase System – Accounting Treatment – Calculation of Interest - Default and Repossession - Hire Purchase Trading Account Instalment System - Calculation of Profit	
II	Branch and Departmental Accounts Branch – Dependent Branches : Accounting Aspects - Debtors system - Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches (Foreign Branches excluded) - Departmental Accounts: Basis of Allocation of Expenses – Inter-Departmental Transfer at Cost or Selling Price.	18
III	Partnership Accounts - I Partnership Accounts: –Admission of a Partner – Treatment of Goodwill - Calculation of Hidden Goodwill –Retirement of a Partner – Death of a Partner.	18
IV	Partnership Accounts - II Dissolution of Partnership - Methods – Settlement of Accounts Regarding Losses and Assets – Realization account – Treatment of Goodwill – Preparation of Balance Sheet - Insolvency of a Partner – One or more Partners insolvent – All Partners insolvent - Garner Vs Murray – Accounting Treatment - Piecemeal Distribution – Surplus Capital Method – Maximum Loss Method.	18
V	Accounting Standards for financial reporting Objectives and Uses of Financial Statements for Users-Role of Accounting Standards - Development of Accounting Standards in India- Requirements of International Accounting Standards - Role of Developing IFRS- IFRS Adoption or Convergence in India- Implementation Plan in India- Ind AS- An Introduction - Difference between Ind AS and IFRS.	18
	TOTAL	90
THEORY 20% & PROBLEMS 80%		
CO	Course Outcomes	
CO1	To evaluate the Hire purchase accounts and Instalment systems	
CO2	To prepare Branch accounts and Departmental Account	
CO3	To understand the accounting treatment for admission and retirement in partnership	
CO4	To know Settlement of accounts at the time of dissolution of a firm.	
CO5	To elaborate the role of IFRS	
Textbooks		
1	Radhaswamy and R.L. Gupta: Advanced Accounting , Sultan Chand, New Delhi.	
2	M C ShuklaTS Grewal&S C Gupta, Advance Accounts, S Chand Publishing, New Delhi.	
3	R.L.Gupta and V.K.Gupta, “Financial Accounting”, Sultan Chand, New Delhi.	
4	S P Jain and K. L. Narang: Financial Accounting- I, Kalyani Publishers, New Delhi.	
5	T.S.Reddy& A. Murthy, Financial Accounting, Margham Publishers, Chennai.	
Reference Books		
1	Dr. S.N. Maheswari: Financial Accounting, Vikas Publications, Noida.	

2	Dr.Venkataraman& others (7 lecturers): Financial Accounting, VBH, Chennai.
3	Dr.Arulanandan and Raman: Advanced Accountancy, Himalaya publications, Mumbai.
4	Tulsian , Advanced Accounting, Tata MC. Graw hills, India.
5	Charumathi and Vinayagam, Financial Accounting, S.Chand and sons, New Delhi.
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1
2	https://www.slideshare.net/ramusakha/basics-of-financial-accounting
3	https://www.accountingtools.com/articles/what-is-a-single-entry-system.html

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	3	2	3	2	2	3	2	2
CO2	3	2	3	3	3	2	2	2	3	2	2
CO3	3	2	2	3	3	2	2	2	3	2	2
CO4	3	2	3	3	2	2	2	2	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3
TOTAL	16	11	14	15	14	12	11	11	15	11	11
AVERAGE	3.2	2.2	2.8	3	2.8	2.4	2.2	2.2	3	2.2	2.2

3 - Strong, 2 - Medium , 1- Low

FIRST YEAR – Second Semester
Core Paper IV - Database Management Systems -Practical – II

Subject code	L	T	P	S	Credits	Inst. Hours	Marks																																																									
							CIA	External	Total																																																							
Core Paper IV			6		4	6	25	75	100																																																							
Learning Objectives																																																																
LO1	To understand various kinds of database systems and various models of SQL																																																															
LO2	To provide knowledge about various SQL specialities and calculus																																																															
LO3	To apply the concepts of SQL DDL commands																																																															
LO4	To analyse the SQL DML commands																																																															
LO5	To apply the advanced SQL features																																																															
Prerequisites: Should have studied Commerce in XII Std..																																																																
Unit	Contents								No. of Hours																																																							
I	Database System: Introduction: Components of Database System – Database System. Architecture – Data Independence – Database user - Database Administrator-Entity – E-R Diagram – Parallel System - Centralized System – Network System - Storage Structure – Distributed System. Approaches & Models: Relational Approaches – Network Approaches - Hierarchical Approaches – Relations –Domains – Attributes – Keys. Relational Algebra: Traditional & Special Relational Operators – IMS Architecture – Data Structure – Program Communication Block –Architecture of DBTG – Fundamental & Additional Operators – Relational Calculus & Tuple Relational Calculus.								15																																																							
II	SQL: Introduction – Dynamic Statements – Retrieval Operations – Built in Functions – DDL & DML Commands – Condition Based Queries. SQL Fundamentals: Integrity – Triggers – Security – Advanced SQL Features – Dynamic & Embedded SQL								15																																																							
III	PROGRAM 1: 1. Create the Project table with the following fields. <table><tr><th>Field Name</th><th>data type</th><th>width</th><th>Constraint</th><th>Description</th></tr><tr><td>projno</td><td>number</td><td>5</td><td>Primary key</td><td>Project Number</td></tr><tr><td>location</td><td>character</td><td>20</td><td></td><td>Project Location</td></tr><tr><td>custname</td><td>character</td><td>20</td><td></td><td>Customer Name</td></tr><tr><td>Year</td><td>number</td><td>4</td><td></td><td>Project Year</td></tr></table> 2. Create the Employee table with the following fields. <table><tr><th>Field Name</th><th>data type</th><th>width</th><th>Constraint</th><th>Description</th></tr><tr><td>empno</td><td>number</td><td>5</td><td>Primary key</td><td>Employee Number</td></tr><tr><td>empname</td><td>character</td><td>20</td><td></td><td>Employee Name</td></tr><tr><td>deptno</td><td>number</td><td>5</td><td>Foreign key</td><td>Department Number</td></tr><tr><td>projno</td><td>number</td><td>5</td><td>Foreign key</td><td>Project Number</td></tr><tr><td>Salary</td><td>number</td><td>8,2</td><td></td><td>Employee</td></tr></table>								Field Name	data type	width	Constraint	Description	projno	number	5	Primary key	Project Number	location	character	20		Project Location	custname	character	20		Customer Name	Year	number	4		Project Year	Field Name	data type	width	Constraint	Description	empno	number	5	Primary key	Employee Number	empname	character	20		Employee Name	deptno	number	5	Foreign key	Department Number	projno	number	5	Foreign key	Project Number	Salary	number	8,2		Employee	15
Field Name	data type	width	Constraint	Description																																																												
projno	number	5	Primary key	Project Number																																																												
location	character	20		Project Location																																																												
custname	character	20		Customer Name																																																												
Year	number	4		Project Year																																																												
Field Name	data type	width	Constraint	Description																																																												
empno	number	5	Primary key	Employee Number																																																												
empname	character	20		Employee Name																																																												
deptno	number	5	Foreign key	Department Number																																																												
projno	number	5	Foreign key	Project Number																																																												
Salary	number	8,2		Employee																																																												

				Salary
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3. Insert the following data into the tables:

Project Table

PROJNO	LOCATION	CUSTNAME	Year
Chennai		Vimal	2005
Coimbatore		Vijay	2006
Salem		Ramesh	2005
Chennai		Ravi	2005
Chennai		Suresh	2006
Salem		Murali	2005

Employee Table

EMPNO	EMPNAME	DEPTNO	PROJNO	SALARY
101	richard	10	1	15000
102	krishnan	20	3	20000
103	ravi	10	2	16000
104	rahul	30	1	24000
105	prakash	40	2	18000
106	preen	20	4	25000
107	vijay	30	5	30000
108	vikram	10	6	35000
109	venu	40	1	35000
110	santhosh	20	3	28000

4. Perform the following queries:

- Increase the salary of the employees working in department number 10 by 15%.
- Find the employee number and names of employees who get the salary in the range 20000 and 30000.
- Find the information about the employees whose name starts with the letter 'r'.
- Find the employee names and salary for employees who work in 'production' department.
- Find the details of the employee who gets the maximum salary.
- Find the department number of all departments which has more than 2 employees working in it.

PROGRAM 2:

1.

1. CREATE the table WAREHOUSES with the following fields.

Field Name	data type	width	Constraint
Code	Char	15	Primary Key
Location	Char	15	Not Null
Capacity	varchar	15	Not Null

2. CREATE the table BOXES with the following fields.

Field Name	data type	width	Constraint
BCode	Char	15	
Contents	Char	15	Not Null
Value	varchar	10	Not Null
Warehouse	Char		Foreign Key(Primary Key)

3. Perform the following queries.

- Modify B Code as a Not null in “BOXES” table.
- In Boxes table Code must be greater than 100 how to evaluate the condition?
- Insert the value to WAREHOUSES table & Boxes table:

CODE	LOCATION	CAPACITY
1	cbe	4
2	cbe	5
3	pldm	2
4	sulur	3
5	pldm	2
6	newyork	3

B CODE	CONTENTS	VALUE	WAREHOUSE
a3se	cover	330	2
s4hi	cup	380	5
d7yt	pen	280	4
n9ok	note	130	5
e2ep	gum	110	2
h2aa	doll	170	3
c4kj	lamp	130	3
r9oi	pen	110	2
b3uh	note	140	3
d9og	lamp	280	5
h5rt	papers	280	2

- Boxes table “contents” contains many duplicate values within it. Retrieve the value without any duplication.
- Find the values between 3 and 8 and show the results and Use all Aggregate function in boxes table (Use Value field)
- Retrieve the warehouse code along with the average value of the boxes in each warehouse.

PROGRAM 3:

- Create the table Pieces with the following fields.

FIELD NAME	DATATYPE	WIDTH	CONSTRAINT	DESCRIPTION
Code	Integer	6	Primary key	Piece code
Name	Character	25	Not null	
Color	Character	10	White or black	

- Create the table providers with the following fields.

FIELD NAME	DATATYPE	WIDTH	CONSTRAINT	DESCRIPTION
Code	Character	8	Primary key	Providers code
Name	Character	25	Not null	
State	Character	15	Fill it with Tamil Nadu	
Phoneno	Number	10	Value must be 10	

- Create the table provides with the following fields.

FIELD NAME	DATATYPE	WIDTH	CONSTRAINT	DESCRIPTION
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IV

15

Piece	Integer	6	Primary key, Foreign key	Piececode
Provider	Character	6	Primary key, Foreign key	Providers code
Price	Numeric	8,2		Price of the piece
Qty	Numeric	5	Not null	Number of pieces

4.Perform the following queries:

a) Insert the following records into all tables:

Code	Name	Color
1	Sprocket	White
2	Screw	Black
3	Nut	White
4	Bolt	Black

Piece	Provider	Price	Qty
1	HAL	10	5
1	RBT	15	7
2	HAL	20	5
2	RBT	15	8
2	TNBC	14	10
3	RBT	50	1
3	TNBC	45	5

Code	Name	State	Phoneno
HAL	Clarke Enterprises	Tamil nadu	6543980987
RBT	Susan Calvin corp.	Tamil nadu	9756437206
TNBC	Skellington supplies	Tamil nadu	9875438790

- Obtain the names of all providers who supply piece 1.
- Obtain the name of piece and price from all provides where piece equals to 2.
- display the details of pieces whose price is in the range of 10 to 50(both values included).
- display name and price of the piece in descending order.
- Select the name of pieces provided by provider with code "HAL".

PROGRAM 4:

1. CREATE the table MANUFACTURERS with the following fields.

Field Name	data type	width	Constraint	Description
Code	Integer	-	Primary key	Manufacturers code
Name	character	20	Not null	Name of Manufacturers

2. Create the Products table with the following fields.

Field Name	data type	Constraint	Description
Code	Integer	Primary key	Product code
Name	character	Not null	Name of the products
Price	Real	Not null	Product price
Manufacturer	Integer	Foreign key	Manufacturer code

2. Insert the following record into the tables

CODE	NAME	PRICE	MANUFACTURER
1	Hard drive	240	5
2	Memory	120	6
3	ZIP drive	150	4
4	Floppy disk	5	6
5	Monitor	240	1
6	DVD drive	180	2
7	CD drive	90	2
8	Printer	270	3
9	Toner cartridge	66	3
10	DVD burner	180	2

CODE	NAME
1	Sony
2	Creative Labs
3	Hewlett-Packard
4	Omega
5	Fujitsu
6	Winchester

4.Perform the following queries

- Select the name and price in cents (i.e., the price must be multiplied by 100).
- Select the name and price of all products with a price larger than or equal to \$180, and sort first by price (in descending order), and then by name (in ascending order).
- Select all the data from the products, including all the data for each product's manufacturer.
- Select the average price of each manufacturer's products, showing the manufacturer's name.
- Select the names of manufacturer whose products have an average price larger than or equal to \$150.
- Select the name and price of the cheapest product.

PROGRAM 5:

1. Create the department table as follows

Field Name	data type	width	Constraint	Description
Code	Integer	25	Primary key	Department Code
Name	Text	20		Name of the department
Budget	Real			Budget

2. Create Employee tables as follows

Field Name	data type	width	Constraint	Description
SSN	Integer	25	Primary key	Employee Number
Name	Text	20		Employee Name
<u>LastName</u>	Text	20		<u>Emp Lastname</u>
Department	Integer	25	Foreign key	Dept Code

3. Insert data to the tables as follows:

CODE	NAME	BUDGET
14	IT	65000
37	Accounting	15000
59	Human Resources	240000
77	Research	55000

SSN	NAME	LASTNAME	DEPARTMENT
123234877	Michael	Rogers	14
152934485	Anand	Manikutty	14
222364883	Carol	Smith	37
326587417	Joe	Stevens	37
332154719	Mary-Anne	Foster	14
332569843	George	O'Donnell	77
546523478	John	Doe	59
631231482	David	Smith	77
654873219	Zacary	Efron	59
745685214	Eric	Goldsmith	59
845657245	Elizabeth	Doe	14
845657246	Kumar	Swamy	14

4. Perform the following queries:

- Add 'course name' column to the department's table and course name must be 'bca' (if not given).
- Add salary column to employees table and the salary between 10000 and 25000.
- Additionally, add phone no column to employee table and make sure the number should be unique.
- Select all the data of employees that work in department 14.
- Select all the data of employees whose last name begins with an "S".
- Select the sum of all the departments' budgets.

PROGRAM 6:

1. CREATE the table MOVIES with the following fields.

Field Name	Data Type	Width	Constraint
Code	Integer	10	Primary key
Title	Varchar	30	Not null
Rating	Varchar	30	

2. CREATE the table MOVIE THEATERS with the following fields.

Field Name	Data Type	Width	Constraint
Code	Integer	10	Not Null, Foreign key
Name	Varchar	30	Not Null

	Movie	Integer	20	
3. Insert the following values to the created tables.				
Movies Table				
	CODE	TITLE	RATING	
	9	Citizen King	G	
	1	Citizen Kane	PG	
	2	Singin' in the Rain	G	
	3	The Wizard of Oz	G	
	4	The Quiet Man		
	5	North by Northwest		
	6	The Last Tango in Paris	NC-17	
	7	Some Like it Hot	PG-13	
	8	A Night at the Opera		
Movie theaters Table				
	CODE	NAME	MOVIE	
	1	Odeon	5	
	2	Imperial	1	
	3	Majestic		
	4	Royale	6	
	5	Paraiso	3	
	6	Nickelodeon		
4. Perform the following queries:				
a) Add a new field location to the table Movies theaters.				
b) Modify the movie theaters table to set the location column to ‘CBE’ if not given.				
c) Insert a new record to table movies.				
d) Remove a record from movies table where rating is A and code is 10				
e) Set the rating of all unrated movies to "G".				
f) Remove movie theaters projecting movies rated "NC-17".				
	TOTAL			75
CO	Course Outcomes			
CO1	Recalling various concepts relating to data base management systems			
CO2	Illustrate various models of relational data base systems			
CO3	Applying SQL DDL commands			
CO4	Analysing various SQL DML commands			
CO5	Apply the concepts of advanced SQL features			
Textbooks				
1	“Database System Concepts”, 6th Edition by Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw-Hill.			
2	“Fundamentals of Database Systems”, 7th Edition by R. Elmasri and S. Navathe, Pearson			
3	“An introduction to Database Systems”, C J Date, Pearson.			
Reference Books				
1	“Modern Database Management”, Hoffer , Ramesh, Topi, Pearson			
2	“Principles of Database and Knowledge – Base Systems”, Vol 1 by J. D. Ullman, Computer Science Press			
3	An Introduction to Database Systems – C.J.Date – Addison – Wesley Publications – Seventh Edition 2000.			

I	Introduction to Management Meaning- Definitions – Nature and Scope - Levels of Management – Importance - Management Vs. Administration – Management: Science or Art - Evolution of Management Thoughts - F. W. Taylor, Henry Fayal, Peter F Drucker, Elton Mayo - Functions of Management - Trends and Challenges of Management. Managers – Qualification – Duties & Responsibilities.	9
II	Planning Planning – Meaning – Definitions – Nature – Scope and Functions – Importance and Elements of Planning – Types – Planning Process - Tools and Techniques of Planning – Management by Objective (MBO). Decision Making: Meaning – Characteristics – Types - Steps in Decision Making – Forecasting.	9
III	Organizing Meaning - Definitions - Nature and Scope – Characteristics – Importance – Types - Formal and Informal Organization – Organization Chart – Organization Structure: Meaning and Types - Departmentalization– Authority and Responsibility – Centralization and Decentralization – Span of Management.	9
IV	Staffing Introduction - Concept of Staffing- Staffing Process – Recruitment – Sources of Recruitment – Modern Recruitment Methods - Selection Procedure – Test-Interview– Training: Need - Types– Promotion –Management Games – Performance Appraisal - Meaning and Methods – 360 Performance Appraisal – Work From Home - Managing Work From Home [WFH].	9
V	Directing Motivation –Meaning - Theories – Communication – Types - Barriers to Communications – Measures to Overcome the Barriers. Leadership – Nature - Types and Theories of Leadership – Styles of Leadership - Qualities of a Good Leader – Successful Women Leaders. Supervision. Co-ordination and Control Co-ordination – Meaning - Techniques of Co-ordination. Control - Characteristics - Importance – Stages in the Control Process - Requisites of Effective Control and Controlling Techniques – Management by Exception [MBE].	9
	Total	45
CO	Course Outcomes	
CO1	Demonstrate the importance of principles of management.	
CO2	Paraphrase the importance of planning and decision making in an organization.	
CO3	Comprehend the concept of various authorizes and responsibilities of an organization.	
CO4	Enumerate the various methods of Performance appraisal	
CO5	Demonstrate the notion of directing, co-coordination and control in the management.	
	Textbooks	
1	Gupta.C.B, -Principles of Management-L.M. Prasad, S.Chand & Sons Co. Ltd, New Delhi.	
2	Dinkar Pagare, Principles of Management, Sultan Chand & Sons Publications, New Delhi.	

3	P.C.Tripathi& P.N Reddy, Principles of Management. Tata McGraw, Hill, Noida.
4	L.M. Prasad, Principles of Management, S.Chand & Sons Co. Ltd, New Delhi.
5	R.K. Sharma, Shashi K. Gupta, Rahul Sharma, Business Management, Kalyani Publications, New Delhi.
Reference Books	
1	K Sundhar, Principles Of Management, Vijai Nicholos Imprints Limited, Chennai
2	Harold Koontz, Heinz Weirich, Essentials of Management, McGraw Hill, Sultan Chand and Sons, New Delhi.
3	Griffffin, Management principles and applications, Cengage learning, India.
4	H.Mintzberg - The Nature of Managerial Work, Harper & Row, New York.
5	Eccles, R. G. &Nohria, N. Beyond the Hype: Rediscovering the Essence of Management. Boston The Harvard Business School Press, India.
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	http://www.universityofcalicut.info/syl/management
2	https://www.managementstudyguide.com/manpower-planning.htm
3	https://www.businessmanagementideas.com/notes/management-notes/coordination/coordination/21392

Mapping With Programme Outcomes And Programme Specific Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	2	3	3	2	2	2	3	2	3
CO2	3	2	3	3	2	2	2	2	3	2	2
CO3	3	2	2	3	2	2	2	1	3	2	2
CO4	3	2	2	3	2	2	2	2	3	2	2
CO5	3	2	3	3	2	2	2	1	3	2	2
TOTAL	15	10	12	15	11	10	10	8	15	10	11
AVERAGE	3	2	2.4	3	2.2	2	2	1.6	3	2	2.2

3 - Strong, 2 - Medium , 1- Low

SECOND YEAR – SEMESTER – III
Core Paper V - Corporate Accounting

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core V	6				4	6	25	75	100

Learning Objectives		
LO1	To understand about the pro-rata allotment	
LO2	To know the provisions of companies Act under Redemption of Preference shares and debentures	
LO3	To learn the form and contents of Financial statements as per Schedule III of Companies Act 2013	
LO4	To examine the factors affecting goodwill of a company	
LO5	To identify the Significance of International financial reporting standard (IFRS)	
Prerequisite: Should have studied Financial Accounting in I Year		
Unit	Contents	No. of Hours
I	Issue of Shares Issue of Shares - Forfeiture - Reissue – Pro-rata Allotment – Right Issue – Bonus Issue - Underwriting of Shares and Debentures – Underwriting Commission - Types of Underwriting.	12
II	Redemption of Preference Shares & Debentures Redemption of Preference Shares–Provisions of Companies Act– Capital Redemption Reserve – Minimum Fresh Issue – Redemption at Premium. Debentures: Issue and Redemption – Meaning – Methods – In One Lot – in Instalment – Purchase in the Open Market includes Ex Interest and Cum Interest - Sinking Fund Investment Method.	12
III	Final Accounts Introduction – Final Accounts – Form and Contents of Financial Statements as Per Schedule III of Companies Act 2013 – Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss – Ascertaining Profit for Managerial Remuneration. Profit Prior to Incorporation.	12
IV	Valuation of Goodwill & Shares Valuation of Goodwill and Shares - Factors Affecting Goodwill - Methods of Valuation - Acquisition of Business.	12
V	Indian Accounting Standards International Financial Reporting Standard (IFRS)–Meaning and its Applicability in India - Indian Accounting Standards – Meaning – Objectives – Significance – Accounting Standards in India – Procedures for Formulation of Standards – Ind AS – 1 Presentation of Financial Statement, Ind AS – 2 Valuation of Inventories, Ind AS – 7 Cash Flow Statement, Ind AS – 8 Accounting Policies, Changes in Accounting Estimate and Errors, Ind AS 12 Income Tax Indi AS – 16, Property Equipment Ind AS – 103, Business Combinations Ind AS 110, Consolidated	12

	Financial Statement.	
	TOTAL	60
THEORY 20% & PROBLEMS 80%		
CO	Course Outcomes	
CO1	To understand the provisions for underwriting commission	
CO2	To examine the provisions of issue and redemption of preferences shares and debentures	
CO3	To illustrate part I and part II forms	
CO4	To value shares and goodwill	
CO5	To analyze IND AS 7, 12,16	
Textbooks		
1	S.P. Jain and N.L. Narang, Advanced Accounting Vol I, Kalyani Publication, New Delhi.	
2	R.L. Gupta and M.Radhaswamy, Advanced Accounts Vol I, Sultan Chand, New Delhi.	
3	B.Raman, Corporate Accounting, Taxmann, New Delhi.	
4	Shukla, Grewal and Gupta- Advanced Accounts VolI,S.Chand, New Delhi.	
5	M.C.Shukla, Advanced accounting Vol I, S.Chand, New Delhi.	
Reference Books		
1	T.S.Reddy, A.Murthy – Corporate Accounting- Margham Publication, Chennai.	
2	D.S.Rawat&NozerShroff,Students Guide To Accounting Standards ,Taxmann, New Delhi	
3	Prof.Mukeshbramhbutt, Devi,CorporateAccountingI, AhilyaPublication, Madhya Pradesh	
4	Anil kumar, Rajesh kumar, Corporate accounting I, Himalaya Publishing house, Mumbai.	
5	Prasanth Athma, Corporate Accounting I, Himalaya Publishing house, Mumbai.	
NOTE: Latest Edition of Textbooks May be Used		
Web Resources		
1	https://www.tickertape.in/blog/issue-of-shares/	
2	https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter12valuationofgoodwillandshares.pdf	
3	https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/accounting-standards.html	

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	2	2	2	3	2	2
CO2	3	2	3	2	2	2	2	2	3	2	2
CO3	3	2	3	2	3	2	2	2	3	2	2
CO4	3	1	3	2	3	2	2	2	3	2	2

CO	Course Outcomes
CO1	Recall the basics of Building any programming language
CO2	Explain about Arrays with illustration
CO3	Analyse the benefits of using Friend Function•
CO4	Develop programs for overloading Unary and Binary Operators
CO5	Access the memory Address of any variable using pointers
Textbooks	
1	E.Balaguruswamy, “Object Oriented Programming in C++”, Sixth Edition, 2012,TMH
2	H. Schildt, “The Complete Reference C++”, Fourth Edition, 2002, TMH
3	KanetkarY,” Let us C++”, Third Edition, 1999, BPB Publishers.
Reference Books	
1	John R Hubbard, “Programming with C++”, Third Edition, 2009, TMH.
2	Grady Booch, "Object Oriented Analysis and Design", Addison Wesley
3	James RumboughEtal, "Object Oriented Modelling and Design "
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	http://en.highscore.de/cpp/boost/
2	http://bookboon.com/en/structural-programming-with-c-plus-plus-ebook

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	2	3	3	3	2	2
CO2	3	2	2	2	2	2	2	2	3	2	3
CO3	3	3	3	2	3	2	3	3	3	2	2
CO4	3	2	2	2	2	2	2	2	3	2	2
CO5	3	3	3	2	3	2	3	3	3	2	3
TOTAL	15	12	13	10	13	10	13	13	15	10	12
AVERAGE	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2	2.4

3 - Strong, 2 - Medium, 1- Low

SECOND YEAR – SEMESTER – III
ALLIED C: Paper I : MATHEMATICS FOR BUSINESS

Course code		TITLE OF THE COURSE	L	T	P	C
ALLIED B: PAPER I		MATHEMATICS FOR BUSINESS	4	-	-	4
Pre-requisite		Knowledge on Mathematics for Business	Syllabus Version		2025	
Course Objectives:						
The main objectives of this course are to:						
1. Understand and apply basics of applications of mathematics in business						
2. Makethestudentstobereadyforsolvingbusinessproblemsusingmathematical operations.						
3. Provide insight knowledge about variables, constants and functions.						
4. Gaintheknowledgeonintegralcalculusanddeterminingdefiniteandindefinite functions.						
ExpectedCourseOutcomes:						
Onthesuccessful completionofthe course,studentwill beable to:						
1	Understand the basic concepts of arithmetic and geometric series and.			K2		
2	To remember the methods for solving problems in arithmetic and geometric series			K1		
3	Awareofvariables,constantsandfunctionsandevaluatethefirstand second order derivatives.			K2		
4	Togainknowledgeonintegralcalculusanddeterminingdefiniteand indefinite functions.			K4		
K1-Remember; K2 -Understand;K3 -Apply;K4-Analyze;K5-Evaluate;K6–Create						
Unit:1		SET THEORY	12hours			
SetTheory–SimpleandCompoundInterest–Effective rate ofInterest						
Unit:2		ARITHMETIC AND GEOMETRIC SERIES	12hours			
Arithmetic and Geometric series-problems						
Unit:3		MATRIX	12hours			
Matrix:BasicConcepts–AdditionandMultiplicationofMatrices–InverseofaMatrix–Rank of Matrix - Solution of Simultaneous Linear Equations						
Unit:4		VARIABLES,CONSTANTSANDFUNCTIONS	12hours			
Variables,ConstantsandFunctions–LimitsofAlgebraicFunctions–SimpleDifferentiationof Algebraic Functions – Meaning of Derivations – Evaluation of First and Second Order Derivatives–MaximaandMinima–ApplicationtoBusiness Problems						
Unit:5		ELEMENTARYINTEGRALCALCULUS	10hours			
ElementaryIntegralCalculus–DeterminingIndefiniteandDefiniteIntegralsofsimple Functions						
Unit:6		CONTEMPORARYISSUES	2 hours			

8.	Program to prepare cost sheet (using inheritance).	
9.	Program to calculate margin of safety (using multilevel inheritance).	
10.	Program for bank transaction (using constructor and destructor).	
11.	Program to calculate increase or decrease in working capital using operator overloading.	
12.	Program to create the student file and prepare the marks slip by accessing the file.	
	Total	30
CO	Course Outcomes	
CO1	Compare the different types of languages and find the importance of object-oriented programming language	
CO2	Understand the C++ statements and motivate the students to make use of the statements	
CO3	Identify the class structure and develop the program.	
CO4	Apply the program by applying the concept of OOPs	
CO5	Apply the data file operation technique and evaluate the program in a practical manner	
Textbooks		
1.	E.Balaguruswamy, “Object Oriented Programming in C++”, Sixth Edition, 2012,TMH	
2.	H. Schildt, “The Complete Reference C++”, Fourth Edition, 2002, TMH	
3.	KanetkarY,” Let us C++”, Third Edition, 1999, BPB Publishers.	
Reference Books		
1.	John R Hubbard, “Programming with C++”, Third Edition, 2009, TMH.	
2.	Grady Booch, "Object Oriented Analysis and Design", Addison Wesley	
3.	James RumboughEtal, "Object Oriented Modelling and Design "	
Web Resources		
1.	http://en.highscore.de/cpp/boost/	
2.	http://bookboon.com/en/structural-programming-with-c-plus-plus-ebook	

Mapping with Programmes Outcomes & Programmes Specific Outcomes:

Cos	POs								PSOs		
	1	2	3	4	5	6	7	8	1	2	3
CO1	3	2	3	3	3	2	2	2	3	2	2
CO2	3	2	3	3	3	3	2	2	3	2	2
CO3	3	2	3	3	3	2	3	2	3	2	2
CO4	3	2	3	3	3	3	2	2	3	2	2
CO5	3	2	3	3	3	2	3	2	3	2	2
Total	15	10	15	15	15	12	12	10	15	10	10
Average	3	2	3	3	3	2.4	2.4	2	3	2	2

3- Strong, 2- Medium, 1- low.

THIRD YEAR – SEMESTER –IV**Core Paper VII - Cost Accounting**

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core VII	6				4	6	25	75	100

Learning Objectives

LO1	To understand the various concepts of cost accounting.
LO2	To prepare and reconcile Cost accounts.
LO3	To gain knowledge regarding valuation methods of material.
LO4	To familiarize with the different methods of calculating labour cost.
LO5	To know the apportionment of Overheads.

Prerequisite: Should have studied Commerce in XII Std.

Unit	Contents	No. of Hours
I	Introduction of Cost Accounting Definition-Nature and Scope – Principles of Cost Accounting – Cost Accounting and Financial Accounting - Cost Accounting Vs Management Accounting –Installation of Costing System –Classification of Costs– Cost Centre– Profit Centre - Preparation of Cost Sheet.	12
II	Cost Sheet and Methods of Costing Preparation of Cost Sheet - Tenders & Quotations - Reconciliation of Cost and Financial Accounts –Unit Costing-Job Costing.	12
III	Material Costing Material Control – Meaning and Objectives – Purchase of Materials – EOQ –Stores Records – Reorder Levels – ABC Analysis - Issue of Materials –Methods of Issue – FIFO – LIFO – Base Stock Method – Specific Price Method – Simple and Weighted Average Method.	12
IV	Labour Costing Direct Labour and Indirect Labour – Time Keeping – Methods and Calculation of Wage Payments – Time Wages – Piece Wages – Incentives – Different Methods of Incentive Payments - Idle time–Overtime – Labour Turnover - Meaning, Causes and Measurement.	12
V	Overheads Costing Overheads – Definition – Classification – Allocation and Apportionment of Overheads – Basis of Apportionment – Primary and Secondary Distribution - Absorption of Overheads – Methods of absorption Preparation of Overheads Distribution Statement – Machine Hour Rate – Computation of Machine Hour Rate.	12
	TOTAL	60

THEORY 20% & PROBLEMS 80%

CO	Course Outcomes
CO1	Remember and recall the various concepts of cost accounting

CO2	Demonstrate the preparation and reconciliation of cost sheet.
CO3	Analyze the various valuation methods of material.
CO4	Examine the different methods of calculating labour cost.
CO5	Critically evaluate the apportionment of Overheads.
Textbooks	
1	Jain S.P. and Narang K.L, Cost Accounting. Kalyani Publishers, New Delhi
2	Khanna B.S., Pandey I.M., Ahuja G.K., and Arora M.N., Practical Costing, S. Chand & Co, New Delhi,
3	Dr.S.N.Maheswari, Principles of Cost Accounting, Sultan Chand Publications, New Delhi
4	T.S.Reddy and Y. Hari Prasad Reddy, Cost Accounting, Margham publications, Chennai
5	S.P. Iyengar, Cost Accounting, Sultan Chand Publications, New Delhi
Reference Books	
1	Polimeni, Cost Accounting: Concepts and Applications for Managerial Decision Making, 1991, McGraw–Hill, New York.
2	Jain S.P. and Narang K.L. Cost Accounting, Latest Edition.2013, Kalyani Publishers, New Delhi,
3	V.K.Saxena and C.D.Vashist, Cost Accounting, Sultan Chand publications, New Delhi
4	Murthy A &GurusamyS,CostAccounting,Vijay Nicole Imprints Pvt .Ltd .Chennai
5	Prasad.N.K and Prasad.V.K, Cost Accounting, Book Syndicate, Kolkata
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	https://study.com/learn/lesson/cost-accounting-principles-examples-what-is-cost-accounting.html
2	https://www.accountingtools.com/articles/what-is-material-costing.html
3	https://www.freshbooks.com/hub/accounting/overhead-cost

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	2	2	2	3	2	2
CO2	3	2	2	2	2	2	2	2	3	2	2
CO3	3	2	3	2	2	2	2	2	3	2	2
CO4	3	2	2	2	2	2	2	2	3	2	2
CO5	3	2	3	2	2	2	2	2	3	2	2
TOTAL	15	10	13	10	10	10	10	10	15	10	10
AVERAGE	3	2	2.6	2	2	2	2	2	3	2	2

SECOND YEAR – SEMESTER – IV
Core Paper VIII – Python Practicals IV

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core VIII			4		4	4	25	75	100
Learning Objectives:									
The main objectives of this course are to:									
1. To apply the Python techniques and solve the given problems in a practical manner.									
Expected Course Outcomes:									
On the successful completion of the course, student will be able to:									
CO1	know the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python							K1	
CO2	implement Decision Making Statements and Function							K3	
CO3	inculcate and Apply various skills in Problem Solving							K4	
CO4	understand and Apply different File handling operations							K2	
CO5	write, Test and Debug Python Program							K5	
K1-Remember; K2-Understand; K3-Apply;K4-Analyze; K5-Evaluate;K6-Create									
Units	Contents							No of hours	
1. Write a python program that displays the following Employee information: Employee name,Address, Mobile number, Company name, Designation,Salary. 2. Program to Remove Characters From a String Using replace function. 3. Python program to find odd or even using a control statement. 4. Write a python program that asks the user to enter a series of positive numbers (The user should enter a negative number to signal the end of the series) and the program should display the numbers in order and their sum. 5. Program to demonstrate iteration over Tuple, list, and Dictionary Using for Loops inPython. 6. Write a python program to add two matrices 7. Program to use the script of a python file from another python file 8. Python Program to Find Factorial of Number Using Recursion 9. Write a python program to writes a text to a file then read and display the values. 10. Program to find the square root and pi value using modules.									
	Total hours						90 hours		

Text Book(s)		
1.	Wes McKinney, Python for Data Analysis, O'Reilly Media, Inc., 1005 Graven stein Highway North, Sebastopol.	
2.	Kenneth A. Lambert – Fundamentals of Python First Programs - Cengage ,New Delhi	
3.	Ch Satya Narayana, M Radhika Mani, BN Jagadesh - Python Programming- Cengage, New Delhi.	
Reference Books		
1.	NA	
2.		
3.		
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1.	https://www.geeksforgeeks.org/python-programming-examples	
2.	https://www.programiz.com/python-programming	
3.	https://www.edureka.co/blog/learn-python/	
4.	https://www.programiz.com/python-programming/online-compiler/	
5.	https://www.onlinegdb.com/online_python_compiler	
6.	https://linuxhint.com/python_scripts_beginners_guide/#post-67157-top	

**MAPPING WITH PROGRAMME OUTCOMES
AND PROGRAMME SPECIFIC OUTCOMES**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	3	3	2	3	3	3	2	2
CO2	3	2	3	3	2	2	2	2	3	2	3
CO3	3	3	3	3	3	2	3	3	3	2	2
CO4	3	2	3	3	2	2	2	2	3	2	2
CO5	3	3	3	3	3	2	3	3	3	2	3
TOTAL	15	12	15	15	13	10	13	13	15	10	12
AVERAGE	3	2.4	3	3	2.6	2	2.6	2.6	3	2	2.4

3 – Strong, 2- Medium, 1- Low

SECOND YEAR - SEMESTER IV
STATISTICS FOR BUSINESS

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Allied D:Paper II	4				3	4	20	55	75

Course Objectives:

The main objectives of the course are able to

1. Provide basic conceptual knowledge on applications of statistics in business.
2. Make the students to be ready for solving business problems using statistical operations.
3. Give a detailed instruction of measurement of dispersion.
4. Gain the knowledge on application of correlation and regression for business operations.
5. Analyze interpolation and probability theory and perform the problems.

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the basic concepts of arithmetic and geometric mean and different types of data collection.	K2
2	Recall measures of dispersion.	K1
3	Execute correlation and regression analysis.	K3
4	Understand the different types of moving averages.	K2
5	Analyze interpolation and probability	K4

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Unit:1	INTRODUCTIONS	12 hours
Meaning and Definition of Statistics – Collection of data — Primary and Secondary - Classification and Tabulation – Diagrammatic and Graphical presentation Measures of Central tendency – Mean, Median, Mode, Geometric Mean and Harmonic Mean – simple problems		
Unit:2	MEASURES OF DISPERSION	10 hours
Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Standard Deviation and Co-efficient of Variation. Skewness – Meaning – Measures of Skewness - Pearson's and Bowley's co-efficient of Skewness.		
Unit:3	CORRELATION AND REGRESSION ANALYSIS	12 hours
Correlation –Meaning and Definition –Scatter diagram, Karl Pearson's co-efficient of Correlation, Spearman's Rank Correlation, Co-efficient of Concurrent deviation. Regression Analysis – Meaning of regression and linear prediction – Regression in two variables – Uses of Regression		

Unit:4	TIME SERIES	12 hours
Time Series – Meaning, Components and Models – Business forecasting – Methods of estimating trend – Graphic, Semi-average, Moving average and Method of Least squares – Seasonal Variation – Method of Simple average. Index Numbers – Meaning, Uses and Methods of construction – Un-weighted and Weighted index numbers – Tests of an Index number – Cost of living index number.		
Unit:5	INTERPOLATION	12 hours
Interpolation: Binomial, Newton’s and Lagrange methods. Probability – Concept and Definition – Addition and Multiplication theorems of Probability (statement only) – simple problems based on Addition and Multiplication theorems only.		
Unit:6	CONTEMPORARY ISSUES	2 hours
Expert lectures, online seminars – webinars		
	Total Lecture hours	60 hours
Text Book(s)		
1	Statistical Methods by S.P. Gupta	
2	Business Mathematics and Statistics by P. Navaneetham	
3	Statistics by R.S.N. Pillai and V. Bagavathi	
Reference Books		
1	Statistics-Theory, Methods & Application by D.C. Sancheti and V.K. Kapoor	
2	Applied General Statistics by Frederick E.Croxton and Dudley J. Cowden	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://www.youtube.com/watch?v=BUE-XJEHp7g	
2	https://www.youtube.com/watch?v=0s4mKbkYJPU&t=1s	
3	https://www.youtube.com/watch?v=Dxcc6ycZ73M	
Course Designed By:		

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

S- Strong; M-Medium; L-Low

SECOND YEAR – SEMESTER – IV

Skill Based Subject 2 - Executive Business Communication

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Allied B	3				2	3	25	25	50

Learning Objectives

LO1	To enable the students to know about the principles, objectives and importance of communication in commerce and trade.
LO2	To develop the students to understand about trade enquiries
LO3	To make the students aware about various types of business correspondence.
LO4	To develop the students to write business reports.
LO5	To enable the learners to update with various types of interview

Prerequisites: Should have studied Commerce in XII Std..

Unit	Contents	No. of Hours
I	Introduction to Business Communication Definition – Meaning – Importance of Effective Communication – Modern Communication Methods – Barriers to Communication – E-Communication - Business Letters: Need - Functions – Essentials of Effective Business Letters – Layout	12
II	Trade Enquiries Trade Enquiries – Orders and their Execution – Credit and Status Enquiries – Complaints and Adjustments – Collection Letters – Sales Letters – Circular Letters	12
III	Banking Correspondence Banking Correspondence – Types – Structure of Banking Correspondence – Elements of a Good Banking Correspondence – Insurance – Meaning and Types – Insurance Correspondence – Difference between Life and General Insurance – Meaning of Fire Insurance – Kinds – Correspondence Relating to Marine Insurance – Agency Correspondence – Introduction – Kinds – Stages of Agent Correspondence – Terms of Agency Correspondence	12
IV	Secretarial Correspondence Company Secretarial Correspondence – Introduction – Duties of Secretary – Classification of Secretarial Correspondence – Specimen letters – Agenda and Minutes of Report writing – Introduction – Types of Reports – Preparation of Report Writing	12
V	Application Letters Application Letters – Preparation of Resume – Interview: Meaning – Objectives and Techniques of Various Types of Interviews – Public Speech – Characteristics of a Good Speech	12
	TOTAL	60

CO	Course Outcomes
CO1	Acquire the basic concept of business communication.
CO2	Exposed to effective business letter
CO3	Paraphrase the concept of various correspondences.
CO4	Prepare Secretarial Correspondence like agenda, minutes and various business reports.
CO5	Acquire the skill of preparing an effective resume
Textbooks	
1	Rajendra Pal & J.S. Korlahalli, Essentials of Business Communication-Sultan Chand & Sons-New Delhi.
2	Gupta and Jain, Business Communication,Sahityabahvan publication, New Delhi.
3	K.P.Singha, Business Communication, Taxmann, New Delhi.
4	R. S. N. Pillai and Bhagavathi. S, Commercial Correspondence, Chand Publications, New Delhi.
5	M. S. Ramesh and R. Pattenshetty, Effective Business English and Correspondence, S. Chand & Co, Publishers, New Delhi.
Reference Books	
1	V.K.Jain and Om Prakash, Business communication, S.Chand, New Delhi.
2	RithikaMotwani, Business communication, Taxmann, New Delhi.
3	Shirley Taylor, Communication for Business-Pearson Publications-New Delhi.
4	Bovee, Thill, Schatzman, Business Communication Today-Pearson Education, Private Ltd-NewDelhi.
5	Penrose, Rasbery, Myers, Advanced Business Communication, Bangalore.
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	https://accountingseekho.com/
2	https://www.testpreptraining.com/business-communications-practice-exam-questions
3	https://bachelors.online.nmims.edu/degree-programs

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	3	2	3	2	2	2	2	2	2	2
CO2	3	3	2	3	2	2	2	3	2	2	2
CO3	3	3	2	3	2	2	2	2	2	2	2
CO4	3	3	2	3	2	2	2	2	2	2	2
CO5	3	3	2	3	2	2	2	2	2	2	2
TOTAL	15	15	15	15	10	10	10	11	10	10	10

	Budgetary Control: Meaning – Preparation of Various Budgets – Cash Budget - Flexible Budget– Production Budget – Sales Budget.	
V	Marginal Costing : Meaning - Features – Fixed Cost, Variable Cost and Semi Variable Cost- Contribution- Marginal Cost Equation- P/V Ratio - Break Even Point - Margin of Safety – Cost- Volume Profits Analysis- Break Even Point – Decision Making : Selection Of a Product Mix – Make or Buy Decision – Discontinuance of a product line – Change or Status quo – Limiting Factors – Exploring New Markets.	15
	TOTAL	75
THEORY 20% & PROBLEMS 80%		
CO	Course Outcomes	
CO1	Remember and recall basics in management accounting	
CO2	Apply the knowledge of preparation of Financial Statements	
CO3	Analyse the concepts relating to fund flow and cash flow	
CO4	Evaluate techniques of budgetary control	
CO5	Formulate criteria for decision making using principles of marginal costing.	
Textbooks		
1	Jain S.P. &Narang K.L. (2018) Cost and Management Accounting, kalyani publications,	
2	Dr.S.N.Maheswari, Cost and Management Accounting, Sultan chand sons publications, New Delhi.	
3	Sharma and Shashi K. Gupta, Management Accounting, Kalyani Publishers, Chennai.	
4	Jenitra L Mervin ,Daslton L Cecil, Management Accounting, Lerantec Press, Chennai.	
5	T.S.Reddy& Y. Hari Prasad Reddy, Management Accounting, Margham publications, Chennai.	
Reference Books		
1	Chadwick – The Essence of Management Accounting, Financial Times Publications, England.	
2	Charles T.Horngren and Gary Sundem –Introduction to Management Accounting, Pearson, Chennai.	
3	Murthy A and Gurusamy S, Management Accounting- Theory &Practice, Vijay Nicole Imprints Pvt. Ltd .Chennai.	
4	Hansen - Mowen, Cost Management Accounting and Control, South Western College, India.	
5	N.P. Srinivasan, Management Accounting, New Age publishers, Chennai.	
NOTE: Latest Edition of Textbooks May be Used		
Web Resources		
1	https://www.accountingnotes.net/companies/fund-flow-analysis/fund-flow-analysis-accounting/13300	
2	https://accountingshare.com/budgetary-control/	
3	https://www.investopedia.com/terms/m/marginalcostofproduction.asp	

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
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CO1	3	2	3	2	3	2	3	3	3	2	2
CO2	3	2	2	2	3	2	2	2	3	2	3
CO3	3	2	3	2	3	2	3	3	3	2	2
CO4	3	2	2	2	3	2	2	2	3	2	2
CO5	3	3	3	2	3	2	3	3	3	2	3
TOTAL	15	11	13	10	15	10	13	13	15	10	12
AVERAGE	3	2.1	2.6	2	2	2	2.6	2.6	3	2	2.4

3 - Strong, 2 - Medium , 1- Low

THIRD YEAR – SEMESTER – V

Core Paper X – Direct Tax

Coursecode			L	T	P	C
Core Paper X		Direct Tax	6			4
Pre-requisite		Basic knowledge in Tax	Syllabus version	2025-2026		
CourseObjectives:						
Themainobjectivesof thiscourseareto:						
1. Tounderstandthevariousconceptsofincometaxandrelatedterminologies						
2. Tofamiliarizewithcalculation ifincomeunderdifferentheads						
3. Tounderstandtheprocess ofsetoffand carryforwardoflosses whilecomputingtotalincome						
ExpectedCourseOutcomes:						
Onthesuccessfulcompletion ofthecourse,studentwillbeableto:						
1	Outlinethevariousterminologiesrelated toincometax					K1
2	Understandthemethodofcalculatingandlevyingtax					K2
3	Applythe varioustaxlawsand availableprovisions intaxcomputations					K3
4	Evaluatetheset offandcarryforwardoflosseswhilecalculatingpersonalincome					K5
5	Analyze self-assessment ofincomeandtax computation					K4
K1-Remember; K2-Understand;K3-Apply;K4-Analyze;K5 -Evaluate;K6-Create						
Unit:1			15--hours			
IncomeTaxAct–DefinitionofIncome–Assessmentyear–PreviousYear–Assessee–Scope of Income – Charge of Tax – Residential Status – Exempted Income.						
Unit:2			15--hours			
HeadsofIncome:IncomefromSalaries–IncomefromHouseProperty.						
Unit:3			15--hours			
ProfitandGains ofBusiness orProfession–IncomefromOtherSources.						
Unit:4			15--hours			
CapitalGains–Deductions fromGrossTotalIncome.						
Unit:5			15--hours			

SetoffandCarryforwardoflosses–AggregationofIncome-ComputationofTaxliability – Assessment of Individuals.		
Unit:6	ContemporaryIssues	2 hours
Expertlectures,onlineseminars-webinars		
	TotalLecture hours	75--hours
Text Book(s)		
1	GaurandNarang,“IncomeTaxLawandPractice”KalyanipublishersNewDelhi	
ReferenceBooks		
1	Dr.HCMehrotra,“Income-taxLawandAccounts”SahithyaBhavanpublishers	

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	2	2	2	3	3	2
CO2	3	2	2	2	2	2	2	2	3	2	2
CO3	3	3	3	2	3	2	2	2	3	3	2
CO4	3	2	2	2	2	2	2	2	3	3	2
CO5	3	3	3	2	3	2	2	2	3	2	2
TOTAL	15	12	13	10	13	10	10	10	15	13	10
AVERAGE	3	2.2	2.6	2	2.6	2	2	2	3	2.6	2

3 - Strong, 2 - Medium , 1- Low

THIRD YEAR – SEMESTER – V

Core Paper XI - Software with Visual Basic (Theory)

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core XI	5				4	5	25	75	100

Course Objectives:	
The main objectives of this course are to:	
1.	Develop a front end application using Visual Basic.
2.	Enable the students to develop a front end tool for Customer Interaction in Business.
3.	Impart knowledge on data controls.
4.	Make the students to understand the intrinsic controls.
5.	Understand the concept on client and server.

Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the concept on client and server	K1
2	To gain the knowledge on IDE	K3
3	Understand the concept on user defined data types	K3
4	To gain knowledge on working with controls in VB	K2
5	Understand on data controls	K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create		
Unit:1	INTRODUCTION OF BASICS	15 hours
Introduction – Client/Server – Benefits of Client/Server – Downsizing – Upsizing – Right sizing – Client/Server Models – Distributed Presentation – Remote Presentation – Remote Data – Distributed Logic – Distributed Data – Client/Server Architecture – Technical Architecture – Application Architecture – Two Tier Architecture – Three Tier Architecture OLTP & n Tier Architecture.		
Unit:2	INTRODUCTION TO VISUAL BASIC	10 hours
Introduction to Visual Basic – Steps in VB Application – Integrated Development Environment (IDE) – Menu Bar – Tool Bar – Project Explorer Window – Property Window – Toolbox Properties, Methods and Events – Event Driven Programming – Working with Forms - Variables – Scope of Variables – Constants – Data Types.		
Unit:3	FUNCTIONS AND PROCEDURES	10 hours
Functions – Procedures – Control Structure : If - Switch – Select – For – While – Do While - Arrays – User Defined Data Types – Data Type Conversions - Operators – String Functions – Date and Time Functions.		
Unit:4	STANDARD CONTROLS	15 hours
Creating and Using Standard Controls: Form, Label, Text box, Command Button, Check Box, Option Button, List Box, Combo Box, Picture Box, Image Controls, Scroll Bars – Drive List Box – Directory List Box - Time Control, Frame, Shape and Line Controls – Control Arrays – Dialog Menu Editor – Menu Creation		
Unit:5	DATA CONTROLS	8 Hours
Data Controls – Data Access Objects (DAO) – Accessing and Manipulating Databases – Recordset – Types of Recordset – Creating a Recordset – Modifying, Deleting Records – Finding Records - Data Report – Data Environment – Report - Designer – Connection Object – Command Object – Section of the Data Report Designer – Data Report Controls.		
Unit 6	CONTEMPORARY ISSUES	2 Hours
	Expert lectures, online seminars – webinars	
	Total Lecture hours	60 hours

Text Book(s)

- 1 Steven Holzner, “VB 6 Programming Black Book”, Dream Tech Press, New Delhi, 2002.

Reference Books

- 1 N. Krishnan & N. Saravanan, “Visual Basic 6.0 in 30 days”, Scitech Publications, (India) Pvt Ltd., Chennai, 2001.

Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]

- 1 <https://www.youtube.com/watch?v=-HNNCem5MoQ>
- 2 <https://www.youtube.com/watch?v=bCMWfzPONJg>
- 3 <https://www.youtube.com/watch?v=hfqqRUAXCC0>

Course Designed By:

Mapping with Programme Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	M	M	S	S	S
CO3	S	S	S	S	S
CO4	S	S	M	S	S
CO5	S	M	S	S	S

S- Strong; M-Medium; L-Low

Core Paper XII– **Computer Applications: GST with Tally Practical – V**

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core Paper XII			5		4	5	25	75	100
Learning Objectives									
C1	To Introduce accounting in Tally prime								
C2	To Understand the Preparation of Masters group								
C3	To Create the accounting transactions								
C4	To Generate the financial statements and MIS reports								
C5	To Introduce the GST Calculation to Tally entry								
Prerequisites: Should have studied Commerce in XII									
UNIT	Contents								No. of Hours
1. Create the company with relevant information using tally prime									
2. Ledger creation									
Capital Accounts									

	5	Machinery	20000	
4. Prepare Trading Account using tally prime				
Particulars		Amount		
Sales		2,05,000		
Sales Return		15,000		
Purchase		49,000		
Purchase Returns		3000		
Opening Inventories		8000		
Closing Inventories		30000		
5.Prepare the trading and profit and Loss account and balance sheet as on 31 st march 2021 in Tally Prime				
Particular	Rs	Particulars	Rs	
Capital	3600	Salaries	600	
Machinery	700	General Expenses	200	
Sales	8,200	Rent	500	
Purchase	4000	Return outward	50	
Sales Return	100	Debtor	3000	
Stock 1-4-2020	1000	cash	400	
Drawing	400	carriage on sales	200	
Wages	1000	Advertisement	200	
Carriage inward	50	Creditor	500	
		Closing stock	2000	
6. Create the following items in tally prime inventory masters				
Activity- Stock Group Creation				
Stock Item Name	Stock Group	Stock Category	Units of Measure	
Oppo A31 Mobile	Oppo Mobile Phone	64 GB Storage	Nos	

OnePlus Nord Mobile	OnePlus Mobile Phone	128 GB Storage	Nos
Nokia C3 Mobile	Nokia Mobile Phone	32 GB Storage	Nos

7...Purchasing the following goods from Anita enterprises, Tamilnadu with supplier invoice 101. Enter in purchase voucher in tally prime with necessary ledger creation.

- Computer 100nos Rs.12000
- External Hard Drive 50nos Rs.3500

8. Purchasing the following goods from Ax world, New Delhi with supplier invoice 102. Enter in purchase voucher in tally prime with necessary ledger creation.

Pen driver 300nos Rs.750; Scanner 50nos Rs.25200

9. Sold the following goods to Mr.Murali, Tamilnadu with customer invoice 123. Enter in sale voucher in tally prime with necessary ledger creation.

- Pen driver 50nos Rs.850
- Scanner 10nos Rs.27000

10. Sold the following goods to Ms.Meera, Gujarat with customer invoice 124. Enter in sale voucher in tally prime with necessary ledger creation. Computer 10nos Rs.14000; External Hard Drive 10nos Rs.4000

11. Enter the following transaction of ANU enterprises

Apr 05 Paid Telephone Charges Rs.2000

Apr 10 Received Commission Rs.30000

Apr 23 An account paid to M/s.ANU ENTERPRISES was Rs.15000 part settlement against bill no:21

May 01 Purchase goods from M/s.A.P COMPUTERS was Rs.50000 bill no:30 25days

May 13 Depreciation of Machinery @ 10%

May 19 Cash withdraw from bank Rs.10000

May 27 Bank O/D Received Rs.200000

12. Create Godown in tally prime

Particulars	Rs	Rs
Capital		3,00000
Bills Payable		45000
Cash	1,42,200	
Furniture	50000	
Bank o/d		80000
Good will	95000	

Salary Due		45000
Profit and Loss account		50000

Name of the Godown

Name: Godown: A

Under: primary

Name: Godown B

Under: primary

Stock in hand

Name of the item	Qty	Rate	Godown
External Hard Disk	10nos	8000 each	(A-6,B-4)
Internal Hard Disk	7nos	3,000 each	(A-5.B-2)

13. Generating the report and print

14. Create a company with all relevant information with enabling GST information

15. Accounting of purchases made from composition dealers and defining GST rate details at stock item level

JK Traders Purchased the following goods from Rakesh Traders, Karnataka who is a composition dealer with the supplier invoice number 001 (GST:8%)

Name of item	quantity	Rate
M S Printer	10 Nos	6000

16. Calculate total GST payable by the XYZ firm for the Following transactions

GST (Feature 28%)

(i)Purchase from Mr.Ajay Local (Delhi) GST No: 07AADCB2230MIZV

- 20 PCS, DELL LED ,22 Inch @Rs 9500 each on 1st may
- 10 PCS ,HP LED ,21 Inch @ Rs .9200each on 2nd may

(ii)Purchase from Mr.Sunil, Inter-state (Kerala) GST no: 32AAACC417 5D 1Z7

10 PCS HCL Lap Top, i3 @ Rs .19500 each on 1st may

15 PCS Lenovo LapTop i7@ Rs 24500 each on 2nd May

17. A Shop Keeper is selling a TV for taxable value of Rs. 30,000 GST Charged is 28 %.Calculate SGST, CGST & GST.

18. A Shop Keeper is selling a TV with discount offer of 10 % on the taxable value of Rs. 30,000 .Calculate SGST, CGST, GST and Total amount .GST Charged at 28 %

19. How to pass purchase and sales entries with GST in Tally prime

1. July – Goods purchase from Chennai Mobiles RS. 3, 20, 000 + GST 18 %

VIVO V20 (HSN:8175)	20 nos	Rs .10000
VIVO V 20 pro(HSN:8175)	10 nos	Rs.12000

2 July –Cash Purchase from Chennai Mobiles RS 50000 /-+18% inventories

VIVO V 20 (HSN:8175)	2 NOS	Rs 10000
VIVO V 20 pro (HSN:8175)	3 nos	Rs.12000

JULY 1 Goods sold to Chandra Mobiles Rs 2, 35,000. + 18 %

Inventories

VIVO V20 (HSN:8175)	10 nos	Rs .15 000
VIVO V 20 pro	5 nos	Rs.17000

July 2 Cash sales to chandru Mobiles Rs 1, 26,000 + 18% GST

Inventories

VIVO V20 (HSN:8175)	5 nos	Rs .15 000	2% Discount
VIVO V 20 pro (HSN:8175)	5 nos	Rs.17000	2% Discount

20. Exporting the returns (GSTR-1, GSTR-2, GSTR -3B and uploading in GST portal

	Total	45
CO	Course Outcomes	
CO1	Understand accounting entries in Tally prime	
CO2	Understand the creations of Masters group	
CO3	Understand the accounting transactions entry in Tally	
CO4	Generate the financial statements and MIS reports	
CO5	Understand the GST Calculation in Tally entry	
Textbooks		

LO1	To know the nature and objectives of Mercantile law	
LO2	To understand the essentials of valid contract	
LO3	To gain knowledge on performance contracts	
LO4	To define the concepts of Bailment and pledge	
LO5	To understand the essentials of contract of sale	
Prerequisites: Should have studied Commerce in XII Std..		
Unit	Contents	No. of Hours
I	Introduction An introduction – Definition – Objectives of Law - Law: Meaning and its Significance, Definition, Nature, Objectives, Sources, Problems of Mercantile Law	8
II	Elements of Contract Indian Contract Act 1872: Definition of Contract, Essentials of Valid Contract, Classification of Contract, Offer and Acceptance – Consideration – Capacity of Contract – Free Consent - Legality of Object – Contingent Contracts – Void Contract	7
III	Performance Contract Meaning of Performance, Offer to Perform, Devolution of Joint liabilities & Rights, Time and Place of Performance, Reciprocal Promises, Assignment of Contracts - Remedies for Breach of contract - Termination and Discharge of Contract - Quasi Contract	7
IV	Contract of Indemnity and Guarantee Contract of Indemnity and Contract of Guarantee - Extent of Surety’s Liability, Kinds of Guarantee, Rights of Surety, Discharge of Surety – Bailment and Pledge – Bailment – Concept – Essentials and Kind - Duties and Rights of Bailor and Bailee – Law of Pledge – Meaning – Essentials of Valid Pledge, Pledge and Lien.	7
V	Sale of Goods Act 1930: Definition of Contract of Sale – Formation - Essentials of Contract of Sale - Conditions and Warranties - Transfer of Property –Sale by Non-owners - Rights and duties of buyer - Rights of an Unpaid Seller	8
	TOTAL	37
CO	Course Outcome	
CO1	Explain the Objectives and significance of Mercantile law	
CO2	Understand the clauses and exceptions of Indian Contract Act.	
CO3	Explain concepts on performance, breach and discharge of contract.	
CO4	Outline the contract of indemnity and guarantee	
CO5	Explain the various provisions of Sale of Goods Act 1930	
Textbooks		

1	N.D. Kapoor , Business Laws- Sultan Chand andSons, New Delhi.
2	R.S.N. Pillai – Business Law, S.Chand, New Delhi.
3	M C Kuchhal & Vivek Kuchhal, Business law, S Chand Publishing, New Delhi
4	M.V. Dhandapani, Business Laws, Sultan Chand andSons, New Delhi.
5	Shusma Aurora, Business Law,Taxmann, New Delhi.
Reference Books	
1	Preethi Agarwal, Business Law, CA foundation study material, Chennai.
2	Business Law by Saravanel, Sumathi, Anu, Himalaya Publications, Mumbai.
3	Kavya and Vidhyasagar, Business Law, Nithya publication, New Delhi.
4	D.Geet, Business Law Nirali Prakashan Publication, Pune.
5	M.R. Sreenivasan , Business Laws, Margham Publications, Chennai.
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	www.cramerz.com www.digitalbusinesslawgroup.com
2	http://swcu.libguides.com/buslaw
3	http://libguides.slu.edu/businesslaw

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	2	3	2	2	2	2	2	2	2
CO2	3	2	3	3	2	2	2	2	2	2	2
CO3	3	2	2	3	2	2	2	2	2	2	2
CO4	3	2	3	3	2	2	2	2	2	2	2
CO5	3	2	3	3	2	2	2	2	2	2	2
TOTAL	15	10	13	15	10	10	10	10	10	10	10
AVERAGE	3	2	2.6	3	2	2	2	2	2	2	2

3 - Strong, 2 - Medium , 1- Low

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core XIII	5				4	5	25	75	100
Learning Objectives									
LO1	To enable students to understand process of auditing and its classification.								
LO2	To impart knowledge on internal check and internal control.								
LO3	To acquire a detailed knowledge on verification of assets and liabilities								
LO4	To illustrate the role of auditors in company.								
LO5	To provide insights into the concept of Corporate Social Responsibility								
Prerequisite: Should have studied Commerce in XII Std..									
Unit	Contents							No. of Hours	
I	Introduction to Auditing: Meaning and Definition of Auditing –Distinction between Auditing and Accounting – Objectives – Advantages and Limitations of Audit – Scope of Audit – Classifications of Audits – Audit of Banking, Insurance, Non-Profit Organizations and Charitable Societies, Trusts, Organizations.							15	
II	Audit Procedures and Documentation: Audit Planning – Audit Programme – Procedures - Internal Audit - Internal Control – Internal Check – Vouching – Cash and Trade Transactions - Verification and Valuations of Assets and Liabilities.							15	
III	Verification and Valuation of Assets and Liabilities: Verification and Valuation of Assets and Liabilities – Auditor’s position regarding the valuation and verifications of Assets and Liabilities – Depreciation – Reserves and Provisions – Secret Reserves							15	
IV	Company Auditor: Appointment and Removal of Auditors – Rights, Duties and Liabilities of Auditor – Professional Conduct and Ethics in Auditing - Audit Report - Recent Trends in Auditing - Information Systems Audit (ISA) – Impact of Computerization on Audit Approach – Online Computer System Audit – Types of Online Computer Systems – Procedure of Audit under ISA System.							15	
V	Corporate Social Responsibility: Concept of CSR, Corporate Philanthropy, Strategic Relationship of CSR with Corporate Sustainability - CSR and Business Ethics, CSR and Corporate Governance - CSR Provisions under the Companies Act, 2013.							15	
	TOTAL							75	
CO	Course Outcomes								
CO1	Define auditing and its process.								
CO2	Compare and contrast essence of internal check and internal control.								
CO3	Acquire a detailed knowledge on verification of assets and liabilities.								
CO4	Identify the role of auditors in companies.								
CO5	Appraise the implications of Corporate Social Responsibility								
Textbooks									
1	Dinkar Pagare, Principles and Practice of Auditing,Sultan Chand & Sons, New Delhi								
2	B. N. Tandon, S. Sudharsanam & S.Sundharabahu, Practical Auditing, S.Chand & Sons New Delhi								
3	Dr.T.R. Sharma, Dr.Gaurav Sankalp, Auditing & Corporate Governance, Sahithya Bhawan Publications, Agra								
4	ArunaJha, Auditing & Corporate Governance, Taxmann Publication Pvt. Ltd, New Delhi.								
Reference Books									
1	Kevin Keasey, Steve Thompson & Mike wright, Governance & Auditing, Emerald Group								

	Publishing Limited, Bingley
2	Dr.T.R. Sharma, Auditing, Sahithya Bhawan Publications, Agra
3	C.B.Gupta, NehaSinghal, Auditing & Corporate Governance, Scholar Tech Press, New Delhi.
4	Shri. Vengadamani, Practical Auditing, Margham Publication, Chennai.
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	https://www.wallstreetmojo.com/audit-procedures/
2	https://theinvestorsbook.com/company-auditor.html
3	https://www.investopedia.com/terms/c/corp-social-responsibility.asp

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	2	3	3	3	3	2
CO2	3	2	2	2	2	2	2	2	3	2	2
CO3	3	3	3	2	3	2	3	3	3	3	2
CO4	3	2	2	2	2	2	2	2	3	3	2
CO5	3	3	3	2	3	2	3	3	3	2	2
TOTAL	15	12	13	10	13	10	13	13	15	13	10
AVERAGE	3	2.2	2.6	2	2.6	2	2.6	2.6	3	2.6	2

3 - Strong, 2 - Medium , 1- Low

SEMESTER-VI
Core Paper XIV - Digital Marketing

Course code	TITLE OF THE COURSE	L	T	P	C
Core XIV	DIGITAL MARKETING	5			4
Pre-requisite	Basic knowledge in Digital Marketing	Syllabus Version		2025-26	
Course Objectives:					
Themainobjectives ofthis course areto: <div><div>1. ToUnderstandthe importanceofdigital marketing</div><div>2. ToGain Knowledge on digitalmarketingmix</div><div>3. ToUnderstand thevarious conceptsin digitalmarketing</div><div>4. ToAcquireknowledgeoninteractivemarketing</div><div>5. ToKnowledge on legal issues relatedto digitalmarketing</div></div>					
ExpectedCourseOutcomes:					
Onthe successfulcompletionofthecourse,studentwillbeableto:					

1	Identify and assess the impact of digital technology in transforming the business environment and also the customer journey	K2
2	Understand how marketers think, conceptualize, test continuously to optimize their product search on digital platforms	K4
3	Illustrate how the effectiveness of a digital marketing campaign can be measured	K2
4	Demonstrate their skills in digital marketing tools such as SEO, Social media, and Blogging for engaging the digital generation	K1
5	Appreciate the need for regulatory framework for digital marketing in India.	K2
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5-Evaluate; K6-Create		
Unit:1	INTRODUCTION	12-hours
Introduction-Concept, scope, and importance of digital marketing. Traditional marketing versus digital marketing. Challenges and opportunities for digital marketing. Digital penetration in the Indian market. Digital marketing landscape: an overview.		
Unit:2	DIGITAL MARKETING MANAGEMENT	12-hours
Digital-marketing mix. Segmentation, Targeting, Differentiation, and Positioning: Concept, levels, and strategies in a digital environment; Digital technology and customer- relationship management. Digital consumers and their buying decision process.		
Unit:3	DIGITAL MARKETING PRESENCE	12-hours
Concept and role of Internet in marketing. Online marketing domains. The P.O.E.S-M framework. Website design and Domain name branding. Search engine optimization: stages, types of traffic, tactics. Online advertising: types, formats, requisites of a good online advertisement. Buying models. Online public relation management. Direct marketing: scope and growth. E-mail marketing: types and strategies.		
Unit:4	INTERACTIVE MARKETING	12-hours
Interactive marketing: concept and options. Social media marketing: concept and tools. Online communities and social networks. Blogging: types and role. Video marketing: tools and techniques. Mobile marketing tools. PPC marketing. Payment options.		
Unit:5	ETHICAL AND LEGAL ISSUES	10-hours
Ethical issues and legal challenges in digital marketing. Regulatory framework for digital marketing in India.		
Unit:6	CONTEMPORARY ISSUES	2 hours
Expert lectures, online seminars-webinars		
	Total Lecture hours	60-hours
Text Book(s)		
1	Chaffey, D, F.E. Chadwick, R. Mayer, and K. Johnston. Internet Marketing: Strategy, Implementation, and Practice. Pearson India (2015)	
2	Kotler, Philip, Hermawan Kartajaya, and Iwan Setiawan Digital Marketing: 4.0 (2017).	
3	Moving from Traditional to Digital. Pearson India	
Reference Books		
1	Frost, Raymond D., Alexa Fox, and Judy Strauss E-Marketing. Rutledge (2018).	
2	Gupta, Seema Digital Marketing. Mc Graw Hill Education (India) Private Ltd. (2018).	
3	Kapoor, Neeru. E-Marketing, Pinnacle learning	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1		
2		
4		
Course Designed By:		

THIRD YEAR – SEMESTER – VI
Core Paper XV - Web Design (Theory)

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Core Paper XV	4	1			4	5	25	75	100
Learning Objectives									
LO1	Explaining the concept of Web design and its applications.								
LO2	Detailed description for Internet Domains and establishing Connectivity Internet.								
LO3	Structuring the HTML tags, Lists, Tables, Frames, Forms and Forms elements								
LO4	Emphasizing the DHTML Style Sheets, linking a Style Sheet and Web page designing								
LO5	Elaborating the concept of JavaScript Document Object Model and Cookies								
Prerequisites: Should have studied Commerce in XII Std..									
Unit	Contents								No. of Hours
I	Internet: Basic Concepts – Communicating on Internet – Internet Domains – Internet Server Identities – Establishing Connectivity on the Internet								12
II	Introduction to HTML: Anchor Tag – Hyperlink - Head and Body Section – Heading - Horizontal Ruler – Paragraphs – Tags - Images and Picture – Lists – Tables – Frames - Forms and forms elements.								12
III	DHTML and Style sheets: Defining styles - Elements of style - Linking a style sheet to a html documents - Inline style - External style sheets - Multiple styles- Web page designing.								12
IV	Introduction to Java script: Advantage of JavaScript - Data type - Variable – Array - Operator and Expression - Control and looping Constructs - Functions - Dialog Boxes.								12
V	JavaScript Document Object Model: Event Handling - Form Object - Built in Object - User Defined Object-Cookies								12
	TOTAL								60
CO	Course Outcomes								
CO1	Demonstrate Internet Basic concepts and Internet Domains								
CO2	Impart Lists, Frames and Table to the Forms and Forms Elements								
CO3	Elaborate DHTML Style Sheets and Element of the Style								
CO4	Representation of JavaScript Data types, Control and Looping and Functions.								
CO5	Pointing out Form object, User Defined Object and Cookies								
Textbooks									
1	Ivan Bayross, “Web Enabled Commercial Application Development using HTML, JavaScript, DHTML and PHP”, Fourth Edition, 2010, BPB Publications								
2	Harvey M. Deitel, Paul J. Deitel, Tem R. Nieto, “Internet & World Wide Web – How to program”, Third Edition, 2002, Prentice Hall								
3	Using HTML 4, XML & JAVA by Eric Ladd & Jim O’Donell (Platinum Edition) (PHI)								
Reference Books									

1	Hirdesh Bharadwaj, Web designing, Paper Back, 2016
2	Brain D Miller, Principles of web design, Allworth Publications, 2022
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	http://books.google.co.in/books?id=BrASwbtAGGUC&pg=PA69&source=gbs_selected_pages&cad=2#v=onepage&q&f=false
2	https://www.google.co.in/books/edition/Principles_of_Web_Design/qFk1EAAQBAJ?hl=en&gbpv=1&dq=web%20design&pg=PA1977&printsec=frontcover

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	2	3	3	3	2	2
CO2	3	2	2	2	2	2	2	2	3	2	3
CO3	3	3	2	2	3	2	3	3	3	2	2
CO4	3	2	2	2	2	2	2	2	2	2	2
CO5	3	3	3	2	3	2	3	3	3	2	3
TOTAL	15	12	12	10	13	10	13	13	14	10	12
AVERAGE	3	2.4	2.4	2	2.6	2	2.6	2.6	2.8	2	2.4

3 - Strong, 2 - Medium , 1- Low

SEMESTER-VI
Skill Based: Computer Applications: Visual Basic & Web Designing Practical- VI

Course code		TITLE OF THE COURSE	L	T	P	C
Skill Based		Computer Applications: Visual Basic & Web Designing Practical- VI	-	-	4	3
Pre-requisite		Basic Knowledge on Computers				
Course Objectives: The main objectives of the program are: 1. To acquire the knowledge on application of Visual basic. 2. To apply the concepts of vb in business applications. 3. To develop programs using visual basic. 4. To design the form for performing programs in IDE environment. 5. To develop the students to perform the practical programs in VB.						
Expected Course Outcomes: On the successful completion of the course, student will be able to:						
1	Understand the basic concepts computer applications using Oracle for maintaining the database.				K2	
2	Create different databases using access application for developing the business transactions				K4	

3	Gain the knowledge on creating database using oracle.	K2
4	Gain knowledge on application of oracle statements to extract the particular data base.	K4
5	Gain the knowledge on developing employees and salary databases using oracle.	K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 – Create		
1. Design a form with text box to perform the alignment and format function. 2. Design a form to display the list of products by declaring array function. 3. Design a form to calculate capital budgeting technique by declaring finance function and variable declaration using option button (Radio/Check box). 4. Design a form to display an advertisement banner using image box control with string function. 5. Design a form to compute cost of capital using finance function in visual basic using check box. 6. Design a form to perform working capital analysis by declaring finance function using flex grid control. 7. Design a form to display Break-even analysis using line and chart controls, by declaring variables.		

8.	Design a form to present product details like purchases, sales, profit,etc by declaring array functions and present the details in a rich text box(RTF).
9.	Design a form to display Product Life Cycle using slider control.
10.	Design a Pay Slip for an organization and create a data base using using SQL and Data Control.
11.	Design the form to display the highlights of the budget using option button and animation.
12.	Design a supermarket bill to display the sales invoice, and create a database using Data Control, option button, , check box, date picker, etc.
13.	Design the form to create a bank customer database by declaring simple array and multiple arrays using Data Control.
14.	Design a form to calculate minimum, maximum, reorder, reorder quantity, EOQ and display the inventory control records using data object.
15.	Design the form to display tree view and list of folders and files from a directory of an organization.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	

- 1 <https://www.youtube.com/watch?v=-HNNCem5MoQ&t=29s>
- 2 https://www.youtube.com/watch?v=uTy_qBKr5mE
- 3 <https://www.youtube.com/watch?v=PldGe0-FnI8>

Course Designed By:

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

S- Strong; M-Medium; L-Low

ELECTIVES

Elective – I A: Introduction to ERP

Category		L	T	P	S	Credits	Inst. Hours	Marks		
								CIA	External	Total
Elective – I		5				4	5	25	75	100
Learning Objectives										
LO1	To understand the ERP and its risks and benefits									
LO2	To be aware of ERP solutions and functional modules									
LO3	To analyse the ERP implementation									
LO4	To apply the post implementation and maintenance of ERP									
LO5	To examine of emerging trends in ERP									
Prerequisites: Should have studied Commerce in XII Std..										
Unit	Contents								No. of Hours	
I	Introduction: Overview of enterprise systems ñ Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems								12	
II	ERP Solutions and Functional Modules: Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules								12	
III	ERP Implementation: Planning Evaluation and selection of ERP systems - Implementation life cycle - ERP implementation, Methodology and Frame work- Training ñ Data Migration - People Organization in Implementation-Consultants, Vendors and Employees.								12	
IV	Post Implementation: Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.								12	
V	Emerging Trends on ERP: Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.								12	
	TOTAL								60	
CO	Course Outcomes									
CO1	Illustrate the Pros and cons of ERP									
CO2	Describe the different modules of ERP									
CO3	Enumerate the implementation of ERP									
CO4	Analyze the success and failure factors of ERP implementation									
CO5	Discuss the cloud computing									
Textbooks										
1	Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill,200									
2	Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India,2012									
3	Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill,2008									
Reference Books										
1	Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill,2008									
2	Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India,2009									
3	Vinod Kumar Grag and N.K. Venkita krishnan, ERP- Concepts and Practice, PHI,2006									

I	Financial Markets Financial Markets – Structure of Financial Markets – Financial Investment – Money Market in India – Indian Capital Markets – Difference between Money Market and Capital Market – Classification and object of Indian Money Markets and Structure of Capital Markets.	12
II	Markets for Corporate Securities Markets for Corporate Securities – New Issue Markets – Functions Issue Mechanism – Merchant Banking - Role and Functions of Merchant Bankers in India – Under writing	12
III	Secondary Markets Secondary Markets – Stock Exchange – Role of Secondary Market – Trading in Stock Exchange – Various Speculative Transactions – Role of SEBI – Regulation of Stock Exchange	12
IV	Banks as Financial Intermediaries Banks as Financial Intermediaries – Commercial Banks Role in Financing – IDBI – IFCI – LIC – GIC – UTI – Mutual Funds – Investments Companies.	12
V	New Modes of Financing New Modes of Financing – Leasing as Source of Finance – Forms of leasing – Venture Capital – Dimension Functions – Venture Capital in India – Factoring – Types – Modus Operandi of Factoring – Factoring as Source of Finance – Securitization of assets – Mechanics of Securitization- Utility of Securitization – Securitization in India	12
	TOTAL	60
CO	Course Outcomes	
CO1	Recall the fundamental concepts of financial markets	
CO2	Know about the markets for corporate securities	
CO3	Know about secondary markets.	
CO4	Gain knowledge about banks as financial intermediaries.	
CO5	Understand about new methods of financing.	
Textbooks		
1	Essentials of Business Finance - R.M. Sri Vatsava	
2	Financial Management –Saravanel	
3	Financial Management - L.Y. Pandey	
Reference Books		
1	Financial Management - M.Y. Khan and Jain	
2	Principles of Financial Management - S.N. Maheshwari	
NOTE: Latest Edition of Textbooks May be Used		
Web Resources		
1	https://www.youtube.com/watch?v=28HpCMWfc7k&t=1s	
2	https://www.youtube.com/watch?v=UwHk3EK7M3I	

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	2	3	3	3	2	2
CO2	3	2	2	2	2	2	2	2	3	2	3
CO3	3	3	2	2	3	2	3	3	3	2	2

LO3	To Apply the data link layer in Networks	
LO4	To analyse the network layer and design issues	
LO5	To imply of transport layer and transport protocol	
Prerequisite: Should have studied Commerce in XII Std..		
Unit	Contents	No. of Hours
I	Introduction: Uses of Computer Networks – Network Hardware- Network Software OSI Reference Model – TCP/IP Reference Model.	12
II	Physical Layer: Guided Transmission media – Wireless Transmission – Public switched Telephone Network –Local Loop – Trunks – Multiplexing- Switching.	12
III	Data Link Layer: Design Issues- Error Detection and Correction- Simplex Stop and Wait Protocol- Sliding Window Protocol.	12
IV	Network Layer: Design Issues – Routing Algorithm- IP Protocol – IP Addresses Internet Control Protocols.	12
V	Transport Layer: Addressing- Connection Establishment-Connection Release. Internet Transport Protocol: UDP-TCP. Application Layer: DNS- Electronic Mail- World Wide Web	12
	TOTAL	60
CO	Course Outcomes	
CO1	Illustrate the usage of computer networks and functions of each layer in OSI and TCP/IP model	
CO2	Implications of Physical layer, and apply them in real time applications.	
CO3	Design of Data link layer	
CO4	Design of network link layers and generate IP Address	
CO5	Design of transport layer and Protocols needed for end –end delivery of packets Role of layer in real time applications	

Textbooks	
1	Andrew S. Tanenbaum, “Computer Networks”, Fourth Edition, 2008, PHI
2	Behrouz and Forouzan, “Data Communication and Networking”, Third Edition, 2006, TMH
3	Tanenbaum, A. S. (2004). Computer Networks. Pearson Education
Reference Books	
1	Couch Digital and Analog communication systems, MacMillan publishing Co, 1990.
2	William Stallings , Data and Computer Communications, MacMillan Publishing Co, second edition 1989
3	Prokis, J.Q, Digital Communications, Mcgraw Hill , 1983
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	http://ceit.aut.ac.ir/~91131079/SE2/SE2%20Website/Lecture%20Slides.html
2	https://www.google.co.in/books/edition/Computer_Networks/J_1SAAAAMAAJ?hl=en&gbpv=0&bsq=computer%20networks

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	2	2	2	3	2	2
CO2	3	2	2	2	3	2	2	2	3	2	2

V	Brand Strategies Brand Strategies: Designing and implementing branding strategies – Case studies	12
	TOTAL	60
CO	Course Outcomes	
CO1	Recall various terms and concepts relating to branding	
CO2	Understand on brand vision and image building	
CO3	Evaluate the dimensions of branding impact	
CO4	Differentiate specific components of branding and co-branding	
CO5	Explain the emerging trends in designing branding	

Textbooks	
1	Kevin Lane Keller, “Strategic brand Management”, Person Education, New Delhi, 2003.
2	Lan Batey Asian Branding – “A great way to fly”, Prentice Hall of India, Singapore 2002
3	Jean Noel, Kapferer, “Strategic brand Management”, The Free Press, New York, 1992
Reference Books	
1	S.Ramesh Kumar, “Managing Indian Brands”, Vikas publishing House (P) Ltd., New Delhi, 2002
2	Jagdeep Kapoor, Brandex, Biztantra, New Delhi, 2005
3	Emmanuel Mogaji, Brand Management (An Introduction Through Storytelling), Springer International Publishing, 2021
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	https://www.youtube.com/watch?v=3iw2609DEuY
2	https://www.youtube.com/watch?v=nwc68CNAXTM&list=PLP1K8RwG01-eTBzOSDVpQOjiCZ3Z8Hn08

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	2	2	2	3	2	2
CO2	3	2	2	2	3	2	2	2	3	2	2
CO3	3	2	3	2	3	2	2	2	3	2	2
CO4	3	2	2	2	2	2	2	2	3	2	2
CO5	3	2	3	2	2	2	2	2	3	2	2
TOTAL	15	10	13	10	12	10	10	10	15	10	10
AVERAGE	3	2	2.6	2	2.4	2	2	2	3	2	2

3 - Strong, 2 - Medium , 1- Low

THIRD YEAR – SEMESTER – VI
Elective – II C : Entrepreneurial Development

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Elective III	5				4	5	25	75	100
Learning Objectives									
LO1	To student should be well versed in concept relating to Entrepreneurship.								
LO2	To gain knowledge on Financial Institutions which provides finance and services to the entrepreneurs.								
LO3	To know about the incentives and subsidies								
LO4	To aware of the Start-up Process								
LO5	To understand the various financial packages for Business								
Prerequisite: Should have studied Commerce in XII Std..									
Unit	Contents							No. of Hours	
I	Concept of Entrepreneurship Concept of entrepreneurship: Definition Nature and characteristics of entrepreneurship – function and type of entrepreneurship phases of EDP. Development of women entrepreneur & rural entrepreneur – including self-employment of women council scheme.							12	
II	The Start-Up Process The start-up process, Project identification – selection of the product – project formulation evaluation – feasibility analysis, Project Report.							12	
III	Institutional Service to Entrepreneur Institutional service to entrepreneur – DIC, SIDO, NSIC, SISI, SSIC, SIDCO – ITCOT, IIC, KUIC and commercial bank							12	
IV	Institutional Finance to Entrepreneurs Institutional finance to entrepreneurs: IFCI, SFC, IDBI, ICICI, TIIC, SIDCS, LIC and GIC, UTI, SIPCOT – SIDBI commercial bank venture capital							12	
V	Incentives and Subsidies Incentives and subsidies – Subsidized services – subsidy for market. Transport – seed capital assistance - Taxation benefit to SSI role of entrepreneur in export promotion and import substitution							12	
	TOTAL							60	
CO	Course Outcomes								
CO1	Conceptualize the Entrepreneurship.								
CO2	Make the students to aware the start-up process.								
CO3	Know the institutional service to entrepreneur								
CO4	Gain the knowledge on institutional finance to the entrepreneur								
CO5	Know about the incentives and subsidies								
Textbooks									

Unit:1		12-- hours
Meaning of Tax and Taxation - Types of Taxes: Direct and Indirect Taxes - Features – Merits and Limitations - Comparison of Direct and Indirect taxes. Constitutional basis of Taxation in India- Methods of levying Indirect Taxes: Advoleram and Specific. Contribution of Indirect taxes to Government Revenues		
Unit:2		15-- hours
Good and Services Tax in India - Introduction – Concept of GST - Need for GST - Advantages of GST. Structure of GST in India: Dual Concept – CGST- SGST- UTGST-IGST. Subsuming of Taxes- GST Rate Structure in India. GST Council: Structure and Functions.		
Unit:3		15-- hours
Levy and Collection under CGST and SGST Acts: Meaning of important terms: Goods, Services, Supplier, Business, Manufacture, Casual Taxable Person, Aggregate Turnover, Input Tax and Output Tax. Taxable Event under GST: Concept of Supply - Time of supply - Value of Taxable supply. Composite and Mixed Supplies. Input Tax Credit: Meaning - Eligibility and Conditions for availing Input Tax Credit. Reverse Charge Mechanism under GST. Composition Levy: Meaning and Applicability.		
Unit:4		15--hours
Levy and Collection under Integrated Goods and Services Tax Act: Meaning of important terms: Integrated tax, Intermediary, Location of the Recipient and Supplier of Services, and Zero-rated Supply. Nature of Supply: Intra-State Supply and Inter-State Supply - Place of Supply of Goods or Services: Meaning and Determination. Procedures under GST: Procedure for Registration - Persons Liable for Registration - Compulsory Registration and Deemed Registration. E-Way Bill under GST: Meaning and Applicability. Filing of Returns: Types of GST Returns and their Due Dates.		
Unit:5		16--hours
Introduction to Customs Laws in India: The Customs Act 1962 - The Customs Tariff Act 1975 - Basic Concepts - Taxable Event - Levy and Exemptions from Customs Duty - Types - Methods of Valuation- Abatement of Duty on Damaged or Deteriorated Goods - Customs Duty Draw Back.		
Unit:6	Contemporary Issues	2 hours
Expert lectures, online seminars - webinars		
	Total Lecture hours	75--hours
Text Book(s)		
1	Indirect Taxes Law and Practice - V.S.Datey. Taxmann Publications, New Delhi.	
2	Indirect Taxes: GST and Customs Laws - R.Parameswaran and P.Viswanathan, Kavin Publications, Coimbatore.	
Reference Books		
1	GST Law and Practice - S.S.Gupta, Taxmann Publications, New Delhi.	
2	Indirect Taxation - V.Balachandran. Sultan Chand & Co. New Delhi	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://tutorstips.com/wp-content/uploads/2019/03/Goods-and-Services-Tax-In-India-Ebook-.pdf	
2	https://www.bing.com/videos/search?q=gst+video+youtube&view=detail&mid=7DFF9357992F1E0E36717DFF9357992F1E0E3671&FORM=VIRE	
Course Designed By:		

Mapping with programme outcomes					
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	M	M
CO2	S	S	M	M	M
CO3	S	M	M	M	M
CO4	S	S	M	M	M
CO5	S	S	M	M	M

THIRD YEAR – SEMESTER – VI
Elective – III B: Supply Chain Management

Category	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
Elective II	4				3	4	25	75	100
Learning Objectives									
LO1	Conceptualize an idea about supply chain management.								
LO2	Provide insight about economies of scale in supply chain.								
LO3	Deliver a detailed knowledge on networking the supply chain								
LO4	. Develop the students to know more about network design for supply chain management								
LO5	Have better understanding of emerging trends and regulatory mechanisms in supply chain								
Prerequisite: Should have studied Commerce in XII Std..									
Unit	Contents							No. of Hours	
I	Supply Chain Management							12	
	Supply Chain Management – Global Optimization – importance – key issues – Inventory management – economic lot size model. Supply contracts – centralized vs. decentralized system								
II	Supply Chain Integrates Supply chain Integrates- Push, Pull strategies – Demand driven strategies – Impact on grocery industry – retail industry – distribution strategies							12	
III	Strategic Alliances Strategic Alliances: Frame work for strategic alliances – 3PL – merits and demerits – retailer – supplier partnership – advantages and disadvantages of RSP – distributor Integration							12	
IV	Procurement and Outsourcing Procurement and Outsourcing: Outsourcing – benefits and risks – framework for make/buy decision – e-procurement – frame work of e-procurement							12	
V	Dimension of Customer Value Dimension of customer Value – conformance of requirement – product selection – price and brand – value added services – strategic pricing – smart pricing – customer value measures							12	
	TOTAL							60	
CO	Course Outcomes								
CO1	Recall various terms and concepts relating to supply chain								
CO2	Understand various forms of supply and demand in supply chain								
CO3	Evaluate the applications to e-business								
CO4	Differentiate specific network design in certain and uncertain situations								
CO5	Explain the emerging trends in supply chain and the regulatory mechanisms								
Textbooks									

III	Practical exposure on the framed objective.	12
IV	Learn the procedure of compiling the collected data by using analysis	12
V	Learn the ability of report writing, and will get complete knowledge of the course.	12
	TOTAL	60
CO	Course Outcomes	
CO1	Explain about how to collect literature	
CO2	Implement problem identification and will frame tool for collecting data	
CO3	Evaluate and get practical exposure on the framed objective.	
CO4	Execute and generate the procedure of compiling the collected data by using analysis	
CO5	Summarize and execute report writing, and will get complete knowledge of the course.	

Textbooks	
1	C.R. Kothari, “Research Methodology Methods and Techniques”, Second Edition, New Delhi: New Age International publisher, 2004
2	Handbook of Research Methodology (A Compendium for Scholars & Researchers), Edu creation Publishing, 2021
3	Dr. B.N. Gupta, Research Methodology, SBPD Publications, 2022
Reference Books	
1	Ranjit Kumar, Research Methodology: A Step-by-Step Guide for Beginners, SAGE Publications, 2014
2	Robert B Burns, Introduction to Research Methods, SAGE Publications
3	R. Panneerselvam, Research Methodology, PHI Learning, PHI Learning, 2014
NOTE: Latest Edition of Textbooks May be Used	
Web Resources	
1	Nandan Bhattacharya, Rajat Acharyya, Research Methodology for Social Sciences, Routledge, 2020
2	Pagadala Suganda Devi, Research Methodology (A Handbook for Beginners), Notion Press, 2017

MAPPING WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	2	2	2	3	2	2
CO2	3	2	2	2	3	2	2	2	3	2	2
CO3	3	2	3	2	3	2	2	2	3	2	2
CO4	3	2	2	2	2	2	2	2	3	2	2
CO5	3	2	3	2	2	2	2	2	3	2	2
TOTAL	15	10	13	10	12	10	10	10	15	10	10
AVERAGE	3	2	2.6	2	2.4	2	2	2	3	2	2

3 - Strong, 2 - Medium , 1- Low

