



DEPARTMENT OF B.COM(CA)

**CHOICE BASED CREDIT SYSTEM (CBCS) &
LEARNING OUTCOMES-BASED CURRICULAR FRAMEWORK (LOCF)**

BACHELOR OF COMMERCE WITH COMPUTER APPLICATIONS 2023

– 2026 BATCH

PROGRAMME LEARNING OUTCOMES (PLO's)

After completion of the programme, the student will be able to

- PLO1:** Acquire knowledge and skills specific to Accounting, finance, taxation, marketing and computer applications to contribute towards innovative business and environment sustainability.
- PLO2:** Assess the scope of commerce, computer applications and other relevant professional courses (CA, CMA, ACS, ACCA) for inter disciplinary and Trans disciplinary studies
- PLO3:** Imbibe new opportunities in emerging technologies including conceptual and creative thinking as an entrepreneur.
- PLO4:** Nurture employability skills in all areas of business by equipping themselves as a leader in different sectors of commerce and information technology
- PLO5:** Get transformed into an empowered individual with ethical standards and moral values in societal and professional lives.

PROGRAMME SPECIFIC OUTCOME (PSO's)

The students at the time of graduation will

- PSO1:** Apply the knowledge and skills learnt in this programme towards the industrial scenarios of the real world.
- PSO2:** Apply the knowledge and skills gained in computer application software to meet the technological and creative requirements of the industry.
- PSO3:** Follow ethical values and principles as a responsible citizen and contribute towards society's development.



DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS
CHOICE BASED CREDIT SYSTEM (CBCS) & LEARNING OUTCOMES – BASED CURRICULAR FRAMEWORK (LOCF)
BACHELOR OF COMMERCE WITH COMPUTER APPLICATIONS - 2023 BATCH & ONWARDS

Sem	Part	Subject Code	Title of the Paper	Course Type	Instruction hours/week	Contact hours	Tutorial	Duration of Examination	Examination Marks			Credits
									CA	ESE	TOTAL	
I	I	TAM2301A/ HIN2301A/ FRE2301A	Tamil Paper I/ Hindi Paper I/ French Paper I	Language	4	58	2	3	25	75	100	3
	II	ENG2301A	English Paper I	English	4	58	2	3	25	75	100	3
	III	CM23C01	Principles of Accounting	CC	5	73	2	3	25	75	100	3
	III	BP23C02	E-business Applications	CC	5	73	2	3	25	75	100	3
	III	TH23A07	Allied-Mathematics for Commerce	GE	6	88	2	3	25	75	100	4
	III	BP23CP1	Computer Application Practical I – Office Package	CC	4	60	-	3	15	35	50	2
	IV	NME23B1/ NME23A1	Foundation Course Basic Tamil I/ Advanced Tamil I	AEC	2	28	2	-	100	-	100	2
		NME23ES	Foundation Course Introduction to Entrepreneurship	AEC	2	30	-	-	100	-	100	2
	I	TAM2302A/ HIN2302A/ FRE2302A	Language II – Tamil Paper II/ Hindi Paper II/ French Paper II	Language	4	58	2	3	25	75	100	3
	II	ENG2302A	English Paper II	English	4	58	2	3	25	75	100	3
	III	BP23C03	Object Oriented Programming with C++	CC	5	73	2	3	25	75	100	3
	III	CM23C04	Financial Accounting	CC	5	73	2	3	25	75	100	3
	III	TH23A08	Allied-Statistics for Commerce	GE	6	88	2	3	25	75	100	4

II	III	BP23CP2	Computer Application Practical II – Programming with C++	CC	4	60	-	3	15	35	50	2
	IV		Online Course	Selfstudy	-	-	-	-	-	-	-	Gr
	IV	NME23B2/ NME23A2	*Foundation Course Basic Tamil II/ Advanced Tamil III	AEC	2	-	-	-	100	-	100	Gr
			Personality Development Programme		-	-	-	-	-	-	-	-
		NM23GAW	General Awareness self study		Self Study	-	-	Online test	100	--	100	Gr.
		23PECM1	Professional English for Commerce and Management	AEC	2	25	5	-	100	-	100	2
III	I	TAM2303A/ HIN2303A/ FRE2303A	Tamil Paper III/ Hindi Paper III/ French Paper III	L	4	58	2	3	25	75	100	3
	II	ENG2303A	English Paper III	E	4	58	2	3	25	75	100	3
	III	BP23C05	Digital Marketing	CC	5	73	2	3	25	75	100	4
	III	EC23C06	Relational Database Management System	CC	4	58	2	3	25	75	100	3
	III	BP23A01/ BP23A02/ EC23A01	Business Management and Ethics/ Human Resource Management/ Company Law	GE	5	73	2	3	25	75	100	4
	III	EC23CP3	Database Programming Practical	CC	3	45	-	3	15	35	50*	2
	III	BP22SBCE/ CS23SBGP	Coursera – Graphic Design Elements for Non-Designers/ Gen-AI	SEC	3	45/44	-/1	-	100	--	100	3
	IV	NM23DTG	Design Thinking	AEC	2	30	-	-	100	-	100	2
	IV	NM22UHR	Universal Human Values and Human Rights #	AECC	-	-	-	-	100	-	100	Gr.
I-IV	V	COM15SER	Community Services		-	-	-	-	-	-	-	-
I-V	VI	16BONL1 16BONL2	Online Course I Online Course II	ACC	-	-	-	-	-	-	-	-
IV	I	TAM2304A/ HIN2304A/ FRE2304A	Tamil Paper IV/ Hindi Paper IV/ French Paper IV	L	4	58	2	3	25	75	100	3
	II	ENG2304A	English Paper IV	E	4	58	2	3	25	75	100	3

	III	BP23C07/ CM23C10	Business Finance	CC	5	73	2	3	25	75	100	4
	III	BP23C08	Software development with Visual Basic.net	CC	4	58	2	3	25	75	100	4
	III	BP23A03 BP23A04 EC23A03	Business Law Banking Theory Law and Practice Business Economics	GE	5	73	2	3	25	75	100	4
	III	BP23CP4	Visual Basic.Net Practical	CC	3	45	-	3	15	35	50*	2
III/ IV	III	BP22SBCE/ CS23SBGP	Graphic Design Elements for Non-Designers/ GEN-AI	SEC	3	45	-	-	100	--	100	3
IV	IV	NM23EII	Entrepreneurship and Innovation (IgniteX)	AECC	2	30	-	-	100	--	100	2
	IV	NM23EVS	Environmental Studies	AECC	SS	-	-	-	100	-	100	Gr.
	V	COCOACT	Co-Curricular Activities	GC	--	-	-	--	100	--	100	1
I-IV	VI	COM15SER	Community Services 30 Hours	GC	--	--	--	--	--	--	--	.-
I-V	VI	16BONL1 16BONL2	Online Course 1 Online Course 2	ACC	-	-	-	-	-	-	-	-
V	III	BP23C09	Programming with Python	CC	5	73	2	3	25	75	100	5
	III	BP23C10/ CM23C11	Management Accounting	CC	5	73	2	3	25	75	100	4
	III	BP23C11/ CM23C12	Direct Taxation	CC	6	88	2	3	25	75	100	4
	III	BP23E01/ BP23E02/ CM23E03	Research Methodology/ Software Engineering and OOAD/ Performance Management	DSE	5	73	2	3	25	75	100	5
	III	BP23CP5	Programming with Python Practical	CC	4	60	-	3	15	35	*50	2
	III	BP23SBP1	Business intelligence with Machine Learning	SEC	3	41	4	-	100	-	100	3
	III	BP23AC1/ BP23AC2	Business Communication/ Introduction to Data Science	ACC	SS	-	-	3	25	75	100	5**
	IV	NM21CS1	Cyber Security I	AECC	2	30	-	-	100	-	100	Gr.
	IV	BP23INST	Field Work/Internship	DSE	-	-	-	-	100	-	100	2
	VI	BP23COM	Comprehensive Examination	GC	-	-	-	-	100	-	100	Gr.

I – IV	VI	COM15SER	Community Services 30 Hours	GC	-	-	-	-	-	-	-	-
I – V	VI	16BONL1 16BONL2	Online Course Online Course	ACC	-	-	-	-	-	-	-	-

L – Language

CC–Core Courses

GE–Generic Elective

AEC – Ability Enhancement Course

AECC- Ability Enhancement Compulsory Course

DSE-Discipline Specific Elective

SS - Self Study

GC-General Course

***CA conducted for 25 and converted into 15, ESE conducted for 75 and converted into 35**

**** Credits applicable to candidates who take up Advanced Level Course Examination**

E-English

CA– Continuous Assessment

ESE-End Semester Examination

SEC-Skill Enhancement Course

ACC-Additional Credit Course

Gr – Grade

ExaminationSystem

One test for continuous assessment will be conducted on pre-determined dates i.e., commencing on the 50th day from the date of reopening. The Model exam will be conducted after completing 85th working days. Marks for ESE and CA with reference to the maximum for the courses will be as follows

23-24Batchonwards

CAQuestionPaperPatternanddistributionofmarksUGLanguageandEnglish

SectionA	5x 1(No choice)	:	5 Marks
SectionB	4 x5 (4out of6)	:	20Marks(250words)
SectionC	2x10(2outof3)	:	20Marks(500words)

Total: 45

MarksUG-CoreandAllied-(First3Units)

CAQuestionfromeachunitcomprisingof

Onequestionwithaweightageof2Marks:2x3=6 One
question with a weightage of 5 Marks
(InternalChoiceat thesameCLOlevel):5x3=15

One question with a weightage of 8 Marks
(InternalChoiceatthesameCLOlevel):8x3=24

Total:45Marks

EndSemesterExamination–

QuestionPaperPatternandDistributionofMarksLanguage and English – UG

SectionA	10 x1 (10out of12):	10Marks
SectionB	5x5 (5 outof7)	: 25Marks(250words)
SectionC	4x10(4outof6)	: 40Marks(600-700words)
Total	:	75Marks

UG-CoreandAlliedcourses:

ESEQuestionPaperPattern:5x15=75Marks Question from each unit comprising of

Onequestionwithaweigtageof2Marks:2x5=10 One

question with a weightage of 5 Marks

(InternalChoiceatthesameCLOlevel):5x5=25 One

question with a weightage of 8 Marks

(InternalChoiceatthesameCLOlevel):8x5=40

ESEQuestionPaperPattern:(forAccountsPaper)5x15=75Marks Question from each unit comprising of

Onequestionwithaweigtageof2Marks:2x 5=10

Onequestionwithaweigtageof5Marks:5x5=25 One

question with a weightage of 8 Marks

(InternalChoiceat thesameCLOlevel):8x5=40

ContinuousInternalAssessmentPatternTheory(2023Batch)

CIATest : 5marks(conductedfor45marksafter50days)

ModelExam : 7marks(Conductedfor75marksafter 85days

(EachUnit15Marks))

Seminar/Assignment/Quiz : 5marks

ClassParticipation : 5marks

Attendance : 3marks

Total : 25 Marks

PartIV

Introduction to Entrepreneurship / Women Studies / Value education

/Environmental Studies / Design Thinking

Quiz : 50marks

Assignment : 25marks

Project/Casestudy : 25marks

Total: 100Marks

ProfessionalEnglish

ThecourseofferedinalignmentwithTANSCHEnormswith2credits. Quiz

(5 x 20 Marks) : 100 Marks

EntrepreneurshipandInnovation(IgniteX)

3Quizzes(25questionsineachquiz):50marks

30VentureActivities(Assignment):30marks

Milestone3(pitchdeckpresentation) :20 marks

Total : 100Marks

Advanced Learners Course

Eligibility – The Students should secure 75% in Part III Subjects till IV Semester (Optional not included for grant total and total credits earned). Extra credit 5 per Paper.

CIA Test Pattern

Section A (Paragraph Answer) (4 Out of 6) 4*4 : 16 Marks

Section B: (Essay Type) (1 Out of 2) 1* 9: 9 Marks

Total : 25 Marks

ESE Question Paper Pattern

Section A (Paragraph Answer) (5 Out of 8) 5*5: 25 Marks

Section B: (Essay Type) (5 Out of 8) 5* 10 : 50 Marks

Total : 75 Marks

Core Practical

Lab Performance : 7 Marks

Regularity : 5 Marks

Model Exam : 10 Marks

Attendance : 3 Marks

Total : 25 Marks

Skill Based Practical Courses

Test I : 30 Marks (Conducted for 50 marks and Converted to 30 Marks)

Test II : 50 Marks

Lab Performance : 10 Marks

Regularity : 10 Marks

Total : 100 Marks

PartIV

Cyber Security I

Quiz : 60marks

Casestudy : 20marks

Poster : 20 marks

Total : 100 Marks

Field Work / Institutional Training

Internship for a period of 21 days at the end of the semester IV during the vacation and report to be submitted in Semester V which will be evaluated for 100 marks dividend as follows:

Evaluation

Attendance : 10 Marks

Work dairy : 15 Marks

Report : 50 Marks

Viva Voce : 25 Marks

Total : 100 Marks

MAPPING OF PLOs WITH CLOs

COURSE	PROGRAMME OUTCOMES				
	PLO1	PLO2	PLO3	PLO4	PLO5
COURSE – CM23C01					
CLO1	S	M	S	M	S
CLO2	S	M	S	M	M
CLO3	S	M	M	M	M
CLO4	S	M	S	M	S
COURSE – BP23C02					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	M	S
CLO4	S	S	M	S	S
COURSE – BP23CP1					
CLO1	S	S	S	S	M
CLO2	S	S	S	L	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE – BP23C03					
CLO1	S	S	M	S	S
CLO2	M	S	S	M	S
CLO3	S	M	S	M	S
CLO4	S	S	M	L	L
COURSE – CM23C04					
CLO1	S	S	M	M	S
CLO2	S	S	M	M	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE – BP23CP2					
CLO1	S	S	M	M	M
CLO2	S	M	S	M	M
CLO3	S	M	M	S	L
CLO4	M	S	M	S	L
COURSE-23PECM1					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
CLO5	S	S	S	S	M
COURSE -BP23C05					
CLO1	S	M	S	S	M
CLO2	S	S	S	L	S

CLO3	S	M	S	L	M
CLO4	S	S	S	M	S
COURSE-EC23C06					
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M
COURSE -BP23A01					
CLO1	S	S	S	S	S
CLO2	S	S	S	M	S
CLO3	S	S	M	S	S
CLO4	S	S	M	M	M
COURSE -BP23A02					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE-EC23A01					
CLO1	S	L	S	S	M
CLO2	M	S	M	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
COURSE -EC23CP3					
CLO1	S	S	S	S	L
CLO2	S	S	S	S	L
CLO3	S	S	S	S	L
CLO4	S	S	S	S	L
COURSE -CS23SBGP					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	S
CLO3	S	S	M	S	S
CLO4	S	M	S	M	S
COURSE-NM23DTG					
CLO1	S	M	M	S	S
CLO2	M	S	S	M	M
CLO3	S	S	S	M	S
CLO4	S	S	S	S	S
COURSE-BP23C07/CM23C10					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	S
CLO4	S	S	S	M	M
COURSE -BP23C08					
CLO1	S	S	S	S	M

CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE -BP23A03					
CLO1	S	M	S	S	M
CLO2	S	S	S	L	S
CLO3	S	M	S	L	M
CLO4	S	S	S	M	S
COURSE -BP23A04					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE -EC23A03					
CLO1	S	M	S	S	S
CLO2	S	S	S	S	L
CLO3	S	M	S	M	S
CLO4	S	M	S	M	S
COURSE -BP23CP4					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE - BP23C09					
CLO1	S	S	M	S	S
CLO2	M	S	S	M	M
CLO3	S	M	S	M	S
CLO4	M	S	M	L	L
COURSE - BP23C10					
CLO1	S	S	S	M	S
CLO2	S	S	M	S	S
CLO3	S	M	S	M	S
CLO4	M	S	S	S	M
COURSE –BP23C11					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	M	M
COURSE – BP23E01					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	L

COURSE – BP23E02					
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M
COURSE – CM23E03					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE – BP23CP5					
CLO1	S	S	M	M	M
CLO2	S	M	S	M	M
CLO3	M	M	M	S	S
CLO4	M	S	M	S	L
COURSE – BP23SBP1					
CLO1	M	S	M	S	M
CLO2	S	M	S	S	S
CLO3	S	S	S	L	S
CLO4	M	S	M	S	M
S–Strong;M–Medium;L-Low					

SEMESTER I

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
CM23C01	PRINCIPLES OF ACCOUNTING	THEORY	73	2	-	3

Preamble

To enable the students to apply the conceptual principles and to develop an expertise in handling accounts of business entities and the consolidation of accounts through appropriate accounting techniques and policies.

Prerequisite

- Basic Knowledge in Financial Statements

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLOs	CLO Statement	Knowledge Level
CLO1	Define the concepts and conventions in accounting.	K1
CLO2	Interpret accounting statement using basic concepts.	K2
CLO3	Apply the procedures of recording transactions and preparation of Reports.	K3
CLO4	Articulate the accounting concepts to interpret the performance of a Firm.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	M	S
CLO2	S	M	S	M	M
CLO3	S	M	M	M	M
CLO4	S	M	S	M	S

S-Strong; M-Medium; L-Low

Syllabus

PRINCIPLES OF ACCOUNTING-CM23C01

UnitI (14Hrs)

Basic Accounting Concepts (AS-1)-Rectification of errors- Final Accounts - Bank Reconciliation Statement.

UnitII (14Hrs)

Average date-Bills of exchange (trade bill only)-Joint Venture (AS-27).

UnitIII (15Hrs)

Departmental Accounts - Basis for allocation of expenses. Branch Accounts (Dependent Branches-Debtors and Stock & Debtors System-Independent Branches only).

UnitIV (15Hrs)

Hire purchase Accounts: Default and Repossession-Hire purchase Trading Account- Installment purchase system.

UnitV (15Hrs)

Depreciation (excluding change in method of depreciation)-Investment Account (AS-13).

Text Book

S. No	Authors	Title	Publishers	Year of Publication
1.	Reddy TS & A Murthy	Financial Accounting	Margham Publications	Reprint 2021

Reference Books

S. No	Authors	Title	Publishers	Year of Publication
1.	RL Gupta & Radhasamy	Advanced Accountancy (Vol I)	Sultan Chand & Sons.	2018, 13 th ed.
2.	Jain S.P & Narang K.L	Principles of Accountancy	Kalyani Publishers	2018
3.	MC Shukla, T.S. Grewal & S.C. Gupta	Advanced Accountancy	S.Chand & sons	2016

Skill Components

- Identifying concepts and conventions adopted by a firm in their financial statement.
- Prepare a Bank Reconciliation Statement for the business concern.
- Study a firm's financial statement and present a report on the accounting policies followed.
- To calculate the due date and amount on discounting of bills for a firm.
- Analyzing the financial statement of a hire purchase company and present a report on the collection system.
- Analyze the treatment of depreciation for different firms.

Pedagogy

Lecture through powerpoint presentations, Discussion, Assignment, Quiz, and Seminar

Course Designers

1. Dr.S.Sujatha, Department of Commerce
2. Dr.G. Indrani, Department of Commerce

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23C02	E-BUSINESS APPLICATIONS	THEORY	73	2	-	3

Preamble

To enable the students

- To understand about the fundamentals of computers and programming languages
- To provide in-depth understanding about Computer based Information system
- To impart knowledge about E-Commerce working models

Prerequisite

- Basic Knowledge in E-commerce

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the fundamental concepts of computer applications, Programming languages and functioning of various types of e-Business models	K1
CLO2	Explain the basics of E-Commerce, features, needs and the role of computer application in a bridging e-Business technology, E-tailing.	K2
CLO3	Develop and interpret the technical framework required for an e-Business, E-commerce in Internet, Ethics in E-commerce.	K3
CLO4	Analyze e-Business strategies, business transformation process and applications relevant to industry 4.0, E-banking and Threats in Computer System.	K4

Mapping with Programme Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	S
CLO3	S	M	S	S	M
CLO4	S	S	M	S	M

S-Strong; M-Medium; L-Low

SYLLABUS

E-BUSINESS APPLICATIONS – BP23C02 (73 Hrs)

UNIT I

(14Hrs)

Computer- Characteristics- Importance – ***Computer applications in various areas of Business – General applications of computers in various fields***. Data and Information —Data processing – ***Steps of data processing***. *Programming Language* - Machine language, Assembly language, High Level Languages - Programming tools- Steps in developing a computer Program - Computer networks- Features-Network Structure-***Types of networks***-***Multimedia tools***

UNIT II

(15Hrs)

Introduction to E-Commerce-Defining E-Commerce-Features, Importance, Objectives of E-commerce-E-Commerce industry framework-***Types of E-Commerce Levels***-Need for E-commerce-Applications of E-Commerce-***Challenges in E-Commerce application***-E-Commerce and E-Business-***Future of E-Commerce***-EDI-Features of EDI-Introduction to cloud and grid computing-Android applications. *E-tailing*: Traditional retailing and e-retailing, Benefits of e-retailing, ***Models of e-retailing, Features of e-retailing***.

UNIT III

(15Hrs)

E-commerce over the Internet-Concept of networking-Advantages of networking-***classification of networking***. Electronic payment methods-overview of EPS-***modes of E-payment***. *Ethics in E-Commerce* Issues in E Commerce Understanding Ethical, Social and Political issues in E-Commerce: A model for Organizing the issues, ***Basic Ethical Concepts, Analyzing Ethical Dilemmas***, Candidate Ethical principles Privacy and Information Rights: ***Information collected at E-Commerce Websites***

UNIT-IV

(15Hrs)

E-Banking: Introduction Concepts and Meaning-Need for computerization-Electronic delivery channels-Automated teller machine - ***Electronic Fund Transfer – Uses***-Computerization in clearing houses-Telebanking-Computer bank branches-***E-Cheque-MICR Cheque***-e-Banking in India. *Threats in Computer Systems*: Virus, Cyber Crime Network Security: Encryption, Protecting Web server with a Firewall, ***Firewall and the Security Policy***, Network Firewalls and Application Firewalls, ***Proxy Server***

UNIT-V**(14Hrs)**

E-Business communication-Importance of E-Technology Introduction to Industry 4.0
 - ***Need – Reasons for Adopting Industry 4.0*** - Definition – Goals and Design Principles-Technologies of Industry 4.0-Skills required for Industry 4.0-
Advancements in Industry 4.0 – Impact of Industry 4.0 on Society, Business, Government and People - ***Introduction to 5.0.***

Text Books

S.No	Author Name	Book Name	Publisher	Year and edition
1.	R.Saravana Kumar, R.Parameswaran T.Jayalakshmi(unit I)	A text book of Information Technology	S.Chand & Co Ltd New Delhi	16 th Edition 2016
2.	Rayudu C.S (unit II- V)	ECommerce– E-Business	Himalaya Publishing House.	1 st Edition 2015
3	Whitley, David	e-Commerce Strategy, Technologies & Applications.	Tata McGraw Hill.	Indian Edition 2017.
4.	P.Kaliraj, T.Devi	Industry 4.0	Bharathiar University	Edition 2020

Reference Books

S.No	Author Name	Book Name	Publisher	Year and edition
1.	Joseph PT,	ECommerce, an Indian Perspective	Margham Publications	5 th Edition 2015
2.	Murthy CSV	E Commerce –Concepts, Models, Strategies	Himalaya Publishing House.	1 st Edition 2016

SkillComponents

PreparearecordforthefollowingTopics

1. BankingProcedure(DirectandOnlineBanking): Account Opening form,
Demand Draft, Cheque, Withdrawal
2. EducationalLoan
3. PermanentAccount Number
4. OnlineReservation
5. Insurance:Application
6. OnlineMoneyTransfer
7. OnlineRationCard
8. OnlineAadharCard
9. OnlineVoterID
10. OnlinePassport

Pedagogy

Lecturethroughpowerpointpresentations,Discussion,Assignment,Quiz,andSeminar

CourseDesigners

1. Dr.A.Meenakshi
2. Dr.J.RiniMercy

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23CP1	COMPUTERAPPLICATION PRACTICAL I- OFFICE PACKAGE	PRACTICAL	-	-	60	2

Preamble

To enable the students

- To give hands on training in basic computer applications.
- To inculcate programming ability to compute data.
- To aim at making experts in the most widely used application packages

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the various practical applications using libre.	K1
CLO2	Demonstrate presentations using libre office package tools	K2
CLO3	Develop documents using the word package tools.	K3
CLO4	Analyse worksheets using advanced functions in libre.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	L	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong; M-Medium; L-Low

OFFICE PACKAGE–BP23CP1(60Hrs)

WORD

1. Type a paragraph and Perform:
 - a. Font size, font style, line spacing etc.
 - b. Insert page numbers at the bottom right alignment
 - c. Insert header consisting of date and time, insert footer consisting of page numbers.
 - d. Change the paragraph into two or three columns
 - e. Check the spelling and grammar
 - f. Use bullets and numbering
 - g. Use drop cap
 - h. Find and replace a word
2. Prepare a class timetable using table option and merging cells. Inserting the table, Data Entry, Alignment of Rows and Columns, Inserting and Deleting the Rows and Columns and Change of Table Format
3. Prepare an application for a job with the bio-data using auto text.
4. Prepare a college day invitation using borders and shading option, word art and pictures.
5. Using mail merge, draft a shareholder's meeting letter for 5 members.
6. Design an invoice and Account sales by using Drawing tool bar, Clip Art, Word Art, Symbols, Borders and Shading.
7. Create Business Cards using Shapes, text and colours.
8. Create a letterhead of a company or institutions and insert the watermark of the company name in the document.

EXCEL

9. Enter the data with following fields:
 - a) Serial no
 - b) Name
 - c) Address
 - d) City

- e) DateofJoining
- f) Salary
- g) Course
- h) Duration
- i) Noofstudents
- j) Total fees

Perform the following:

- a. Change font as bold
- b. Arrange the alignment as center
- c. Rename the sheet
- d. Insert a new sheet
- e. Move a sheet
- f. Delete a sheet
- g. Hide/Unhide Column
- h. Change Column Width

10. Draw different graphs Column Chart, Line Chart, Pie Chart, Bar Chart, Area Chart,

Scatter Chart, for a sample data.

11. Calculate Simple and Compound Interest. Prepare a statement of Bank customers account showing simple and compound interest calculations for 10 different customers using mathematical and logical functions

12. Enter the semester marks and calculate total auto-sum and average using function wizard.

13. Sort: Sort by Color, Reverse List, Randomize List.

14. Filter: Number and Text Filters, Date Filters, Advanced Filter, Data Form, Remove Duplicates, Outlining Data.

15. Basic concepts related with user defined Macros by automating and recording Macros.

POWERPOINT

16. Design presentation slides for a product of your choice. The slides must include name, brand name, type of product, characteristics, special features, price, special offer etc
17. Design presentation slides for organization details for 5 levels of hierarchy of a company by using organization chart.
18. Design slides for the headlines News of a popular TV Channel. The Presentation Should contain the following transactions: Top down, Bottom up, Zoom in and Zoom out. The presentation should work in custom mode.
19. Design presentation slides about an organization and perform frame movement by interesting clip arts to illustrate running of an image automatically.
20. Design presentation slides for the Seminar/Lecture Presentation using animation effects and perform the following operations: Creation of different slides, changing background color, font color using wordart
21. Design presentation for college student's career plan.

Pedagogy

- Lecture, Demo in System.

Skill Component

- Ask the students to design a flyer for an event or a product using libre.
- Create budget spreadsheet using excel
- Assign the students to create a multimedia presentation
- Assign students a task that involves analyzing data using libre Excel
- Encourage students to collaborate on a group project using libre Word
- Assign students to create a presentation pitching a business idea.

Course Designers

1. Dr.R.Jayasathya
2. Dr.R.Eswari

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
NME23ES	INTRODUCTION TO ENTREPRENEURSHIP	THEORY	30	-	-	2

Unit 1

(6hrs)

Introduction

Entrepreneurship-Introduction-Factors-Barriers-Entrepreneurial Traits and Types-Steps for starting a Small Industry- MSMEs – Social entrepreneurship.

Unit2

(6Hrs)

Entrepreneurship Development Programmes-Institutional Framework(IFCI, ICICI, IDBI, IRBI, EXIM Bank, NSIC, SIDBI, SFC, SIPCOT AND TIIC)-Role of Incentives and Subsidies

Unit3

(6Hrs)

Innovation - Types –Role- Creative Problem Solving -Incubators - Angel Investors- Venture Capital.

Unit4

(6Hrs)

Intellectual Property-Meaning-Copy Right Registration-Patents-Trademark-Design and Procedure for registration.

Unit5

(6Hrs)

Project Preparation

Project identification and Classification - Project Formulation- Project Appraisal-Project Report Presentation.

Text Books

Sl. No.	Author(s)	Title of the Book	Publisher	Year of Publication
1.	Gupta.C. Band Srinivasan.N.P	Entrepreneurial Development	Sultan Chand and Sons	2020
2	Sauhari Vinnie and Bhushan Sudhashu	Innovation Management	Oxford	2014

Reference Books

Sl. No.	Author(s)	Title of the Book	Publisher	Year of Publication
1.	Kolb Bonita M	Entrepreneurship for the creative and cultural industries	Routledge	2015
2.	P.T. Vijayashree & M. Alagammai	Entrepreneurship and Small Business Management	Margham	2020

SEMESTER II

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23C03	OBJECT ORIENTED PROGRAMMING WITH C++	CORE	73	2	-	3

Preamble

The course provides an introduction to object-oriented programming using C++ language. It enables the students to apply C++ features in program design and implementation.

Prerequisite

- Basic Computer Skills, Basic Math Skills

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLOs	CLO Statement	Knowledge Level
CLO1	Define the fundamental syntax of C++, including variables, data types, and basic input/output operations.	K1
CLO2	Explain the control structures such as loops and conditional statements and Develop and use functions in C++ to modularize code, pass parameters, and return values.	K2
CLO3	Apply the core concepts of OOP, including classes, objects, inheritance, and encapsulation.	K3
CLO4	Examine file input/output operations for reading and writing data to and from external files.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	S	S
CLO2	M	S	S	M	S
CLO3	S	M	S	M	S
CLO4	S	S	M	L	L

S- Strong; M-Medium; L-Low

Syllabus**UNIT I****(14Hours)**

*Object Oriented Programming: A New Paradigm – Evaluation of Programming Paradigm– Principles of Object Oriented Programming: *Basic concepts of object oriented programming – Benefits of OOPs– ApplicationsofOOPs*– Beginning with C++: What is C++ – *Applications of C++* – C++ statements – Structure ofC++program.*

UNIT II**(15Hours)**

*Token, Expressions and Control Structure: Tokens – Keywords – Identifiers–Constants– *Expressionsandtheirtypes*–Basicanduserdefineddatatypes–operatorsin C++–Operator overloading – *Operator precedence –ScopeResolutionOperator* – Expressions and Implicit Conversions- *Control structures*. Functions in C++: TheMain Functions – Function Prototyping – *Call By Reference – Return By Reference* – Inline Functions–*FunctionOverloading–Friend&Virtual Functions*.*

UNIT III**(15Hours)**

*Classes and Objects: Specifying A Class– Defining Member Function– *Nesting of Member Functions*– Private Member Functions– Arrays within aClass–*Staticdata members – Static member functions*– Array of objects – *Objects as function arguments – Friendly functions* – Constructors – *Parameterized constructors* – Multiple constructors in a class – *Constructors with default arguments**

UNIT IV**(15Hours)**

*Operator overloading: Definition – Overloading Unaryand BinaryOperators. Inheritance: Defining derived classes – Single Inheritance – *Multilevel Inheritance *– Multiple Inheritance – *Hierarchical Inheritance* – Hybrid Inheritance – Virtual Functions and Polymorphism: *Virtual Base Classes *– Abstract classes –*Constructors in Derived Classes*.*

UNIT V**(14Hours)**

*Managing Console I/O Operations: C++streams – *C++ stream classes* – Unformatted I/Ooperations – *Formatted console I/O operations* – Managing output with manipulators. Working with files: Classes for file stream operations – *opening andclosing a file*– Detecting End – of - File – sequential I/O operations–*Error handling during file operations*.*

***HighlightedContentofferedinBlendedMode**

Text Books

S.No	Author	TitleoftheBook	Publisher	Year of Publication
1	E.Balagurusamy	Object Oriented Programmingwith C++	TataMcGraw Hill Publications.	6 th Edition,2013

ReferenceBooks

S.No	Author	TitleoftheBook	Publisher	Year of Publication
1	BjarneStroustrup	TheC++ Programming Language	PearsonEducation.	4 th Edition, 2014
2	RajeshK.Shukla	Object Oriented ProgramminginC++	WilseyIndia Pvt.Ltd.,	1 st Edition,2008
3	RobertLafore	Object Oriented Programming inC++	Galgotia Publications, PvtLtd.,	4 th Edition, 2001
4	TonyGaddis, Judy Walfers, GodferyMuganda	Starting Out with C++:EarlyObjects	Addison-Wesley Publication.	8th Edition,2013

SkillComponents

- Understandingthefundamentalsyntax, datatypes,variables,and operatorsinC++is crucial.
- Masteryofcontrolstructureslikeloops(for,while,do-while)andconditionalstatements(if, else, switch) is important for writing logic in programs.
- Knowinghowtodeclare,define,andusefunctions,includingfunctionparametersand return types, is essential.
- UnderstandingOOPconceptslikeclasses,objects,inheritance,polymorphism,and encapsulation is a core aspect of C++.

Pedagogy

Lecturethroughpowerpointpresentations,Discussion,Assignment,Quiz,and Seminar

CourseDesigners

1. Dr.A.Meenakshi
2. Mrs. A.Sasikala

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
CM23C04	FINANCIALACCOUNTING	CORE	73	2	-	3

Preamble

- Toenablethestudentstoapplytheconceptualprinciples infinancial Accounting
- To develop an expertise in handling the accounts and thereby to increase their level of understanding about the financial statements relating to partnership firms, insurance claims & insolvency.
- Toenhanceknowledgein partnership,insurance and insolvencyaccounting

Prerequisite

BasicKnowledgeinaccountancy

CourseLearningOutcomes

Onthesuccessful completionofthecourse, studentswill beable to

CLOs	CLO Statement	Knowledg eLevel
CLO 1	DefinetheconceptsofPartnership Firms,FireInsurance Claims and InsolvencyAccounts	K1
CLO 2	Describetheaccountingtreatment ofPartnershipFirms, Fire InsuranceClaimsandInsolvencyAccounts	K2
CLO 3	Applytheproceduresrelated topartnershipfirms,calculation of insurance claimsandInsolvencyAccounts	K3
CLO 4	Analyze andpreparefinancialaccountsforpartnershipfirms in differentsituations, Insuranceclaimsand InsolvencyAccounts	K4

MappingwithProgrammeLearningOutcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	M	S
CLO2	S	S	M	M	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong;M-Medium

FINANCIAL ACCOUNTING-CM23C04(73HRS)

Syllabus

UNIT I

(15 Hours)

Partnership Accounts: Division of Profits – Fixed & Fluctuating Capital – Past Adjustments – Guarantee of Profits – Admission of a partner - **Limited Liability Partnership:** Introduction- Definition – LLP Act 2008 - Features – Advantages and Disadvantages (Theory Only)

UNIT II

(14 Hours)

Retirement of a Partner: Retirement Cum Admission -Death of a partner- Joint Life Policy – Accounting Treatment

UNIT III

(15Hours)

Dissolution of a Firm: Insolvency–Rule in Garner Vs Murray – Piece–Meal Distribution.(Maximum Loss Method only).Sale of Partnership to a Limited Company.

UNIT IV

(15Hours)

Fire Insurance Claims: Computation of Claim for Loss of Stock and loss of profit (excluding normal & abnormal loss)

UNIT V

(14Hours)

Insolvency Accounts: Relevant Act- Statement of Affairs – Deficiency Accounts - The Insolvency & Bankruptcy code 2016

Text Book

S. No	Authors	Title	Publishers	Year of Publication
1.	Reddy T S & A Murthy	Financial Accounting	Margham Publications	Reprint 2023

Reference Books

S. No	Authors	Title	Publishers	Year of Publication
1.	RL Gupta & Radhasamy	Advanced Accountancy (Vol II)	Sultan Chand & Sons.	2018, 13 th ed.
2.	Jain S.P & Narang K.L	Principles of Accountancy	Kalyani Publishers	2018
3.	MC Shukla, T.S. Grewal & S.C. Gupta	Advanced Accountancy	S. Chand & sons	2019

Skill Component

- Working on practical aspects of admission and retirement with partners' capital
- Preparation of partnership deed with important terms and conditions
- Preparation of deficiency statement for a real time partnership firm
- Calculation of Insurance claims for real time losses
- Case study analysis on Insolvency and Bankruptcy code

Course Designers:

1. Dr. S. Sujatha, Department of Commerce
2. Dr. L. Nithya, Department of Commerce

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23CP2	COMPUTER APPLICATION PRACTICAL II – PROGRAMMINGWITHC++	CORE PRACTICAL	-	-	60	2

Preamble

Toenablethestudents toenhancepractical knowledgeinC++Programming.

CourseLearningOutcomes

Onthesuccessful completionofthecourse, studentswill beable to

CLO Number	CLOSTATEMENT	Knowledge Level
CLO1	RelatestrongunderstandingofC++syntaxandfundamental datatypes, includingvariables,constants,andbasicinput/outputoperations.	K1
CLO2	Demonstratecontrolstructureslikeloopsandconditionalstatementsto writelogicinC++ programs.	K2
CLO3	Apply functions with appropriate parameters and return values, as well as demonstrate good coding practices for function development.	K3
CLO4	Analyzecodingconventionsandbestpracticestowriteclean,maintainable and efficient C++ code.	K4

MappingwithProgrammeLearningOutcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	M	M
CLO2	S	M	S	M	M
CLO3	S	M	M	S	L
CLO4	M	S	M	S	L

S- Strong;M-Medium;L–Low

PROGRAMMING WITH C++-BP23CP2(60Hrs)

Syllabus

1. Develop a C++ program to perform addition of two numbers.
2. Create a C++ program to determine whether a given number is even or odd.
3. Implement a C++ program that exchanges (Swap) the values of two numbers.
4. Create a C++ program to identify the largest number among three input values.
5. Construct a C++ program to verify the given number is prime or not.
6. Design a C++ program to compute the result of raising a number to a specified power.
7. Formulate a C++ program to determine the average of elements within an array.
8. Create a function in C++ to ascertain the length of a string.
9. Develop a C++ program to print the Fibonacci series.
10. Design a C++ program to check if a number is a palindrome or not.
11. Design a class representing a "Student" with attributes like name, roll number, and age. Include member functions to set and display the student information.
12. Construct a program using classes and objects with single inheritance.
13. Write a C++ program to implement the Unary Operator Overloading.
14. Develop a program utilizing constructors and destructors in C++.
15. Write a C++ program that reads and prints the content of a text file.

Pedagogy

- Lecture, Demo in System

Skill Component

- The ability to analyze a problem and design a C++ program to solve it effectively.
- Writing clean, well-structured, and efficient C++ code that is easy to read and maintain.
- Skill in using debugging tools and techniques to identify and resolve issues in C++ programs.
- Designing and implementing C++ classes and objects to model real-world entities and solve problems using object-oriented principles.
- Understanding and using the features and functions provided by the C++ Standard Library for various tasks.

Course Designers

1. Dr. A. Meenakshi
2. Mrs. A. Sasikala

COURSE NUMBER	COURSENAME	CATEGORY	L	T	P	CREDIT
23PECM1	PROFESSIONALENGLISH FOR COMMERCE AND MANAGEMENT	AEC	25	5	-	2
Objectives						

1. To develop the language skills of students by offering adequate practice in professional contexts.
2. To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year commerce and management students
3. To focus on developing students' knowledge of domain specific registers and the required language skills.
4. To develop strategic competence that will help in efficient communication
5. To sharpen students' critical thinking skills and make students culturally aware of the target situation.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO	CLO Statement	Knowledge Level
CLO1	Recognize their own ability to improve their own competence in using the language	K1
CLO2	Use language for speaking with confidence in an intelligible and acceptable manner	K2
CLO3	Read independently unfamiliar texts with comprehension and understand the importance of reading for life	K3
CLO4	Understand the importance of writing in academic life	K3
CLO5	Write simple sentences without committing error of spelling or grammar	K3

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
CLO5	S	S	S	S	M

S-Strong; M-Medium

Syllabus

UNIT 1: COMMUNICATION

5 hours

Listening: Listening to audio text and answering question

Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages – Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Registers specific – Incorporated into the LSRW tasks

UNIT 2: DESCRIPTION

5 hours

Listening: Listening to process description. – Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning – Reading passages on products, equipment and gadgets.

Writing: Process Description – Compare and Contrast Paragraph – Sentence Definition and Extended definition – Free Writing.

Vocabulary: Registers specific – Incorporated into the LSRW tasks.

UNIT 3: NEGOTIATION STRATEGIES

5 hours

Listening: Listening to interviews of specialists/Inventors in fields (Subject specific)

Speaking: Brainstorming. (Mind mapping).

Small group discussions (Subject-Specific)

Reading: Longer Reading text.

Writing: Essay Writing (250 words)

Vocabulary: Registers specific – Incorporated into the LSRW tasks

UNIT 4: PRESENTATION SKILLS

5 hours

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations

Interpreting Visuals inputs

Vocabulary: Registers specific – Incorporated into the LSRW tasks

UNIT5:CRITICALTHINKINGSKILLS**5 hours****Listening:**Listeningcomprehension- Listeningfor information.**Speaking:** Makingpresentations (with PPT-practice).**Reading:**Comprehensionpassages–Note making.

Comprehension:MotivationalarticleonProfessionalCompetence,ProfessionalEthicsandLife Skills)

Writing:ProblemandSolutionessay–Creative writing–Summarywriting**Vocabulary:**Registerspecific– Incorporatedinto theLSRWtasks**Textbook**

S. No.	Authors	Titleof theBook	Publishers	Year of Publication
1	TamilNaduStateCouncil for Higher Education (TANSCH)	EnglishforCommerceand Management Semester 1	--	--

ReferenceBooks

S. No.	Authors	Titleof theBook	Publishers	Year of Publication
1	Sreedharan, Josh	The Four Skills for Communication	Foundation books	2016
2	Pillai,GRadhakrishna,K Rajeevan,PBhaskaran Nair	SpokenEnglishforyou	Emerald	1998
3	Pillai, G radhakrishna, K Rajeevan,PBhaskaran Nair	WrittenEnglishforyou	Emerald	1998

SEMESTER III

COURSE CODE	COURSE NAME	CATEGORY	L	T	P	CREDIT
BP23C05	DIGITAL MARKETING	THEORY	73	2	-	4

Preamble

- To provide students with an comprehensive understanding of methodologies underlying digital marketing
- To provide insight into digital marketing channels
- To familiarize with ethical considerations and technological advancements in digital marketing

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Identify the key concepts of digital marketing and its terminology	K1
CLO2	Interpret the principles of digital marketing strategies	K2
CLO3	Apply diverse digital marketing techniques in real-world scenarios	K3
CLO4	Examine with practical skills and knowledge to plan, execute, and optimize effective digital marketing campaigns	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	S	M
CLO2	S	S	S	L	S
CLO3	S	M	S	L	M
CLO4	S	S	S	M	S

S-Strong; M-Medium; L-Low

DIGITALMARKETING-BP23C05(73HRS)

Syllabus

UNIT I

(14 Hrs)

Digital Marketing - Origin & Development - Role - Strategy-P-O-E-M Framework - Factors Impacting Digital Market Place-Value Chain Digitalization-Digital Marketing Business Models-
Digital Marketing Plan-Ethical and Legal Framework of Digital Marketing-Skills required in Digital Marketing
- **Careers in Digital Marketing**

UNIT II

(15Hrs)

Digital Ecosystem-The Rise of Digital marketing-Digital paradigm and marketing-Online consumer behaviour- Branding- Digital Brand Ecosystem-Brand Experience- **Search Engine Optimization**- SEO Phases - **Website Design and Hosting** - Blogs -Search Engine Advertising - Display Advertising - Types of Display Ads - Targeting in Digital Marketing- **Consumer persona**- Programmatic Digital Advertising

UNIT III

(15Hrs)

E-Mail Marketing - Creating an E-Mail Campaign in Mail Chimp - Building Effective E-Mail Lists - **Campaign Design and Mail Delivery** – *Mobile Marketing* – Mobile Advertising - Mobile Advertising Models-**Advantages of Mobile Advertising** -Mobile Marketing Toolkit -Mobile Apps - Screen Analytics

UNIT IV

(15Hrs)

Social Media Marketing - Strategy- Listening-**Social Messaging Apps**- Social Entertainment- Gamification -**AI for Social Media Marketing**- Influencer Marketing- Video Marketing - Online Reputation Management- **Digital Marketing Services** - Online Retail Services - Online Travel Services- Online Career Services -**Online Publishing**

UNIT V

14Hrs)

Technological Advancements in Digital Marketing -Voice Search- Beacon Technology- Micro Moment Marketing-Cross Device Marketing-**Artificial Intelligence**- Chatbots - Big Data- Virtual Reality-**Augmented Reality**- Block Chain Technology

***Highlighted Content offered in Blended Mode**

TextBook

S.No	Authors	Title	Publishers	Year&Edition
1.	Seema Gupta	DigitalMarketing	McGraw Hill Education	3 rd Edition 2023

Books for Reference

S.No	Authors	Title	Publishers	Year&Edition
1.	PuneetSingh Bhatia	Fundamentals of DigitalMarketing	Pearson Education	2 nd Edition 2019
2	Vandana Ahuja	DigitalMarketing	OxfordUniversity	2 nd Edition 2018

Skill Component

- Developmultimediacontent,suchasblogposts,videos,anddatavisualizationsto target specific audiences
- Analyzereal-timecasestudiesrelatedtodigitalmarketing
- DesignandExecuteanemailmarketing campaign
- PerformaComprehensiveAuditofaBrand'sSocialMediaPresence
- Conduct market research to identify target segments, analyze competitors, and uncover market trends relevant to a chosen industry or product.

Pedagogy

Power point presentations, Group Discussion, Seminar, Quiz, Assignment,Brainstorming,

CaseStudy

CourseDesigners

1. Dr.R.Jayasathya
2. Ms.R.Sangeetha

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
EC23C06	RELATIONALDATABASE MANAGEMENTSYSTEM	THEORY	58	2	-	3

Preamble

- To provide comprehensive knowledge about relational database management system
- To enlighten about prominent commands used in structured query language

Course Learning outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Interpret about DBMS, Relational database management concepts and normalization	K1
CLO2	Develop the tables using normalization and knowledge about Key relationships, Demonstrate PL/SQL built-in functions	K2
CLO3	Illustrate about the basic storage database structure, SQL commands, operators and Pattern matching	K3
CLO4	Demonstrate PL/SQL built-in functions, know the basic storage database structure and extract database using data warehouse and data mart.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M

S-Strong; M-Medium; L-Low

RELATIONAL DATABASE MANAGEMENT SYSTEM-EC23C06(58Hours)

Syllabus

UNIT I

(12 Hrs)

Data, Databases, Database Management System – **Components of Database** – Data Dictionary – Architecture: **Overall Architecture of DBMS**, Three level architecture. Data Models Types of Database models: Hierarchical Database Model, Network Database Model. **Introduction Relational Database Management System**: Relational Database Model, E-R model: Entities - Attributes – Relationships – E-R diagram – Samples.

UNIT II

(11 Hrs)

CODD's rules – **Components of DBMS** – Table Structure – Records, rows, tuples, attributes. Keys: Primary key, foreign key, composite key. Meta data – Data Dictionary – Data Integrity – **Data constraints and validation** – Types of constraints. **Normalization Benefits** – Normal forms: 1st Normal form, 2nd Normal form, 3rd Normal form.

UNIT III

(12Hrs)

Introduction to SQL: SQL data types – Data Definition Commands – Data Manipulation Commands – Data retrieval commands. **MySQL Operators and Expressions** Types of Operators – Arithmetic, Comparison and logical operators – **Pattern matching**.

UNIT IV

(11Hrs)

Built-in Functions Single row functions – Aggregate functions – Conversion functions. Querying the table selecting rows using Where, Order by, group by & having clauses. **Sub-queries – correlated sub-queries**.

UNIT V

(12 Hrs)

Introduction to PL/SQL-user defined functions-Triggers **Stored procedures**. **Introduction to Data warehousing and Data mining** – Applications – Data marts. Big Data: Definition – Characteristics – **Various Technologies used – Application**
**Highlighted Content offered in Blended Mode (Link Provided)*

TextBook

S.No	AuthorName	Titleof theBook	Publisher	Year&Edition
1	RamonAMata-Toledo Pauline KCushman	Database Management System	Tata McGraw- Hill Publishing companylimited, NewDelhi.	2010,2 nd Edition
2	RikteshSriVastava, Rajita Sri Vatsava	RelationalDatabase Management	New Age International Publications	January2014 1 st Edition

ReferenceBooks

S.No	AuthorName	Titleof theBook	Publisher	Year&Edition
1	Ramakrishnan& Gehrke	DatabaseManagement Systems	TataMcGrawHil l	2009,8 th Edition
2	NileshShah	DatabaseSystemsusing Oracle	PHIlearningPvt Ltd	2014, 2 nd Edition
3.	SpectrumallinOne	Relational Database ManagementSystem	SIAPublishersand Distributors	2021, 2 nd Edition

Pedagogy

- Lecture, Asshignment,GroupDiscussion,PowerPointPresentationandSeminar

CourseDesigners

1. Dr.M.Sumathi
2. Mrs. T. Subamathi

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23A01	BUSINESSMANAGEMENTAND ETHICS	THEORY	73	2	-	4

Preamble

- To provide the students with an understanding of the basic principles of management in the functional areas of business to pursue careers in management with ethics

Prerequisite

- Basic Knowledge on Business Management

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLOs	CLO Statement	Knowledge Level
CLO1	Recognize the fundamental concepts and principles of management, Planning, Organisation, leadership and control including the function and its nature.	K1
CLO2	Identify the management process and decision making in management functions	K2
CLO3	Apply the theories and identify various case studies for practical applications of management concepts	K3
CLO4	Demonstrate the process of management functions and evaluate the social responsibility and ethical issues in business situations	K4

Mapping with Programme Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	M	S
CLO3	S	S	M	S	S
CLO4	S	S	M	M	M

S-Strong; M-Medium

BUSINESSMANAGEMENTANDETHICS-BP23A01(73HOURS)

Syllabus

UNITI

(15Hrs)

Management –Definition - Nature and Scope – **Functions– Managerial Skills– Levels of Management** – Roles and Skills of a Manager- Contributions by Henry Fayol, FW Taylor, PeterF Drucker, McGregor, Elton Mayo-**Management as a Science, Art, Profession- Management and Administration**– Principles of Management

UNITII

(15Hrs)

Planning: Meaning – Nature- **Importance- Purpose of Planning**- Planning Process - Advantages and Limitations- Types of Plans – **Objectives – Policies – Strategies – Procedures – Programmes – Obstacles to Effective Planning** - Decision Making:Steps in Decision Making – Role of MIS for Decision Making. **MBO – MBE - Policy and Strategy**.

UNITIII

(15 Hrs)

Organization–Meaning-NatureandImportance–**Processoforganization–Organization structure–Organizationchart–Organizationmanuals**–TypesofOrganization-Departmentation-Span of Management - **Authority – Responsibility - Accountability** - Power – Delegation – Centralization -Decentralization-Staffing-Case study

UNITIV

(14 Hrs)

Leadership –Meaning and Importance –**Functions of Leadership–Leadership styles– Qualitiesofgoodleader**–Theories&ApproachesofLeadership-Directing-Functions-**Coordination–Meaning–Definition–Principles-Advantages&Disadvantages**-Case study

UNITV

(14 Hrs)

Control –Meaning - and Importance –**Process & Techniques of control**-Ethics-Meaning– Importance Nature & **Relevance-Structure of ethics management-Ethics in business**-Factors affecting ethical practice in business-Social Responsibility of Business.

***HighlightedContentofferedinBlendedMode(LinkProvided)**

Text Books

S. No	Authors	Title	Publishers	Year & Edition
1.	R K Sharma & Shasi K Gupta	Principles of Management	Kalyani Publishers	2017 reprint – 1 st Edition
2.	Dinkar Pagare	Principles of Management	Sultan Chand & sons	2018 reprint – 1 st Edition

Reference Books

S. No	Authors	Title	Publishers	Year & Edition
1.	Dr. C. N. Sontakkai	Principles of Management	Kalyani Publishers,	2016 reprint – 1 st Edition
2.	P. C. Tripathi & P. N. Reddy	Principles of Management	Tata McGraw Hill Publishing Co Ltd	2017 ed. – 1 st Edition
3.	Robbins, DeCenzo, & Coulter.	Fundamentals of Management	Harson Education Ltd	10th Edition, 2017

Skill Components

- Preparation of different types of organisation charts
- Construct a standing plan for a new business venture
- Demonstrate different leadership styles through roleplay
- Study the ethical practices followed in the organization
- Select any one company and prepare SWOT analysis
- Prepare a report of CSR activities followed in an organisation

Pedagogy

- Lecture, PPT presentation, Quiz, Group Discussion, Seminar, Assignment, Activity based learning

Course Designers

1. Dr. A. Meenakshi - Department of BCom (CA)
2. Dr. Nithya Ramadass - Department of BCom (CA)

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
BP23A02	HUMANRESOURCE MANAGEMENT	THEORY	73	2	-	4

Preamble

- Toemphasizetheskill,knowledge,abilityandethicsrequiredfortheworkforcetowork efficiently.

Prerequisite

NoBasicKnowledgerequired

CourseLearningOutcomes

Onthesuccessful completionofthecourse, studentswill beable to

CLO Number	CLO Statement	Knowledge Level
CLO1	Definethebasicconcepts ofhumanresourcemanagement,framework, analysis,evaluation,performanceappraisalandplacementinduction play a key role in effective business administration.	K1
CLO2	Interpret the elements relateto various aspects of HRM, such as recruitment,placement,evaluation,compensationandemployee welfare.	K2
CLO3	Identify the importance of HRM and organizational outcomes, recruitment,appraisalandstressmanagementsystemtooutlinethe practicalsituations.	K3
CLO4	Analyzetheissues,strategiesand welfare,performance,inductionand incentivestodevelopmanpowerresourcesforeffectivehuman resource.	K4

MappingwithProgrammeLearningOutcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong;M-Medium

HUMAN RESOURCE MANAGEMENT-BP23A02(73 HRS)

Syllabus

Unit I

(14hrs)

Human Resource Management-Introduction-Characteristics-scope of HRM-Objectives-
System approach to HRM- Importance and Functions of HRM - Qualities of human resource manager – Role of human resource manager. Human Resource Planning – Concept – Objective- Need and Importance – Process – Levels – Problems- **Guidelines for effective human resource planning.**

Unit II

(14hrs)

Job analysis- introduction, objectives - Significance– Process – techniques – Job description – Job specification – Role analysis. Job Design – Concept – Approaches - Methods. **Recruitment: Introduction – Process – Policy - Sources of Recruitment** – Techniques – Recruitment practices in India. Selection – Introduction – Steps – **Testing and Competency Mapping.**

Unit III

(15hrs)

Placement and induction-Concept of placement and induction – objectives – advantages- induction in Indian industries – Contents – Steps to make induction effective. **Employee Training – Concept –Need –Importance- Types** –Objective –Design – Methods –Evaluating training effectiveness. Career Planning and Development – Meaning –Objective – Process – Advantages – Limitations – **Making career planning successful – Career Development.** Case Studies.

Unit IV

(15hrs)

Performance Appraisal– Concept – Objective – Importance – Process – Problems – Essentials– Methods–**Performance appraisal through MBO–360 degree appraisal techniques-Performance Management.** Job Evaluation – Concept – Objectives – Process – Advantages – Limitations – Essentials–Methods.Incentive Compensation–Meaning–**Essentials–Types–wages incentives in India.** Case Studies

Unit V

(15hrs)

Employee Welfare- Meaning –Significance – Agencies – Types –Statutory provisions for employee welfare. Social Security – Concept –Scope – **The workmen's compensation – State insurance – Provident fund – Maternity benefit** – Payment of Gratuity – Group life insurance. Job Satisfaction–Concept–Measurement–Determinants.Quality of work life–Concept–Measure–

Dimension–Principles.ManagementofStress–Concept–Sources–**Consequences–Copingwith stress – Methods of stress management.**

Text Book

S.No	Author Name	Book Name	Publisher	Year& Edition
1	GuptaC.B	HumanResourceManagement	SultanChand&Sons	16 th Edition, 2017

ReferenceBooks

S.No	AuthorName	Book Name	Publisher	Year& Edition
1	DwivediR.S	HumanResource Management	VikasPubHouse– Noida	6 th Edition, 2009
2	GaryDessler	HumanResource Management	PrenticeHallOfIndia	16 ^h Edition, 2020
3	RaoV.S.P	HumanResource Management	ExcelBooks	4 th Edition, 2020

Skill Component

- Gain basic understanding of human resource management and its essential role in contemporary organizations
- Plan a role play on job analysis for placing right candidate at the right place
- Creation of ideas for induction and retention of employees
- Preparation of a sample framework for awarding and rewarding the employees based on performance appraisal
- Analyse the various strategies to cope up stress among employees in an organisation.

Pedagogy

- Power point presentations, Group Discussion, Seminar, Quiz, Assignment, Experience Discussion, Brain storming, Activity, Case Study

Course Designers

1. Dr.Rini Mercy
2. Mrs Sangeetha

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
EC23A01	COMPANYLAW	THEORY	73	2	-	4

Preamble

- To familiarize the fundamental concepts of Companies Act 2013
- To provide an insight into the different types of Companies and their provisions
- To familiarize with various documents involved in a Joint Stock Company.

Prerequisite

- Basic Knowledge on Joint Stock Companies

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Acquire knowledge on basics in Joint Stock company and its documentation procedures for incorporation.	K1
CLO2	Examine the legal norms relating to the internal affairs of the company.	K2
CLO3	Elucidate the corporate legal framework relating to business operations in compliance with Companies Act 2013.	K3
CLO4	Critically think and apply the provisions that are prevailing in the current trends of corporate governance.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	L	S	S	M
CLO2	M	S	M	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S

S-Strong; M-Medium; L-Low

COMPANY LAW -EC23A01(73 Hours)

Syllabus

Unit I (15Hrs)

Company–Definition&Features *–*DistinctionbetweenCompanyandPartnership –Kindsof Companies – Difference between Private and Public Company – Incorporation of a Company– Documents to be filed** – Memorandum of Association– Doctrine of Ultra vires.

Unit II (15 Hrs)

Articles of Association –DoctrineofConstructiveNotice& Indoor Management–Alteration of Article– Prospectus – Contents–Misstatements – LiabilityforMisstatements –Certificateof Commencement of Business.

Unit III (15 Hrs)

**Shares – Debentures – Allotment – Valid Allotment – Irregular Allotment **– Transfer and Transmission of Shares–Membership of Company.

UnitIV (14 Hrs)

CompanyManagement – Board of Directors – Appointment – Qualifications – Powers – Duties –Liabilities–ManagingDirector&Manager–ManagerialRemuneration–**CompanySecretary– Appointment, Qualification, Powers and Duties.**

Unit V (14 Hrs)

Company Meetings–Kinds–Statutory Meeting, Annual General Meeting–Extraordinary General Meeting – Board Meeting - Resolutions, Minutes, Quorum and Proxy– **Winding up – Modes**. Corporate Governance in Indian Scenario– need– importance– Clause49 (listing requirements) National Company Law Tribunal and Appellate Tribunal.

****HighlightedContentofferedin BlendedMode(LinkProvided)***

TextBook

S.No	AuthorName	Titleof theBook	Publisher	Year& edition
1	KapoorN.D	CompanyLaw&Secretarial Practice	SultanChand &Sons, New Delhi	Revised Edition2020
2	Gogna P.P.S	A Textbook of Company Law	SultanChand& Sons,NewDelhi	RevisedEdition2016

ReferenceBooks

S.No	AuthorName	Titleof theBook	Publisher	Year& edition
1	BahiJ.C	SecretarialPracticein India Practices	N.M. Tripathi(p) Ltd	2016 th edition
2	Ravi Puliani& MaheshPuliani	Companies Act, 2013 (As amendedbytheCompanies AmendmentAct2015)	JainBookagency	23 rd edition,2016

Pedagogy

- Lecture, Assignment, GroupDiscussion, PowerPointPresentationandSeminar

Course Designers

1. Dr.M.Deepalakshmi,
2. Mrs.R.LakshmiPriya

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
EC23CP3	DATABASEPROGRAMMING PRACTICAL	PRACTICAL	-	-	45	2

Preamble

- To enhance practical knowledge in Database Management

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Relate the database application environment and queries using built-in functions and operators	K1
CLO2	Enumerate and demonstrate the database using SQL	K2
CLO3	Illustrate data definition and manipulation languages in SQL	K3
CLO4	Analyse constraints and queries on a database using RDBMS	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	L
CLO2	S	S	S	S	L
CLO3	S	S	S	S	L
CLO4	S	S	S	S	L

S-Strong; M-Medium; L-Low

DATABASE PROGRAMMING PRACTICAL-EC22CP3(45 HOURS)

Syllabus

1. Data Definition Language

Table: **Student**

Regno	number(5) primary key
Stud name	varchar2(15)
Gender	char(6)
Deptname	char(25)
Address	char(25)
Percentage	number(4,2)

Queries:

- a. To create a table
 - b. To describe a table
 - c. To alter a table
 - d. To drop a table
 - e. To truncate a table
2. Data Manipulation Language

Table: **Student**

Regno	number(5)primarykey
Stud name	varchar2(15)
Gender	char(6)
Deptname	char(25)
Address	char(25)
Percentage	number(4,2)

Queries:

- a. To insert values
- b. To retrieve records
- c. To update records
- d. To delete records

3. Create an Employee table with following field.

Table: **Employee**

Eno	number(5)primarykey
Ename	varchar2(20)notnull
Deptno	number(2)not null
Desig	char(10)notnull
Sal	number(9,2)notnull
Comm.	number(7, 2)null

Queries:

- a. Insert values and display the records
- b. Display sum, maximum amount of basic pay
- c. List the name of the clerks working in the department 20
- d. Display name that begins with "G"
- e. List the names having "I" as the second character
- f. List the names of employees whose designation are "Analyst" and "Salesman"
- g. List the different designation available in the Employee table without duplication (distinct)

4. Create a table "Company" with the following fields and insert the values for 10 employees.

Compid	number(6)primarykey
Comp name	varchar2(15)notnull
Proprietor	varchar2(15)notnull
Address	varchar2(25)notnull
Sup name	varchar2(15)
No of empl	number(4)
GP Percent	number(6,2)

Queries:

- a. Display all the records of the company which are in ascending order of GP Percent.
- b. Display the name of the company whose supplier name is "Telco".
- c. Display the details of the company whose GP Percent is greater than 20 & order by GP Percent.
- d. Display the details of the company having the employee ranging from 300 to 1000.
- e. Display the name of the company whose supplier is same as the "Tata".

5. Create a table "Product" with the following fields and insert the values

Prodno	number(6)
Prodname	varchar2(15)
Unit of measure	varchar2(15)
Qty	number(6,2)
Rate per unit	number (8,2)
Totamt	number(8,2)

Queries:

- a. Using update statements calculate the total amount and then select the record.
 - b. Select the records whose unit of measure is "Kg".
 - c. Select the records whose quantity is greater than 10 and less than or equal to 20.
 - d. Calculate the entire total amount by using sum operation.
 - e. Calculate the number of records whose unit price is greater than 50 with count operation.
6. Create the table Payroll with the following fields and insert the values:

Table: Payroll

Empno	number(8)
Empname	varchar2(8)
Dept	varchar2(10)
Basicpay	number(8,2)
HRA	number(6,2)
DA	number(6,2)
PF	number(6,2)
Netpay	number(8,2)

Queries:

- a. Update the records to calculate the net pay.
- b. Arrange the records of the employees in ascending order of their net pay.
- c. Display the details of the employees whose department is "Sales".
- d. Select the details of employees whose HRA \geq 1000 and DA \leq 900.
- e. Select the records in descending order.

7. Create a table Deposit and Loan with the following fields:

Table: Deposit

Acc no	number(3)
AccountType	varchar2(6)
BranchName	varchar2(15)
Custname	varchar2(20)
Balanceamt	varchar2(10)

Table: **Loan**

Loanno	number(5)
Bname	varchar2(15)
Custname	varchar2(30)
Loanamt	number(10)

Queries:

- Insert the records in to the table.
 - Describe the structure of the table.
 - Display the records of Deposit and Loan.
 - Find the number of loans with amount between 10000 and 50000.
 - List in the alphabetical order the names of all customers who have a loan at the Coimbatore branch.
 - Find the average account balance at the Coimbatore branch.
 - Update deposits to add interest at 5% to the balance.
 - Arrange the records in descending order of the loan amount.
 - Find the total amount of deposit in "Trichy" branch.
8. Create the course and batch table with following fields

Table: **Course**

Courseno	number(5) primary key
Course name	varchar2(20)
Fees	Number(8,2)

Table: **Batch**

Batchno	number(5) primary key
Courseno	number(5) foreign key
Startdate	date
Duration	varchar2(15)

Queries:

- Insert values and display the records
- Display the records from batch table whose Courseno is "9"
- Display the Courseno, Course name for the batch starting from "25 June 2000"
- List Batchno for the batch starting before "30th June 2001" and after "December 2001"
- List the details of the batch who have joined before the end of "September 2001"

9. CreateEmployeeandDepartmenttablewithfollowingfields

Table: **Employee**

E no	number(5)primarykey
E name	varchar2(20)notnull
Deptno	number(2)not null
Desig	char(10)notnull
Sal	number(9,2)notnull
Comm.	number(7,2)null
PF	Number(9,2)

Table: **Department**

Deptno	varchar2 (15) primary key
Deptname	varchar2(15)

Queries:

- Displaythe details of department table
- Listthename,salaryandPFamountofalltheemployees(PFiscalculatedas10%of salary)
- Listthedepartmentnumbersandnumberofemployeesineachdepartment(Groupby)
- Listtheaveragesalaryfromeachjobexcludingmanagers
- Listthejobsandthenumberofemployeesineachjob.Theresultshouldbein descending order of the number of employees
- Listtheemployees whoareeligiblefor5%commission whosesalary>25000
- Listthenamesoftheemployeeswhoarenot "managers"

10. CreateEmployeeSalaryandDepartmenttablewithfollowingfields

Table: **Employee_Salary**

Eno	number(5)primarykey
Ename	varchar2(20)notnull
Deptno	number(2)not null
Desig	char(10)notnull
Sal	number(9,2)notnull
Comm.	number(7,2)null
Shift	Varchar2(15)

Table: Department

Deptno	varchar2 (15) primary key
Deptname	varchar2(15)

Queries:

- List the department number and the total salary payable in each department
 - List the total salary, maximum and minimum salary and the average salary of employees designation wise
 - Display the emp no, name whose shift is "FN"
 - List average salary for all departments employing more than five people
 - List jobs of all the employees where maximum salary is greater than or equal to 5000 (having)
 - Raise employee salary by 0.15 for the employees working as "programmers"
 - Delete the records where commission is "null"
 - List the average salary and number of employees working in the department "20"
11. Create Library with the following fields

Bookno	number(5)
Booknm	varchar2(10)
Authornm	varchar2(10)
Price	number(3,8)
Status	varchar2(5)
Category	varchar2(5)

Queries:

- Display the author name, price of tax book
- Display the price of book banking
- Display the count of category "commerce"
- List the book details in ascending order of price (order by)
- List the book details in descending order of bookno and price (order by)

12. Create two tables with the following structure.

a) users-table name

user_id	UNSIGNED,INT,AUTO INCREMENT,PRIMARY KEY
username	VARCHAR(60)
password	VARCHAR (128)
email	VARCHAR (255)

b) users_profiles

user_id	FOREIGN KEY refers to user_id field of user table
first_name	VARCHAR(60)
last_name	VARCHAR(60)
mobile	VARCHAR(15)

- SELECT all the users along with their profile details. (Hint: Use INNER JOIN)
- ii) SELECT the users who do not have profiles (Hint: USE LEFT JOIN and exclude the rows generated with NULL values from joining table)

13. Create a marketing-related database schema with tables for customers, products, and orders

Table : Customer

customer_id	INT PRIMARY KEY
Cust_name	VARCHAR(50)
City	VARCHAR(50)
email	VARCHAR(100)
phone_number	VARCHAR(20)

Table: Product

Product_id	INT PRIMARY KEY
Productname	VARCHAR(20)
Product_Desc	VARCHAR(50)
Product_price	Numeric(12,2)
Discount	Numeric(12,2)

- Retrieve the customer details from the “**Customers**” Table who are in “Coimbatore” and
- “Madurai”
- List all the product details from the “**Product**” Table which price between 1000 to 2000
- Display the products which has Maximum and Minimum discount offer.

Pedagogy

- Lecture, Demo in System

Course Designers:

1. Mrs.T.Subamathi Department of BCom(e-Com)&(SF)
2. Mrs.A.Sasikala Department of BCom(CA)

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
CS23SBGP	Gen-AI	THEORY	44	1	-	3

Preamble

The objective of this course is to understand the breadth and depth of Generative Artificial Intelligence (Gen AI) and to impart knowledge on its ethical implications, practical applications, and emerging trends.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamental concepts and ethical considerations of Generative AI.	K2
CLO2	Apply AI principles in practical settings using basic AI tools and platforms	K3
CLO3	Develop advanced skills in specialized AI applications such as text analysis, natural language processing, and image recognition.	K3
CLO4	Explore emerging trends in AI, integrating advanced AI tools into diverse professional practices.	K4

Mapping with Programme Learning Outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	S
CLO3	S	S	M	S	S
CLO4	S	M	S	M	S

S-Strong; M-Medium

Gen-AI-CS23SBGP(44 Hrs)

Syllabus

Unit 1: (9 hours)

Introduction to Gen AI

Understanding GenAI: Definition and scope of GenAI- Overview of its applications in various fields

- Introduction to essential skills needed for GenAI. Ethical Considerations: Discussion on ethical guidelines and responsible use of AI - Understanding the impact of AI on society and individuals.

Hands-on Activity: Exploring AI Tools

- Working with appropriate content creation Gen-AI tools to engage with ChatGPT to explore various subjects, simulate interviews, or create imaginative written content.
- Working with appropriate writing and rephrasing Gen-AI tools to draft essays on designated topics and refining the content with improved clarity, coherence, and correctness.

Unit 2: Basic AI Concepts

(8

hours)

Introduction to AI: Basic concepts and terminology of artificial intelligence - Examples of AI in everyday life - Real-world examples of AI applications in different domains. Machine Learning Basics: Understanding the principles of machine learning - Overview of supervised and unsupervised learning.

Hands-on Activity: Simple AI Projects

- Working with appropriate educational content creation Gen-AI tools to generate quizzes and flashcards based on classroom material.
- Working with appropriate language learning Gen-AI tools to practice and enhance language skills through interactive exercises and games across multiple languages.

Unit 3: AI in Practice

(9 hours)

Text Analysis and Natural Language Processing (NLP): Introduction to NLP concepts and techniques

- Hands-on exercises analyzing text data and extracting insights. Image Recognition and Processing: Basics of image recognition algorithms and techniques - AI Tools for Text and Image Processing

Hands-on Activity: Text and Image Projects

- Working with appropriate image processing Gen-AI tools to experiment with AI-generated images.
- Working with appropriate object recognition Gen-AI tools to identify various objects such as text, images, products, plants, animals, artworks, barcodes, and QR codes.

Unit4:AI forProductivity andCreativity

(9 hours)

AI-enhanced Productivity and creativity Tools: Overview of productivity and creativity tools enhanced with AI capabilities - Tips for integrating AI into daily tasks and workflows. AI and Jobs: Exploring how AI impacts jobs and industries - Discussion on opportunities and challenges- Exploration of AI-powered creative tools and applications.

Hands-onActivity:Productivityand Creativity

- Working with appropriate content creation Gen-AI tools to generate interactive videos / blog posts / art / drawing / music and storytelling experience.
- Working with appropriate resume generation Gen-AI tools to create professional resumes efficiently.

Unit5:Futureof GenAIandFinal Project

(9 hours)

EmergingTrendsinGenAI-ApplicationsofGenerativeAI-EthicalandSocietalImpactofGenAI
- FutureDirectionsandChallenges -CaseStudiesinGenerative AI.

Hands-onActivity:TrendsinGen AI

- WorkingwithappropriatespeechgenerationGen-AItoolstocustomizesyntheticsspeechfor virtual assistance across different applications.
- WorkingwithappropriatedataanalysisGen-AItoolstoperformdataanalysis,visualization, and predictive modeling tasks.
- WorkingwithappropriateGen-AIdesigntoolstosimplifythecreationofvisuallyappealing presentations.
- Working with appropriate website builder Gen-AI tools to develop professional websites withAI assistance.

Pedagogy

DemonstrationofAITools, LecturesandCase studies.

CourseDesigner

1. Mrs.S. Ponmalar

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
NM23DTG	DESIGN THINKING	THEORY	30	-	-	2

Preamble

1. To expose the students to the concept of design thinking as a tool for innovation
2. To facilitate them to analyze the design process in decision making
3. To impart the design thinking skills

Course Learning Outcomes

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

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the concepts of Design thinking and its application in varied business settings	K1
CLO2	Describe the principles, basis of design thinking and its stages	K2
CLO3	Apply design thinking process in problem solving	K3
CLO4	Analyze the best practices of design thinking and impart them in business and individual day to day operations.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO 3	PLO4	PLO5
CLO1	S	M	M	S	S
CLO2	M	S	S	M	M
CLO3	S	S	S	M	S
CLO4	S	S	S	S	S

S-Strong; M-Medium

DESIGN THINKING-NM23DTG-(30 Hrs)

Syllabus

UNIT – 1

(6Hours)

Design Thinking Overview: Introduction to Design Thinking and Design Research Strategies

-Design Thinking Skills

UNIT– II

(6Hours)

Design Thinking Mindset: Principles of Design Thinking - Basis for design thinking - Design

Thinking Hats - Design thinking team

UNIT–III

(6 Hours)

Empathize: Definition - Listen & Empathize with the Customers and / or Users - Tools and Techniques

UNIT–IV

(6Hours)

Define : Definition - Defining the Problem - Tools and Techniques - Journey mapping and Ideate - definition - Ideation techniques

UNIT– V

(6Hours)

Prototype: Definition - Prototype Alternate Solutions - Test the Solutions - Visualization - Story Telling - Cautions and Pitfalls - Best Practices

Text Books

S.No.	Author(s)	Title of the Book	Publisher	Year of Publication
1.	Christian Mueller-Roterberg	Handbook of Design Thinking Tips & Tools for how to design thinking	Amazon Kindle Version	2018
2	Gavin Ambrose Paul Harris	Design Thinking	AVA Publishing Switzerland	2010
3	Sambhramant Srivastava and Vijay Kumar	A Text Book of DESIGN THINKING	Vayu Education of India	2022

ReferenceBooks

S.No.	Author(s)	TitleoftheBook	Publisher	Year of Publication
1	MaurícioVianna YsmarVianna Isabel K. Adler BrendaLucena BeatrizRusso	Design Thinking - BusinessInnovation	MJVPress	2011
2	MoritzGekeler	Apracticalguide to designthinking	Friedrich-Ebert-Stiftung	2019
3	J.Berengueres	TheBrownBookof DesignThinking	UAEUniversityCollege, AlAin	2014

BlendedLearningLinks

UNIT	TOPICS	LINK
UNITI	Introduction to DesignThinking	https://www.digimat.in/nptel/courses/video/109104109/L01.html
	DesignThinkingskills	https://www.youtube.com/watch?v=b-9Id-Jt_PI
UNITII	Principles&Basis ofDesignThinking	https://youtu.be/6-NRiom8K9Y
	DesignThinkinghats	https://www.youtube.com/watch?v=bc-BvFQDmmk
UNITIII	Empathize	http://acl.digimat.in/nptel/courses/video/109104109/L02.html http://acl.digimat.in/nptel/courses/video/109104109/L03.html https://youtu.be/ls2mqHs02B0
UNITIV	Define	http://acl.digimat.in/nptel/courses/video/109104109/L04.html https://youtu.be/veixQsRnZZU https://youtu.be/6-bDSKZJEAM
	Ideate	http://acl.digimat.in/nptel/courses/video/109104109/L11.html http://acl.digimat.in/nptel/courses/video/109104109/L12.html http://acl.digimat.in/nptel/courses/video/109104109/L13.html
UNITV	Prototype	http://acl.digimat.in/nptel/courses/video/109104109/L15.html
	Testing	http://acl.digimat.in/nptel/courses/video/109104109/L16.html http://acl.digimat.in/nptel/courses/video/109104109/L17.html http://acl.digimat.in/nptel/courses/video/109104109/L18.html http://acl.digimat.in/nptel/courses/video/109104109/L19.html

COURSE CODE	COURSENAME	CATEGORY	L	T	P	CREDIT
NM22UHR	UNIVERSALHUMANVALUES AND HUMANRIGHTS	THEORY	SS	-	-	2

This course aims at making learners conscious about universal human values in an integral manner, without ignoring other aspects that are needed for learner's survival at hardships and personality development.

Objectives: The present course deals with meaning, purpose, and relevance of universal human values and how to inculcate and practice them consciously to be a good human being and realise one's potentials.

Unit I: Introduction to value Education:

Education system in India, value erosion at various levels - personal, family, society, national and international, Values - concept and need, Types of values - personal, family and society, importance of value education, Incorporating Universal Human Values in Higher Education.

Unit II: Introduction to Universal Values

Introduction to Universal Values: Introduction, needs and basic understanding.

Universal Values - Love, truth, nonviolence, peace and righteousness.

Love: Need of Love, Cultivating Love, Value aspects of Love.

Peace: Approaches to peace, Conflict - prevention and resolution, Fostering Culture of Peace in the Classroom.

Truth: Universal truth, Importance of Truth, Benefits of Truthfulness.

Nonviolence: Need, Gandhian Principles of Non-violence, Nonviolence - Its application in handling today's conflict, Six Guidelines to Carry Out Nonviolent Action, ways to promote principles of non-violence.

Righteousness (Dharma): Meaning, functioning of Dharma, Characteristics of Dharma, Dharma of a Student, Practicing Dharma in daily life.

Unit III: Promoting Universal Human Values

Harmony in the Human Being: Understanding the Human Being as Co-existence of Self ('I') and Body, Discriminating between the Needs of the Self and the Body, The Body as an Instrument of 'I', Understand Harmony in the Self ('I'), Harmony of the Self ('I') with the Body.

Harmony in the Family and Society: Harmony in the Family - the Basic Unit of Human Interaction, Values in Human - to - Human Relationships, 'Trust' - the Foundational Value in Relationships, 'Respect' - as the Right Evaluation, Understand Harmony in the Society.

Harmony in the Nature (Existence): Understand Harmony in the Nature, Interconnectedness, Self-regulation and Mutual Fulfillment among the Four Orders of Nature, Realizing 'Existence is Co-existence' at All Levels, The Holistic Perception of Harmony in Existence

UnitIVHolisticWell-Being

Influence of universal human values on holistic wellbeing – Definition of well- being (state of being comfortable, healthy, happy and equanimity) – Types of Well Being: Hedonic (Subjective) and Eudaimonic (Psychological) – 8 Pillars of Holistic Wellness - (Physical, Emotional, Social, Spiritual, Intellectual, Occupational, Financial, Environment) – Resilience: Meaning and definition of Resilience-Learning from set backs, well-being and resilience.

UnitV:IndianConstitutionalValues

Human Rights: Meaning, characteristics of human rights, Human Rights and UNO, UDHR- Universal Declaration of Human Rights, Indian Constitution-Preamble, Fundamentals of Rights, fundamental duties, Right to Information Act (RTI), National Human Rights Commission (NHRC), State Human Rights Commission, Tamil Nadu.

REFERENCES

1. **Choudhary, T., &Madnawat, A. (2017).** Spirituality and compassionate love in psychiatrists and psychiatric social workers. *Indian Journal of Positive Psychology*, 8(1),79. Fisher,J.(2011).
2. **Narayan,R.S.,**A Text Book on Professional Ethics and Human Values, New Age International Publishers, New Age International(P) Ltd, New Delhi,2006.
3. **Norman,R.,**theMoralPhilosophy An Introduction to Ethics, Oxford University Press, Oxford, 1998.
4. **Nicotera,N., & Laser-Maira, J.A.(2017).** *Innovative SkillstoSupportWell-BeingandResiliencyinYouth.*OxfordUniversityPress.
5. **Pradeep Kumar, Raman Charla,** Human Values & Professional Ethics,ParamountPublishingHouse,Hyderabad,2013.
6. **Susairathinam,A.A.(2020).**LivedexperiencesofseparatedwomeninTamilNadu,India:Psychologicalwell-being.*IndianJournalofPositivePsychology*,11(2),93–104.

SEMESTER IV

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23C07/ CM23C10	BUSINESS FINANCE	THEORY	73	2	-	4

Preamble

- To Understand the Concepts of Business Finance and their Applications for Managerial Decision Making.
- To analyse the short term and long term decision making techniques
- To examine the various determinants of dividends

Prerequisite

- No prerequisite required

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	State the concepts and approaches in finance	K1
CLO2	Demonstrate the possibilities for the optimum acquisition and application of the financial resources	K2
CLO3	Analyse the techniques required to select the feasible financial requirements of a Business Concern	K3
CLO4	Apply the concepts and tools of the financial decisions for adequate return to the shareholders	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	S
CLO4	S	S	S	M	M

S-Strong; M-Medium; L-Low

BUSINESS FINANCE-BP23C07/CM23C10-73HOURS

Unit I (14Hours)

Business Finance :Meaning and Definition – ***Approaches to Finance Function*** – Scope – Financial Decisions - Profit Maximization Vs Wealth maximization. Sources of Finance.**Financial Planning**: Objectives –Characteristics – ***Steps in financial planning – Limitations of Financial Planning. Role of Financial Manager***. **Time Value of money** – Practical Applications of Time Value Techniques – AI for TVM Calculation

Unit II (15Hours)

Capital Budgeting: – Meaning – Need–***Importance – Kinds and Process of Capital Budgeting***–Cash Flow Estimation- Capital Budgeting Appraisal Methods: Traditional Methods - Payback Period – Accounting Rate of Return (ARR). Discounted Cash-flow Methods: Net Present Value (NPV) – Net Terminal Value-Internal Rate of Return–Profitability Index.**Cost of Capital**:Meaning–***Significance–Classification of Cost***–Computation of Cost of Capital: Cost of Debt, Preference, Equity, Retained Earnings and Weighted Average Cost of Capital – Integration of AI to estimate cost of capital.

Unit III (15Hours)

Capital Structure: Introduction – Importance – Factors Determining the Capital Structure***Theories of Capital Structure: Net Income Approach- Net Operating Income Approach- Traditional Approach and Modigliani and Miller Approach***. **Leverage**: Meaning – Types of Leverage – Impacts of Financial Leverage – Integration of AI for Trading and Equity.

Unit IV (15Hours)

Capitalisation: Concept – Need- Theories of Capitalisation – ***Fair capitalization – Over Capitalization – Under Capitalization – Watered Stock – Over Trading and Under Trading.*****Working Capital Management**: Meaning – Classification-***Importance- Factors Determining the Working Capital Requirements***– Management of Working Capital – Methods of Estimating Working Capital Requirements – Integration of AI for estimation of working capital.

Unit V (14Hours)

Receivables Management: Forming of credit policy. Inventory Management – Tools and Techniques.**Dividend Policy**: Determinants of Dividend Policy – ***Types of Dividend Policy – Advantages and Disadvantages of Stable Dividend Policy – Theory of Relevance***and Irrelevance - IKS principles in Dividend Policy-IKS inspired Dividend Policy Strategies.

***Distribution of marks :Theory 40%Problems 60%**

***Highlighted Content offered in Blended Mode(Link Provided)**

Text Book

Sl.No.	Authername	Title ofthe book	Publisher	Year& Edition
1	Shashi.K.Gupta Sharma R. K	Financial Management	KalyaniPublishers	2018

ReferenceBooks

Sl.No.	Authername	Title ofthe book	Publisher	Year&Edition
1	Ravi.M. Kishore	Financial Management Solutions	Taxmann PublicationsPvt Ltd	2017 Edition
2	Khan&Jain	Financial Management	TataMcGrawHill	2018
3	MaheshwariS.N	Financial Management	Sultan Chand & Sons	15 th Edition 2019
4	AlanC.ShapiroPeter Moles	International Financial Management	Wiley	2016 Edition

SkillComponents

- Preparationoffinancialplanningfortheconcern
- Applicationoftimevaluetechniquetothereal situations
- Analysethecapitalstructureofdifferentcompaniesbelongstodifferentindustries
- Estimatethecost ofcapitalforthefundsraisedbythecompany
- Applicationofcapitalbudgetingtechniquetoselecttheprojectproposals.
- AnalysethefinancialstatementsandEstimatetheworkingcapitalrequirementsofthecompany.

Pedagogy

- Lecture,GroupDiscussion, Casestudy,Roleplaying,Activitybasedlearning

CourseDesigners:

- 1.Dr.B.Thulasipriya,Departmentof Commerce
- 2.Dr.S.Sujatha,Departmentof Commerce

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23C08	SOFTWARE DEVELOPMENT WITH VISUAL BASIC.NET	THEORY	58	2	-	4

Preamble

- To provide knowledge about the implementation of vb.net concepts into programming
- To enlighten about prominent commands used in visual basic language

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the concepts of VB.Net and its functions	K1
CLO2	Demonstrate the various elements of VB.Net and settings to develop programs using them	K2
CLO3	Solve the real world problems using looping, boolean, branching and objects	K3
CLO4	Simplify Menus and Toolbar, Dialog Boxes, Procedures by developing programs using AI Tools.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S–Strong; M– Medium

SOFTWARE DEVELOPMENT WITH VISUAL BASIC .NET-BP23C08-58HRS

UNIT I

(12 HRS)

Introduction – Evolution of .NET - ***Starting Visual Basic .NET — IDE – Opening an Existing Project – Using the Auto Hide Facility – Resizing a Window – Creating a Useful Application– Placing the Controls on a form – *Selecting a form and the Controls – Resizing a form the Controls – Using the Properties Window*** – Setting the Properties of Form and Controls- Using the Solution Explorer – Setting the Startup Object – ***Writing an Event Procedure – Executing the Project Using Explorer** – The Standard Toolbar

UNIT II

(11 HRS)

Visual Basic .NET Programming Controls – Text Box Control –Command Button - Radio Button Control – ***List Box Control – Check Box Control*** – Timer Control – Picture Box Control – Group Box Control – Combo Box Control – ***Horizontal Scrollbar and Vertical Scrollbar Controls***

UNIT III

(12 HRS)

Setting Properties Using the Properties Window: Classification of Properties – Various Properties of Form – ***Setting Properties Using Event Procedures: Introduction – Setting the Text Property of Label and Button*** – Infinite Loop – Do while – Do loop while – Do Until – Do loop until – For next statement – Nesting for loop – Arrays – Control Arrays.

UNIT IV

(12 HRS)

Visual Basic .NET Programming Language: Variables and Data Types – ***The MsgBox() Function*** – Text Editor Toolbar – The Input Box() Function – ***MDI forms-Basic Elements of Menu*** – Creating a simple Menu Application – Enhancing a simple Menu Application – Modifying the Existing Menu – Pop Up Menus – Built-in Functions: ***Mathematical functions*** – String functions – Date & Time function - Boolean Algebra and Logic Gates – Data type conversion functions – Option statements.

UNIT V

(11 HRS)

Overview of ADO.NET - Connection Object - ***Data Readers - Data set & Data Adapters*** - Execute Non-Query, Execute Scalar - Execute Reader – overview of Chatbot and its applications.

***Highlighted Content offered in Blended Mode (Link Provided)**

TextBook

S.No	AuthorName	Book Name	Publisher	Yearandedition
1.	ShirishChavan	VisualBasic.Net	PearsonEducation, Pvt. Ltd	2010,4 th Edn.

ReferenceBooks

S.No	AuthorName	Book Name	Publisher	Yearandedition
1.	Thearon Willis, BryanNewsome	BeginningMicrosoft Visual Basic 2010	Wrox	2011, 1 st Edn.
2.	KogentSolutions Inc	VisualBasic2008In Simple Steps	DreamtechPress	2009, 3 rd Edn.

SkillComponents

- ApplyingvariouscontrolstructuresinVB.Net
- Usedto developForms basedapplications,Webbased applicationsandWeb services.
- Designedto buildapplications whichcould runon theWindows platform.

Pedagogy

- Lecture,PPTpresentation,Quiz,GroupDiscussion,Seminar,Think,pairandshare,
Assignment, Case study

Course Designers

1. Dr.J. RiniMercy
2. Mrs.L.Mahalakshmi

LEARNINGMETHODOLOGY

S.NO	LEARNINGMETHODS	PERCENTAGE
1	Participatory Learning	30
2	ExperimentalLearning	40
3	Problem Solving	30

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23A03	BUSINESS LAW	THEORY	73	2	-	4

Preamble

- To provide students with an understanding of general principles of law of contract and special contracts
- To provide an insight into the sale of Goods Act.
- To familiarize with various types of Insurance and claim.

Prerequisite

- Basic Knowledge on Indian contract Act

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	State the fundamental rules of commercial law applicable to all the business context	K1
CLO2	Understand the different elements of business and legal terminology of procedures in this current business scenario	K2
CLO3	Examine the rules regarding the administration of agreements relating to the business activities	K3
CLO4	Apply the various principles of contracts and interpret the legal issues	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	S	M
CLO2	S	S	S	L	S
CLO3	S	M	S	L	M
CLO4	S	S	S	M	S

S-Strong; M-Medium; L-Low

BUSINESSLAW-BP23A03-73 HRS

UNIT I

(15 Hrs)

Indian Contract Act 1872 – ***Meaning of Contract – Definition***– Nature of Contract & Classification– ***Components of Valid Contract***- Offer & Acceptance-Consideration –Capacity to Contract.

UNIT II

(15 Hrs)

Free Consent – Unlawful Agreements – ***Quasi Contracts - Different Modes of Discharge of Contract*** – Remedies of Breach

UNIT III

(14 Hrs)

Contract of Indemnity & Guarantee, Essential elements of Indemnity and Guarantee. Rights of Surety – Discharge of Surety. ***Bailment & Pledge – Rights & Duties of Bailor & Bailee***

UNIT IV

(15 Hrs)

Sale of Goods Act 1930 – Sale & Agreements to Sell – ***Rules Regarding Passing of Property in Goods***– Conditions & Warranties– Actual & Implied– Principle of “Caveat Emptor” and its Limitations. Law of Agency – Kinds of Agency – ***Rights & Liabilities of Principal and Agent.***

UNIT V

(14 Hrs)

Contract of Insurance - Nature and Fundamental Principles of Insurance – Life Insurance – Fire insurance – ***Marine Insurance - Policy claims***

***Highlighted Content offered in Blended Mode**

Text Book:

S.No	Authors	Title	Publishers	Year and Edition
1.	Kapoor N.D	Business Law	Sultan Chand & sons	2022, 23 rd Revised Edn.

Books for Reference:

S.No	Authors	Title	Publishers	Year and Edition
1.	Pillai.R.S.N & Bagavathi.B	Business Law	S.Chand & Co	2015, 3 rd Revised Edn.
2	PCTulsian and Bharat Tulsian	Business Law	Tata McGraw-Hill	2017, 3 rd Revised Edn.

Skill Component

- Preparation of different types of Contract and to develop the working knowledge on execution of the same.
- Apply the regulatory framework on various laws pertaining to business and sale of goods in real case analysis.
- Framing a sample legal deed of understanding between bailor and bailee
- Compare and contrast different insurance policies to identify the most suitable options
- Develop Brochures, Websites or Social Media Content to promote insurance products

Pedagogy

- Powerpoint presentations, Group Discussion, Seminar, Quiz, Assignment, Experience Discussion, Brainstorming, Activity, Case Study

Course Designers

1. Dr.R.Jayasathya.
2. Mrs. R. Sangeetha

LEARNING METHODOLOGY

S.NO	LEARNING METHODS	PERCENTAGE
1	Participatory Learning	60
2	Experimental Learning	30
3	Problem Solving	10

COURSECODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23A04	BANKING THEORY LAW AND PRACTICE	THEORY	73	2	-	4

Preamble

- ❖ To understand the legal procedures formulated under Banking Regulation Act, Negotiable Instruments Act and other legal issues.
- ❖ To provide exposure to the students with the latest developments in the banking field
- ❖ To acquire specialized knowledge of law and practice relating to Banking

Prerequisite

- Basic Knowledge in Banking

Course Learning Outcomes

On the successful completion of the course, students will be able to prepare and present information regarding banking and technologies used

CLO Number	CLO Statement	Knowledge Level
CLO1	Define and Relate the conceptual framework of banking, central banking, cheques, Loans and advances and E-banking.	K1
CLO2	Classify and Explain the types of banks, deposit, cheques, E-banking services, loans and advances	K2
CLO3	Identify the functions of banks, Central bank, cheques, lending policies and procedures, e-banking application	K3
CLO4	Analyse the various roles of commercial banks, central bank, negotiable instruments, cheques and e-banking/mobile banking	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong; M-Medium; L-Low

BANKING THEORY LAW AND PRACTICE-BP23A04 -73 HRS

Unit I

(15 Hrs)

Banking-Meaning and Definition- ***Classification of Banks-Functions of Commercial Banks***- Regional Rural banks – Concessions – Progress. ***Credit Creation – meaning*** – technique - limitation- ***Nationalization and Privatizations of banks in India***-Role of banks in Money Market and Economic Development.

Unit II

(15Hrs)

Central Banking– Meaning–***Nature - Functions of Central Bank***. Definition of banker and customer – ***General relationship - Rights and obligations of a banker*** - Ombudsman Scheme – General Precautions for opening accounts – KYC Norms -***Types of deposit accounts - Negotiable Instruments Act – Definition and types***.Endorsement – meaning, definition and kinds.

Unit III

(14Hrs)

Cheques-Crossing of cheques–types –***payment of cheques–precautions by paying bankers***–statutory protection of the paying banker–***collection of cheques***–legal status–***conversion–RBI instruction to banks***.Truncated cheque and Electronic cheque.

Unit IV

(14 Hrs)

Loans and advances- Principles of sound lending- style of credit -***types of loans– Modes of creating charge*** - Lien, mortgage, pledge and ***hypothecation***- General principles of secured advances–***Advances against goods*** and advances against document of title to goods

Unit V

(15Hrs)

E –banking- Electronic delivery channels – ***Facets of E-banking*** – E-banking transactions – applications- Inter-bank mobile payment (IMPS) – virtual currency – ***Models of E-banking – Advantages – Constraints*** – Security Mobile Banking – Need and importance of Mobile banking - Key benefits of Mobile Banking measures – Electronic payment system – ***NEFT, RTGS, SWIFT, WIRE***

***Highlighted Content offered in Blended Mode (Link Provided)**

TextBook

S. No.	Authors	Title	Publishers	Year and Edition
1.	Varshney.P.Nand <u>SundharamK.P.M.</u>	BankingTheoryLaw andPractice	SultanChand & sons	2019, 20 th RevisedEdn.

Books for Reference

S. No	Authors	Title	Publishers	YearandEdition
1.	Dr.S.Gurusamy	BankingTheory, Lawand Practice	VijayNicole Imprints(p)Ltd	2017, 4 th Edn
2	E.Gordanand K.Natarajan	BankingTheory, Lawand Practice	Himalayapublishing house	2023, 29 th Revised Edn.
3.	Kandasami.K.P NatarajanS.&Parameswara n	BankingLawand Practices	SChand&Company	2020, 4 th Revised Edn.

Skill Components

- RecentAmendmentsbyRBIInBankingSector.
- NewTechnologiesandRecentTrends In Banking Sector.
- Suppose If you Get Student Loan Of Rs 1,00,000 From AnyOne Of The Public Sector Bank In Order To Meet Your College Expenses. If You Are Repaying It After 8 Yrs, Calculate Interest For 8 Yrs.
- Analyze the Recent Technologies In Banking Till 2020, If Suppose New Technology For BankingTo Be Introduced In Recent ComingYears. What Will BeAdditional Features Needed And Explain Why It Is Needed.

Pedagogy

- Powerpointpresentations,GroupDiscussion,Seminar,Quiz,Assignment,Experience Discussion, Brain storming, Activity, Case Study

Course Designers

1. Dr.C.Esakkiammal
2. Dr.R.Eswari

LEARNINGMETHODOLOGY

S.NO	LEARNINGMETHODS	PERCENTAGE
1	Participatory Learning	50
2	ExperimentalLearning	30
3	Problem Solving	20

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
EC23A03	BUSINESS ECONOMICS	THEORY	73	2	-	4

Preamble

- To introduce microeconomic and macroeconomic concepts
- To familiarize various economic theories
- To interpret and examine the monetary and fiscal policy

Prerequisite

- Basic knowledge in economics

Course Learning Outcomes

On the successful completion of the course, Students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define and understand the various laws and concepts of economics	K1
CLO2	Demonstrate and interpret different market structure, utility, production and pricing methods	K2
CLO3	Identify and develop economic theories and public finance system.	K3
CLO4	Analyze the functioning of economy at the macro level.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	S	S
CLO2	S	S	S	S	L
CLO3	S	M	S	M	S
CLO4	S	M	S	M	S

S-Strong; M-Medium; L-Low

BUSINESSECONOMICS-EC23A03– 73 HOURS

Unit I

(14 Hrs)

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***

Unit II

(14 Hrs)

Demand and Supply Functions: Meaning of Demand – Determinants and Distinctions of demand – ***Law of Demand – Elasticity of Demand – Demand Forecasting – Supply concept and Equilibrium***. Consumer Behaviour: Law of Diminishing Marginal utility– ***Equi-marginal Utility*** –Indifference Curve– Definition, Properties and equilibrium

Unit III

(15 Hrs)

Production :Law of Variable Proportion – Laws of Returns to Scale – ***Producer's equilibrium*** –Economies of Scale.***Cost Classification – Break Even Analysis***. Product Pricing: Price and Output Determination under Perfect Competition,***Monopoly–Discriminating monopoly*** – Monopolistic Competition – ***Oligopoly*** – Pricing objectives and Methods

Unit IV

(15 Hrs)

National Income- Gross National Product- ***Net National Product***– Gross Domestic Product-***Measurement of National Income - Consumptions, savings and investments***. Theory of Employment- Type of unemployment- ***Labour and Population theories- Definition of capital and growth of capital***- Steps in capital formation. Money - Definition and functions of money-Quantity theory of money. ***Public Finance - Principle of taxation*** - Effect of taxation on production and distribution - Deficit financing system

Unit V

(15 Hrs)

Monetary and Fiscal Policies– ***Measures of money stock*** – ***Policy and money supply – Instrumentsofmonetarypolicy–Fiscalspolicy***–Theunionbudget–Statebudgets– ***Finances of the union and the states –The Finance commission***– Importance of the budget.

***HighlightedContentofferedinBlendedMode(LinkProvided)**

Text Book

Sl. No.	AuthorName	Titleof thebook	Publisher	Year and Edition
1	Sundharam K P MSundharamE N	Business Economics(UnitI-IV)	SultanChand&Sons- New Delhi – 02.	2022 Edition
2	ShankaranS	Business Economics(UnitIV)	MarghamPublications Ch -17	2020, 3 rd Edition
3	FrancisCherunilam	Business Environment(UnitV)	Himalaya Publishing House, Mumbai – 04	2023,31 th Edition

ReferenceBooks

Sl. No.	AuthorName	Titleof thebook	Publisher	Year and Edition
1	ChaudharyC.M	Business Economics	RBSAPublishers-Jaipur -03.	2019 Edition
2	MehtaP.L	Managerial Economics–Analysis, Problems & Cases	SultanChand&Sons- New Delhi – 02.	2018, 14 th Edition

SkillComponents

- Assessingpotentialvaluetrade-offsto maximizeprofitsanduseresources efficiently.
- Forecastingprofits byanalysingmarginalcosts andbenefits toinform business strategies.
- Utilizingdemanddatatobudgeteffectivelyandallocateresourcesforimprovedfinancialoutcomes.
- Examiningmarketdynamicstounderstandtherelationshipbetweensupply,demand,andpricing.
- Interpretingnationalincomedatatogaugeeconomicgrowth,stability,anddevelopment progress.
- Understandingfiscaldynamicsbetweengovernmentlevelstooptimizecostmanagementand revenue generation.

CourseDesigners

1. Dr.A.Karthika,DepartmentofBCom(e-Com)&(SF)
2. Dr.S.Yesodha,DepartmentofBCom(e-Com)&(SF)

LearningMethodology

S.No	LearningMethodology	Percentage
1	ParticipatoryLearning	74
2	ExperimentalLearning	26

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
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BP23CP4	VISUAL BASIC.NETPRACTICAL	PRACTICAL	-	-	45	2
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Preamble

- To enhance practical knowledge in Visual Basic.Net

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Relate the VB.Net controls and their applications	K1
CLO2	Demonstrate VB applications with full functionality and a graphical user interface using data controls.	K2
CLO3	Construct the database to develop VB projects.	K3
CLO4	Examine database access utilizing Visual Basic ADO control and components such as data environment designer and Chatbot	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong; M-Medium

VISUALBASIC.NETPRACTICAL-BP23CP4-45HRS

1. Write a program to generate prime numbers
2. Write a program for calculator using VB.Net
3. Write a VB.Net application to calculate Simple Interest
4. Write a VB.Net application to implement the font style properties like changing the font color, font size, bold, italic and underline formatting options using check box and text box
5. Write a VB.Net program to implement For....Next loop for displaying only even numbers from given numbers
6. Write a VB.Net program to implement do...while loop for validating the age of vote for given number of persons
7. Write a VB.Net program to implement Menu Editor for displaying different types of shapes and its formulas
8. Write a VB.Net program to implement String Functions
9. Write a VB.net program to display the given date with different format
10. Create an Electricity Bill using VB.Net
11. Create a Student database with following fields (TableName: student_details):

Regno	varchar (7) primary key
Studname	varchar(20)
Gender	varchar(6)
Dept	varchar(15)
Address	varchar(40)

Insert few records into student_detail table using VB.Net application and update student detail based on Regno

12. Creating a chat bot in Visual Basic using basic keyword matching.

Skill Component:

1. Program creates highly creative and interactive web applications
2. Analysing wider range of applications with control variables
3. Applying various control structures in VB.Net
4. Understanding Client-side technologies like HTML, CSS, and JavaScript
5. Understand VB application environment and event driven programming
6. Analyse various control constructs, arrays and collections used in VB

Pedagogy

- Lecture, Demo in System

Course Designers

1. Dr.A.Meenakshi
2. Dr. J. Rini Mercy

LEARNING METHODOLOGY

S.NO	LEARNING METHODS	PERCENTAGE
1	Experimental Learning	75
2	Participatory Learning	25

COURSE NUMBER	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP22SBCE	COURSERA- GRAPHIC DESIGN ELEMENTS FOR NON-DESIGNERS	THEORY	45	-	-	3

S.No	CourseName	CourseLink	No.Of Hours
1	Basic Elements of Design: Design Principles and Software Overview	https://www.coursera.org/learn/basic-elements-design?specialization=graphic-design-elements-non-designers	11
2	Graphic Elements of Design: Color Theory and Image formats	https://www.coursera.org/learn/graphic-elements-design?specialization=graphic-design-elements-non-designers	12
3	Textual Elements of Design: Fonts, Typography and Spacing	https://www.coursera.org/learn/fonts-typography-spacing?specialization=graphic-design-elements-non-designers	12
4	Print and Digital Elements of Design: Branding and User Experience	https://www.coursera.org/learn/designing-print-digital-media?specialization=graphic-design-elements-non-designers	10

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
NM23EII	Entrepreneurship and Innovation (IgniteX)	THEORY	30	-	-	2

Course Learning Objectives

1	Inspire; develop entrepreneurial mind-set and attributes; entrepreneurial skill sets for venture creation and intrapreneurial leadership
2	Apply process of problem-opportunity identification and validation through developing a macro perspective of the market, industries and customers while using design thinking principles.
3	Understand and analyse Customer and Market segmentation, estimation of Market size, Customer persona development and validation
4	Understand and Initiate Solution design, Prototyping for Proof of Concept. Understand MVP development and validation to determine Product-Market fit
5	Craft initial Business and Revenue models, financial planning and pricing strategy for profitability and financial feasibility of a venture. Understand relevance and viability of informal and formal funding with respect to different business models.
6	Understand and develop Go-to-Market strategies with a focus on digital marketing channels.
7	Understand and apply storytelling skills in presenting a persuasive and defensible Venture Pitch.

Course Content

Unit I: Entrepreneurship Fundamentals & Context

Meaning and concept, attributes and mindset of entrepreneurial and intrapreneurial leadership, role models in each and their role in economic development. Gamified role play based exploration aligned to one's short term career aspiration and ambition. An understanding of how to build entrepreneurial mindset, skillsets, attributes and networks while on campus.

Core Teaching Tool: Simulation, Game, Industry Case Studies (Personalized for students – 16 industries to choose from), Venture Activity

Unit II: Problem & Customer Identification

Understanding and analysing the macro-Problem and Industry perspective, technological, socio-economic and urbanization trends and their implication on new opportunities. Identifying passion, identifying and defining problem using Design thinking principles. Analysing problem and validating with the potential customer. Iterating problem-customer fit. Understanding customer segmentation, creating and validating customer personas. Competition and Industry trends mapping and assessing initial opportunity.

Core Teaching Tool: Several types of activities including Class, game, Gen AI, „Get out of the Building“ and Venture Activity.

Unit III: Solution design & Prototyping, Opportunity Assessment and Sizing

Understanding Customer Jobs-to-be-done and crafting innovative solution design to map to customer's needs and create a strong value proposition. Developing Problem-solution fit in an iterative manner. Understanding prototyping and MVP. Developing a feasibility prototype with differentiating value, features and benefits. Initial testing for proof-of-concept and iterate on the prototype.

Core Teaching Tool: Venture Activity, no-code Innovation tools, Class activity

Unit IV: Business & Financial Model, Go-to-Market Plan

Introduction to Business model and types, Lean approach, 9 block lean canvas model, riskiest assumptions to Business models. Importance of Build - Measure – Lean approach Business planning: components of Business plan- Sales plan, People plan and Financial plan, Financial Planning: Types of costs, preparing a financial plan for profitability using financial template, understanding basics of Unit economics and analysing financial performance. Introduction to Marketing and Sales, Selecting the Right Channel, creating digital presence, building customer acquisition strategy. Choosing a form of business organization specific to your venture, identifying sources of funds: Debt & Equity, Map the Start-up Lifecycle to Funding Options.

Core Teaching Tool: Founder Case Studies – Sama and SecurelyShare; Class activity and discussions; Venture Activities.

Unit V: Scale Outlook and Venture Pitch Readiness

Understand and identify potential and aspiration for scale vis-à-vis your venture idea. Persuasive Storytelling and its key components. Build an Investor ready pitch deck.

Core Teaching Tool: Class activity and discussions; Venture Activities.

References

1. Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd, Sabyasachi Sinha (2020). Entrepreneurship, McGraw Hill, 11th Edition.
2. Ries, E. (2011). The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Crown Business
3. Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. John Wiley & Sons.
4. Chowdhry Ajay, (2023) Just Aspire: Notes on Technology, Entrepreneurship and the Future,
5. Simon Sinek (2011) Start With Why, Penguin Books Limited
6. Brown Tim (2019) Change by Design Revised & Updated: How Design Thinking Transforms Organizations and Inspires Innovation, Harper Business
7. Namita Thapar (2022) The Dolphin and the Shark: Stories on Entrepreneurship, Penguin Books Limited
8. Collins Jim, Porras Jerry, (2004) Built to Last: Successful Habits of Visionary Companies
9. Burlington Bo, (2016) Small Giants: Companies That Choose to Be Great Instead of Big
10. Saras D. Sarasvathy, (2008) Effectuation: Elements of Entrepreneurial Expertise, Elgar Publishing Ltd

Web Resources

- Learning resource- IgniteX Course Wadhvani platform (Includes 200+ components of custom created modular content + 500+ components of the most relevant curated content)

CERTIFICATE COURSE IN AI INTEGRATION IN EXCEL

DURATION: 1 MONTH (24 DAYS / 36 HOURS)

OBJECTIVE

The objective of this course is to provide students with a comprehensive understanding of AI tools and their integration within Microsoft Excel. Students will learn to leverage AI for enhanced data analysis, visualization, automation, and more, equipping them with the skills necessary to excel in various data-centric roles.

CAREER PATH

- ✓ Become a Data Analyst
- ✓ Become a Business Intelligence Analyst
- ✓ Become an AI Specialist
- ✓ Become an Automation Specialist

PREREQUISITE FOR STUDENTS

- ✓ Basic Computer Knowledge
- ✓ Basic Knowledge in Excel
- ✓ Understanding of Data Analysis
- ✓ Familiarity with Programming (preferred but not mandatory)

COURSE OUTLINE			
COURSE NAME:	CERTIFICATE COURSE IN AI INTEGRATION IN EXCEL	DURATION:	1 MONTHS (24D/36 H)
MODULE	TOPICS	DURATION	TOTAL
Module-I	Introduction to AI in Excel	24D/36 H	24D/36 H
	Advanced AI Tools and Techniques		
	Introduction to Microsoft Copilot in Excel		
	Introduction to ChatGPT and Excel Integration		

MODULE IN DETAIL

CERTIFICATE COURSE IN AI INTEGRATION IN EXCEL (24D/36H) INTRODUCTION TO

AI IN EXCEL

- Understanding AI and its applications
- Overview of AI tools available in Excel
- Installing necessary add-ins and tools
- Setting up Microsoft Excel for AI integration
- Basic data analysis with AI
- Using AI tools for data cleaning and preprocessing

ADVANCED AI TOOLS AND TECHNIQUES

- AI for Data Visualization
 - Enhancing charts and graphs with AI
 - Using AI for better data storytelling
- Automating Tasks with AI
 - Using AI to automate repetitive tasks
 - Creating and using macros with AI enhancements

INTRODUCTION TO MICROSOFT COPILOT IN EXCEL

- Overview of Microsoft Copilot
- Setting up Copilot in Excel
- Copilot Features and Tools
 - Data analysis tools
 - Automation features
- Data Analysis with Copilot
 - Advanced data analysis tools
 - Using Copilot for statistical analysis
- Automation and Macros
 - Automating repetitive tasks
 - Creating and using macros

INTRODUCTION TO CHATGPT AND EXCEL INTEGRATION

- Overview of ChatGPT and its capabilities
- Setting Up ChatGPT in Excel
- Basic Integration Techniques
 - Using ChatGPT for basic data queries and responses
 - Simple automation with ChatGPT
- Using ChatGPT for data cleaning and preprocessing
- Data Analysis with ChatGPT
- Automating Excel Tasks with ChatGPT
- ChatGPT for Data Visualization
- Using ChatGPT with Power Query for data transformation

CERTIFICATE COURSE IN ADVANCED EXCEL

DURATION: 1 MONTH / 36 HOURS

OBJECTIVE

This course is outlined in a way that it covers majority of enriched features in Microsoft Excel, including Macros, Pivot tables, Audit and Analyze worksheets, Use Advance Formulas and Functions, work with multiple Worksheets and Workbooks etc., which in turn increases productivity, improves efficiency by streamlining the workflow thus becomes a major asset for professional employees.

PREREQUISITE FOR STUDENTS

Before attending this course, students must have:

- ✓ Experience in dealing with MS Excel

COURSE OUTLINE			
COURSE NAME:	ADVANCED EXCEL	DURATION: 36H/1M	
MODULE	TOPICS	DURATION	TOTAL
Module-I	Introduction to Excel	36H/1M	36H/1M
	Working with formulas and functions		
	Data sorting and filtering		
	Auditing		
	Charts and tables		
	Working with data		
	What if analysis		
	Exporting, importing and reviewing a worksheet		
	VBA Macro		

MODULE IN DETAIL

INTRODUCTION TO MS EXCEL AND UNDERSTANDING BASIC WORKING WITH IT

- ✓ Introduction to MS Excel, Quick review on MS Excel Options, Ribbon, Sheets
- ✓ Saving Excel File as PDF, CSV and Old versions
- ✓ Using Excel Shortcuts with Full List of Shortcuts
- ✓ Copy, Cut, Paste, Hide, Unhide, and Link the Data in Rows, Columns and Sheet
- ✓ Using Paste Special Options
- ✓ Formatting Cells, Rows, Columns and Sheets
- ✓ Protecting & Unprotecting Cells, Rows, Columns and Sheets with or without Password
- ✓ Page Layout and Printer Properties
- ✓ Inserting Pictures and other objects in Worksheets
- ✓ Working with Excel Properties

WORKING WITH FORMULAS/FUNCTIONS

- ✓ **Lookup and Reference Functions:** VLOOKUP, HLOOKUP, INDEX, ADDRESS, MATCH, OFFSET, TRANSPOSE etc.
- ✓ **Logical Function:** IF/ELSE, AND, OR, NOT, TRUE, NESTED IF/ELSE etc.
- ✓ **Database Functions:** DGET, DMAX, DMIN, DPRODUCT, DSTDEV, DSTDEVP, DSUM, DVAR, DVARP etc.
- ✓ **Date and Time Functions:** DATE, DATEVALUE, DAY, DAY360, SECOND, MINUTES, HOURS, NOW, TODAY, MONTH, YEAR, YEARFRAC, TIME, WEEKDAY, WORKDAY etc.
- ✓ **Information Functions:** CELL, ERROR.TYPE, INFO, ISBLANK, ISERR, ISERROR, ISEVEN, ISLOGICAL, ISNA, ISNONTEXT, ISNUMBER, ISREF, ISTEXT, TYPE etc.
- ✓ **Math and Trigonometry Functions:** RAND, ROUND, CEILING, FLOOR, INT, LCM, MOD, EVEN, SUMIF, SUMIFS etc.
- ✓ **Statistical Functions:** AVERAGE, AVERAGEIF, AVERAGEIFS, COUNT, COUNTA, COUNTBLANK, COUNTIF, MAX, MAXA, MIN, MINA, etc.
- ✓ **Text Functions:** LEFT, RIGHT, TEXT, TRIM, MID, LOWER, UPPER, PROPER, REPLACE, REPT, FIND, SEARCH, SUBSTITUTE, TRIM, TRUNC, CONVERT, CONCATENATE etc.
- ✓ **Financial Functions:** PMT, PPMT, RATE etc.
- ✓ Other Important Functions

CONDITIONAL FORMATTING

- ✓ Using Conditional Formatting
- ✓ Using Conditional Formatting with Multiple Cell Rules
- ✓ Using Color Scales and Icon Sets in Conditional Formatting
- ✓ Creating New Rules and Managing Existing Rules

DATA SORTING AND FILTERING

- ✓ Using Filters to Sort Data
- ✓ Custom Sorting
- ✓ Advanced Filtering Options

CHARTS

- ✓ Bar Chart
- ✓ Line or Area Chart
- ✓ Pie or Doughnut Chart
- ✓ Hierarchy Chart–Treemap, Sunburst
- ✓ Scatter or Bubble Chart
- ✓ Statistic Chart–Histogram, Box & Whisker
- ✓ Waterfall or Stock Chart
- ✓ Combo Chart

AUDITING

- ✓ Show Formulas
- ✓ Trace Precedents & Dependents
- ✓ Remove Arrows
- ✓ Evaluate Formula

PIVOTTABLES

- ✓ CreatingPivotTables
- ✓ UsingPivotTableOptions
- ✓ ChangingandUpdatingDataRange
- ✓ FormattingPivotTableandMakingDynamicPivotTables

PIVOTCHARTS

- ✓ CreatingPivotCharts
- ✓ TypesofPivotChartsandTheir Usage
- ✓ FormattingPivotChartsandMakingDynamicPivotCharts

WORKINGWITHDATA

- ✓ Textto Columns
- ✓ DataValidation
- ✓ RemoveDuplicates
- ✓ Consolidate
- ✓ Outlining& Grouping
- ✓ Subtotal

WHAT-IFANALYSIS

- ✓ ScenarioManager
- ✓ Goal Seek
- ✓ DataTable

EXPORTINGANDIMPORTING

- ✓ Exportingdatafrom Web
- ✓ Exportingdatafromothersources
- ✓ Workingwithqueries
- ✓ Get&Transform
- ✓ Loading&Editingqueries

REVIEWINGAWORKBOOK/WORKSHEET

- ✓ ProtectingandSharinga Workbook/Worksheet
- ✓ LockingandEditingCells
- ✓ Proofing
- ✓ Insights
- ✓ Comments

VBAMACRO

- ✓ IntroductiontoVBAMacro
- ✓ RecordingMacro&UnderstandingCodeBehind
- ✓ Editing,WritingVBACodeandSavingasMacro
- ✓ KnowingForms &Properties

Subject Offered to B.Sc(Computer Science) as Allied Paper in Semester IV

COURSE NUMBER	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23A05	BUSINESS ACCOUNTING	ALLIED	58	2	-	3

Preamble

- To impart the knowledge of basic Accounting methods
- To enhance the students knowledge on treatment of accounts practically
- To gain few aspects on the terms of cost and management accounting

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	KNOWLEDGE LEVEL
CLO1	Examine the system of accounting and its applications	K1
CLO2	Infer on practical skills in recording financial transactions	K2
CLO3	Interpret financial statements for decision making	K3
CLO4	Analyze the financial health and performance of a business	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	L
CLO2	M	M	L	S	M
CLO3	S	M	S	M	M
CLO4	S	S	M	S	M

S-Strong; M-Medium; L-Low

BUSINESS ACCOUNTING-BP23A05 -58Hrs

UNIT I

(12 Hrs)

Accounting: Definition & Functions - ***Accounting Concepts & Conventions*** - Journal-Ledger
- ***Trial Balance***

UNIT II

(11 Hrs)

Subsidiary Books – Purchase Book – Sales Book – ***Purchase Return Book – Sales Return Book*** - Cash Book – Single, Double, Three Column & Petty Cash Book. Depreciation - ***Methods of Depreciation*** – Straight Line Method and Diminishing Balance Method

UNIT III

(11 Hrs)

Final accounts – ***Manufacturing, Trading***, Profit and Loss Accounts and Balance Sheet with Simple Adjustments

UNIT IV

(12 Hrs)

Cost accounting – ***Elements of Costing*** – Preparation of Simple Cost Sheet - Pricing of Material Issues – FIFO, LIFO – Labour Cost Accounting – ***Types of Labour- Labour Cost*** - Control over Labour Cost- Labour Turnover: Separation, Flux, Replacement Methods

UNIT V

(12 Hrs)

Management Accounting- Meaning - Objectives & Scope – ***Need and Significance*** - Relationship between Management Accounting, Cost Accounting & Financial Accounting. ***Financial Statement and the importance*** - Comparative statement – Ratio Analysis (Liquidity Ratios)

Distribution of marks – Theory 40% Problems 60%

***Highlighted Content offered in Blended Mode (Link Provided)**

Textbook:

S.No	Author Name	Book Name	Publisher	Year and edition
1.	Reddy T S & A Murthy	Financial Accounting	Margham Publications	Reprint 2021
2.	Jain S.P & Narang K.L	Cost Accounting	Kalyani Publishers	Reprint 2019
3.	Sharma R.K Sashi, K.Gupta, Neeti Gupta	Management Accounting	Kalyani Publishers	Reprint 2017, Fourth Edition

Books for Reference:

S.No	Author Name	Book Name	Publisher	Year and edition
1.	RL Gupta & Radhasamy	Advanced Accountancy (Vol I)	Sultan Chand & Sons	13 th Edition, 2018
2.	Pillai R.S. Nand Bagawathi	Cost Accounting	S Chand & Co	Revised Edition 2019
3.	Dr. Maheswari S.N & Dr. S.N. Mittal	Management Accounting	Sultan Chand & Sons	Reprint 2020

Skill Component

- Preparedetailedreport explainingthe financialhealth ofthe business
- Discussiononthepracticalimplicationsofsubsidiarybooks,cashmanagementanddepreciation in real world accounting
- Prepareasimplecost sheetforaspecific productin thebusiness scenario
- CaseStudyto identifyareas wheremanagement accountingcan beapplied
- Analyzeliquidityratiosusingtheprovided financial data

Pedagogy

Lecture,PPT,Quiz, Assignment,GroupDiscussion,Seminar

CourseDesigners

1. Dr.J. RiniMercy
2. Ms. R. Sangeetha

LEARNINGMETHODOLOGY

S.NO	LEARNINGMETHODS	PERCENTAGE
1	ExperimentalLearning	30
2	ParticipatoryLearning	60
3	ProblemSolving	10

SEMESTER V

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23C09	PROGRAMMING WITH PYTHON	THEORY	73	2	-	5

Preamble

The course covers Python programming, data structures, and OOP concepts. It enables students to develop applications using modular design and web operations.

Prerequisite

- Basic Computer Skills, Basic Math Skills

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLOs	CLO Statement	Knowledge Level
CLO1	Recognize the fundamentals of Python programming, data structures, and OOP concepts.	K1
CLO2	Understanding the concept of decision-making, looping, and functions to develop modular Python programs.	K2
CLO3	Implement object-oriented principles, file handling, and exception handling in Python applications.	K3
CLO4	Analyze and design Python-based web applications and GUI programs using Tkinter.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	S	S
CLO2	M	S	S	M	M
CLO3	S	M	S	M	S
CLO4	M	S	M	L	L

S- Strong; M-Medium; L – Low

PROGRAMMING WITH PYTHON - BP23C09 - 73 Hrs

UNIT I

(15 Hours)

Python Programming Language: Features - Setting Up the Environment - IDE - Pycharm - Anaconda - Jupyter – Spyder. Keywords - Variables and Identifiers - Literals - Input Output Statements – Data Types – **Operators: Arithmetic Operators - Comparison Operators, Logical Operators, Assignment Operators, Bitwise Operators, Identity Operators, Membership Operators** – Expressions. Boolean Algebra and Logic Gates: Truth Tables, Logical Expressions, and Bitwise Operations in Python **Decision Making & Branching Statements - Conditional Checking & Looping Statements.**

UNIT II

(15 Hours)

Data Structures: Lists - Tuples - **Set - Dictionaries** –Strings. Functions: Functions Program Routines- Defining Functions- More on Functions: Calling Value-Returning Functions- Calling Non-Value-Returning Functions- Parameter Passing - Keyword Arguments in Python - Default Arguments in Python-Variable Scope. **Recursion: Recursive Functions- Lambda.**

UNIT III

(14 Hours)

Object Oriented Programming: Classes and Objects – Constructors – Destructors Getter and Setter Methods – Encapsulations – **Inheritance – Polymorphism – Abstract Classes and Interfaces.**

UNIT IV

(14 Hours)

Modular Design: Modules - Top-Down Design - Python Modules. Files: Introduction - File Path - Opening and Closing Files - Reading and Writing Files - **Pickle and Unpickle** - Exception Handling - **Create User Defined Exception.**

UNIT V

(15 Hours)

Web Operations in Python: Basic Web Application Structure – Templates – Web Forms – Web Scrapping in Python. Introduction to AI with Python: Basics of AI - Machine Learning Concepts. Introduction to GUI Programming withTkinter: **Features of Tkinter – Creating a basic Tkinter Window – Widgets in Tkinter – Creating simple business applications with Tkinter.**

*** Highlighted Content offered in Blended Mode**

Text Books

S. No	Author	Title of the Book	Publisher	Year of Publication & Edition
1	Wesley J. Chun	Core Python Applications Programming	Pearson Education.	2016 and 3 rd Edn.

Reference Books

S.No	Author	Title of the Book	Publisher	Year of Publication & Edition
1	Martin C Brown	Python Complete Reference	McGraw Hill Publication	2001 and 1 st Edn.
2	Mcgrath Mike	Python in Easy Steps	McGraw Hill Publication	2013 and 1 st Edn.
3	Timothy A. Budd	Exploring Python	Tata McGraw Hill Education Private Limited	2011 and 1 st Edn.
4	Kenneth A Lambert	Fundamentals of Python	Cengage Learning Publications	2019 and 2 nd Edn.

Pedagogy

- Lecture through power point presentations, Discussion, Assignment, Quiz, and Seminar.

Skill Components

- Understanding Python syntax, data types, variables, and operators is essential for writing efficient and structured code.
- Mastering loops, conditional statements, and data structures like lists, tuples, sets, and dictionaries enhances problem-solving skills.
- Learning functions, recursion, lambda functions, file handling, and exception handling improves modularity and code reliability.
- Learning functions, recursion, lambda functions, file handling, and exception handling improves modularity and code reliability.

Course Designer

- 1.Ms.L.Mahalakshmi
- 2.Ms.A.Sasikala

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23C10/ CM23C11	MANAGEMENT ACCOUNTING	THEORY	73	2	-	4

Preamble

- To provide the fundamental knowledge and techniques in Management Accounting
- To apply the tools and techniques used to plan, control and make decisions
- To learn the Budgetary control procedures, reporting of organizational performance and calculation of variances

Prerequisite

- Basic Knowledge in Financial Statements

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the fundamental concept of management accounting and its objectives in facilitating decision making	K1
CLO2	Understand the different types of activity-based management tools through the preparation of estimates.	K2
CLO3	Analyze cost-volume-profit techniques using relevant costing and benefits to determine optimal managerial decisions.	K3
CLO4	Apply managerial accounting and its objectives in a way that demonstrates a clear understanding of ethical responsibilities.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	M	S
CLO2	S	S	M	S	S
CLO3	S	M	S	M	S
CLO4	M	S	S	S	M

S- Strong; M-Medium

MANAGEMENT ACCOUNTING –BP23C10/CM23C11 – 73 Hrs

Unit I (15 Hrs)

Management Accounting: Meaning, ***Objectives & Scope – Need*** and Significance
***Relationship between Management Accounting, Cost Accounting & Financial Accounting.**
Financial Statement and the importance*-Tools for Analysis and Interpretation- Common Size Statements, Comparative statement and Trend Analysis

Unit II (15 Hrs)

Ratio Analysis - Significance of Ratios - Uses and Limitations of Ratios – Classification of Ratios -Analysis of Short-Term Financial Position - Analysis of Long-Term Financial Position
Profitability Ratios– Leverage Ratios – Preparation of Financial statement from ratios.

Unit III (14 Hrs)

Fund Flow Analysis: Meaning and Concept of Funds and Flow of Funds- Difference between Fund Flow Statement, Income Statement and Balance Sheet- Uses, Importance and Limitations of Fund Flow Statement *** - Statement / Schedule of Changes in Working Capital- Funds from Operation -Statement of Sources and Application of Funds. ***Cash Flow Analysis: Meaning- Classification of Cash Flows - Comparison between Fund Flow and Cash Flow Statement – Uses, Importance and Limitations of Cash Flow Statement-Preparation of Cash Flow Statement Using Direct and Indirect methods -Accounting Standard AS 3

Unit IV (15 Hrs)

Budgeting and Budgetary Control: Definition, Importance, Essentials and Classification of Budgets- Preparation of Cash Budget, Sales Budget, Production Budget, Direct Labour Budget, Purchase Budget, Material Budget, Overhead Budgets–Flexible Budget -Master Budget***Budgetary control – Steps in Budgetary Control–Zero Base Budgeting*.**

Unit V (14 Hrs)

Marginal Costing:** Meaning – Features – Marginal Costing Vs Absorption Costing - Managerial Applications of Marginal Costing including transfer pricing- Significance and limitations of Marginal Costing- Marginal Cost Equation - **Cost-Volume-Profit Analysis and Break-Even Analysis-Decision Making – Make or buy Decision.***Standard Costing-Meaning, suitability as a management tool Limitation-Variance Analysis***-Material and Labour Variances only

Distribution of Marks - Theory 20% and Problems 80%

***Highlighted Content offered in Blended Mode (Link Provided)**

Textbook

S.No	Authors	Title	Publishers	Year and Edition
1	Sharma R.K Sashi K. Gupta Neeti Gupta	Management Accounting	Kalyani Publishers	Reprinted Nediti

Books for Reference

S.No	Author Name	Title	Publishers	Year and Edition
1	Jainand Narang	Cost and Management Accounting	Kalyani Publishers	2020, 21 st Edition
2	Dr. Maheswari S. N & Dr. S. N. Mittal	Management Accounting	Sultan Chand and Sons	2020, Reprint
3	Reddy T. S and Reddy H. P	Management Accounting	Margham Publications	2020, VIII Edition

Pedagogy

Lecture, PPT, Quiz, Assignment, Group Discussion, Seminar

Skill Component

- Identify the financial tools for analyzing the financial reports
- Apply the different types of ratios to income & expenditure and balance sheet statement
- Analyse the working capital position of the company
- Prepare the different types of budgets for any of the business entity
- Calculate the breakeven point for a company

Course Designers

1. Dr. G. Kavitha – Department of Commerce
2. Dr. G. Indrani - Department of Commerce

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23C11/ CM23C12	DIRECT TAXATION	THEORY	88	2	-	4

Preamble

- To gain expert knowledge of the provisions of Income tax Act under different heads of incomes

Prerequisite

No prerequisite knowledge required

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the basic principles of the Income Tax Act	K1
CLO2	Understand the assessment procedure of different heads of Incomes	K2
CLO3	Apply the various procedures for submission of income tax return	K3
CLO4	Analyse the taxable income of an assessee	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	M	M

S- Strong; M-Medium

DIRECT TAXATION -BP23C11/ CM23C12 – 88 Hrs

Unit I

(18 Hrs)

Basic Concepts - Assessment Year, Previous Year, Person, Assessee, Types of Assessee, Income, Gross Total Income, Total Income, Agricultural Income, Exempted Incomes, Incomes which do not form part of Total Income, Tax Rates, Difference between exemption and deduction, ***Capital and Revenue – Receipts, Expenditure, Losses***, - Problems on distinguishing between agricultural and non-agricultural income, capital and revenue- Residential Status and Incidence of Tax- Relationship between residential status and incidence of tax – Simple problems.

Unit II

(18 Hrs)

Income under the head 'Salaries': ***Income under the head 'Salaries': Meaning, Basis of charge, Forms of Salary***, Allowances, Perquisites, Provident Fund, ***Permissible deductions under section 16***, Retirement benefits – ***Death-cum-retirement Gratuity***, Leave Salary, Pension, Commuted pension.

Unit III

(18 Hrs)

Income under the head 'Income from House property': ***Definition of House Property, Basis of charge, Annual Value, Deductions out of annual value***, Income from let-out house property, income from self-occupied house property, unrealized rent, vacancy allowance, interest on loan, pre-construction interest, arrears of rent. ***Profits and Gains of Business or Profession - Meaning of Business or Profession*** - Computation of Profits and Gains of Business or Profession of Individual - Expenses Expressly Allowed – Expense Expressly Disallowed.

Unit IV

(17 Hrs)

Income from Capital Gains - ***Computation of Capital Gains*** - Income from Other Sources - Computation of Income from Other Sources.

Unit V

(17 Hrs)

Set off and Carry Forward Set off losses. Permissible deductions from gross total income: ***Permissible deductions from gross total income 80C, 80CCG, 80D, 80DD, 80DDB, 80E, 80G, 80GG, 80GGA, 80GGB, 80GGC, 80JJA, 80QQB, 80RRB, 80U***. Computation of total income and tax liability- Assessment of Individuals. Old regime vs New regime. ****Assessment: Procedure for Assessment. Filing of Return – Due Dates of Filing – Voluntary Filing. Introduction to e-Filing. Return of Loss – Belated Return – Defective Return – Signing of Return – Permanent Account Number (PAN). e-PAN – Tax credit statement (26 AS) and Annual Information Statement (AIS). ****

Distribution of Marks-Theory 20% and Problems 80%

***Highlighted Content offered in Blended Mode (Link Provided)**

**** Theory Only**

Textbook

S.No	Authors	Title	Publishers	Year and Edition
1	Gaur V.P. and Narang D.B	Income Tax and Practice	Kalyani Publishers	Current Edition

Books for Reference

S.No	Author Name	Title	Publishers	Year and Edition
1	Dinkar Pagare	Income Tax and Practice	Sultan Chand & Sons	Current Edition
2	Mehrotra	Income Tax and Practice	Sultan Chand & Sons	Current Edition

Pedagogy

Lecture, PPT, Quiz, Assignment, Group Discussion, Seminar

Skill Component

- Identify various sources of income that are of revenue and capital in nature.
- To apply various concepts and practical calculations with reference to provisions.
- Collect the list of scientific research institutions under Business/Professions.
- Preparation of Tax statement for sample income.
- Filing of Demo Returns.

Course Designers

1. Dr. B. Thulasi Priya – Department of Commerce
2. Dr. S. Sujatha – Department of Commerce

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23E01	RESEARCH METHODOLOGY	THEORY	73	2	-	5

Preamble

- ❖ To understand the basics of Business Research
- ❖ To equip students with principles of quantitative and qualitative research.
- ❖ To acquaint about the fundamentals of research methods and statistical techniques

Prerequisite

- Basic knowledge in research

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define and describe the various conceptual knowledge associated with the research framework.	K1
CLO2	Outline the research problem, sampling design and scale techniques to be used for the analysis and interpretation.	K2
CLO3	Apply the interpretation techniques on the research problems using various statistical tools	K3
CLO4	Analyse the research process by identifying the appropriate sampling design and make inferences on the research problem using research techniques and list the report of the research	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	L

S- Strong; M-Medium; L-Low

RESEARCH METHODOLOGY- BP23E01 (73 Hrs)

UNIT I

(14 Hrs)

Introduction to Business Research: Definition – Objectives of Research-***Types of Research*** – Significance of research- ***Process of Research*** – Criteria of good research-Research Problem- Selecting the Problem-Necessity of defining the problem-***Technique involved in defining a problem***

UNIT II

(15 Hrs)

Research Design: Meaning-Need for Research Design-Features of a good design- ***Types of research designs***- **Sampling Design:** Steps in Sampling design- ***Criteria of selecting a sampling procedure***- Characteristics of a good sample design- Types of sample design- ***Sample size and its determination***

UNIT III

(15 Hrs)

Measurement scales: Nominal scale-Ordinal scale-Interval scale-Ratio scale- Scaling technique: ***Likert type scale***- Methods of data collection: ***Primary and secondary data***- Sources: ***Observation, Interview***, Questionnaire, Schedules - Internet Sources-Data base- other methods. Data Processing: Fieldwork validation – Data Editing – Coding – ***Classification and Tabulation of Data***.

UNIT IV

(15 Hrs)

Statistical Techniques: -Frequencies – ***Descriptive*** – Cross tab –Multiple Response - ***Chi-square test*** – Compare Mean: one sample t-test, Independent sample t-test, One-way ANOVA, ***Correlation analysis*** – (includes simple problems)

UNIT V

(14 Hrs)

Interpretation and Report writing: Technique of interpretation-Precautions in interpretation- ***Significance of Report writing***-Layout of the Research report-***Types of reports***-Mechanics of writing research report-***Precautions for writing research report***.

***Distribution of marks: Theory 80 % Problems 20 %**

***Highlighted Content offered in Blended Mode (Link Provided)**

Textbook

S.No	Author Name	Book Name	Publisher	Year and Edition
1	C.R.Kothari	Research methodology Methods and Techniques	New Age International Publishers	2019, Second Revised Edition
2	C.Murthy	Research Methodology	Vrinda publication	Reprint2013

Books for Reference

S.No	Author Name	Book Name	Publisher	Year and Edition
1	Uma Sekaran and Roger Bougie	Research Methods for Business	Wiley	2016, 7 th Edition
2	Donal.R.Cooper	Business Research Methods	TataMcGraw Hill	2018, 12 th Edition
3	Gupta S. P	Statistical Methods	Sultan Chand & Sons	2021, 46 th Edition

Pedagogy

- Lecture, PPT Presentation, Quiz, Group Discussion, Seminar, Think, Pair and Share, One Minute Paper, Chain Notes, Pro-Con Grids, Quescussion, Assignment

Course Designers

1. Dr. C. Esakkiammal
2. Ms. R. Sangeetha

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23E02	SOFTWARE ENGINEERING AND OOAD	THEORY	73	2	-	5

Preamble

- To provide principles, methodologies, and best practices required for building high-quality software
- To explore key areas such as software design, including architectural and modular design, risk management, software maintenance, and testing techniques.

Prerequisite

- No prerequisite required

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Recall basic concepts and tools in software engineering like development, design, maintenance, testing, and OOP	K1
CLO2	Explain software engineering concepts like development, design, maintenance, testing, and agile practices	K2
CLO3	Apply software engineering principles to develop, design, maintain, and test software using OOP and agile methods	K3
CLO4	Analyze software engineering models and tools for development, design, maintenance, testing, and OOP systems..	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M

S-Strong; M-Medium; L-Low

SOFTWARE ENGINEERING AND OOAD - BP23E02 (73 HOURS)

UNIT I

(14 Hrs)

Basics of Software Engineering: Need for Software Engineering –Definition – Software Characteristics – Software Myths – Program versus Software Products. ***Software Development Life Cycle Models, Advantages and Disadvantages, Comparison of various models***. Software Requirement Analysis (SRS): Value of good SRS- developing SRS from Business Requirements- Desirable Characteristics of SRS-***Components of an SRS- Structures of a requirement documents***, creating a backlog in agile model.

UNIT – II

(15 Hrs)

Software Design: Definition, Objectives, Process, Architectural design, Modular design, Structure chart, Coupling and Cohesion, Design of Human Computer Interface, Software Planning: ***Software metrics - Definition – Types of metrics*** - Software project estimation – Steps for estimation, ***Reason for poor and inaccurate estimation***, Project estimation guidelines, ***Models for estimation, COCOMO Model– Automated tools for estimation*** – Sprint planning in agile. CASE and its scope- Architecture of CASE environment, Building blocks for CASE, Objectives of CASE – Characteristics, List of CASE tools, Categories, Advantages and disadvantages.

UNIT – III

(15 Hrs)

Software Maintenance: Software as an evolution entity – Software configuration management activities, Change control process, Software version control, Software configuration management – Need – Categories of maintenance , Factors affecting the effort. ***Risk management: Definition of risk – Basics for different types of software risks*** – Monitoring of risks – Risk management – Risk avoidance – Risk detection – Risk control – Risk recovery – Sources of risks – Types of risks, ***Project scheduling: Introduction – Factors affecting the task set for the project***– scheduling methods – ***Work breakdown structure – Flow graph – Gant chart*** - PERT - Setting up Sprint burn down charts for Agile model

UNIT – IV

(15 Hrs)

Software Testing : Introduction , Testing principles , Fault, Error, Failure, Test cases – Black box and white box testing – Advantages and disadvantages – Methods for Block box testing strategies – Methods for white box testing strategies – ***Testing activities– Test plan – Tracking defects***. Levels of testing: Debugging, Definition, Characteristics of bugs, Life cycle of a Debugging task, debugging approaches. ***Software Testing Tools: Need, Classification of tools Functional/Regression Testing tools***, Performance/Load Testing Tools, Testing process management Tools , Benefits of tools, Risk Associated with tools , Selecting tools , categories of tools , ***Examples for commercial software testing tool***.

UNIT V**(14 Hrs)**

Object Orientation, System development, Review of objects, Inheritance, Object relationship Dynamic binding, ***OOSD life cycle, Process, Analysis, Design, prototyping*** ,Implementation Testing- Overview of Methodologies Ram Baugh methodology, OMT , Booch methodology, ***Jacobson methodology , patterns, Unified approach***, UML , Class diagram , Dynamic modeling, Role of AI in software engineering

*** Highlighted Content offered in Blended Mode (Link Provided)**

Text Books

S.No.	AuthorName	BookName	Publisher	Yearand edition
1.	Ian Sommerville	Software Engineering	Pearson Education	2011 and 9 th Edn
2.	Rajib Mall	Fundamentals of Software Engineering	PHI Learning Pvt Limited, New Delhi	2018 and 5 th Edn.

Reference Books

S.No.	AuthorName	BookName	Publisher	Yearand edition
1.	Roger S. Pressman	Software Engineering - A Practitioner's Approach	McGraw Hill	2010 and 7 th Edn.
2.	PankajJalote	An Integrated Approach to Software Engineering	Narosa Publishing House	2011 and 3 rd Edn.

Pedagogy

- Lecture,PPTpresentation,Quiz,GroupDiscussion,Seminar,Assignment,Activity based learning.

Course Designers

1. Mrs. A. Sasikala
2. Mrs. L. Mahalakshmi

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
CM23E03	PERFORMANCE MANAGEMENT	THEORY	73	2	-	5

Preamble

- To provide an in depth study of the both financial and non-financial performance measures in management and the difficulties in assessing performance in divisionalized businesses

Prerequisite

- No prerequisite Knowledge required

Course Learning Outcomes

On the successful completion of the course, students will able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the applications of modern techniques of costing in industrial settings	K1
CLO2	Illustrate how a business should be managed and controlled and how information systems can be used to facilitate this	K2
CLO3	Examine the problems surrounding scarce resource, pricing and make or buy decisions.	K3
CLO4	Apply how scarce resource and pricing relates to the assessment of performance	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S- Strong; M-Medium

PERFORMANCE MANAGEMENT - CM23E03 – 73 Hrs

Unit I

(14 Hrs)

ABC, Calculate costs per driver and per unit using ABC, Compare ABC and traditional methods of overhead absorption based on production units, labour hours or machine hours. ***Target costing*** - Derive a target cost in manufacturing and service industries; Explain the difficulties of using target costing in service industries; ***Suggest how a target cost gap might be closed. Life cycle costing*** - ***Identify the costs involved at different stages of the life-cycle***; Derive a life cycle cost in manufacturing and service industries; Identify the benefits of life cycle costing.

Unit II

(15 Hrs)

Specialist Management Accounting Techniques – Throughput accounting - Discuss and apply the theory of constraints, Calculate and interpret a throughput accounting ratio (TPAR), Suggest how a TPAR could be improved, ***Apply throughput accounting to a multi-product decisionmaking problem***. Environmental accounting - Discuss the issues business face in the management of environmental costs; ***describe the different methods a business may use to account for its environmental costs***.

Unit III

(15 Hrs)

Decision Making Techniques – Relevant cost analysis - ***Cost volume profit analysis*** – Limiting Factors Pricing decisions - ***Make-or- buy and other short-term decisions*** - Dealing with risk and uncertainty in decision making.

Unit IV

(15 Hrs)

Budgeting and Control: **Budgetary systems and types of budget** - ***Quantitative analysis in budgeting Standard costing*** - ***Material mix and yield variances*** - ***Sales mix and quantity variances*** - **Planning and operational variances**

Unit V

(14 Hrs)

Performance Measurement and Control Performance management information systems - ***Sources of management Information*** - ***Management reports*** - Performance analysis in private sector organizations - ***Divisional performance and transfer pricing*** - ***Performance analysis in not***- for - profit organizations and the public sector - ***External considerations*** and behavioral aspects

Distribution of Marks: Theory: 20% Problems: 80%

***Highlighted Content offered in Blended Mode (Link Provided)**

Textbook

S.No	Authors	Title	Publishers	Year and Edition
1	Performance Management(ACCA)		Kaplan Publishing	Current Edition

Books for Reference

S.No	Author Name	Title	Publishers	Year and Edition
1	R K Sahu	Performance Management System	Excel Books	Current Edition
2	T V Rao	Performance Management: Toward Organizational Excellence	Sage Publications Pvt Ltd	2 nd Edition 2016
3	PremChandha	Performance Management: It's About Performing - Not Just Appraising	Laxmi Publication	2003

Pedagogy

Lecture,PPT,Quiz,Assignment,GroupDiscussion, Seminar

Skill Component

- To Examine about business and financial modelling for Cost Volume and Profit Analysis
- To Interpret about Environmental Cost issues faced by business organization
- To Apply Throughput Accounting to a multi – product decision making problem
- To identify the difficulties of using target Costing in service industries
- To analyse about material mix and yield variances through Budgetary control

Course Designers

1. Dr. G. Kavitha– Department of Commerce
2. Dr. B. Thulasipriya – Department of Commerce

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23CP5	PROGRAMMING WITH PYTHON PRACTICAL	PRACTICAL	-	-	60	2

Preamble

To enable the students to enhance practical knowledge in Python Programming.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO STATEMENT	Knowledge Level
CLO1	Recognizing fundamental Python concepts like arithmetic operations, control structures, and user input handling.	K1
CLO2	Utilizing loops, recursion, and data structures to develop programs for pattern generation, searching, and mathematical computations.	K2
CLO3	Constructing Python programs involving lists, tuples, dictionaries, and object-oriented principles like inheritance.	K3
CLO4	Evaluating and improving the Python programs for modularity, efficiency, and usability in problem-solving scenarios.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	M	M
CLO2	S	M	S	M	M
CLO3	M	M	M	S	S
CLO4	M	S	M	S	L

S-Strong; M-Medium; L –Low

PROGRAMMING WITH PYTHON PRACTICAL - BP23CP5 -60Hrs

1. Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.
2. Write a Python program to construct the following pattern, using a nested loop

```
  *
  **
 ***
****
*****
****
***
**
*
```

3. Program to calculate total marks, percentage and grade of a student. Marks obtained in each of the five subjects are to be input by user. Assign grades according to the following criteria:
Grade A: Percentage ≥ 80 Grade B: Percentage ≥ 70 and < 80
Grade C: Percentage ≥ 60 and < 70 Grade D: Percentage ≥ 40 and < 60
Grade E: Percentage < 40
4. Program, to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
5. Write a Python program to swap two numbers without using a third variable.
6. Write a program to perform arithmetic operations using user input.
7. Write a Python script that prints prime numbers less than 20.
8. Program to find factorial of the given number using recursive function.
9. Perform insertion, deletion, and searching operations on a list.
10. Write a Python program to count the number of even and odd numbers from array of N numbers.
11. Write a Python script to reverse a string.
12. Perform insertion, deletion, and searching operations on a list.
13. Python program for demonstrating indexing, and slicing of tuple.
14. Python program for demonstrating dictionary creation, key-value pair insertion and deletion.
15. Write a python program to create a base class vehicle and derived classes car and Bike with specific attributes.

Pedagogy

- Lecture, Demo, System

Course Designer

1. Ms. L. Mahalakshmi
2. Ms. A. Sasikala

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23SBP1	BUSINESS INTELLIGENCE WITH MACHINE LEARNING	PRACTICAL	-	4	41	3

Preamble

- Business Intelligence (BI) and Machine Learning (ML) together enable data-driven Decision-making
- The focus is on practical skills using BI tools and ML techniques.

Prerequisite

- Basic understanding of statistics, programming (preferably Python), SQL, and data Handling tools like Excel.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamentals of Business Intelligence and Machine Learning.	K1
CLO2	Explain key concepts, tools, and techniques used in BI and ML for data analysis	K2
CLO3	Apply BI tools and ML algorithms to analyze and interpret business data	K3
CLO4	Evaluate BI and ML solutions to support data-driven decision-making and strategic planning.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	M	S	M
CLO2	S	M	S	S	S
CLO3	S	S	S	L	S
CLO4	M	S	M	S	M

S-Strong; M-Medium; L-Low

BUSINESS INTELLIGENCE WITH MACHINE LEARNING - BP23SBP1(41 HOURS)

1. Develop a Python program to load the house_prices.csv dataset and analyze the relationship between house prices, number of bedrooms, and square footage using visualizations and correlation. Use libraries like pandas, matplotlib, and seaborn for exploration.
2. Build a linear regression model in Python to predict house prices using number of bedrooms and square footage as predictors. Split the dataset into training and testing sets and print the model coefficients.
3. Use Python to evaluate the house price prediction model by testing it on the test dataset. Calculate performance metrics such as mean squared error and R^2 score to assess the model's predictive accuracy.
4. Develop a Python program to load the customer_data.csv dataset and apply K-Means clustering with $k=3$ to segment customers. Use appropriate pre-processing techniques if needed before clustering.
5. Use Python to visualize the resulting customer clusters from customer_data.csv using a scatter plot based on two relevant demographic features. Use different colors to distinguish between clusters for better clarity.
6. Use Python to analyze the customer segmentation model for customer_data.csv by interpreting the centroids and feature distributions of each cluster. Summarize the distinct characteristics of customers in each group based on demographic differ
7. Develop a Python program to load the movie_reviews.csv dataset and pre-process the text data by cleaning, tokenizing, and vectorizing the reviews. Use techniques such as lowercasing, stop word removal, and TF-IDF transformation.
8. Using Python, split the pre-processed data from movie_reviews.csv into training and testing sets and apply K-Means clustering to group reviews into sentiment-based clusters.
9. Use Python to evaluate the clustering performance for movie reviews by comparing predicted clusters with actual sentiment labels using accuracy. Interpret how effectively the model separates positive and negative reviews.
10. Develop a Python program using the book_ratings.csv dataset to build a recommendation system for books. Implement a collaborative filtering model, generate personalized book recommendations for a given user, and evaluate the system's performance using suitable metrics.

Pedagogy

- Lecture, Demo in System.

Course Designers

1. Mrs. A. Sasikala
2. Mrs. L. Mahalakshmi

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23AC1	BUSINESS COMMUNICATION	THEORY	SELF-STUDY			5**

Objective

- Acquire the basic concept of business communication.
- Exposed to effective business letter
- Paraphrase the concept of various correspondences.
- Prepare Secretarial Correspondence like agenda, minutes and various business reports.
- Acquire the skill of preparing an effective resume

BUSINESS COMMUNICATION-BP23AC1

UNIT I

Introduction to Business Communication: Definition – Meaning – Importance of Effective Communication – Modern Communication Methods – Principles of Communication – Formal and Informal Communication – Upward, Downward, Lateral and Diagonal Communication – Communication network- Barriers to Communication.

UNIT II

Business Letters: Need - Functions – Essentials of Effective Business Letters – kinds of a business letter- AI Tools for Drafting Business Letters -Planning Business message- Lay out.

UNIT III

Business Correspondence: Trade Enquiries – Orders and their Execution –Complaints and Adjustments – Collection Letters – Sales Letters – Circulars.

UNIT IV

Banking & Insurance Correspondence: Banking Correspondence – Types– Elements of a Good Banking Correspondence – Banking letters – Insurance – Meaning and Types – Insurance Correspondence – Insurance letters.

UNIT V

Secretarial Correspondence &Interview Preparation: Company Secretarial Correspondence – Introduction - Agenda and Minutes of Report writing – Introduction – Types of Reports – Preparation of Report Writing - Interview: Meaning – Objectives and Techniques of Various Types of Interviews - Application Letters – AI-based Resume Screening -Preparation of Resume.

Text Book

S.No	Authors	Title	Publishers	Year and Edition
1.	Rajendra Pal &J.S.Korlahalli	Essentials of Business Communication	Sultan Chand & Sons, New Delhi	2006, 9 th Edn, Reprint
2.	Gupta and Jain	Business Communication	Satyabhama Publication, New Delhi.	2024, Revised

Books for Reference

S.No	Author Name	Title	Publishers	Year and Edition
1.	Jain Omprakash V.K.B iyani	Business Communication	Sultan Chand & Company Ltd, New Delhi	2009, 1 st Edn, Reprint
2.	Pillai R.S.N. &Bagavathi	Modern Commercial Correspondence	Sultan Chand & Company Ltd, New Delhi	2006, 1 st Edn, Reprint
3.	Uma Narula	Business Communication practices- Modern trends	Atlantic Publishers and distributors	2006, 1 st Edn.

Course Designers

1. Dr. R. Eswari
2. Ms. R. Sangeetha

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP23AC2	INTRODUCTION TO DATA SCIENCE	THEORY	SELF-STUDY			5**

Objectives

- To introduce the concepts, techniques and tools in Data Science.
- To understand the various facets of data science practice, including data collection and integration, exploratory data analysis, predictive modelling, descriptive modelling and effective communication.

INTRODUCTION TO DATA SCIENCE - BP23AC2

Unit I

Introduction: Benefits and uses – Facets of data – Data science process – Big data ecosystem and data science

Unit II

The Data science process: Overview – research goals - retrieving data - transformation – Exploratory Data Analysis – Model building - Data Visualization

Unit III

Algorithms: Machine learning algorithms – Modelling process – Types – Supervised – Unsupervised - Semi-supervised

Unit IV

Introduction to Hadoop: Hadoop framework – Spark – replacing MapReduce – NoSQL – ACID – CAP – BASE – types

Unit V

Case Study: Prediction of Disease - Setting research goals - Data retrieval – preparation - exploration - Disease profiling - presentation and automation.

Text Book

Sl.No	Author	Title	Publishers	Year and Edition
1	Davy Cielen, Arno D. B. Meysman, Mohamed Ali	Introducing Data Science	Manning publications	2016, 1 st Edn.
2	Murtaza Haider	Getting Started with Data Science – Making Sense of Data with Analytics	IBM press, E-book	E-book

Books for Reference

S.No	Author	Title	Publishers	Year and edition
1.	Davy Cielen, Arno D.B. Meysman, Mohamed Ali	Introducing Data Science: Big Data, Machine Learning, and More, Using Python Tools	Dreamtech Press	2016, 1 st Edn.
2	Annalyn Ng, Kenneth Soo	Numsense! Data Science for the Layman: No Math Added	Shroff Publishers and Distributors Private Limited	2015, 1 st Edn.
3	Cathy O'Neil, Rachel Schutt	Doing Data Science Straight Talk from the Frontline	O'Reilly Media	2013, 1 st Edition
4	Lillian Pierson	Data Science	For Dummies	2015, 2 nd Edn.

Course Designers

1. Dr. A. Meenakshi
2. Dr. J. Rini Mercy