



MOTHER TERESA WOMEN'S UNIVERSITY
KODAIKANAL - 624101



DEPARTMENT OF COMMERCE

M.Com. with Computer Application

Curriculum Framework, Syllabus, and Regulations

(Based on TANSCHÉ Syllabus under Choice Based Credit System -CBCS)



(For the candidates to be admitted from the Academic Year 2023-24)

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MOTHERTERESA WOMEN'S UNIVERSITY, KODAIKANAL
DEPARTMENT OF COMMERCE
PROGRAMME NAME: M.COM.WITH COMPUTER APPLICATION
(Choice Based Credit System)

1. About the Programme

The Programme is intended for students who have completed the first-degree programme at university level, to get specialized knowledge in the areas of commerce and accountancy. The subjects of study are suitably designed to provide core knowledge in commerce and various specialized accounting systems and also to develop skill in application of computers in business.

2. Programme Educational Objectives (PEOs)

On completion of M.Com. CA. Degree Programme, the students will be able to

PEO-1: Become well versed and competent in the core concept of the Programme.

PEO-2: Be recognized for quantitative, qualitative, cognitive, and analytical skills to identify, analyze, design, and create business opportunities in a dynamic environment on the Global map.

PEO-3: Become successful entrepreneurs and finance professionals in the fields of Banking, Insurance, Manufacturing, Transport, Telecom, Service, Hospitality, IT and to pursue a career in teaching and advanced studies.

PEO-4: Contribute to the creation, transmission, and application of knowledge in the field of Commerce and other related fields adopting to a rapidly changing environment through lifelong learning.

PEO-5: Become a citizen with professional integrity and humanitarian values to fulfill the societal needs at regional, state, national and global levels.

3. Programme Outcomes(POs)

On completion of the Programme the students will be able to

PO1: Problem Solving Skill:Apply knowledge of Management Theories and Human Resource Practices to solve business problems through research in global context.

PO2: Decision Making Skill:Foster analytical and critical thinking abilities to enable decision-making based on data.

PO3: Ethical Value:Incorporate quality, ethical, and value-based legal perspectives in all organizational activities.

PO4: Employability Skill:Develop business acumen to enhance employability skills in the competitive environment.

PO5: Entrepreneurial Skill:Equip with skills and competencies to become an entrepreneur.

PO6: Contribution to Society:Succeed in career endeavours and contribute significantly to society.

PO7: Communication Skill:Develop communication, managerial and interpersonal skills.

PO8: Individual and Team Leadership Skill:

Lead oneself and the team to achieve organizational goals.

PO 9: Multicultural competence:Demonstrate knowledge of the values and beliefs of multiple cultures to address issues in the global scenario

PO 10: Moral and ethical awareness/reasoning:Embrace moral and ethical values in one's life,

PO 11: Leadership readinessqualities:Demonstrate to take up leadership mapping out the tasks and formulating an inspiring vision and mission

PO 12: Lifelong learning:Acquire knowledge and skills, including "learning how to learn".

4. Programme Specific Outcomes

PSO 1 - Entrepreneurship:Exhibit entrepreneurial ability by enhancing critical thinking, problem-solving, decision making, and leadership skills that will facilitate startups and high potential organizations.

PSO2 – Research and Development:Design and implement accounting, marketing, finance, and HR systems and practices grounded in research that comply with mercantile laws, leading the organization towards growth and development.

PSO 3 – Contribution to the Society:Contribute to the development of society by collaborating with stakeholders for mutual benefit.

PSO4 - Placement:Demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply in diverse frames of decisions and actions.

PSO5 - Contribution to Business World:Facilitate production of employable, ethical, and innovative professionals to sustain in the dynamic business world.

5. Eligibility

A candidate who has passed any one of the following degree programmes of this university or any other university accepted by the syndicate as equivalent there subject to such conditions as may be prescribed therefore, will be eligible for admission to the M.Com.with CA Programme.

B.Com., B.Com. (CA), B.Com. (e-Commerce), B.Com.(Corporate Secretaryship), BCS, B.A. (Corporate Secretaryship), B.B.A., (Bachelor of Business Administration), B.B.M. (Bachelor of Business Management), B.B.M., (Bachelor of Bank Management) B.Com. (Cooperation) and B.A., (Cooperation).

6. General Guidelines for PG Programme

- i. **Duration:** The Programme shall extend through a period of 4 consecutive semesters and the duration of a semester shall normally be 90 days or 450 hours. Examinations shall be conducted at the end of each semester for the respective courses.
- ii. **Medium of Instruction:** English

7. **Evaluation:** Evaluation of the candidates shall be through Internal Assessment and External Examination for Theory and Practical.

7.1.Evaluation Pattern

COMPONENTS FOR EVALUATION		Maximum Marks (Theory & Practical)	Minimum Marks (Theory & Practical)
Internal Evaluation	Continuous Internal Assessment Test	25 Marks	13 Marks
	Assignments / Snap Test / Quiz		
	Seminars		
	Attendance and Class Participation		
External Evaluation	End Semester Examination-Theory and Practical	75 Marks	38 Marks
Total		100 Marks	50 Marks

*** Minimum credits required to pass: 91**

7.2. Internal Assessment-CIA

There shall be three tests conducted by the faculty concerned and the average of the best two can be taken as the Continuous Internal Assessment (CIA) for a maximum of 25 marks. The duration of each test shall be one / one and a half hour.

7.3. Written Examination Question Paper Pattern: Theory Paper (Bloom's Taxonomy based)

Intended Learning Skills	<p>Maximum 75 Marks Passing Minimum: 50% Duration: Three Hours</p>
Memory Recall / Example / Counter Example / Knowledge about the Concepts / Understanding	<p>Part-A (10x 2 = 20 Marks) Answer ALL questions Each Question carries 2 marks</p>
	Two questions from each UNIT
	Question 1 to Question 10
Descriptions / Application (problems)	<p>Part - B (5 x 5 = 25 Marks) Answer ALL questions Each questions carries 5 Marks</p>
	<p>Either-or Type Both parts of each question from the same UNIT</p>
	<p>Question 11 (a) or 11 (b) To Question 15 (a) or 15 (b)</p>
Analysis / Synthesis / Evaluation	<p>Part-C (3x 10 = 30 Marks) Answer any THREE questions Each question carries 10 Marks</p>
	There shall be FIVE questions covering all the five units
	Question 16 to Question 20

* Minimum credits required to pass: 91

7.4. Methods of Assessment

METHODS OF ASSESSMENT	
Remembering (K1)	<ul style="list-style-type: none"> • The lowest level of questions, requires students to recall information from the course content • Knowledge questions usually require students to identify information in the text book.
Understanding (K2)	<ul style="list-style-type: none"> • Understanding of facts and ideas by comprehending organizing, comparing, translating, interpolating and interpreting in their own words. • The questions go beyond simple recall and require students to combine data together
Application (K3)	<ul style="list-style-type: none"> • Students have to solve problems by using / applying a concept learned in the classroom. • Students must use their knowledge to determine a exact response.
Analyze (K4)	<ul style="list-style-type: none"> • Analyzing the question is one that asks the students to break down something into its component parts. • Analyzing requires students to identify reasons causes or motives and reach conclusions or generalizations.
Evaluate (K5)	<ul style="list-style-type: none"> • Evaluation requires an individual to make judgment on something. • Questions to be asked to judge the value of an idea, a character, a work of art, or a solution to a problem. • Students are engaged in decision-making and problem – solving. • Evaluation questions do not have single right answers.
Create (K6)	<ul style="list-style-type: none"> • The questions of this category challenge students to get engaged in creative and original thinking. • Developing original ideas and problem solving skills

8. Project

8.1. Project Report

A student should select a topic for the Project Work at the end of the third semester itself and submit the Project Report at the end of the fourth semester. The Project Report shall not exceed 40 typed pages in Times New Roman font with 1.5 line space.

8.2. Project Evaluation

There is a Viva Voce Examination for Project Work. The Guide and an External Examiner shall evaluate and conduct the Viva Voce Examination. The Project Work carries 100 marks (Internal: 25 Marks; External (Viva): 75 Marks).

**9. Conversion of Marks to Grade Points and Letter Grade
(Performance in a Course/Paper)**

Range of Marks	Grade Points	Letter Grade	Description
90 – 100	9.0 – 10.0	O	Outstanding
80-89	8.0 – 8.9	D+	Excellent
75-79	7.5 – 7.9	D	Distinction
70-74	7.0 – 7.4	A+	Very Good
60-69	6.0 – 6.9	A	Good
50-59	5.0 – 5.9	B	Average
00-49	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

10. Attendance

Students must have earned 75% of attendance in each course for appearing for the examination. Students with 71% to 74% of attendance must apply for condonation in the Prescribed Form with prescribed fee. Students with 65% to 70% of attendance must apply for condonation in the Prescribed Form with the prescribed fee along with the Medical Certificate. Students with attendance less than 65% are not eligible to appear for the examination and they shall re-do the course with the prior permission of the Head of the Department, Principal and the Registrar of the University.

11. Maternity Leave

The student who avails maternity leave may be considered to appear for the examination with the approval of Staff i/c, Head of the Department, Controller of Examination and the Registrar.

12. Any Other Information

In addition to the above-mentioned regulations, any other common regulations pertaining to the PG Programmes are also applicable to this Programme.

13. Faculty Course File

a.	Academic Schedule	q.	Laboratory Experiments related to the Courses
b.	Students Name List	r.	Internal Question Paper
c.	Time Table	s.	External Question Paper
d.	Syllabus	t.	Sample Home Assignment Answer Sheets
e.	Lesson Plan	u.	Three best, three middle level and three average Answer sheets
f.	Staff Workload	v.	Result Analysis (CO wise and whole class)
g.	Course Design(content, Course Outcomes (COs), Delivery method, mapping of COs with Programme Outcomes(POs), Assessment Pattern in terms of Revised Bloom's Taxonomy).	w.	Question Bank for Higher studies Preparation(GATE/Placement)
h.	Sample CO Assessment Tools	x.	List of mentees and their academic achievements
i.	Faculty Course Assessment Report(FCAR)		
j.	Course Evaluation Sheet		
k.	Teaching Materials(PPT,OHPetc)		
l.	Lecture Notes		
m.	Home Assignment Questions		
n.	Tutorial Sheets		
o.	Remedial Class Record, if any		
p.	Projects related to the Course		

14. COMMON TEMPLATE FOR ALL PG PROGRAMMES AS PER TANSCH-2023-24

Semester-I	Credits	Hours	Semester-II	Credit	Hours	Semester-III	Credit	Hours	Semester-IV	Credit	Hours
1.1.Core-I	5	7	2.1.Core-IV	5	6	3.1. Core-VII	5	6	4.1. Core-XI	5	6
1.2 Core-II	5	7	2.2 Core-V	5	6	3.2 Core-VII	5	6	4.2 Core-XII	5	6
1.3 Core-III	4	6	2.3 Core – VI	4	6	3.3 Core – IX	5	6	4.3Project with viva voce	7	10
1.4 Discipline Centric Elective -I	3	5	2.4 Discipline Centric Elective – III	3	4	3.4 Core – X	4	6	4.4Elective - VI (Industry / Entrepreneurship) 20% Theory 80% Practical	3	4
1.5 Generic Elective-II	3	5	2.5 Generic Elective –IV	3	4	3.5 Discipline Centric Elective - V	3	3	4.5 Skill Enhancement course / Professional Competency Skill	2	4
			2.6 NME I	2	4	3.6 NME II	2	3	4.6 Extension Activity	1	
						3.7 Internship/ Industrial Activity	2	-			
	20	30		22	30		26	30		23	30
Total Credit Points -91											

15. Semester – wise Structures

M.Com. with Computer Application

Programme Structure from the Academic Year 2023-2024 onwards

Sl.No	Course Code	Course Title	Credits	Hours			Continuous Internal Assessment (CIA)	End Semester Exam (ESE)	Total
				L	T	P			
Semester I									
1	P23CCT11	Core I - Business Finance	5	7			25	75	100
2	P23CCT12	Core II - Digital Marketing	5	7			25	75	100
3	P23CCT13	Core III - Banking and Insurance	4	6			25	75	100
4	P23CCE1A /P23CCE1B	Elective I A - Introduction to Industry 4.0 / B - Big Data Analytics	3	5			25	75	100
5	P23WSG11	Generic Course- Women Empowerment	3	5			25	75	100
		Total	20	30			-	-	500
Semester-II									
6	P23CCT24	Core IV - Strategic Cost Management	5	6			25	75	100
7	P23CCT25	Core V - Corporate Accounting	5	6			25	75	100
8.	P23CCT26	Core VI - Setting up of Business Entities	4	6			25	75	100
9	P23CCE2A / P23CCE2B	Elective II A - Data Mining and Data Interpretation /B - Technology in Banking	3	4			25	75	100
10	P23CSG22	Generic Course-Cyber Security	3	4			25	75	100
11	P23CCS21	NME-I – Skill Enhancement Course-I	2	4			25	75	100
		Total	22	30					600

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – I

Semester I

BUSINESS FINANCE

Subject Code	Subject Name	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT11	BUSINESS FINANCE	CORE	7	-	-	5	7	25	75	100

LEARNING OBJECTIVES

1	To outline the fundamental concepts in finance
2	To estimate and evaluate risk in investment proposals
3	To evaluate leasing as a source of finance and determine the other sources of startup financing
4	To examine cash and inventory management techniques
5	To appraise capital budgeting techniques for MNCs

COURSE CONTENTS

UNIT I	(18 hrs)
Introduction to Business Finance and Time value of money	
Business Finance: Meaning, Objectives, Scope -Time Value of money: Meaning, causes – Compounding – Discounting – Sinking Fund Deposit Factor – Capital Recovery Factor – Compounding done more than once – Effective rate of interest – Doubling period (Rule of 69 and Rule of 72) – Practical problems.	
UNIT II	(18 hrs)
Risk Management	
Risk and Uncertainty: Meaning – Sources of risk – Measures of Risk – Measurement of Return – General pattern of Risk and Return – Criteria for evaluating proposals to minimise risk (Single Asset and Portfolio) – Methods of Risk Management–Hedging currency risk	
UNIT III	(18 hrs)

Startup Financing and Leasing

Startup Financing: Meaning, Sources, Modes (Bootstrapping, Angel investors, Venture capital fund) - Leasing: Meaning – Types of Lease Agreements – Advantages and Disadvantages of Leasing – Financial evaluation from the perspective of Lessor and Lessee.

UNIT IV

(18 hrs)

Cash, Receivable and Inventory Management

Cash Management: Meaning, objectives and importance – Cash cycle – Minimum operating cash – Safety level of cash – Optimum cash balance - Receivable Management: Meaning – Credit policy – Controlling receivables: Debt collection period, Ageing schedule, Factoring – Evaluating investment in accounts receivable - Inventory Management: Meaning and objectives – EOQ with price breaks – ABC Analysis.

UNIT V

(18 hrs)

Multi National Capital Budgeting

Multi National Capital Budgeting: Meaning, Steps involved, Complexities, Factors to be considered and International sources of finance – Techniques to evaluate multi-national capital expenditure proposals: Discounted Pay Back Period, NPV, Profitability Index, Net Profitability Index and Internal Rate of Return – Capital rationing -Techniques of Risk analysis in Capital Budgeting.

Question pattern: Theory 40%; Problems: 60%

COURSE OUTCOMES

Students will be able to

Course Outcomes	
CO 1	explain the important finance concepts.
CO 2	estimate risk and determine its impact on return.
CO 3	examine leasing and other sources of finance for startups.
CO 4	summarise cash, receivable and inventory management techniques.
CO 5	evaluate techniques of long-term investment decision incorporating risk factor.

Books for study:

1. Maheshwari S.N., (2019), “Financial Management Principles and Practices”, 15th Edition, Sultan Chand & Sons, New Delhi.
2. Khan M.Y & Jain P.K, (2011), “Financial Management: Text, Problems and Cases”, 8th

Edition, McGraw Hill Education, New Delhi.

3. Prasanna Chandra, (2019), “Financial Management, Theory and Practice”, 10th Edition, McGraw Hill Education, New Delhi.
4. Apte P.G, (2020), “International Financial Management” 8th Edition, Tata McGraw Hill, New Delhi

Books for reference:

1. Pandey I. M., (2021), “Financial Management”, 12th Edition, Pearson India Education Services Pvt. Ltd, Noida.
2. Kulkarni P. V. & Satyaprasad B. G., (2015), “Financial Management”, 14th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
3. Rustagi R. P., (2022), “Financial Management, Theory, Concept, Problems”, 6th Edition, Taxmann Publications Pvt. Ltd, New Delhi.
4. Arokiamary Geetha Rufus, Ramani N. & Others, (2017), “Financial Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai.

Web references:

1. <https://resource.cdn.icai.org/66674bos53808-cp8.pdf>
2. <https://resource.cdn.icai.org/66677bos53808-cp10u2.pdf>
3. <https://resource.cdn.icai.org/66592bos53773-cp4u5.pdf>
4. <https://resource.cdn.icai.org/65599bos52876parta-cp16.pdf>

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	3	3	1	3	3	3	2	2	2
CO2	3	3	2	3	3	3	3	3	3
CO3	2	2	1	2	2	2	3	2	2
CO4	2	2	1	2	2	2	2	2	2
CO5	3	3	2	3	3	3	3	3	3

High – 3

Medium – 2

Low –1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – II

Semester I

DIGITAL MARKETING

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT12	DIGITAL MARKETING	CORE	7	-	-	5	7	25	75	100

LEARNING OBJECTIVES

1	To assess the evolution of digital marketing
2	To appraise the dimensions of online marketing mix
3	To infer the techniques of digital marketing
4	To analyse online consumer behaviour
5	To interpret data from social media and to evaluate game based marketing

COURSE CONTENTS

UNIT I	(18 hrs)
Introduction to Digital Marketing	
Digital Marketing – Transition from traditional to digital marketing – Rise of internet – Growth of e-concepts – Growth of e-business to advanced e-commerce – Emergence of digital marketing as a tool – Digital marketing channels – Digital marketing applications, benefits and limitations – Factors for success of digital marketing – Emerging opportunities for digital marketing professionals.	
UNIT II	(18 hrs)
Online Marketing Mix	
Online marketing mix – E-product – E-promotion – E-price – E-place – Consumer segmentation – Targeting – Positioning – Consumers and online shopping issues – Website characteristics affecting online purchase decisions – Distribution and implication on online marketing mix decisions.	

UNIT III	(18 hrs)
Digital Media Channels	
Digital media channels – Search engine marketing – ePR – Affiliate marketing – Interactive display advertising – Opt-in-email marketing and mobile text messaging, Invasive marketing – Campaign management using – Facebook, Twitter, Corporate Blogs – Advantages and disadvantages of digital media channels – Metaverse marketing.	
UNIT IV	(18 hrs)
Online Consumer Behavior	
Online consumer behavior – Cultural implications of key website characteristics – Dynamics of online consumer visit – Models of website visits – Web and consumer decision making process – Data base marketing – Electronic consumer relationship management – Goals – Process – Benefits – Role – Next generation CRM.	
UNIT V	(18 hrs)
Analytics and Gamification	
Digital Analytics – Concept – Measurement framework – Demystifying web data - Owned social metrics – Measurement metrics for Facebook, Twitter, YouTube, Slide Share, Pinterest, Instagram, Snapchat and LinkedIn – Earned social media metrics - Digital brand analysis – Meaning – Benefits – Components – Brand share dimensions – Brand audience dimensions – Market influence analytics – Consumer generated media and opinion leaders – Peer review – Word of mouth – Influence analytics – Mining consumer generated media – Gamification and game based marketing – Benefits – Consumer motivation for playing online games.	

COURSE OUTCOMES

Students will be able to

CO 1	Explain the dynamics of digital marketing.
CO 2	Examine online marketing mix.
CO 3	Compare digital media channels.
CO 4	Interpret online consumer behavior.
CO 5	Analyse social media data.

Books for study:

1. Puneet Singh Bhatia, (2019) “Fundamentals of Digital Marketing”, 2nd Edition, Pearson Education Pvt Ltd, Noida.
2. Dave Chaffey, Fiona Ellis-Chadwick, (2019) “Digital Marketing”, Pearson Education Pvt

Ltd, Noida.

3. Chuck Hemann& Ken Burbary, (2019) “Digital Marketing Analytics”, Pearson Education Pvt Ltd, Noida.
4. Seema Gupta, (2022) “Digital Marketing” 3rd Edition, McGraw Hill Publications Noida.
5. Kailash Chandra Upadhyay, (2021) “Digital Marketing: Complete Digital Marketing Tutorial”, Notion Press, Chennai.
6. Michael Branding, (2021) “Digital Marketing”, Empire Publications India Private Ltd, New Delhi.

Books for reference:

1. VandanaAhuja, (2016) “Digital Marketing”, Oxford University Press. London.
2. Ryan Deiss& Russ Henneberry, (2017) “Digital Marketing”, John Wiley and Sons Inc. Hoboken.
3. Alan Charlesworth,(2014), “Digital Marketing - A Practical Approach”, Routledge, London.
4. Simon Kingsnorth, Digital Marketing Strategy,(2022) “An Integrated approach to Online Marketing”, Kogan Page Ltd. United Kingdom.
5. MaityMoutusy, (2022) “Digital Marketing” 2nd Edition, Oxford University Press, London.

Web references:

1. <https://www.digitalmarketer.com/digital-marketing/assets/pdf/ultimate-guide-to-digital-marketing.pdf>
2. <https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/educational-technologies/all/gamification-and-game-based-learning>
3. <https://journals.ala.org/index.php/ltr/article/download/6143/7938>

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	3	3	2	3	3	3	3	3	3
CO2	3	3	2	3	3	3	3	3	3
CO3	3	3	2	2	3	2	3	3	2
CO4	3	3	2	2	3	3	3	3	3
CO5	3	3	1	3	3	2	3	3	2

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – III

Semester I

BANKING AND INSURANCE

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT13	BANKING AND INSURANCE	CORE	6	-	-	4	6	25	75	100

LEARNING OBJECTIVES

1	To understand the evolution of new era banking
2	To explore the digital banking techniques
3	To analyse the role of insurance sector
4	To evaluate the mechanism of customer service in insurance and the relevant regulations
5	To analyse risk and its impact in banking and insurance industry

COURSE CONTENTS

UNIT I	(18 hrs)
Introduction to Banking	
Banking: Brief History of Banking - Rapid Transformation in Banking: Customer Shift - Fintech Overview - Fintech Outlook - The Financial Disruptors - Digital Financial Revolution - New Era of Banking. Digital Banking – Electronic Payment Systems–Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT – RTGS –VSAT–SFMS–SWIFT.	
UNIT II	(18 hrs)
Contemporary Developments in Banking	
Distributed Ledger Technology – Blockchain: Meaning - Structure of Blockchain - Types of Block Chain - Differences between DLT and Blockchain - Benefits of Blockchain and DLT - Unlocking the potential of Blockchain – Crypto currencies, Central Bank Digital Currency (CBDC) - Role of DLT in financial services - AI in Banking: Future of AI in Banking - Applications of AI in Banking - Importance of AI in banking - Banking reimagined with AI. Cloud banking - Meaning - Benefits in switching to Cloud Banking.	
UNIT III	(18 hrs)
Indian Insurance Market	
History of Insurance in India – Definition and Functions of Insurance – Insurance Contract –	

Indian Insurance Market – Reforms in Insurance Sector – Insurance Organisation – Insurance organisation structure. Insurance Intermediaries: Insurance Broker – Insurance Agent - Surveyors and Loss Assessors - Third Party Administrators (Health Services) – Procedures - Code of Conduct.

UNIT IV **(18 hrs)**

Customer Services in Insurance

Customer Service in Insurance – Quality of Service - Role of Insurance Agents in Customer Service-Agent’s Communication and Customer Service –Ethical Behaviour in Insurance – Grievance Redressal System in Insurance Sector –Integrated Grievance Management System- Insurance Ombudsman - Insurance Regulatory and Development Authority of India Act (IRDA) – Regulations and Guidelines.

UNIT V **(18 hrs)**

Risk Management

Risk Management and Control in banking and insurance industries – Methods of Risk Management – Risk Management by Individuals and Corporations – Tools for Controlling Risk.

COURSE OUTCOMES

Students will be able to

CO 1	relate the transformation in banking from traditional to new age.
CO 2	apply modern techniques of digital banking.
CO 3	evaluate the role of insurance sector.
CO 4	examine the regulatory mechanism.
CO 5	assess risk mitigation strategies.

Books for study:

1. Indian Institute of Banking and Finance (2021), “Principles & Practices of Banking”, 5th Edition, Macmillan Education India Pvt. Ltd, Noida, Uttar Pradesh.
2. Mishra M N & Mishra S B, (2016), “Insurance Principles and Practice”, 22nd Edition, S. Chand and Company Ltd, Noida, Uttar Pradesh.
3. Emmett, Vaughan, Therese Vaughan M., (2013), “Fundamentals of Risk and Insurance”, 11th Edition, Wiley & Sons, New Jersey, USA.
4. Theo Lynn , John G. Mooney, PierangeloRosati, Mark Cummins (2018), *Disrupting Finance: FinTech and Strategy in the 21st Century* (Palgrave Studies in Digital Business & Enabling Technologies), Macmillan Publishers, NewYork (US)

Books for reference:

1. SundharamKPM&Varshney P. N., (2020), “Banking Theory, Law and Practice”, 20th Edition, Sultan Chand & Sons, New Delhi.
2. Gordon &Natarajan, (2022), “Banking Theory, Law and Practice”, 9th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
3. Gupta P. K. (2021), “Insurance and Risk Management” 6th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
4. Susanne Chishti.,& Janos Barberis(2016), The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons.

Web references:

1. <https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology>
2. [https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%20IV%20YEAR%20II%20SEM%20BCT%20\(R18A0534\)%20NOTES%20Final%20PDF.pdf](https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20PDF.pdf)
3. https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=PageNo108&flag=1

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	POs						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	2	2	1	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3
CO3	2	2	1	2	2	2	2	3	2
CO4	3	2	2	1	2	2	2	3	2
CO5	3	3	1	3	3	3	3	3	3

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Elective –I A

Semester I

INTRODUCTION TO INDUSTRY 4.0

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCE1A	INTRODUCTION TO INDUSTRY 4.0	Departmental Elective-1A	5	-	-	3	5	25	75	100

LEARNING OBJECTIVES

1.	To enable the students to comprehend the change from industry 1.0 to 4.0
2.	To gain knowledge on the challenges and future prospects of applying artificial intelligence
3.	To learn the applications of big data for industrial growth and development
4.	To understand the applications of IoT in various sectors
5.	To understand why education has to be aligned with industry 4.0

COURSE CONTENTS

UNIT I	(12 hrs)
Introduction	
Industry: Meaning, Types - Industrial Revolution: Industrial Revolution 1.0 to 4.0: Meaning, Goals and Design Principles - Technologies of Industry 4.0 - Big Data – Artificial Intelligence (AI) – Industrial Internet of Things - Cyber Security – Cloud – Augmented Reality.	
UNIT II	(12 hrs)
Artificial Intelligence	
Artificial Intelligence (AI): Need, History and Foundations -The AI - environment - Societal Influences of AI – Application Domains and Tools - Associated Technologies of AI - Future prospects of AI – Challenges of AI.	
UNIT III	(12 hrs)
Big Data	
Evolution - Data Evolution - Data : Terminologies - Essential of Big Data in Industry 4.0 - Big	

Data Merits and Limitations - Big Data Components : Big Data Characteristics - Big Data Processing Frameworks - Big Data Tools - Big Data Applications - Big Data Domain Stack : Big Data in Data Science – Big Data in IoT - Big Data in Machine Learning - Big Data in Databases - Big Data Usecases: Big Data in Social Causes - Big Data for Industry -Big Data Roles - Learning Platforms; Internet of Things (IoT) : Introduction to IoT – Architecture of IoT Technologies for IoT - Developing IoT Applications - Applications of IoT - Security in IoT.

UNIT IV **(12 hrs)**

Applications of IoT

IoT in Manufacturing – Healthcare – Education – Aerospace and Defence – Agriculture – Transportation and Logistics – Impact of Industry 4.0 on Society: Impact on Business, Government, People - Tools for Artificial Intelligence - Big Data and Data Analytics - Virtual Reality - Augmented Reality –IoT - Robotics.

UNIT V **(12 hrs)**

Industry 4.0

Education 4.0 – Curriculum 4.0 – Faculty 4.0 – Skills required for Future - Tools for Education – Artificial Intelligence Jobs in 2030 – Jobs 2030 - Framework for aligning Education with Industry 4.0.

COURSE OUTCOMES

Students will be able to

CO 1	discuss on the change from industry 1.0 to 4.0.
CO 2	discover the challenges and future prospects of applying artificial intelligence.
CO 3	apply big data for industrial growth and development.
CO 4	apply IoT in various sectors like Manufacturing, Healthcare, Education, Aerospace and Défense.
CO 5	appraise why education has to be aligned with industry 4.0.

Books for study:

1. SeemaAcharya J, SubhashiniChellappan, (2019) “Big Data and Analytics”, 2nd Edition, Wiley Publication, New Delhi.
2. Russel S, Norvig P (2010), “Artificial Intelligence: A Modern approach”, 3rdEdition, Prentice Hall, New York.
3. Pethuru Raj and Anupama C. Raman, (2017),"The Internet of Things: Enabling

Technologies, Platforms, and Use Cases", Auerbach Publications
Books for reference:
<ol style="list-style-type: none"> 1. Judith Hurwitz, Alan Nugent, Fern Halper, Marcia Kaufman, "Big Data for Dummies", John Wiley & Sons, Inc. 2. Nilsson (2000), Artificial Intelligence: A new synthesis, Nils J Harcourt Asia PTE Ltd.
Web references:
<ol style="list-style-type: none"> 1. https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SEEA1403.pdf 2. https://library.oapen.org/bitstream/handle/20.500.12657/43836/external_content.pdf?sequence=1 3. https://www.vssut.ac.in/lecture_notes/lecture1428643004.pdf

Note: Latest edition of the books may be used.

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	2	2	2	3	3	3	3	3	3
CO2	2	3	2	3	3	3	3	3	3
CO3	2	3	2	3	3	3	3	3	3
CO4	2	3	2	3	3	3	3	3	3
CO5	2	3	2	3	3	3	3	3	3

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Elective – I B

Semester I

BIG DATA ANALYTICS

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCE1B	BIG DATA ANALYTICS	Departmental Elective- 1B	5	-	-	3	5	25	75	100

LEARNING OBJECTIVES

1.	To understand the various aspects of data science and applying them in health care.
2.	To learn the applications of big data for industrial growth and development.
3.	To understand the characteristics of 5 V's.
4.	To know the big data problems.
5.	To understand the Hadoop.

COURSE CONTENTS

UNIT I	(12 hrs)
Introduction to Data Science	
Introduction to data science – Case Studies – Data Science in Biomedicine and Healthcare – Sequence Processing – Medical Image Analysis – Natural Language Processing – Network Modelling and Probabilistic Modelling.	
UNIT II	(12 hrs)
Big Data	
Big data: Meaning – Importance of Big Data – Example of Big Data – Source of Big Data - Machine -Generated Data - Advantages – Big Data generated by people – Organization of Generated Data - Integrating the data.	
UNIT III	(12 hrs)
Characteristics of Big Data	

Characteristics of big data volume – Variety –Velocity – Characteristics of Big Data – Veracity – Valence and Value – Getting value out of Big Data using 5-step process to structure your analysis.

UNIT IV **(12 hrs)**

Data Science: Getting value out of Big Data

Building a Big Data Strategy – Happening of Big Data science – Five Components of Data Science. Steps in Data Science: Acquiring Data, Preprocessing and Exploring Data – Analysing Data – Communicating results – Turning insights into action.

UNIT V **(12 hrs)**

Big Data Systems and Hadoop

Meaning of Distributed File System – Scalable Computing over the Internet – Programming Models for Big Data – Introduction to Hadoop systems – The Hadoop Distributed File System: A Storage System for Big Data – YARN: A Resource Manager for Hadoop – Map Reduce: Simple Programming for Big Results – When to Reconsider Hadoop? – Cloud Computing: An important Big Data enabler.

COURSE OUTCOMES

Students will be able to

CO 1	describe the Big Data landscape including examples of realworld big data problems.
CO 2	explain the advantages of Big Data.
CO 3	explain the Vs of Big Data and its impacts of data collection, monitoring, storage, analysis and reporting.
CO 4	identify what are and what are not big data problems and be able to recast big data problems as data science questions.
CO 5	explainHadoop technology.

Books for study:

1. Peter Guerra and Kirk Borne (2016), "Ten Signs of Data Science Maturity", O'Reily Media Pvt Ltd, USA
2. Tom White (2012), "Hadoop: The Definitive Guide" Third Edition, O'Reily Media, USA.

3. Seema Acharya (2015), Subhasini Chellappan, "Big Data Analytics", Wiley, USA

Books for reference:

1. Howard Wen, Big Ethics for Big Data, O'Reilly Media, USA.
2. Michael Mineli, Michele Chambers, Ambiga Dhiraj (2013), Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses, Wiley Publications, USA .
3. Judith S. Hurwitz, Alan Nugent, Fern Halper, Marcia Kaufman (2015), "Big Data for Dummies", John Wiley & Sons, Inc., USA.

Web references:

1. <https://www.coursera.org/learn/big-data-introduction/home/welcome>
2. <https://www.coursera.org/learn/bioconductor?action=enroll&authMode=login>

Note: Latest edition of the books may be used.

Mapping of course outcomes with POs and PSOs

	POs						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	2	2	2	2	1	2	1	1	2
CO2	2	2	2	3	1	3	1	2	3
CO3	3	3	3	3	2	3	2	3	3
CO4	2	2	2	2	1	2	1	2	2
CO5	3	3	3	3	3	3	3	3	3

Strong - 3
Medium - 2
Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – IV

Semester II

STRATEGIC COST MANAGEMENT

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT24	STRATEGIC COST MANAGEMENT	CORE	6	-	-	5	6	25	75	100

LEARNING OBJECTIVES

1	To analyse the aspects of strategic and quality control management
2	To analyse and select cost control techniques
3	To apply activity based costing for decision making
4	To utilise transfer pricing methods in cost determination
5	To apply cost management techniques in various sectors

COURSE CONTENTS

UNIT I	(18 hrs)
Introduction to Strategic Cost Management	
Introduction to Strategic Cost Management (SCM) – Need for SCM – Differences between SCM and Traditional Cost Management - Value Chain Analysis: Meaning and steps - Quality Cost Management: Meaning of Quality and Quality Management – Cost of Quality –Indian Cost Accounting Standard 21 on Quality Control - Introduction to Lean System – Benefits of Lean System – Just in Time (JIT) – Kaizen Costing.	
UNIT II(18 hrs)	
Cost Control and Reduction	
Cost Management Techniques: Cost Control: Meaning and Prerequisites - Cost Reduction: Meaning and Scope – Differences between Cost control and cost reduction - Pareto Analysis: Meaning, importance and applications - Target Costing: Meaning, steps and Principles – Life Cycle Costing: Meaning, Strategies for each stage of product life cycle, Benefits – Learning Curve: Meaning, Learning curve ratio and applications.	
UNIT III	
(18 hrs)	
Activity Based Cost Management	

Activity Based Cost Management: Concept, Purpose, Stages, Benefits, Relevance in Decision making and its Application in Budgeting – Practical problems.

UNIT IV (18 hrs)

Transfer Pricing

Transfer Pricing: Meaning, Benefits, Methods: Pricing based on cost, Market price on transfer price, Negotiated pricing and Pricing based on opportunity costs – Practical Problems.

UNIT V (18 hrs)

Cost Management in Agriculture and IT sector

Agriculture Sector: Features, Cost Structure, Cost Management, Tools to measure the performance, Minimum Support Price and International Perspective – Information Technology Sector: Features, Cost Structure, Cost Management and International Perspective.

COURSE OUTCOMES

Students will be able to

1	discuss strategic cost management and QC.
2	choose the appropriate technique for cost control.
3	utilise activity based costing in practice.
4	adopt transfer pricing methods.
5	build cost structure for Agriculture and IT sector.

Books for study:

1. Ravi M Kishore (2018), “Strategic Cost Management”, 5th Edition, Taxmann Publications Pvt. Ltd, New Delhi.
2. Bandgar P. K., (2017), “Strategic Cost Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
3. Sexena V. K., (2020), “Strategic Cost Management and Performance Evaluation”, 1st Edition, Sultan Chand & Sons, New Delhi.

Books for reference:

1. John K Shank and Vijay Govindarajan(2008), Strategic Cost Management, Simon & Schuster; Latest edition, UK
2. JawaharLal, (2015), “Strategic Cost Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai.)
3. Arora M. N., (2021), “A Text Book of Cost and Management Accounting”, 11th Edition, Vikas Publishing House Pvt. Ltd., New Delhi.

Web references:

1. <https://www.accountingtools.com/articles/strategic-cost-management.html#:~:text=Strategic%20cost%20management%20is%20the,it%20or%20have%20no%20impact>.
2. <https://ca-final.in/wp-content/uploads/2018/09/Chapter-4-Cost-Management-Techniques.pdf>

3. <https://resource.cdn.icai.org/66530bos53753-cp5.pdf>

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	3	3	3	3	3	3	3	3	3
CO2	3	3	2	3	3	3	3	3	3
CO3	3	3	2	3	3	3	3	3	3
CO4	3	3	2	3	3	3	3	2	3
CO5	3	3	1	3	3	3	3	3	3

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – V

Semester II

CORPORATE ACCOUNTING

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT25	CORPORATE ACCOUNTING	CORE	6	-	-	5	6	25	75	100

LEARNING OBJECTIVES

1	To understand the accounting treatment for issue of shares
2	To determine profits for fire and marine insurance
3	To prepare consolidated financial statements
4	To account for price level changes
5	To adopt financial reporting standards

COURSE CONTENTS

UNIT 1	(18 hrs)
Issue of Shares and Final Accounts of Companies	
Issue of Shares: ESOPs - ESPS - Sweat Equity Shares - Book Building- Buy-back of Shares - Conversion of debentures into shares - Final accounts of Companies as per Schedule III of the Companies Act, 2013 – Managerial remuneration.	
UNIT II	(18 hrs)
Insurance Company Accounts	
Insurance Company Accounts: Types of Insurance - Final accounts of life assurance Companies- Ascertainment of profit- Valuation Balance Sheet-Final accounts of Fire, Marine and miscellaneous Insurance Companies.	
Unit III	(18 hrs)
Consolidated financial statements	
Consolidated financial statements as per AS 21: Consolidated Profit and Loss Account – Minority interest – Cost of control – Capital reserve – Inter-company holdings – Preparation of consolidated Balance Sheet.	

UNIT IV	(18 hrs)
Contemporary Accounting Methods	
Accounting for price level changes – Social responsibility accounting – Human resource accounting - Forensic Accounting.	
UNIT V(18 hrs)	
Financial reporting	
Financial reporting: Meaning, Objectives, Characteristics – Indian Accounting Standards (AS 5, AS 10, AS 19, AS 20) – Corporate Social Responsibility: Meaning, Key provisions of Companies Act, 2013, Accounting for CSR expenditure, Reporting of CSR, Presentation and disclosure in the financial statements.	
Question pattern: Theory: 20%; Problems: 80%	

COURSE OUTCOMES

Students will be able to

CO1	Prepare Financial Statements of companies as per schedule-III of Companies Act,2013.
CO2	apply the provisions of IRDA Regulations, 2002 in the preparation of final accounts of Life Insurance and General Insurance Companies.
CO3	Prepare Consolidated Financial Statements of Holding Companies in accordance withAS21.
CO4	assess contemporary accounting methods.
CO5	examineFinancialReporting based on appropriate AccountingStandardsandprovisionsofCompaniesAct2013withrespecttoCorporateSocialRes ponsibility.

Books for study:

1. Gupta R. L. &Radhaswamy M. (2021), “Corporate Accounting – Volume I & II”, 14thEdition, Sultan Chand &Sons, New Delhi.
2. Maheshwari S. N., Sharad K. Maheshwari&Suneel K. Maheshwari, (2022),“Advanced Accountancy - Volume I &II”, 11thEdition, VikasPublishingHousePvt. Ltd., New Delhi.
3. Jain S. P., Narang K. L., SimmiAgrawal and Monika Sehgal (2019), “AdvancedAccountancy - Corporate Accounting – Volume - II”, 22ndEdition, KalyaniPublishers, New Delhi.
4. Reddy T. S. &Murthy A., (2022), “Corporate Accounting – Volume I &II”, 17th Edition, Margham Publications, Chennai.

Books for reference:

1. Arulanandam M.A & Raman K.S., (2021), “Advanced Accounting (Corporate Accounting – II)”, 8th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
2. Shukla M C, Grewal T S and Gupta S C, (2022), “Advanced Accounts Volume II”, 19th Edition, Sultan Chand & Sons, New Delhi.
3. Gupta R. L., (2022), “Problems and Solutions in Company Accounts”, 2nd Edition, Sultan Chand & Sons, New Delhi.

Web references:

1. <https://resource.cdn.icai.org/66550bos53754-p1-cp9.pdf>
2. <https://resource.cdn.icai.org/66545bos53754-p1-cp4.pdf>
3. <https://resource.cdn.icai.org/66638bos53803-cp1.pdf>
4. <http://ppup.ac.in/download/econtent/pdf/MBA%201st%20sem%20Lecture%20note%20on%20foresnic%20accounting%20by%20Anjali.pdf>

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	POs						PSOs		
	1	2	3	4	5	6	1	2	3
CO 1	3	3	2	3	3	3	3	3	3
CO 2	3	3	3	3	2	3	2	3	3
CO 3	3	3	2	3	3	3	3	3	3
CO 4	3	3	3	3	3	3	3	3	3
CO 5	3	3	3	3	3	3	3	3	3

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Core – VI

Semester II

SETTING UP OF BUSINESS ENTITIES

Course Code	Title of the Course	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCT26	SETTING UP OF BUSINESS ENTITIES	CORE	6	-	-	4	6	25	75	100

LEARNING OBJECTIVES

1	To understand the startup landscape and its financing
2	To analyse the formation and registration of Section 8 company
3	To outline the concept of LLP and business collaboration
4	To understand the procedure for obtaining registration and license
5	To create awareness about the legal compliances governing business entities

COURSE CONTENTS

UNIT I	(18 hrs)
Startups in India	
Types of business organisations – Factors governing selection of an organisation - Startups – Evolution – Definition of a Startup – Startup landscape in India – Startup India policy – Funding support and incentives – Indian states with Startup policies – Exemptions for startups – Life cycle of a Startup – Important points for Startups – Financing options available for Startups – Equity financing – Debt financing – IPO – Crowd funding – Incubators - Mudra banks – Successful Startups in India.	
UNIT II	(18 hrs)
Not-for-Profit Organisations	
Formation and registration of NGOs – Section 8 Company – Definition – Features – Exemptions – Requirements of Section 8 Company – Application for incorporation – Trust: Objectives of a trust – Persons who can create a trust – Differences between a public and private trust – Exemptions available to trusts – Formation of a trust - Trust deed –Society – Advantages –	

Disadvantages – Formation of a society – Tax exemption to NGOs.	
UNIT III	(18 hrs)
Limited Liability Partnership and Joint Venture	
<p>Limited Liability Partnership: Definition – Nature and characteristics – Advantages and disadvantages – Procedure for incorporation – LLP agreement – Annual compliances of LLP- Business collaboration: Definition – Types –Joint venture: Advantages and disadvantages – Types – Joint venture agreement - Successful joint ventures in India – Special Purpose Vehicle – Meaning – Benefits – Formation.</p>	
UNIT IV	(18 hrs)
Registration and Licenses	
<p>Registration and Licenses: Introduction – Business entity registration – Mandatory registration – PAN – Significance – Application and registration of PAN – Linking of PAN with Aadhar – TAN – Persons liable to apply for TAN – Relevance of TAN – Procedure to apply for TAN – GST: Procedure for registration – Registration under Shops and Establishment Act –MSME registration – Clearance from Pollution Control Board – FSSAI registration and license – Trade mark, Patent and Design registration.</p>	
UNIT V	(18 hrs)
Environmental Legislations in India	
<p>Geographical Indication of Goods (Registration and Protection) Act, 1999: Objectives, Salient Features - The Environmental Protection Act, 1986: Prevention, control and abatement of environmental pollution - The Water (Prevention And Control of Pollution) Act, 1974: The Central and State Boards for Prevention and Control of Water Pollution - Powers and Functions of Boards - Prevention and Control of Water Pollution - Penalties and Procedure- The Air (Prevention and Control of Pollution) Act, 1981: Central and State Boards for The Prevention and Control of Air Pollution - Powers And Functions - Prevention and Control of Air Pollution - Penalties and Procedure.</p>	

COURSE OUTCOMES

Students will be able to

CO 1	build a startup and acquire finance.
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CO 2	comply with the legal requirements for Section 8 Company.
CO 3	initiate the proceedings for LLP.
CO 4	illustrate the registration and licensing procedure.
CO 5	examine the compliance of regulatory framework.

Books for study:

1. Kailash Thakur, (2007) “Environment Protection Law and Policy in India”, 2nd Edition, Deep & Deep Publication Pvt. Ltd., New Delhi.
2. Avtar Singh, (2015), “Intellectual Property Law”, Eastern Book Company, Bangalore
3. Zad N.S and DivyaBajpai, (2022) “Setting up of Business Entities and Closure” (SUBEC), Taxmann, Chennai
4. AmitVohra&RachitDhingra (2022) “Setting Up Of Business Entities & Closure”, 6th Edition, Bharath Law House, New Delhi

Books for reference:

1. Setting up of Business Entities and Closure (2021), Module 1, Paper 3, The Institute of Company Secretaries of India, MP Printers, Noida
2. The Air (Prevention and Control of Pollution) Act, 1981, Bare Act, 2022 Edition, Universal/LexisNexis, Noida
3. The Water (Prevention and Control of Pollution) Act, 1974, Bare Act, 2022 Edition, Universal/LexisNexis, Noida
4. Cliff Ennico, (2005) “Small Business Survival Guide Starting Protecting and Securing your Business for Long-Term Success”, Adams Media, USA
5. Daniel Sitarz, (2011) “Sole Proprietorship: Small Business Start-up Kit”, 3rd Edition, Nova Publishing, USA

Web references:

1. https://www.icsi.edu/media/webmodules/FINAL_FULL_BOOK_of_EP_SBEC_2018.pdf
2. https://www.mca.gov.in/MinistryV2/incorporation_company.html 3)
3. <https://legislative.gov.in/sites/default/files/The%20Limited%20Liability%20Partnership%20Act,%202008.pdf>

4. <https://legislative.gov.in/sites/default/files/A1999-48.pdf>
5. https://www.indiacode.nic.in/bitstream/123456789/6196/1/the_environment_protection_act%2C1986.pdf

Note: Latest edition of the books may be used

Mapping of course outcomes with POs and PSOs

	POs						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	3	3	3	3	3	3	3	1	3
CO2	3	2	2	3	2	3	2	3	3
CO3	3	3	2	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3

Strong - 3
Medium – 2
Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Elective – II A

Semester II

DATA MINING AND DATA WAREHOUSING

Course Code	Title of the Course	Category	L	T	P	O	Credits	Inst. Hours	Marks		
									CIA	External	Total
P23CCE2A	DATA MINING AND DATA WAREHOUSING	Departmental Elective-2A	4	-	-	-	3	4	25	75	100

LEARNING OBJECTIVES

1.	To understand the basic concepts, principles and need of data warehousing
2.	To gain knowledge on the data warehouse architecture, modelling and its implementation.
3.	To understand steps in implementing data mart and its various dimensions
4.	To learn the features, types and challenges of data mining
5.	To aid the students to understand the various data mining tools and techniques

COURSE CONTENTS

UNIT I	(12 hrs)
Data Warehouse	
Definition - history of data warehouse - features of data warehouses - characteristics of data warehouse - goals of data warehousing- principles of data warehousing - need for data warehouse - benefits of data warehouse - need for separate data warehouse - difference between database and data warehouse - applications of data warehouses - components of data warehouse- data staging component.	
UNIT II	(12 hrs)
Data Warehouse Architecture	
Data warehouse architecture - properties of data warehouse architectures - types of data warehouse architectures- three-tier data warehouse architecture - ETL (extract, transform,	

and load) process - selecting an ETL tool- Difference between ETL and ELT types of data warehouses - data warehouse modelling - data modelling life cycle - types of data warehouse models- data warehouse design - data warehouse implementation- implementation guidelines - meta data - necessary of metadata in data warehouses - types of metadata- metadata repository - benefits of metadata repository.

UNIT III **(12 hrs)**

Data Mart

Data Mart- Reasons for creating a data mart- Types of Data Marts- Steps in Implementing a Data Mart- Difference between Data Warehouse and Data Mart. - Dimensional Modeling-Objectives of Dimensional Modeling- Advantages of Dimensional Modeling - Elements of Dimensional Modeling - Dimension Table- Multidimensional Data Model- Data Cube.

UNIT IV **(12 hrs)**

Data Mining

Definition - History of Data Mining- Features of Data Mining - Types of Data Mining - Data Mining Vs Data Warehousing- Advantages and Disadvantages of Data Mining - Data Mining Applications - Challenges of Implementation in Data mining - Steps involved in Data Mining - Classification of Data Mining Systems.

UNIT V **(12hrs)**

Data Mining Tools & Techniques

Data Mining Implementation Process - Data Mining Architecture - Clustering in Data Mining - Different types of Clustering - Text Data Mining - Bitcoin Data Mining - Data Mining Vs Big Data - Data Mining Models - Trends in Data Mining.

COURSE OUTCOMES

Students will be able to

CO 1	explain the basic concepts, principles and need of data warehousing.
CO 2	appraise data warehouse architecture, modelling and its implementation.
CO 3	choose various steps in implementing data mart and its dimensions.

CO 4	recall the features and types of data mining.
CO 5	apply various data mining tools and techniques.

Books for study:

1. Jiawei Han, Micheline Kamber (2011), Data Mining, Concepts and Techniques, Morgan Kauffman Publishers, California.
2. Pang Ning Tan, Michael Steinbach, Vipin Kumar (2005), Introduction to Data Mining, Addison Wesley, USA.
3. K. P. Soman, Shyam Diwakar, V. Ajay (2006), Insight into Data Mining: Theory & Practice, Prentice Hall of India, New Delhi.

Books for reference:

1. BPB Editorial Board (2004), “Data Mining”, BPB publications, Noida.
2. Ian H. Witten & Eibe Frank (2011), “Data Mining, Practical Machine Learning Tools and Techniques”, Morgan Kaufmann series.
3. Ramesh Sharda, Dursun Delen, Efraim Turban (2018), “Business Intelligence”, Pearson Education Services Pvt Ltd, Noida.

Web references:

1. [https://mrcet.com/downloads/digital_notes/ME/III%20 year/ERP%20 Complete%20Digital%20notes.pdf](https://mrcet.com/downloads/digital_notes/ME/III%20year/ERP%20Complete%20Digital%20notes.pdf)
2. [https://mrcet.com/pdf/Lab%20Manuals/IT/DATA%20WAREHOUSING%20AND% 020DATA%20MINING%20\(R18A0524\).pdf00](https://mrcet.com/pdf/Lab%20Manuals/IT/DATA%20WAREHOUSING%20AND%20DATA%20MINING%20(R18A0524).pdf00)

Mapping of course outcomes with POs and PSOs

	POs						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	1	1	1	1	2	3	2	2	3
CO2	2	3	2	2	2	3	2	2	3
CO3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3

Strong - 3

Medium – 2

Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Elective – II B

Semester II

TECHNOLOGY IN BANKING

Course Code	Title of the Course	Category	L	T	P	O	Credits	Inst. Hours	Marks		
									CIA	External	Total
P23CCE2B	TECHNOLOGY IN BANKING	Departmental Elective-2B	4	-	-	-	3	4	25	75	100

LEARNING OBJECTIVES

1	To understand the network essentials for an operational core banking system
2	To provide an overview of customer centric electronic banking.
3	To understand the evolution of electronic fund transfer systems in the banking sector
4	To analyse the digital technologies offered in banking services.
5	To understand the information security system

COURSE CONTENTS

UNIT I	(12 hrs)
Introduction to Core Banking Computerization	
Essentials of Bank Computerization – Stand Alone and Multi-User System – Local Area Network and Wide Area Network: Features, Advantages and Limitations – Core Banking: Essential Requirements and Benefits.	
UNIT II	(12 hrs)
Electronic Payment System and Banking Facilities	
Electronic Payment Systems – ATM: Features – Advantages – Disadvantages – Brown Label and White Label ATM, PIN, Electro Magnetic Cards, Credit Cards, Debit Cards and Smart Cards: Features, Benefits and Limitations – Multiple Pin in Smart Card – Electronic Purse – Electronic Cheque – Electronic Cash – Electronic Banking – Home Banking (Corporate and Personal) – Update Facilities – Internet Banking – Mobile Banking: Features, Advantages and Limitations – Signature Storage and Retrieval System – Cheque Truncation – MICR and OCR: Characteristics – Advantages and Limitations.	
UNIT III	(12 hrs)

Electronic Fund Transfer and Its Transitions

Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT, RTGS, VSAT, SFMS, SWIFT: Features, Advantages and Limitations – Digital Signature – Unified Payments Interface (UPI): Concept, Mechanism and Services Covered – Digital Wallets (E-Wallets): Features, Benefits and Types.

UNIT IV

(12 hrs)

Trends in Banking Technology

Recent Developments in Banking Technology: Digital Account Opening – Application Programming Interface – Video Collaboration – Person-to-Person Payments – Cloud Computing – NUUP (National Unified USSD Platform), AePS (Aadhaar enabled Payment System) – APBS (Aadhaar Payments Bridge System) - Role of IDBRT (Institute of Development and Research in Banking) in banking technology development - Status of E-banking in India - Process of E-Banking - Benefits of E-banking - Emerging challenges in banking industry - Scope of IT to tackle the key challenges.

UNIT V

(12 hrs)

Information Security System

Information security - Software based security systems - Hardware based security systems (smart card, M chip) – Hackers: Techniques used by the hackers, Phishing, Pharming, Key loggers, Screen loggers, Phishing - Trojans transaction poisoning - Card related fraud - Site cloning – False merchant site - Authentication methodologies and security measures (Password protection - Smart cards - Biometric characteristics) - Encryption and security - Customer confidentiality - Regulatory environment of internet banking - Legal Framework for Electronic Transactions – Cyber security as per Information Technology Act, 2000 – RBI Guidelines on Internet Banking.

COURSE OUTCOMES

Students will be able to

CO 1	discuss the utility of stand-alone and multi-user systems access in Core banking.
CO 2	assess the multi-faceted electronic payment options available to customer and host transactions in banking.
CO 3	evaluate the dynamic transitions in Electronic Fund transfer systems.
CO 4	evaluate the enhanced utility and user interface and other recent developments in banking technologies.
CO5	assess the information security system.

Books for study:

1. SangeethaR,(2013) “Technology in Banking”, 1st Edition, Charulatha Publications, Chennai.
2. Sohani, A K, (2012) “Technology in Banking Sector”, SBS Publishers and Distributors Pvt Ltd, New Delhi.
3. Uppal R K and Dhiraj Sharma, (2017) “Banking with Technology: A New Vision -2020”, Bharti Publication, New Delhi
4. Indian Institute of Banking and Finance, (2017) “Information Technology, Data Communications and Electronic Banking”, 3rd Edition, Macmillan Publishers India Private Limited, Noida.

Books for reference:

1. Vadlamani Ravi, (2007) “Advances in Banking Technology and Management: Impacts of ICT and CRM”, 1st Edition, Information Science Reference, Hershey, (USA).
2. Lucian Morrisand Tim Walker, (2021) “ The Handbook of Banking Technology” , John Wiley & Sons, New York.
3. Indian Institute of Banking and Finance, (2017), “Security in Electronic Banking”, 3rd Edition, Macmillan Publishers India Private Limited, Noida.
4. Uppal R.K., AgrimUppal(2008) “Banking Services and Information Technology: The Indian Experience”, New Century Publications, New Delhi.

Web references:

1. <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/64767.pdf>
2. https://www.researchgate.net/profile/Ravi-Vadlamani/publication/237383828_Chapter_I_Introduction_to_Banking_Technology_and_Management/links/572a89bc08aef7c7e2c4fbc3/Chapter-I-Introduction-to-Banking-Technology-and-Management.pdf
3. <https://eprocure.gov.in/cppp/rulesandprocs/kbadqkdlcswfjdelrquehwuxcfmijmuixngudufgbuubgubfugbububjxcgfvvsbdihbfgGhdfgFHtyhRtMjk4NzY=#:~:text=%5B9th%20June%2C%202000%5D%20An,communication%20and%20storage%20of%20information%2C>

Note Latest edition of the book may be used.

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	2	3	2	3	3	2	3	2	2
CO2	2	3	2	3	3	3	3	3	3
CO3	1	2	3	3	3	3	3	3	3
CO4	2	2	2	3	3	3	3	3	3
CO5	1	2	3	2	2	3	2	3	3

Strong - 3 Medium – 2 Low - 1

M.COM. WITH COMPUTER APPLICATIONS

First Year

Semester II

NME-I-Skill Enhancement Course-I - Fundamentals of Banking

Subject Code	Subject Name	Category	L	T	P	Credits	Inst. Hours	Marks		
								CIA	External	Total
P23CCS21	FUNDAMENTALS OF BANKING	NME-SEC-1	2	-	-	4	2	25	75	100

Learning Objectives

1	Know the relationship between Banker and Customer
2	Tell the instruments used for banking transactions, need for crossing
3	Be familiar with the rules on loans and advances

COURSE CONTENTS

Unit-I: Banker and Customer- the relationship between banker and customer: General, Special-Duty to maintain claim, disclosure and matters related to customers' accounts ,KYC Norms and operation
Unit-II: Deposits: rules for opening accounts-Insurance linked savings bank
Unit-III: Cheques –Cheque and bills of exchange , Cheque vs draft, Banker's cheque
Unit-IV: Crossing –Types, who can cross , endorsement-Kinds, regularity of endorsement
Unit-V: Loans and advances- Principles of sound lending , secured and unsecured advances
Question paper shall cover 100% Theory

Books for reference

1	Banking Theory Law and Practice E.Gordon, K.Natarajan , Himalaya Publishing Home
2	KPM Sundharam& P. N. Varshney, (2020), "Banking Theory, Law and Practice", 20 th Edition, Sultan Chand & Sons, New Delhi.
3	Chishti, S., & Barberis, J. (2016), The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons.

Web reference	
1	https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology
2	https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20PDF.pdf
3	https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=PageNo108&flag=1

Mapping of course outcomes with POs and PSOs

	Pos						PSOs		
	1	2	3	4	5	6	1	2	3
CO1	2	2	1	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	2	3
CO3	2	2	1	2	2	2	2	3	2
CO4	3	2	2	1	2	2	2	3	2
CO5	3	3	1	3	3	3	3	2	3

High – 3

Medium – 2

Low – 1
