

# B.COM., CA

## Syllabus

Program Code: UCC

2023 - Onwards

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**MANNAR THIRUMALAI NAICKER COLLEGE**

(AUTONOMOUS)

**Re-accredited with “A<sup>+</sup>” Grade by NAAC**

**PASUMALAI, MADURAI – 625 004**

**MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS),**  
**MADURAI – 625 004**  
**COMMERCE WITH COMPUTER APPLICATIONS CURRICULUM**  
*(For the students admitted from the academic year 2023-2024 onwards)*

Course Code	Title of the Course	Hrs	Credits	Maximum Marks		
				Int	Ext	Total
FIRST SEMESTER						
Part – I	Tamil / Hindi Course					
23UTAGT11 / 23UHIGH11	தமிழ் இலக்கிய வரலாறு - I / Hindi Ka Samanya Gyan Aur Nibandh	6	3	25	75	100
Part – II	English					
23UENGE11	General English - I	6	3	25	75	100
Part - III	Core Courses					
23UCCCC11	Financial Accounting - I	5	5	25	75	100
23UCCCC12	Principles of Management	5	5	25	75	100
Part - III	Elective Course					
23UCCEC11	Programming in C and Lab	4	3	25	75	100
Part IV	Non Major Elective					
23UCCNM11	Principles of Accounting	2	2	25	75	100
Part IV	Foundation Course					
23UCCFC11	Fundamentals of Commerce	2	2	25	75	100
Total		30	23	175	525	700
SECOND SEMESTER						
Part – I	Tamil / Hindi Course					
23UTAGT21 / 23UHIGH21	தமிழ் இலக்கிய வரலாறு – II / Katha Sahitya Aur Vyakaran	6	3	25	75	100
Part – II	English					
23UENGE21	General English - II	6	3	25	75	100
Part - III	Core Courses					
23UCCCC21	Financial Accounting - II	5	5	25	75	100
23UCCCC22	Business Law	5	5	25	75	100
Part - III	Elective Course					
23UCCEC21	Programming with C++	4	3	25	75	100
Part IV	Non Major Elective					
23UCCNM21	Practical Banking	2	2	25	75	100
Part IV	Skill Enhancement course					
23UCCSC21	Brand Management	2	2	25	75	100
Total		30	23	175	525	700

Course Code	Title of the Course	Hrs	Credits	Maximum Marks		
				Int	Ext	Total
THIRD SEMESTER						
Part – I	Tamil / Hindi course					
23UTAGT31 / 23UHIGH31	தமிழக வரலாறும் பண்பாடும் / Patra Lekhan Aur Paribhashik Shabdavali	6	3	25	75	100
Part – II	English					
23UENGE31	General English - III	6	3	25	75	100
Part - III	Core courses					
23UCCCC31	Corporate Accounting I	5	5	25	75	100
23UCCCC32	Company Law	5	5	25	75	100
Part - III	Elective course					
23UCCEC31	Visual Basic	4	3	25	75	100
Part - IV	Skill Based courses					
23UCCSP31	Basic Concepts of Spread Sheet - Lab	1	1	25	75	100
23UCCSP32	Visual Basic - Lab	2	2	25	75	100
Part - IV	Mandatory course					
23UEVSG41	Environmental Studies	1	-	-	-	-
Total		30	22	175	525	700
FOURTH SEMESTER						
Part – I	Tamil / Hindi course					
23UTAGT41 / 23UHIGH41	தமிழும் அறிவியலும் / Hindi Bhasha Aur Computer	6	3	25	75	100
Part – II	English					
23UENGE41	General English - IV	6	3	25	75	100
Part - III	Core courses					
23UCCCC41	Corporate Accounting II	5	5	25	75	100
23UCCCC42	Principles of Marketing	5	5	25	75	100
Part - III	Elective course					
23UCCEC41	Java Programming	4	3	25	75	100
Part - IV	Skill Based courses					
23UCCSP41	Java Programming - Lab	2	2	25	75	100
23UCCSP42	Multimedia and its Applications - Lab	1	1	25	75	100
Part - IV	Mandatory course					
23UEVSG41	Environmental Studies	1	2	25	75	100
Total		30	24	200	600	800

Course Code	Title of the Course	Hrs	Cred its	Maximum Marks		
				Int	Ext	Total
FIFTH SEMESTER						
Part - III	Core courses					
23UCCCC51	Cost Accounting - I	5	4	25	75	100
23UCCCC52	Banking Law and Practice	5	4	25	75	100
23UCCCC53	Income Tax Law and Practice - I	5	4	25	75	100
Part - III	Core project					
23UCCPR51	Project with Viva - Voce	5	4	25	75	100
Part - III	Elective courses - I					
23UCCEC51	Object Oriented Programming in C++/	4	3	25	75	100
23UCCEC52	Introduction to Oracle and SQL File					
Part - III	Elective courses - II					
23UCCEC53	Mobile Computing	4	3	25	75	100
23UCCEC54	Management Information Systems					
Part - IV	Mandatory course					
23UVLEG51	Value Education	2	2	25	75	100
23UCCIN51	Internship Report	-	2	25	75	100
Total		30	26	200	600	800
SIXTH SEMESTER						
Part - III	Core courses					
23UCCCC61	Cost Accounting - II	6	4	25	75	100
23UCCCC62	Management Accounting	6	4	25	75	100
23UCCCC63	Income Tax Law and Practice - II	6	4	25	75	100
Part - III	Elective courses - I					
23UCCEC61	PHP Programming	5	3	25	75	100
23UCCEC62	Web Design					
Part - III	Elective courses - II					
23UCCEC63	Cryptography and network security	5	4	25	75	100
23UCCEC64	Introduction to ERP					
Part - IV	Skill course					
23UCCSC61	General awareness for Competitive Examination	2	2	25	75	100
Part - V	Extension activities					
23UNCET61, 23UNSET61, 23UPEET61, 23URRET61, 23UYRET61, 23UHFET61, 23UEOET61 & 23UHRET61	N.C.C, N.S.S, Physical Education, R.R.C, Y.R.C, Health and Fitness Club, ECO Club & Human Rights Club	-	1	25	75	100
Total		30	22	175	525	700
Grand total		180	140	1100	3300	4400

# FIFTH SEMESTER



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Cost Accounting - I			
Course Code	23UCCCC51	L	P	C
Category	Core	5	-	4
COURSE OBJECTIVES:				
<div><div>➤</div>To understand the various concepts of cost accounting.</div> <div><div>➤</div>To prepare and reconcile Cost accounts.</div> <div><div>➤</div>To gain knowledge regarding valuation methods of material.</div> <div><div>➤</div>To familiarize with the different methods of calculating labour cost.</div> <div><div>➤</div>To know the apportionment of Overheads.</div>				
UNIT - I	Introduction of Cost Accounting			15
Definition-Nature and Scope – Principles of Cost Accounting – Cost Accounting and Financial Accounting – Cost Accounting Vs Management Accounting –Installation of Costing System –Classification of Costs– Cost Centre– Profit Centre				
UNIT - II	Cost Sheet and Methods of Costing			15
Preparation of Cost Sheet - Tenders & Quotations - Reconciliation of Cost and Financial Accounts –Unit Costing-Job Costing.				
UNIT -III	Material Costing			15
Material Control – Meaning and Objectives – Purchase of Materials – EOQ –Stores Records – Reorder Levels – ABC Analysis - Issue of Materials –Methods of Issue – FIFO – LIFO – Base Stock Method – Specific Price Method – Simple and Weighted Average Method.				
UNIT - IV	Labour Costing			15
Direct Labour and Indirect Labour – Time Keeping – Methods and Calculation of Wage Payments – Time Wages – Piece Wages – Incentives – Different Methods of Incentive Payments - Idle time–Overtime – Labour Turnover - Meaning, Causes and Measurement.				
UNIT - V	Overheads Costing			15
Overheads – Definition – Classification – Allocation and Apportionment of Overheads – Basis of Apportionment – Primary and Secondary Distribution - Absorption of Overheads – Methods of absorption Preparation of Overheads Distribution Statement – Machine Hour Rate – Computation of Machine Hour Rate.				
Total Lecture Hours				75
THEORY 20% PROBLEM 80%				

**BOOKS FOR STUDY:**

- Dr. R. Ramachandran & Dr. R. Srinivasan, Cost Accounting, Sri Ram Publication, Trichy.
- Jain S.P. and Narang K.L, Cost Accounting. Kalyani Publishers, New Delhi
- Khanna B.S., Pandey I.M., Ahuja G.K., and Arora M.N., Practical Costing, S. Chand & Co, New Delhi,
- Dr.S.N.Maheswari, Principles of Cost Accounting, Sultan Chand Publications, New Delhi
- T.S.Reddy and Y. Hari Prasad Reddy, Cost Accounting, Margham publications, Chennai

**BOOKS FOR REFERENCES:**

- S.P. Iyengar, Cost Accounting, Sultan Chand Publications, New Delhi.
- Jain S.P. and Narang K.L. Cost Accounting, Latest Edition.2013, Kalyani Publishers, New Delhi,
- V.K.Saxena and C.D.Vashist, Cost Accounting, Sultan Chand publications, New Delhi
- Murthy A &GurusamyS,CostAccounting,Vijay Nicole Imprints Pvt .Ltd .Chennai
- Prasad.N.K and Prasad.V.K, Cost Accounting, Book Syndicate, Kolkata

**WEB RESOURCES:**

- ❖ <https://study.com/learn/lesson/cost-accounting-principles-examples-what-is-cost-accounting.html>
- ❖ <https://www.accountingtools.com/articles/what-is-material-costing.html>
- ❖ <https://www.freshbooks.com/hub/accounting/overhead-cost>

Nature of Course	EMPLOYABILITY			✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓	
Changes Made in the Course	Percentage of Change			20%	No Changes Made		New Course		
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.									

COURSE OUTCOMES:		K LEVEL
After studying this course, the students will be able to:		
<b>CO1</b>	Remember and recall the various concepts of cost accounting	<b>K1 to K4</b>
<b>CO2</b>	Demonstrate the preparation and reconciliation of cost sheet.	<b>K1 to K4</b>
<b>CO3</b>	Analyze the various valuation methods of material.	<b>K1 to K4</b>
<b>CO4</b>	Examine the different methods of calculating labour cost.	<b>K1 to K4</b>
<b>CO5</b>	Critically evaluate the apportionment of Overheads.	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	2	2	2	2
CO2	3	2	2	2	2	2	2	2
CO3	3	2	3	2	2	2	2	2
CO4	3	2	2	2	2	2	2	2
CO5	3	2	3	2	2	2	2	2

**S- STRONG**
**M – MEDIUM**
**L - LOW**
**CO / PO MAPPING:**

COS	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3	2	2		
CO 2	3	2	2		
CO 3	3	2	2		
CO 4	3	2	2		
CO 5	3	2	2		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>10</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2</b>		

**LESSON PLAN:**

UNIT	Cost Accounting - I	HRS	PEDAGOGY
I	Introduction of Cost Accounting	15	Chalk and Talk, Power Point Presentation, Video Lectures
II	Cost Sheet and Methods of Costing	15	Chalk and Talk, Power Point Presentation, Video Lectures
III	Material Costing	15	Chalk and Talk, Power Point Presentation, Video Lectures
IV	Labour Costing	15	Chalk and Talk, Power Point Presentation, Video Lectures
V	Overheads Costing	15	Chalk and Talk, Power Point Presentation, Video Lectures



**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AI	CO2	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
CI	CO3	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AII	CO4	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	10

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
5	CO5	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	52
K2	5	30	32	67	48	
K3		20	32	52	37	37
K4			16	16	11	11
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	Banking Law and Practice			
<b>Course Code</b>	23UCCCC52	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Core	5	-	4

#### COURSE OBJECTIVES:

- To help the students understand various provision of Banking Regulation Act 1949 applicable to banking companies including cooperative banks
- To trace the evolution of central bank concept and prevalent central banking system around the world and their roles and function
- To throw light on Central Bank in India, its formation, nationalizing its organization structure, role of bank to government, role in promoting agriculture and industry, role in financial inclusion
- To understand how capital fund of commercial banks, objectives and process of Asset securitization etc
- To explore practical banking systems relationship of bankers and customers, crossing of cheques, endorsement etc.

#### UNIT - I INTRODUCTION TO BANKING 15

History of Banking- Provisions of Banking Regulations Act 1949 - Components of Indian Banking - Indian Banking System-Phases of Development - Banking Structure in India - Public Sector Banks, Private Banks Foreign Banks, RRB, UCB, Payment Banks and Small Finance Banks - Banking System – Branch Banking Unit Banking - Universal Banking- Financial Inclusion

#### UNIT - II COMMERCIAL BANK AND CENTRAL BANK 15

**Commercial Banking:** Definition - Functions – Personal Banking – Corporate Banking – Digital banking – Core Banking System (CBS) - Role of Banks in Economic Development. **Central Banking:** Definition – Need - Principles- Central Banking Vs Commercial Banking - Functions of Central Bank – Credit Creation.

#### UNIT -III BANKING PRACTICE 15

Types of Accounts CASA – Types of Deposits - Opening Bank Account- Jan Dhan Yojana - Account Statement vs Passbook vs e-statement - Banker Customer Relationship - Special Types of Customers – KYC norms.

Loans & Advances –Lending Sources- Lending Principles-Types of Loans - classification of assets and income recognition / provisioning (NPA) – Repo Rate & Reverse Repo Rate -

securities of lending-Factors influencing bank lending.

<b>UNIT - IV NEGOTIABLE INSTRUMENTS ACT 1881</b>	<b>15</b>
Negotiable Instruments – Meaning & Definition – Characteristics -Types of negotiable instruments.	
Crossing of Cheques– Concept - Objectives – Types of Crossing - Consequences of Non- Crossing.	
Endorsement - Meaning-Components-Kinds of Endorsements-Cheques payable to fictitious person Endorsement by legal representative –Negotiation bank - Effect of endorsement-Rules regarding Endorsement. Customer Grievances-Grievance Redressal – Banking Ombudsman.	
<b>UNIT - V DIGITAL BANKING</b>	<b>15</b>
Meaning- Services - e-banking and financial services- Initiatives-Opportunities - Internet banking Vs Traditional Banking	
Mobile banking–Anywhere Banking-Any Time Banking- Electronic Mobile Wallets. ATM – Concept - Features – Types. Electronic money-Meaning-Categories-Merits of e-money - National Electronic Funds Transfer (NEFT), RTGS, IMPS, UPI and Digital currency – Differences - Safety and Security in Digital Banking.	
<b>Total Lecture Hours</b>	<b>75</b>

#### BOOKS FOR STUDY:

- Gurusamy S, Banking Theory: Law and Practice, Vijay Nicole Publication, Chennai
- Muraleedharan, Modern Banking: Theory and Practice, Prentice Hall India Learning Private Ltd, New Delhi
- Gupta P.K. Gordon E.Banking and Insurance, Himalaya publication, Kolkata
- Gajendra,A Text on Banking Theory Law & Practice, Vrinda Publication, Delhi
- K P Kandasami, S Natarajan&Parameswaran, Banking Law and Practice, S Chand publication, New Delhi

#### BOOKS FOR REFERENCES:

- B. Santhanam, Banking & Financial System, Margam Publication, Chennai
- Katait Sanjay, Banking Theory and Practice, Lambert Academic Publishing,
- Henry Dunning Macleod, The Theory and Practice Of Banking, Hard Press Publishing, Old New Zealand
- William Amasa Scott, Money and Banking: An Introduction To The Study Of Modern Currencies, Kesinger publication, USA
- Nektarios Michail, Money, Credit, and Crises: Understanding the Modern Banking System, Palgrave Macmillan, London

#### WEB RESOURCES:

- ❖ <https://www.rbi.org.in/>
- ❖ <https://businessjargons.com/e-banking.html>
- ❖ <https://www.wallstreetmojo.com/endorsement/>

Nature of Course	EMPLOYABILITY			✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL			GLOBAL	✓
Changes Made in the Course	Percentage of Change			67%	No Changes Made		New Course		
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.									

COURSE OUTCOMES:								K LEVEL
After studying this course, the students will be able to:								
CO1	Aware of various provision of Banking Regulation Act 1949 applicable to banking companies including cooperative banks							K1 to K4
CO2	Analyse the evolution of Central Banking concept and prevalent Central Banking system in India and their roles and function							K1 to K4
CO3	Gain knowledge about the Central Bank in India, it formation, nationalizing its organization structure, role of bank to government, role in promoting agriculture and industry, role in financial inclusion							K1 to K4
CO4	Evaluate the role of capital fund of commercial banks, objectives and process of Asset securitization etc							K1 to K4
CO5	Define the practical banking systems relationship of bankers and customers, crossing of cheques, endorsement etc.							K1 to K4
MAPPING WITH PROGRAM OUTCOMES:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	2	2
CO2	3	2	2	2	3	2	2	2
CO3	3	2	3	2	3	2	2	2
CO4	3	2	2	2	3	2	2	2
CO5	3	2	3	2	3	2	2	2
S- STRONG			M – MEDIUM			L - LOW		
CO / PO MAPPING:								
COS		PSO1	PSO2	PSO3		PSO4	PSO5	
CO 1		3	3	2				
CO 2		3	3	2				
CO 3		3	3	2				
CO 4		3	3	2				
CO 5		3	3	2				

<b>WEIGHTAGE</b>	<b>15</b>	<b>15</b>	<b>10</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>3</b>	<b>2</b>		
<b>LESSON PLAN:</b>					
<b>UNIT</b>	<b>Banking Law and Practice</b>	<b>HRS</b>	<b>PEDAGOGY</b>		
<b>I</b>	Introduction to Banking	<b>15</b>	<b>CHALK &amp; TALK, PPT</b>		
<b>II</b>	Commercial Bank and Central Bank	<b>15</b>	<b>CHALK &amp; TALK, PPT</b>		
<b>III</b>	Banking Practice	<b>15</b>	<b>CHALK &amp; TALK, PPT</b>		
<b>IV</b>	Negotiable Instruments Act 1881	<b>15</b>	<b>CHALK &amp; TALK, PPT</b>		
<b>V</b>	Digital Banking	<b>15</b>	<b>CHALK &amp; TALK, PPT</b>		

Learning Outcome Based Education & Assessment (LOBE)						
Formative Examination - Blue Print						
Articulation Mapping – K Levels with Course Outcomes (COs)						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of Questions	K - Level		
CI	CO1	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
AI	CO2	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
CI	CO3	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
AII	CO4	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16



Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	
	K4			16	16	29	
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	
	K4			16	16	29	
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
5	CO5	K1 – K4	2	K1,K2	2(K2,K2)	2(K4,K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	29
K2	5	30		35	25	
K3		20	48	68	49	49
K4			32	32	22	22
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

### Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				PART – A	(10 x 1 = 10 Marks)
1.	Unit - I	CO1	K1		
				a)	b)
				c)	d)
2.	Unit - I	CO1	K2		
				a)	b)
				c)	d)
3.	Unit - II	CO2	K1		
				a)	b)
				c)	d)
4.	Unit - II	CO2	K2		
				a)	b)
				c)	d)
5.	Unit - III	CO3	K1		
				a)	b)
				c)	d)
6.	Unit - III	CO3	K2		
				a)	b)
				c)	d)
7.	Unit - IV	CO4	K1		
				a)	b)
				c)	d)
8.	Unit - IV	CO4	K2		
				a)	b)
				c)	d)
9.	Unit - V	CO5	K1		
				a)	b)
				c)	d)
10.	Unit - V	CO5	K2		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>	<b>OR</b>	
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>	<b>OR</b>	
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>	<b>OR</b>	
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>	<b>OR</b>	
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>	<b>OR</b>	
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	Income Tax Law and Practice - I			
<b>Course Code</b>	23UCCCC53	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Core	5	-	4

#### COURSE OBJECTIVES:

- To understand the basic concepts & definitions under the Income Tax Act, 1961.
- To compute the residential status of an assessee and the incidence of tax.
- To compute income under the head salaries.
- To learn the concepts of Annual value, associated deductions and the calculation of income from House property.
- To compute the income from Business & Profession considering its basic principles & specific disallowances.

#### UNIT – I INTRODUCTION TO INCOME TAX 1961 15

Introduction to Income Tax – History – Objectives of Taxation - Features of Income Tax – Meaning of Income – Types – Important Definitions Under the Income Tax Act –Types of Assessee – Income exempted under Section 10.

#### UNIT – II RESIDENTIAL STATUS 15

Residential Status – Residential Status of an Individual – Company – HUF – Basic Conditions – Additional Conditions – Incidence of Tax and Residential Status – Problems on Residential Status and Incidence of Tax.

#### UNIT -III INCOME FROM SALARY 15

Salary Income - Definition – Allowances –Taxability - Perquisites – Kinds of Perquisites –Types of Provident Fund - Gratuity – Pension – Commutation of Pension – Deduction of Salary - Profits in Lieu of Salary -

Computation of Salary Income .

#### UNIT - IV INCOME FROM HOUSE PROPERTY 15

Income from House Property –Basis of Charge – Annual Value – Gross Annual Value, Net Annual Value - Let-out vs Deemed to be let out Self-Occupied Property – Deductions – Computation of Income from House Property.

#### UNIT - V PROFITS AND GAINS FROM BUSINESS OR PROFESSION 15

Income from Business or Profession – Allowable Expenses – Expenses Disallowed - General Deductions – Depreciation, Unexplained expenditure (Sec 69A, 69B, 69C, 69D) – Compulsory Maintenance of Books of Accounts – Audit of Accounts of Certain Persons – Special Provisions for Computing Incomes on Estimated

Basis (Deemed Income) – Computation of Income from Business or Profession.

**Total Lecture Hours 75**

**BOOKS FOR STUDY:**

- V.P.Gaur, Narang, Puja Gaur and Rajeev Puri - Income Tax Law and Practice, Kalyani Publishers, New Delhi.
- T.S.Reddy and Hariprasad Reddy, Income Tax Law and Practice, Margham Publications, Chennai.
- Dinkar Pagare, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
- H.C. Mehrotra, Dr.Goyal S.P,Income Tax Law and Accounts, Sahitya Bhavan Publications, Agra.
- T. Srinivasan – Income Tax & Practice –Vijay Nicole Imprints Private Limited , Chennai.

**BOOKS FOR REFERENCES:**

- Hariharan N, Income Tax Law & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai
- Bhagwati Prasad, Income Tax Law and Practice, Vishwa Prakasan. New Delhi.
- Vinod K. Singhanian, Students Guide to Income Tax.,U.K.Bharghava Taxman.
- Dr.Vinod K Singhanian, Dr. Monica Singhanian, Taxmann's Students' Guide to Income Tax, New Delhi.
- Mittal Preethi Raniand Bansal Anshika, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.

**WEB RESOURCES:**

- ❖ <https://cleartax.in/s/residential-status/>
- ❖ <https://www.legalraasta.com/itr/income-from-salary/>
- ❖ <https://taxguru.in/income-tax/income-house-properties.html>

Nature of Course	EMPLOYABILITY			✓	SKILL ORIENTED		ENTREPRENEURSHIP			
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL	✓	GLOBAL			
Changes Made in the Course	Percentage of Change			25%	No Changes Made			New Course		
* Treat 20 % as each unit (20*5=100 %) and calculate the percentage of change for the course.										

COURSE OUTCOMES:		K LEVEL
After studying this course, the students will be able to:		
<b>CO1</b>	Demonstrate the understanding of the basic concepts and definitions under the Income Tax Act.	<b>K1 to K4</b>
<b>CO2</b>	Assess the residential status of an assessee & the incidence of tax.	<b>K1 to K4</b>
<b>CO3</b>	Compute income of an individual under the head salaries.	<b>K1 to K4</b>
<b>CO4</b>	Ability to compute income from house property.	<b>K1 to K4</b>
<b>CO5</b>	Evaluate income from a business carried on or from the practice of a Profession.	<b>K1 to K4</b>

Mapping with Program Outcomes:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	2	2
CO2	3	2	2	2	2	2	2	2
CO3	3	3	3	2	3	2	2	2
CO4	3	2	2	2	2	2	2	2
CO5	3	3	3	2	3	2	2	2
S- STRONG			M – MEDIUM			L - LOW		
CO / PO Mapping:								
COS		PSO1	PSO2	PSO3		PSO4	PSO5	
CO 1		3	3	2				
CO 2		3	2	2				
CO 3		3	3	2				
CO 4		3	3	2				
CO 5		3	2	2				
WEIGHTAGE		15	13	10				
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3	2.6	2				
Lesson Plan:								
UNIT	Income Tax Law and Practice - I			HRS		PEDAGOGY		
I	INTRODUCTION TO INCOME TAX 1961			15		Chalk and Talk, Power Point Presentation		
II	RESIDENTIAL STATUS			15		Chalk and Talk, Power Point Presentation		
III	INCOME FORM SALARY			15		Chalk and Talk, Power Point Presentation		
IV	INCOME FROM HOUSE PROPERTY			15		Chalk and Talk, Power Point Presentation		
V	INTRODUCTION TO INCOME TAX 1961			15		Chalk and Talk, Power Point Presentation		

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
AI	CO2	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
CI	CO3	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
AII	CO4	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

**Distribution of Marks with K Level CIA I & CIA II**

	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
5	CO5	K1 – K4	2	K1,K2	2(K2,K2)	2(K4,K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	29
K2	5	30		35	25	
K3		20	48	68	49	49
K4			32	32	22	22
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						



## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer <b>ALL</b> the questions				<b>PART – A</b>	<b>(10 x 1 = 10 Marks)</b>
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions			<b>PART – B</b>		<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>	<b>OR</b>	
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>	<b>OR</b>	
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>	<b>OR</b>	
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>	<b>OR</b>	
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>	<b>OR</b>	
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	Project with Viva - Voce			
<b>Course Code</b>	23UCCPR51	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Core	5	-	4

#### **COURSE OBJECTIVES:**

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

- Develop the ability of the students to prepare a project.
- Give the practical exposure in the field of commerce and business
- Identify and discuss the role and importance of research in the social sciences.
- Identify and discuss the issues and concepts salient to the research process.
- Identify and discuss the concepts and procedures of sampling, data collection, analysis and reporting.

#### **Regulations for the Project Report:**

- ❖ The topic of the project may be based on research articles from commerce journals or any topic not covered in the B.Com syllabus.
- ❖ Internal examinations are the respective supervisors.
- ❖ Viva -Voce examination to be evaluated by the external examiner.
- ❖ The report of the project must be in the prescribed form. It should be typed neatly in MS Word. The font size of the letter should be 12 point with 1.5 space.
- ❖ The format of the project report should have the following components.
  - First page should contain:
    - Title of the project report
    - Name of the candidate.
    - Register number
    - Name of the Supervisor.
    - Address of the institution.
    - Month & Year of submission.
  - Contents.
  - Declaration by Candidate.
  - Certificate by Supervisor
  - Acknowledgement
  - List of tables
  - List of figures
  - Chapters (not exceeding five)
- ❖ The number of pages in the project may be 50 to 80.
- ❖ Two copies of the project report with binding should be submitted.

## Course Description

The Project is conducted by the following Course Pattern.

### Internal

Presentation	}	25
Submission		

### External

Project Report	}	75
Viva -Voce		

TOTAL	100
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Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED			ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL	✓	GLOBAL		
Changes Made in the Course	Percentage of Change			No Changes Made		✓	New Course		
*Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.									

COURSE OUTCOMES:								K LEVEL
After studying this course, the students will be able to:								
CO1	Understand project characteristics and various stages of a project.							K1 to K4
CO2	Know the key research concepts and issues.							K1 to K4
CO3	Able to take Business Analysis							K1 to K4
CO4	Analyze Market by taking business research							K1 to K4
CO5	Able to take business decisions by taking research							K1 to K4
MAPPING WITH PROGRAM OUTCOMES:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	3	3	3	1	3	2	3
CO2	1	2	2	1	2	1	1	2
CO3	2	2	3	3	2	1	2	2
CO4	3	2	3	2	1	2	3	2
CO5	3	3	3	3	3	3	3	3
*3 – Advanced Application; 2 – Intermediate Development; 1 - Introductory Level								



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Object Oriented Programming in C++/			
Course Code	23UCCEC51	L	P	C
Category	Elective	4	-	3
<b>COURSE OBJECTIVES:</b> <ul style="list-style-type: none"><li>➤ To understand the object technology</li><li>➤ To impart the information on codes and arrays</li><li>➤ To enhance the user functions</li><li>➤ To analyzete h classes and objects</li><li>➤ To Enhance reusability features using the concept inheritance</li></ul>				
<b>UNIT - I</b>	<b>Introduction to Object Technology</b>	<b>12</b>		
Object Oriented Programming Concepts–OOP Benefits and OOP applications. Elementary C++ Programming: Keywords- Variables- Constants/ Literals - Operators- Fundamental Data Types - Expressions- General Format of a C++ program.				
<b>UNIT - II</b>	<b>Conditional/Decision Making Statements</b>	<b>12</b>		
If, if-else, else-if ladder nested if and switch Statements. Loop Statements: while, do-while, for loop. Jump Statements: break, continue, goto statements -Arrays.				
<b>UNIT -III</b>	<b>User-Defined Functions</b>	<b>12</b>		
Function Prototyping – Function call - Parameters Passing methods- Inline Functions - Function Overloading - Function Overriding– Strings.				
<b>UNIT - IV</b>	<b>Classes and Objects</b>	<b>12</b>		
Declaring class and objects -Member functions-Friend Functions-Passing object to function – Returning object from function. Constructors: Features of constructors – Types of Constructors. Destructors: Features of Destructor.				
<b>UNIT - V</b>	<b>Inheritance</b>	<b>12</b>		
Single Inheritance - Multilevel inheritance - Multiple Inheritance - Hierarchical Inheritance - Hybrid Inheritance – Polymorphism.				
<b>Total Lecture Hours</b>				<b>60</b>

**BOOKS FOR STUDY:**

- E.Balaguruswamy, “Object Oriented Programming in C++”, Sixth Edition, 2012, TMH
- H. Schildt, “The Complete Reference C++”, Fourth Edition, 2002, TMH
- Kanetkar Y, “Let us C++”, Third Edition, 1999, BPB Publishers.

**BOOKS FOR REFERENCES:**

- John R Hubbard, “Programming with C++”, Third Edition, 2009, TMH.
- Grady Booch, "Object Oriented Analysis and Design", Addison Wesley
- James Rumbough Etal, "Object Oriented Modelling and Design "

**WEB RESOURCES:**

- ❖ <http://en.highscore.de/cpp/boost/>
- ❖ <http://bookboon.com/en/structural-programming-with-c-plus-plus-ebook>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change		20%	No Changes Made		New Course		
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Recall the basics of Building any programming language	<b>K1 to K4</b>
<b>CO2</b>	Explain about Arrays with illustration	<b>K1 to K4</b>
<b>CO3</b>	Analyze the benefits of using Friend Function	<b>K1 to K4</b>
<b>CO4</b>	Develop programs for overloading Unary and Binary Operators	<b>K1 to K4</b>
<b>CO5</b>	Access the memory Address of any variable using pointers	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>CO1</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>S- STRONG</b>			<b>M – MEDIUM</b>			<b>L - LOW</b>		

**CO / PO MAPPING:**

<b>COS</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO 1</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 2</b>	<b>3</b>	<b>2</b>	<b>3</b>		
<b>CO 3</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 4</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 5</b>	<b>3</b>	<b>2</b>	<b>3</b>		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>12</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2.4</b>		

**LESSON PLAN:**

<b>UNIT</b>	<b>Object Oriented Programming in C++/</b>	<b>HRS</b>	<b>PEDAGOGY</b>
<b>I</b>	Introduction to Object Technology	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>II</b>	Conditional/Decision Making Statements	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>III</b>	User-Defined Functions	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>IV</b>	Classes and Objects	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>V</b>	Inheritance	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping – K Levels with Course Outcomes (COs)						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of Questions	K - Level		
CI AI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI AII	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**



Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Introduction to Oracle and SQL File			
Course Code	23UCCEC52	L	P	C
Category	Elective	4	-	3
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ To enhance the knowledge and understanding of Database analysis and design.</li><li>➤ To Enhance the knowledge of the processes of Database Development and Administration using SQ and PL/SQ</li><li>➤ To understand the implantation of keys</li><li>➤ To create the database and tables and setting the keys</li><li>➤ To imply the functions</li></ul>				
UNIT - I	Introduction to File			12
Flat File – Advantage and disadvantage of Flat File – Introduction to Database - Types of database structure: Hierarchical Data Base – Relational Data Base – Object Relational Data Base.				
UNIT - II	Introduction to Relational Database			12
Relational Database terms: Records – Fields – Tables – Advantage and disadvantage of Relational Database.				
UNIT -III	Keys			12
Primary Key – Foreign Key – Candidate Key – Composite Key - Super Key – Implementation of those keys on tables.				
UNIT - IV	Introduction to Oracle			12
Creating database – Creating tables – Setting Primary Key and Foreign Keys on tables – Introduction to SQL queries: CREATE, ALTER, DROP, RENAME, TRUNCATE, SELECT statements – Retrieving data – Restricting and Sorting data.				
UNIT - V	Function			12
Single Row Function – Group Function – Reporting Aggregated data – Displaying data from multiple tables – Sub Queries.				
Total Lecture Hours				60

**BOOKS FOR STUDY:**

- Steven Feuerstein, Oracle and SQL file, O-Reilly Publication, 2002
- Jason Prince, Oracle Database 12cSQL
- Sanjay Mishra, Alan Beaulieru, Mastering Oracle SQL

**BOOKS FOR REFERENCES:**

- Joel Murach, Oracle SQL and PL SQL for developers
- Alice Rischert, Oracle SQL workbook

**WEB RESOURCES:**

- ❖ [https://www.google.co.in/books/edition/Oracle\\_SQL\\_Plus/rIg6LtArAPcC?hl=en&gbpv=1&dq=oracle%20and%20sql%20file&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Oracle_SQL_Plus/rIg6LtArAPcC?hl=en&gbpv=1&dq=oracle%20and%20sql%20file&pg=PP1&printsec=frontcover)
- ❖ [https://www.google.co.in/books/edition/Mastering\\_Oracle\\_SQL/Rl2\\_4LhDjZkC?hl=en&gbpv=1&dq=oracle%20and%20sql%20file&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Mastering_Oracle_SQL/Rl2_4LhDjZkC?hl=en&gbpv=1&dq=oracle%20and%20sql%20file&pg=PP1&printsec=frontcover)
- ❖ <https://www.scribd.com/doc/4367886/Oracle-SQL-Syllabus>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change			No Changes Made			New Course	✓
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	List out the merits and demerits of files	<b>K1 to K4</b>
<b>CO2</b>	Paraphrase the relational database and its usage	<b>K1 to K4</b>
<b>CO3</b>	Analyze the various keys on tables	<b>K1 to K4</b>
<b>CO4</b>	Apply the concept creating database and tables	<b>K1 to K4</b>
<b>CO5</b>	Enumerate the various functions and displaying data from multiple tables	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>CO1</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>S- STRONG</b>			<b>M - MEDIUM</b>			<b>L - LOW</b>		

**CO / PO MAPPING:**

<b>COS</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO 1</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 2</b>	<b>3</b>	<b>2</b>	<b>3</b>		
<b>CO 3</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 4</b>	<b>3</b>	<b>2</b>	<b>2</b>		
<b>CO 5</b>	<b>3</b>	<b>2</b>	<b>3</b>		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>12</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2.4</b>		

**LESSON PLAN:**

<b>UNIT</b>	<b>Introduction to Oracle and SQL File</b>	<b>HRS</b>	<b>PEDAGOGY</b>
<b>I</b>	Introduction to File – Flat File – Advantage and disadvantage of Flat File – Introduction to Database - Types of database structure: Hierarchical Data Base – Relational Data Base – Object Relational Data Base.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>II</b>	Introduction to Relational Database – Relational Database terms: Records – Fields – Tables – Advantage and disadvantage of Relational Database.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>III</b>	Keys: Primary Key – Foreign Key – Candidate Key – Composite Key - Super Key – Implementation of those keys on tables.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>IV</b>	Introduction to Oracle: Creating database – Creating tables – Setting Primary Key and Foreign Keys on tables – Introduction to SQL queries: CREATE, ALTER, DROP, RENAME, TRUNCATE, SELECT statements – Retrieving data – Restricting and Sorting data.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>V</b>	Function – Single Row Function – Group Function – Reporting Aggregated data – Displaying data from multiple tables – Sub Queries.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

**Distribution of Marks with K Level CIA I & CIA II**

	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA**

**Component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						



## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Mobile Computing			
Course Code	23UCCEC53	L	P	C
Category	Elective	4	-	3
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ To understand the basic concepts of mobile computing</li><li>➤ To familiarize with the network protocol stack</li><li>➤ To learn the basics of telecommunication strategy</li><li>➤ Be exposed to Ad-Hoc networks</li><li>➤ To gain knowledge about different mobile platforms and application development</li></ul>				
UNIT - I	Introduction			12
Mobile Computing – Mobile Computing Applications –Generations of Mobile computing – Structure of Mobile Computing Application. MAC Protocols – Wireless MAC Issues – Fixed Assignment Schemes – Random Assignment Schemes – Reservation Based Schemes.				
UNIT - II	Mobile Ad-Hoc Networks			12
Ad-Hoc Basic Concepts – Characteristics – Applications – Design Issues – Routing – Essential of Traditional Routing Protocols –Popular Routing Protocols – Vehicular Ad Hoc networks ( VANET) – MANET Vs VANET –Security.				
UNIT -III	Mobile Telecommunication System			12
Global System for Mobile Communication (GSM) – — Services & Architecture — Protocols — Connection Establishment -General Packet Radio Service (GPRS) – Universal Mobile Tele communication System (UMTS). Architecture — Handover — Security.				
UNIT - IV	Mobile Internet Protocol and Transport Layer			12
Overview of Mobile IP – Features of Mobile IP – Key Mechanism in Mobile IP – route Optimization. Overview of TCP/IP – Architecture of TCP/IP Adaptation of TCP Window – Improvement in TCP Performance.				
UNIT - V	Mobile Platforms and Applications			12
Mobile Device Operating Systems – Special Constrains & Requirements – Commercial Mobile Operating Systems – Software Development Kit: iOS, Android, BlackBerry, Windows Phone – M-Commerce – Structure– Pros & Cons – Mobile Payment System – Security Issues.				
Total Lecture Hours				60

**BOOKS FOR STUDY:**

- Jochen Schiller, “Mobile Communications”, PHI/Pearson Education, Second Edition, 2003. (Unit I Chap 1,2 &3- Unit II chap 4,5 &6-Unit III Chap 7.Unit IV Chap 8- Unit V Chap 9&10.)
- William Stallings, “Wireless Communications and Networks”, PHI/Pearson Education, 2002. (Unit I Chapter – 7&10-Unit II Chap 9)
- Kaveh Pahlavan, Prasanth Krishnamoorthy, “Principles of Wireless Networks”, PHI/Pearson Education, 2003.

**BOOKS FOR REFERENCES:**

- Uwe Hansmann, Lothar Merk, Martin S. Nicklons and Thomas Stober, “Principles of Mobile Computing”, Springer, New York, 2003.
- Hazyszt of Wesolowshi, “Mobile Communication Systems”, John Wiley and Sons Ltd, 2002.

**WEB RESOURCES:**

- ❖ [https://www.google.co.in/books/edition/FUNDAMENTALS\\_OF\\_MOBILE\\_COMPUTING/Second/NREACwAAQBAJ?hl=en&gbpv=1&dq=mobile%20computing&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/FUNDAMENTALS_OF_MOBILE_COMPUTING/Second/NREACwAAQBAJ?hl=en&gbpv=1&dq=mobile%20computing&pg=PP1&printsec=frontcover)
- ❖ [https://www.google.co.in/books/edition/Mobile\\_Computing/LSqPLwEACAAJ?hl=en](https://www.google.co.in/books/edition/Mobile_Computing/LSqPLwEACAAJ?hl=en)
- ❖ [https://www.google.co.in/books/edition/Mobile\\_Computing/psAgAQAAIAAJ?hl=en&gbpv=1&bsq=mobile+computing&dq=mobile+computing&printsec=frontcover](https://www.google.co.in/books/edition/Mobile_Computing/psAgAQAAIAAJ?hl=en&gbpv=1&bsq=mobile+computing&dq=mobile+computing&printsec=frontcover)

<b>Nature of Course</b>	EMPLOYABILITY	✓	SKILL ORIENTED		ENTREPRENEURSHIP	
<b>Curriculum Relevance</b>	LOCAL		REGIONAL		NATIONAL	GLOBAL ✓
<b>Changes Made in the Course</b>	Percentage of Change		No Changes Made		New Course	✓
<b>* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.</b>						

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Paraphrase the mobile computing	<b>K1 to K4</b>
<b>CO2</b>	Analyze the different networks and designs issues	<b>K1 to K4</b>
<b>CO3</b>	Acquire the knowledge on the mobile telecommunication systems	<b>K1 to K4</b>
<b>CO4</b>	Apply the mobile Internet protocol and transport layer	<b>K1 to K4</b>
<b>CO5</b>	Enhance the skills on the different platforms and application models	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	3	3
CO2	3	2	2	2	2	2	2	2
CO3	3	3	3	2	3	2	3	3
CO4	3	2	2	2	2	2	2	2
CO5	3	3	3	2	3	2	3	3

**S- STRONG**
**M – MEDIUM**
**L - LOW**
**CO / PO MAPPING:**

COS	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3	2	2		
CO 2	3	2	3		
CO 3	3	2	2		
CO 4	3	2	2		
CO 5	3	2	3		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>12</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2.4</b>		

**LESSON PLAN:**

UNIT	Mobile Computing	HRS	PEDAGOGY
<b>I</b>	Introduction-Mobile Computing – Mobile Computing Applications –Generations of Mobile computing – Structure of Mobile Computing Application. MAC Protocols – Wireless MAC Issues – Fixed Assignment Schemes – Random Assignment Schemes – Reservation Based Schemes.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>II</b>	Mobile Ad-Hoc Networks-Ad-Hoc Basic Concepts – Characteristics – Applications – Design Issues – Routing – Essential of Traditional Routing Protocols –Popular Routing Protocols – Vehicular Ad Hoc networks ( VANET) – MANET Vs VANET –Security.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>III</b>	Mobile Telecommunication System-Global System for Mobile Communication (GSM) – — Services & Architecture — Protocols — Connection Establishment -	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

	General Packet Radio Service (GPRS) – Universal Mobile Tele communication System (UMTS). Architecture — Handover — Security.		
<b>IV</b>	Mobile Internet Protocol and Transport Layer-Overview of Mobile IP – Features of Mobile IP – Key Mechanism in Mobile IP – route Optimization. Overview of TCP/IP – Architecture of TCP/IP Adaptation of TCP Window – Improvement in TCP Performance.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>V</b>	Mobile Platforms and Applications-Mobile Device Operating Systems – Special Constrains & Requirements – Commercial Mobile Operating Systems – Software Development Kit: iOS, Android, BlackBerry, Windows Phone – M-Commerce – Structure– Pros & Cons – Mobile Payment System – Security Issues.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

Learning Outcome Based Education & Assessment (LOBE)						
Formative Examination - Blue Print						
Articulation Mapping – K Levels with Course Outcomes (COs)						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

### Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				PART – A (10 x 1 = 10 Marks)	
1.	Unit - I	CO1	K1		
				a)	b)
				c)	d)
2.	Unit - I	CO1	K2		
				a)	b)
				c)	d)
3.	Unit - II	CO2	K1		
				a)	b)
				c)	d)
4.	Unit - II	CO2	K2		
				a)	b)
				c)	d)
5.	Unit - III	CO3	K1		
				a)	b)
				c)	d)
6.	Unit - III	CO3	K2		
				a)	b)
				c)	d)
7.	Unit - IV	CO4	K1		
				a)	b)
				c)	d)
8.	Unit - IV	CO4	K2		
				a)	b)
				c)	d)
9.	Unit - V	CO5	K1		
				a)	b)
				c)	d)
10.	Unit - V	CO5	K2		
				a)	b)
				c)	d)



Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		

**MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)****PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS****FOR THOSE WHO JOINED IN 2023-2024 AND AFTER**

Course Name	Management Information Systems			
Course Code	23UCCEC54	L	P	C
Category	Elective	4	-	3
<b>COURSE OBJECTIVES:</b>				
<ul style="list-style-type: none"><li>➤ To understand the management information system</li><li>➤ To explore the system concepts and to identify the characteristics of system</li><li>➤ To analyse the transaction processing system</li><li>➤ To apply the database management systems and architecture networks</li><li>➤ To estimate the functional management information systems</li></ul>				
<b>UNIT - I</b>	<b>Management information system</b>	<b>12</b>		
Meaning – features – requisites of an effective MIS – MIS Model – components – subsystems of an MIS – role and importance – corporate planning for MIS – growth of MIS in an organization – centralization vs decentralization of MIS. Support – Limitations of MIS.				
<b>UNIT - II</b>	<b>System Concepts</b>	<b>12</b>		
System concepts – elements of system – characteristics of a system – types of system – categories of information system – system development life cycle – system enhancement.				
<b>UNIT -III</b>	<b>Information System in Business and Management</b>	<b>12</b>		
Information systems in business and management: Transaction processing system: Information repeating and executive information system.				
<b>UNIT - IV</b>	<b>Database Management System</b>	<b>12</b>		
Database management systems – conceptual presentation – client server architectures networks.				
<b>UNIT - V</b>	<b>Functional Management Information System</b>	<b>12</b>		
Functional management information system: Financial – accounting – marketing – production – Human resource – business process outsourcing.				
<b>Total Lecture Hours</b>				<b>60</b>

**BOOKS FOR STUDY:**

- Gordon B. Davis And MaggretheH . Olson , Management Information Systems , McGraw Hill International Edition - Second Edition , 1998
- RoberG .Mudrick , Joel E . Ross And James R .CIAGGET , Information Systems For Modern Management , 33Rd Edition , 1992 , Prentice Hall Of India (P) Ltd ., Eastern Economy Edition .
- Jerome Kanter Management Information Systems, 3 Edition , 1990 . Prentice Hall Of India Ltd. ,Eastern Economy Edition

**BOOKS FOR REFERENCES:**

- James A. O'Brien, Management information systems, McGraw Hill, 2002
- BagchiNirmalya, Management Information systems, Vikas Publications, 2010
- IndrajitChattarjee, Management information systems, PHI Learning, 2010

**WEB RESOURCES:**

[https://www.google.co.in/books/edition/Management\\_Information\\_Systems/RTZDDAAAQBAJ?hl=en&gbpv=1&dq=management%20information%20system&pg=PR4&printsec=frontcover](https://www.google.co.in/books/edition/Management_Information_Systems/RTZDDAAAQBAJ?hl=en&gbpv=1&dq=management%20information%20system&pg=PR4&printsec=frontcover)



[https://www.google.co.in/books/edition/MANAGEMENT\\_INFORMATION\\_SYSTEMS/DOi2meoOKWsC?hl=en](https://www.google.co.in/books/edition/MANAGEMENT_INFORMATION_SYSTEMS/DOi2meoOKWsC?hl=en)



[https://www.google.co.in/books/edition/Management\\_Information\\_Systems\\_Manageria/ZaNDAAAQBAJ?hl=en&gbpv=1&dq=management%20information%20system&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Management_Information_Systems_Manageria/ZaNDAAAQBAJ?hl=en&gbpv=1&dq=management%20information%20system&pg=PP1&printsec=frontcover)

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED			ENTREPRENEURSHIP			
Curriculum Relevance	LOCAL		REGIONAL			NATIONAL			GLOBAL	✓
Changes Made in the Course	Percentage of Change				No Changes Made			New Course		✓
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.										

COURSE OUTCOMES:		K LEVEL
After studying this course, the students will be able to:		
CO1	Paraphrase the characteristics of Management information system	K1 to K4
CO2	Describe the elements and characteristics of system	K1 to K4
CO3	Enumerate the application of information system in business	K1 to K4
CO4	Explain the database management system	K1 to K4
CO5	Elaborate the functional management information system in financial, accounting, marketing and production.	K1 to K4

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	2	3	2	3	3
CO2	3	2	2	3	2	2	2	2
CO3	3	3	3	2	3	2	3	3
CO4	3	2	2	2	2	2	2	2
CO5	3	3	3	3	3	2	3	3

**S- STRONG**
**M – MEDIUM**
**L - LOW**
**CO / PO MAPPING:**

COS	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3	2	2		
CO 2	3	2	3		
CO 3	3	2	2		
CO 4	3	2	2		
CO 5	3	2	3		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>12</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2.4</b>		

**LESSON PLAN:**

UNIT	Management Information Systems	HRS	PEDAGOGY
<b>I</b>	Management information system: meaning – features – requisites of an effective MIS – MIS Model – components – subsystems of an MIS – role and importance – corporate planning for MIS – growth of MIS in an organization – centralization vs decentralization of MIS. Support – Limitations of MIS.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>II</b>	System concepts – elements of system – characteristics of a system – types of system – categories of information system – system development life cycle – system enhancement.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>III</b>	Information systems in business and management: Transaction processing system: Information repeating and executive information system.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

<b>IV</b>	Database management systems – conceptual presentation – client server architectures networks.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>
<b>V</b>	Functional management information system: Financial – accounting – marketing – production – Human resource – business process outsourcing.	<b>12</b>	<b>Chalk and Talk, Power Point Presentation</b>

Learning Outcome Based Education & Assessment (LOBE)						
Formative Examination - Blue Print						
Articulation Mapping – K Levels with Course Outcomes (COs)						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	5			5	3.58	4
	K2	5	20		25	17.86	18
	K3		30	32	62	44.28	44
	K4			48	48	34.28	34
	Marks	10	50	80	140	100	100
CIA II	K1	5			5	3.58	4
	K2	5	20		25	17.86	18
	K3		30	32	62	44.28	44
	K4			48	48	34.28	34
	Marks	10	50	80	140	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer <b>ALL</b> the questions				<b>PART – A</b>	<b>(10 x 1 = 10 Marks)</b>
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		





# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	Internship Report			
<b>Course Code</b>	23UCCIN51	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Summer Internship	-	-	2

#### COURSE OBJECTIVES:

- The purpose of this skill enhancing (Training) core paper is to bridge the theoretical fundamentals with that of actual practice and to inculcate a spirit of inquiry & research rigor to investigate the nuances that go into the working of industry at large. Apart from adapting as team-worker, students are expected to gather, filter the required information and report the dynamics of the chosen industry in a standardized format.

#### Course Description:

The final year students must undergo 30 Hours Internship Training in their fourth semester vacation i.e. before starting their fifth semester after completing their fourth semester examinations. The report preparation, presentation and viva-voce will be conducted during the fifth semester and the marks will be entered in their fifth semester. The following guidelines to be strictly followed:

1. The internship period should be minimum 30 Hours
  2. The students should produce permission letter as well as the attendance certificate.
  3. There will be two supervisors to guide the students one is Faculty Guide and other one is Factory Guide.
  4. The students should submit an Internship Training Report (Maximum 50 Pages).
- The Marks for Internship Training will be awarded only on the basis of the Internship Training Report.

## Evaluation/assessment of student intern

The internship report will be evaluated by panels of expert, consists of Faculty guide, and the factory manager observation report/Hod, each carry 25 marks and average.

<b>Internship Training</b>	<b>30 Hours</b>
<b>Internal Training</b>	<b>25</b>
<b>External Internship Report &amp; Viva Voce</b>	<b>50</b>
	<b>25</b>
<b>Total Marks -</b>	<b>100</b>

5. The Internship Training Report should contain
  - (a) Introduction about the Training
  - (b) Objectives of the Training
  - (c) Scope of the Training
  - (d) Limitations of the Training
  - (e) About the Organization
  - (f) About functioning of various Departments in the Organization
  - (g) Inferences
  - (h) Conclusion
6. The evaluation of the Internship Training Report will be purely internal.
  - a) Report will be valued by both the Faculty guide and factory manager/Hod to 50 marks each and Average it.
  - b) The Viva voce will be conducted by the three panels of Expert, and the first one is Faculty guide and the second one is HOD and the third person will be an expert from the outside college for 25 marks each and Average it.

<b>Nature of Course</b>	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP	
<b>Curriculum Relevance</b>	LOCAL		REGIONAL		NATIONAL	✓	GLOBAL
<b>Changes Made in the Course</b>	Percentage of Change			No Changes Made		New Course	
						✓	

**\* Treat 20 % as each unit (20\*5=100 %) and calculate the percentage of change for the course.**

COURSE OUTCOMES:								K LEVEL	
After studying this course, the students will be able to:									
CO1	Explain the student to the environment and expectations of performance on the part of private/public companies or government entities							K1 to K4	
CO2	Able to develop work habits and attitudes necessary for job success. Build a record of work experience							K1 to K4	
CO3	Explore career alternatives by Integrating theory and practice and learn to appreciate work and its function in the economy.							K1 to K4	
CO4	Expose the student to professional role models by developing communication, interpersonal and other critical skills							K1 to K4	
CO5	Examine employer-valued skills such as teamwork, communications and attention to detail.							K1 to K4	
MAPPING WITH PROGRAM OUTCOMES:									
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
CO1	S	S	M	M	M	S	S	S	
CO2	S	S	M	M	M	S	S	S	
CO3	S	S	M	M	M	S	S	S	
CO4	S	S	M	M	M	S	S	S	
CO5	S	S	M	M	M	S	S	S	
S- STRONG			M – MEDIUM				L - LOW		
CO / PO MAPPING:									
COS		PSO1	PSO2	PSO3		PSO4		PSO5	
CO 1		3	3	3		3		3	
CO 2		3	3	3		3		3	
CO 3		3	3	3		3		3	
CO 4		3	3	3		3		3	
CO 5		3	3	3		3		3	
WEIGHTAGE		15	15	15		15		15	
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3.0	3.0	3.0		3.0		3.0	

# SIXTH SEMESTER



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Cost Accounting - II			
Course Code	23UCCCC61	L	P	C
Category	Core	6	-	4
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ To understand the standards in Cost Accounting</li><li>➤ To know the concepts of contract costing.</li><li>➤ To be familiar with the concept of process costing.</li><li>➤ To learn about operation costing.</li><li>➤ To gain insights into standard costing.</li></ul>				
UNIT - I	COST ACCOUNTING STANDARDS			18
An Introduction to CAS – Purpose of CAS – Advantages of CAS – Difference between CAS and FAR Regulations – Different Degrees of CAS Coverage – Cost Accounting Standards - Responsibility Accounting and Divisional Performance Measurement.				
UNIT - II	JOB COSTING, BATCH COSTING AND CONTRACT COSTING			18
Definitions - Features - A Comparison - Calculation of Profit on Contracts – Cost Plus Contract - Preparation of Contract A/c.				
UNIT -III	Process Costing			18
Process Costing – Meaning –Fundamental Principles of Process Costing- Features of Process Costing – Application of Process Costing – Preparation of Process Accounts - Treatment of Loss and Gain: Normal and Abnormal Loss - Abnormal Gain - Concept of Equivalent Production - Joint Products and By Products.				
UNIT - IV	Operation Costing			18
Operation Costing – Meaning – Preparation of Operating Cost Sheet – Transport Costing – Power Supply Costing–Hospital Costing (Simple Problems).				
UNIT - V	STANDARD COSTING AND VARIANCE ANALYSIS			18
Definition – Objectives – Advantages – Standard Cost and Estimated Cost – Installation of Standard Costing System – Variance Analysis – Material, Labour, Overhead, and Sales Variances – Calculation of Variances.				
Total Lecture Hours				90
THEORY 20% & PROBLEMS 80%				

**BOOKS FOR STUDY:**

- Jain S.P. and Narang K.L. Cost Accounting. Kalyani Publishers. New Delhi.
- Khanna B.S., Pandey I.M., Ahuja G.K., and Arora M.N., Practical Costing, S Chand & Co, New Delhi.
- Dr. S.N. Maheswari, Principles of Cost Accounting, Sultan Chand publications, New Delhi.
- T.S. Reddy and Y. Hari Prasad Reddy, Cost Accounting, Margham publications, Chennai.
- S.P. Iyengar, Cost Accounting, Sultan Chand Publications, New Delhi.

**BOOKS FOR REFERENCES:**

- Polimeni, Cost Accounting: Concepts and Applications for Managerial Decision Making, New York, McGraw-Hill, Noida.
- Jain S.P. and Narang K.L. Cost Accounting, Kalyani Publishers, New Delhi.
- V.K. Saxena and C.D. Vashist, Cost Accounting, Sultan Chand publications, New Delhi.
- Murthy A & Gurusamy S, Cost Accounting, Vijay Nicole Imprints Pvt .Ltd .Chennai.
- Prasad. N.K and Prasad. V.K, Cost Accounting, Book Syndicate, Bangladesh.

**WEB RESOURCES:**

- ❖ <https://www.economicdiscussion.net/cost-accounting/contract-costing/32597>
- ❖ <https://www.wallstreetmojo.com/process-costing/>
- ❖ <https://www.accountingnotes.net/cost-accounting/operating-costing/17755>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change			No Changes Made			New Course	✓
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

<b>COURSE OUTCOMES:</b>		<b>K LEVEL</b>
<b>After studying this course, the students will be able to:</b>		
<b>CO1</b>	Remember and recall standards in cost accounting	<b>K1 to K4</b>
<b>CO2</b>	Apply the knowledge in contract costing	<b>K1 to K4</b>
<b>CO3</b>	Analyze and assimilate concepts in process costing	<b>K1 to K4</b>
<b>CO4</b>	Understand various bases of classification cost and prepare operating cost statement.	<b>K1 to K4</b>
<b>CO5</b>	Set up standards and analyse variances.	<b>K1 to K4</b>

Mapping with Program Outcomes:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	2	3	3	3	3
CO2	3	3	3	2	2	3	2	2
CO3	3	3	3	2	3	3	3	3
CO4	3	3	3	2	2	3	2	2
CO5	3	3	3	2	3	3	3	3
S- STRONG			M – MEDIUM			L - LOW		
CO / PO Mapping:								
COS		PSO1	PSO2	PSO3		PSO4	PSO5	
CO 1		3	2	2				
CO 2		3	2	3				
CO 3		3	2	2				
CO 4		3	2	2				
CO 5		3	2	3				
WEIGHTAGE		15	10	12				
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3	2	2.4				
Lesson Plan:								
UNIT	Cost Accounting - II				HRS		PEDAGOGY	
I	Cost Accounting Standards				18		Chalk & Talk , PPT Presentation	
II	Job Costing, Batch Costing and Contract Costing				18		Chalk & Talk , PPT Presentation	
III	Process Costing				18		Chalk & Talk , PPT Presentation	
IV	Operation Costing				18		Chalk & Talk , PPT Presentation	
V	Standard Costing and Variance Analysis				18		Chalk & Talk , PPT Presentation, Seminar, Assignment	

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AI	CO2	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
CI	CO3	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AII	CO4	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

**Distribution of Marks with K Level CIA I & CIA II**

	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	
	K4			16	16	29	
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	
	K4			16	16	29	
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA**

**Component**



Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
5	CO5	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	52
K2	5	30	32	67	48	
K3		20	32	52	37	37
K4			16	16	11	11
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>		<b>(5 x 8 = 40 Marks)</b>	
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>				
<b>OR</b>							
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>				
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>				
<b>OR</b>							
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>				
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>				
<b>OR</b>							
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>				
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>				
<b>OR</b>							
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>				
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>				
<b>OR</b>							
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>				

**MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)****PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS****FOR THOSE WHO JOINED IN 2023-2024 AND AFTER**

Course Name	Management Accounting			
Course Code	23UCCCC62	L	P	C
Category	Core	6	-	4
COURSE OBJECTIVES:				
<div><div></div><div>To understand basics management accounting</div><div>To know the aspects of Financial Statement Analysis</div><div>To familiarize with fund flow and cash flow analysis</div><div>To learn about budgetary control</div><div>To gain insights into marginal costing.</div></div>				
UNIT - I	Introduction to Management Accounting			18
Management Accounting – Meaning – Scope – Importance- Limitations - Management Accounting Vs Cost Accounting – Management Accounting Vs Financial Accounting. Analysis and Interpretation of Financial Statements – Nature and Significance – Types of Financial Analysis – Tools of Analysis – Comparative Statements – Common Size Statement – Trend Analysis.				
UNIT - II	Ratio Analysis			18
Ratio Analysis: Meaning – Advantages – Limitations – Types of Ratios – Liquidity Ratios – Profitability Ratios -Turnover Ratios –Solvency Ratios – Leverage Ratios - Preparation of Financial Statements from Ratios.				
UNIT -III	Fund Flow & Cash Flow			18
Introduction, Meaning of Funds Flow Statement-Ascertainment of Flow of Funds - Schedule of Changes in Working Capital-Adjusted Profit and Loss Account - Preparation of Funds Flow Statement. Cash Flow Statement: Meaning – Advantages – Limitations – Preparation of Cash Flow Statement as per AS 3 –Cash Flow from Operating, Financing and Investing activities				
UNIT - IV	MARGINAL COSTING			18
Marginal Costing: Meaning - Features – Marginal Costing vs Absorption Costing - Fixed Cost, Variable Cost and Semi Variable Cost- Contribution- Marginal Cost Equation- P/V Ratio - Break Even Point – Margin of Safety – Cost- Volume Profits Analysis.  Decision Making: Selection of a Product Mix – Make or Buy Decision – Discontinuance of a product line – Change or Status quo – Limiting Factor or Key Factor.				
UNIT - V	BUDGET AND BUDGETARY CONTROL			18
Meaning – Preparation of Various Budgets – Cash Budget - Flexible Budget– Production Budget – Sales Budget – Master Budget – Budgetary Control – Benefits.				
Total Lecture Hours				90
THEORY 20% & PROBLEMS 80%				

**BOOKS FOR STUDY:**

- Jain S.P. & Narang K.L. (2018) Cost and Management Accounting, Kalyani Publications,
- Dr.S.N.Maheswari, Cost and Management Accounting, Sultanchandsons Publications, New Delhi.
- Sharma and Shashi K. Gupta, Management Accounting, Kalyani Publishers, Chennai.
- Jenitra L Mervin, Dasilton L Cecil, Management Accounting, Lerantec Press, Chennai.
- T.S.Reddy & Y. Hari Prasad Reddy, Management Accounting, Margham Publications, Chennai.

**BOOKS FOR REFERENCES:**

- Chadwick – The Essence of Management Accounting, Financial Times Publications, England.
- Charles T.Horngren and Gary N. Sundem – Introduction to Management Accounting, Pearson, Chennai.
- Murthy A and Gurusamy S, Management Accounting- Theory & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai.
- Hansen - Mowen, Cost Management Accounting and Control, South Western College, India.
- N.P. Srinivasan, Management Accounting, New Age Publishers, Chennai.

**WEB RESOURCES:**

- ❖ <https://www.accountingnotes.net/companies/fund-flow-analysis/fund-flow-analysis-accounting/13300>
- ❖ <https://accountingshare.com/budgetary-control/>
- ❖ <https://www.investopedia.com/terms/m/marginalcostofproduction.asp>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change			No Changes Made		✓	New Course	
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

COURSE OUTCOMES:		K LEVEL
After studying this course, the students will be able to:		
<b>CO1</b>	Remember and recall basics in management accounting	<b>K1 to K4</b>
<b>CO2</b>	Apply the knowledge of preparation of Financial Statements	<b>K1 to K4</b>
<b>CO3</b>	Analyze the concepts relating to fund flow and cash flow	<b>K1 to K4</b>
<b>CO4</b>	Evaluate techniques of budgetary control	<b>K1 to K4</b>
<b>CO5</b>	Formulate criteria for decision making using principles of marginal costing.	<b>K1 to K4</b>

Mapping with Program Outcomes:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	3	3
CO2	3	2	2	2	3	2	2	2
CO3	3	2	3	2	3	2	3	3
CO4	3	2	2	2	3	2	2	2
CO5	3	3	3	2	3	2	3	3
S- STRONG			M – MEDIUM			L - LOW		
CO / PO Mapping:								
COS		PSO1	PSO2	PSO3		PSO4	PSO5	
CO 1		3	2	2				
CO 2		3	2	3				
CO 3		3	2	2				
CO 4		3	2	2				
CO 5		3	2	3				
WEIGHTAGE		15	10	12				
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3	2	2.4				
Lesson Plan:								
UNIT	Management Accounting			HRS		PEDAGOGY		
I	Introduction to Management Accounting			18		Chalk & Talk , PPT Presentation		
II	Ratio Analysis			18		Chalk & Talk , PPT Presentation		
III	Funds Flow & Cash Flow Analysis			18		Chalk & Talk , PPT Presentation		
IV	Marginal Costing			18		Chalk & Talk , PPT Presentation		
V	Budget and Budgetary Control			18		Chalk & Talk , PPT Presentation, Seminar, Assignment		

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of Questions	K - Level		
CI	CO1	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AI	CO2	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
CI	CO3	K1 – K4	2	K1	2(K2,K2)	2(K3,K3)
AII	CO4	K1 – K4	2	K2	2(K3,K3)	2(K4,K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K2,K2)	2(K2,K2)
5	CO5	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	52
K2	5	30	32	67	48	
K3		20	32	52	37	37
K4			16	16	11	11
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						



## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer <b>ALL</b> the questions				<b>PART – A</b>	<b>(10 x 1 = 10 Marks)</b>
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer ALL the questions				PART – C	(5 x 8 = 40 Marks)
16. a)	Unit - I	CO1	K3	OR	
16. b)	Unit - I	CO1	K3		
17. a)	Unit - II	CO2	K2	OR	
17. b)	Unit - II	CO2	K2		
18. a)	Unit - III	CO3	K4	OR	
18. b)	Unit - III	CO3	K4		
19. a)	Unit - IV	CO4	K2	OR	
19. b)	Unit - IV	CO4	K2		
20. a)	Unit - V	CO5	K3	OR	
20. b)	Unit - V	CO5	K3		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Income Tax Law and Practice - II			
Course Code	23UCCCC63	L	P	C
Category	Core	6	-	4
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ To understand provisions relating to capital gains</li><li>➤ To know the provisions for computation of income from other sources.</li><li>➤ To familiarize law relating to set off and carry forward of losses and deductions from Gross Total Income.</li><li>➤ To learn about assessment of individuals</li><li>➤ To gain knowledge about assessment procedures.</li></ul>				
UNIT - I	CAPITAL GAINS			18
Capital Assets – Transfer – Short term vs Long term capital assets - Computation of Capital Gains – Exemption under Section 54, 54B, 54D, 54EC, 54F, 54GA				
UNIT - II	INCOME FROM OTHER SOURCES & CLUBBING OF INCOME			18
Chargeability - Computation of Income from Other Sources – Deductions Allowed – Clubbing of Income - Concept-Undisclosed Income & Investments.				
UNIT -III	SET OFF AND CARRY FORWARD OF LOSSES AND DEDUCTIONS FROM GROSS TOTAL INCOME			18
Gross Total Income vs Total Income - Provisions for Set-off and Carry Forward of Losses (Simple Problems). Deductions U/S 80C, 80CC, 80CCB, 80CCC, 80CCD, 80 CCE, 80D, 80DD, 80DDB, 80E, 80EE, 80EEA, 80EEB, 80G, 80GG, 80GGA, 80TTA, 80TTB, and 80U only..				
UNIT - IV	COMPUTATION OF TOTAL INCOME – INDIVIDUAL			18
Computation of Total Income - Tax Liability of an Individuals (Old regime vs New regime)				
UNIT - V	INCOME TAX AUTHORITIES			18
Administration of Income Tax Act – Income Tax Authorities – Powers of CBDT – Powers of Income Tax Officer - Procedure for Assessment – Filing of Return – Due Dates of Filing – Voluntary 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).				
Total Lecture Hours				90
THEORY 20% & PROBLEMS 80%				

**BOOKS FOR STUDY:**

- V.P.Gaur, Narang, Puja Gaur and Rajeev Puri- Income Tax Law and Practice, Kalyani Publishers, New Delhi.
- T.S.Reddy and Hariprasad Reddy, Income Tax Law and Practice, Margham Publications, Chennai.
- DinkarPagare, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.
- Mehrotra H.C, Dr.GoyalS.P,Income Tax Law and Accounts, Sahitya Bhavan Publications, Agra.
- T. Srinivasan – Income Tax & Practice –Vijay Nicole Imprints Private Limited , Chennai.

**BOOKS FOR REFERENCES:**

- Hariharan N, Income Tax Law & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai.
- Bhagwati Prasad, Income Tax Law and Practice, Vishwa Prakasan, New Delhi.
- Vinod K. Singhanian, Students Guide to Income Tax., U.K. Bharghava Taxman, New Delhi.
- Dr.Vinod K Singhanian, Dr. Monica Singhanian, Taxmann's Students' Guide to Income Tax, New Delhi.
- Mittal Preethi Rani and Bansal Anshika, Income Tax Law and Practice, Sultan & Chand Sons, New Delhi.

**WEB RESOURCES:**

- ❖ <https://www.investopedia.com/terms/c/capitalgain.asp>
- ❖ <https://www.incometaxmanagement.com/Direct-Taxes/AY-2021-22/assessment/1-assessment-of-an-individual.html>
- ❖ <https://www.incometax.gov.in/iec/foportal/>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL	✓	GLOBAL	
Changes Made in the Course	Percentage of Change		23%	No Changes Made			New Course	
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Remember and recall provisions on capital gains	<b>K1 to K4</b>
<b>CO2</b>	Apply the knowledge about income from other sources	<b>K1 to K4</b>
<b>CO3</b>	Analyze the set off and carry forward of losses provisions	<b>K1 to K4</b>
<b>CO4</b>	Learn about assessment of individuals	<b>K1 to K4</b>
<b>CO5</b>	Apply procedures learnt about assessment procedures.	<b>K1 to K4</b>

Mapping with Program Outcomes:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	3	3
CO2	3	2	2	2	2	2	2	2
CO3	3	3	3	2	3	2	3	3
CO4	3	2	2	2	2	2	2	2
CO5	3	3	3	2	3	2	3	3
S- STRONG			M – MEDIUM			L - LOW		
CO / PO Mapping:								
COS		PSO1	PSO2	PSO3		PSO4		PSO5
CO 1		3	2	2				
CO 2		3	2	3				
CO 3		3	2	2				
CO 4		3	2	2				
CO 5		3	2	3				
WEIGHTAGE		15	10	12				
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3	2	2.4				
Lesson Plan:								
UNIT	Income Tax Law and Practice - II					HRS	PEDAGOGY	
I	Capital Gain					18	Chalk & Talk, PPT	
II	Income From Other Sources & Clubbing of Income					18	Chalk & Talk, PPT	
III	Set Off And Carry Forward Of Losses And Deduction From Gross Total Income					18	Chalk & Talk, PPT	
IV	Computation of Total Income- Individual					18	Chalk & Talk, PPT	
V	Income Tax Authorities					18	Chalk & Talk, PPT	

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI AI	CO1	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
	CO2	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
CI AII	CO3	K1 – K4	2	K1	2(K2, K2)	2(K4 , K4)
	CO4	K1 – K4	2	K2	2(K3 , K3)	2(K3 , K3)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3.57	25
	K2	2	10		12	21.43	
	K3		10	16	26	46	46
	K4			16	16	29	29
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
2	CO2	K1 – K4	2	K1,K2	2(K2,K2)	2(K3,K3)
3	CO3	K1 – K4	2	K1,K2	2(K3,K3)	2(K4,K4)
4	CO4	K1 – K4	2	K1,K2	2(K3,K3)	2(K3,K3)
5	CO5	K1 – K4	2	K1,K2	2(K2,K2)	2(K4,K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			1		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	4	29
K2	5	30		35	25	
K3		20	48	68	49	49
K4			32	32	22	22
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)



Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K4</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	PHP Programming			
<b>Course Code</b>	23UCCEC61	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Elective	5	-	3
<b>COURSE OBJECTIVES:</b>				
<div>➤ To understand the PHP programming</div> <div>➤ To apply the controlling program flow</div> <div>➤ To analyze the PHP arrays</div> <div>➤ To imply the concept of using functions</div> <div>➤ To work with database and SQL</div>				
<b>UNIT - I</b>	<b>Introduction</b>	<b>15</b>		
Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variable and Operators – Storing Data in variable – Understanding Data types – Setting and Checking variables Data types – Using Constants – Manipulating Variables with Operators.				
<b>UNIT - II</b>	<b>Controlling Program Flow</b>	<b>15</b>		
Writing Simple Conditional Statements - Writing More Complex Conditional Statements – Repeating Action with Loops – Working with String and Numeric Functions.				
<b>UNIT -III</b>	<b>Working with Arrays</b>	<b>15</b>		
Storing Data in Arrays – Processing Arrays with Loops and Iterations – Using Arrays with Forms - Working with Array Functions – Working with Dates and Times.				
<b>UNIT - IV</b>	<b>Using Functions and Classes</b>	<b>15</b>		
Creating User-Defined Functions - Creating Classes – Using Advanced OOP Concepts. Working with Files and Directories: Reading Files-Writing Files Processing Directories.				
<b>UNIT - V</b>	<b>Working with Database and SQL</b>	<b>15</b>		
Introducing Database and SQL- Using MySQL-Adding and modifying Data-Handling Errors – Using SQLite Extension and PDO Extension.				
<b>Total Lecture Hours</b>				<b>75</b>

**BOOKS FOR STUDY:**

- Vikram Vaswani, “PHP A Beginner's Guide”, Tata McGraw Hill 2008.
- Steven Holzner, “The PHP Complete Reference”, Tata McGraw Hill, 2007.
- Steven Holzner, “Spring into PHP”, Tata McGraw Hill 2011, 5th Edition.

**BOOKS FOR REFERENCES:**

- Rasmus Lerdorf, Kevin Tatroe, Bob Kaehms, PHP Programming,
- Leon Atkinson “Core PHP Programming”, Prentice Hall, ISBN0130463469.
- W. Jason Gilmore, “Beginning PHP5 and MySQL: From Novice to Professional”, 2004, Apress, ISBN:1- 893115-51-8

**WEB RESOURCES:**

- ❖ <https://www.w3schools.com/php/>
- ❖ <https://www.phptpoint.com/php-tutorial-pdf/>
- ❖ <http://www.xmlsoftware.com/>

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change		40%	No Changes Made			New Course	
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Illustrate the PHP Programming	<b>K1 to K4</b>
<b>CO2</b>	Apply the Controlling program flow	<b>K1 to K4</b>
<b>CO3</b>	Analyze the working with Arrays	<b>K1 to K4</b>
<b>CO4</b>	Describe the functions and classes in PHP Programming	<b>K1 to K4</b>
<b>CO5</b>	Implication of adding and modifying data in database and SQL.	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>CO1</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>

S- STRONG		M – MEDIUM			L - LOW	
CO / PO MAPPING:						
COS	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	3	2	2			
CO 2	3	2	3			
CO 3	3	2	2			
CO 4	3	2	2			
CO 5	3	2	2			
WEIGHTAGE	15	10	11			
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS	3	2	2.2			
LESSON PLAN:						
UNIT	PHP Programming				HRS	PEDAGOGY
I	Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variable and Operators – Storing Data in variable – Understanding Data types – Setting and Checking variables Data types – Using Constants – Manipulating Variables with Operators.				15	Chalk & Talk, PPT
II	Controlling Program Flow: Writing Simple Conditional Statements - Writing More Complex Conditional Statements – Repeating Action with Loops – Working with String and Numeric Functions.				15	Chalk & Talk, PPT
III	Working with Arrays: Storing Data in Arrays – Processing Arrays with Loops and Iterations – Using Arrays with Forms - Working with Array Functions – Working with Dates and Times.				15	Chalk & Talk, PPT
IV	Using Functions and Classes: Creating User-Defined Functions - Creating Classes – Using Advanced OOP Concepts. Working with Files and Directories: Reading Files-Writing Files Processing Directories.				15	Chalk & Talk, PPT
V	Working with Database and SQL : Introducing Database and SQL- Using MySQL-Adding and modifying Data-Handling Errors – Using SQLite Extension and PDO Extension.				15	Chalk & Talk, PPT

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2, K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1, K2	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2, K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4	4	4	4
		No. of Questions to be answered	4	4	2	2
		Marks for each question	1	1	5	8
		Total Marks for each section	4	4	10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA**

**Component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer <b>ALL</b> the questions				<b>PART – A</b>	<b>(10 x 1 = 10 Marks)</b>
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		





# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

Course Name	Web Design			
Course Code	23UCCEC62	L	P	C
Category	Elective	5	-	3
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ Explaining the concept of Web design and its applications.</li><li>➤ Detailed description for Internet Domains and establishing Connectivity Internet.</li><li>➤ Structuring the HTML tags, Lists, Tables, Frames, Forms and Forms elements</li><li>➤ Emphasizing the DHTML Style Sheets, linking a Style Sheet and Web page designing</li><li>➤ Elaborating the concept of JavaScript Document Object Model and Cookies</li></ul>				
UNIT - I	Internet	15		
Internet: Basic Concepts – Communicating on Internet – Internet Domains – Internet Server Identities – Establishing Connectivity on the Internet				
UNIT - II	HTML	15		
Introduction to HTML -Anchor Tag – Hyperlink - Head and Body Section – Heading - Horizontal Ruler – Paragraphs – Tags - Images and Picture – Lists – Tables – Frames - Forms and forms elements.				
UNIT -III	DHTML	15		
DHTML and Style sheets - Defining styles - Elements of style - Linking a style sheet to a html documents - Inline style - External style sheets - Multiple styles- Web page designing.				
UNIT - IV	JavaScript - I	15		
Introduction to Java script - Advantage of JavaScript - Data type - Variable – Array - Operator and Expression - Control and looping Constructs - Functions - Dialog Boxes.				
UNIT - V	JavaScript - II	15		
JavaScript Document Object Model - Event Handling - Form Object - Built in Object - User Defined Object-Cookies				
Total Lecture Hours				75

**BOOKS FOR STUDY:**

- Ivan Bayross, “Web Enabled Commercial Application Development using HTML, JavaScript, DHTML and PHP”, Fourth Edition, 2010, BPB Publications
- Harvey M. Deitel, Paul J. Deitel, Tem R. Nieto, “Internet & World Wide Web – How to program”, Third Edition, 2002, Prentice Hall
- Using HTML 4, XML & JAVA by Eric Ladd & Jim O’Donell (Platinum Edition) (PHI)

**BOOKS FOR REFERENCES:**

- Hirdesh Bharadwaj, Web designing, Paper Back, 2016
- Brain D Miller, Principles of web design, Allworth Publications, 2022

**WEB RESOURCES:**

- ❖ [http://books.google.co.in/books?id=BrASwbtAGGUC&pg=PA69&source=gb\\_s\\_elected\\_pages&cad=2#v=onepage&q&f=false](http://books.google.co.in/books?id=BrASwbtAGGUC&pg=PA69&source=gb_s_elected_pages&cad=2#v=onepage&q&f=false)
- ❖ [https://www.google.co.in/books/edition/Principles\\_of\\_Web\\_Design/qFk1EAAAQBAJ?hl=en&gbpv=1&dq=web%20design&pg=PA1977&printsec=frontcover](https://www.google.co.in/books/edition/Principles_of_Web_Design/qFk1EAAAQBAJ?hl=en&gbpv=1&dq=web%20design&pg=PA1977&printsec=frontcover)

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP			
Curriculum Relevance	LOCAL		REGIONAL			NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change		20%	No Changes Made			New Course		
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.									

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Demonstrate Internet Basic concepts and Internet Domains	<b>K1 to K4</b>
<b>CO2</b>	Impart Lists, Frames and Table to the Forms and Forms Elements	<b>K1 to K4</b>
<b>CO3</b>	Elaborate DHTML Style Sheets and Element of the Style	<b>K1 to K4</b>
<b>CO4</b>	Representation of JavaScript Data types, Control and Looping and Functions.	<b>K1 to K4</b>
<b>CO5</b>	Pointing out Form object, User Defined Object and Cookies	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>CO1</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>CO4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>CO5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>

S- STRONG		M – MEDIUM		L - LOW	
CO / PO MAPPING:					
COS	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3	2	2		
CO 2	3	2	3		
CO 3	3	2	2		
CO 4	2	2	2		
CO 5	3	2	3		
WEIGHTAGE	14	10	12		
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS	2.8	2	2.4		
LESSON PLAN:					
UNIT	Web Design			HRS	PEDAGOGY
I	Internet: Basic Concepts – Communicating on Internet – Internet Domains – Internet Server Identities – Establishing Connectivity on the Internet			15	Chalk & Talk, PPT
II	Introduction to HTML -Anchor Tag – Hyperlink - Head and Body Section – Heading - Horizontal Ruler – Paragraphs – Tags - Images and Picture – Lists – Tables – Frames - Forms and forms elements.			15	Chalk & Talk, PPT
III	DHTML and Style sheets - Defining styles - Elements of style - Linking a style sheet to a html documents - Inline style - External style sheets - Multiple styles- Web page designing.			15	Chalk & Talk, PPT
IV	Introduction to Java script - Advantage of JavaScript - Data type - Variable – Array - Operator and Expression - Control and looping Constructs - Functions - Dialog Boxes.			15	Chalk & Talk, PPT
V	JavaScript Document Object Model - Event Handling - Form Object - Built in Object - User Defined Object-Cookies			15	Chalk & Talk, PPT

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Articulation Mapping						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				<b>PART – A</b>	
				<b>(10 x 1 = 10 Marks)</b>	
1.	<b>Unit - I</b>	<b>CO1</b>	<b>K1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>K1</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>K2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>K1</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>K1</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>K2</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>K1</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>K2</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		

**MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)****PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS****FOR THOSE WHO JOINED IN 2023-2024 AND AFTER**

Course Name	Cryptography and network security			
Course Code	23UCCEC63	L	P	C
Category	Elective	5	-	4
COURSE OBJECTIVES:				
<ul style="list-style-type: none"><li>➤ To understand on the security trends</li><li>➤ To apply the mathematical symmetric key cryptography</li><li>➤ To analyze the mathematics of asymmetric key cryptography</li><li>➤ To imply the authentication requirements</li><li>➤ To understand election mail survey and firewall</li></ul>				
UNIT - I	Network Security	15		
Security trends – Legal, Ethical and Professional Aspects of Security, Need for Security at Multiple levels, Security Policies – Model of network security – Security attacks, services and mechanisms – OSI security architecture – Classical encryption techniques: substitution techniques, transposition techniques, steganography- Foundations of modern cryptography: perfect security – information theory – product cryptosystem – cryptanalysis.				
UNIT - II	Mathematics of Symmetric Key Cryptography	15		
Algebraic structures – Modular arithmetic-Euclid’s algorithm- Congruence and matrices -Groups, Rings, Fields- Finite fields- SYMMETRIC KEY CIPHERS: SDES – Block cipher Principles of DES – Strength of DES – Differential and linear cryptanalysis – Block cipher design principles – Block cipher mode of operation – Evaluation criteria for AES – Advanced Encryption Standard – RC4 – Key Distribution.				
UNIT -III	Mathematics of Asymmetric Key Cryptography	15		
Primes – Primality Testing –Factorization – Euler’s totient function, Fermat’s and Euler’s Theorem – Chinese Remainder Theorem – Exponentiation and logarithm – ASYMMETRIC KEY CIPHERS: RSA cryptosystem – Key distribution – Key management – Diffie Hellman key exchange -ElGamal cryptosystem – Elliptic curve arithmetic-Elliptic curve cryptography.				
UNIT - IV	Authentication	15		
Authentication requirement – Authentication function – MAC – Hash function – Security of hash function and MAC – SHA –Digital signature and authentication protocols – DSS- Entity Authentication: Biometrics, Passwords, Challenge Response protocols- Authentication applications – Kerberos, X.509				
UNIT - V	Internet security	15		
Electronic Mail security – PGP, S/MIME – IP security – Web Security – SYSTEM SECURITY: Intruders – Malicious software – viruses – Firewalls.				
Total Lecture Hours				75



**BOOKS FOR STUDY:**

- William Stallings, “Cryptography and Network Security – Principles and Practices”, Prentice Hall of India, Third Edition, 2003.
- Atul Kahate, “Cryptography and Network Security”, Tata McGraw-Hill, 2003.
- Bruce Schneier, “Applied Cryptography”, John Wiley & Sons Inc, 2001.

**BOOKS FOR REFERENCES:**

- Charles B. Pfleeger, Shari Lawrence Pfleeger, “Security in Computing”, Third Edition, Pearson Education, 2003
- William Stallings, Cryptography and Network security, Hardcover, 2016

**WEB RESOURCES:**

[https://www.google.co.in/books/edition/Cryptography\\_and\\_Network\\_Security/v8nCCwAAQBAJ?hl=en&gl=in&kptab=editions&sa=X&ved=2ahUKEwiDnLTgxoP8AhXbpVYBHd18CggQmBZ6BAgBEAc](https://www.google.co.in/books/edition/Cryptography_and_Network_Security/v8nCCwAAQBAJ?hl=en&gl=in&kptab=editions&sa=X&ved=2ahUKEwiDnLTgxoP8AhXbpVYBHd18CggQmBZ6BAgBEAc)



[https://www.google.co.in/books/edition/Cryptography\\_And\\_Network\\_Security\\_4\\_E/qKcrce0x\\_2YC?hl=en&gbpv=1&dq=cryptography%20and%20network%20security&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Cryptography_And_Network_Security_4_E/qKcrce0x_2YC?hl=en&gbpv=1&dq=cryptography%20and%20network%20security&pg=PP1&printsec=frontcover)



[https://www.google.co.in/books/edition/Introduction\\_to\\_Cryptography\\_and\\_Network/JGPDxwEACAAJ?hl=en](https://www.google.co.in/books/edition/Introduction_to_Cryptography_and_Network/JGPDxwEACAAJ?hl=en)

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP			
Curriculum Relevance	LOCAL		REGIONAL			NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change		80%	No Changes Made				New Course	
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.									

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Remember the security trends in cryptography and network security	<b>K1 to K4</b>
<b>CO2</b>	Enumerate the algebra structures	<b>K1 to K4</b>
<b>CO3</b>	Apply and analyze the key distribution of mathematical of asymmetrical key	<b>K1 to K4</b>
<b>CO4</b>	Implication of authentication requirement and functions	<b>K1 to K4</b>
<b>CO5</b>	Describe the electronic mail security and web security system	<b>K1 to K4</b>

**MAPPING WITH PROGRAM OUTCOMES:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	2	3	2	3	2
CO2	3	2	3	2	2	2	2	2
CO3	3	3	3	2	3	2	3	2
CO4	3	2	3	2	2	2	2	2
CO5	3	3	3	2	3	2	3	2

**S- STRONG**
**M – MEDIUM**
**L - LOW**
**CO / PO MAPPING:**

COS	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3	2	2		
CO 2	3	2	3		
CO 3	3	2	2		
CO 4	3	2	2		
CO 5	3	2	3		
<b>WEIGHTAGE</b>	<b>15</b>	<b>10</b>	<b>12</b>		
<b>WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS</b>	<b>3</b>	<b>2</b>	<b>2.4</b>		

**LESSON PLAN:**

UNIT	Cryptography and network security	HRS	PEDAGOGY
<b>I</b>	Security trends – Legal, Ethical and Professional Aspects of Security, Need for Security at Multiple levels, Security Policies – Model of network security – Security attacks, services and mechanisms – OSI security architecture – Classical encryption techniques: substitution techniques, transposition techniques, steganography- Foundations of modern cryptography: perfect security – information theory – product cryptosystem – cryptanalysis.	<b>15</b>	<b>Chalk &amp; Talk, PPT</b>
<b>II</b>	Mathematics of Symmetric Key Cryptography: Algebraic structures – Modular arithmetic-Euclid's algorithm- Congruence and matrices -Groups, Rings, Fields- Finite fields- SYMMETRIC KEY CIPHERS: SDES – Block cipher Principles of DES – Strength of DES – Differential and linear cryptanalysis – Block	<b>15</b>	<b>Chalk &amp; Talk, PPT</b>

	cipher design principles – Block cipher mode of operation – Evaluation criteria for AES – Advanced Encryption Standard – RC4 – Key Distribution.		
<b>III</b>	Mathematics of Asymmetric Key Cryptography: Primes – Primality Testing – Factorization – Euler's totient function, Fermat's and Euler's Theorem – Chinese Remainder Theorem – Exponentiation and logarithm – ASYMMETRIC KEY CIPHERS: RSA cryptosystem – Key distribution – Key management – Diffie Hellman key exchange -ElGamal cryptosystem – Elliptic curve arithmetic-Elliptic curve cryptography.	<b>15</b>	<b>Chalk &amp; Talk, PPT</b>
<b>IV</b>	Authentication requirement – Authentication function – MAC – Hash function – Security of hash function and MAC – SHA – Digital signature and authentication protocols – DSS- Entity Authentication: Biometrics, Passwords, Challenge Response protocols- Authentication applications – Kerberos, X.509	<b>15</b>	<b>Chalk &amp; Talk, PPT</b>
<b>V</b>	Electronic Mail security – PGP, S/MIME – IP security – Web Security – SYSTEM SECURITY: Intruders – Malicious software – viruses – Firewalls.	<b>15</b>	<b>Chalk &amp; Talk, PPT</b>

Learning Outcome Based Education & Assessment (LOBE)						
Formative Examination - Blue Print						
Articulation Mapping – K Levels with Course Outcomes (COs)						
Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

Distribution of Marks with K Level CIA I & CIA II							
	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5** will be allotted for individual Assignment which carries five marks as part of CIA

**Component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

### Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer ALL the questions				PART – A	
				(10 x 1 = 10 Marks)	
1.	Unit - I	CO1	K1		
				a)	b)
				c)	d)
2.	Unit - I	CO1	K2		
				a)	b)
				c)	d)
3.	Unit - II	CO2	K1		
				a)	b)
				c)	d)
4.	Unit - II	CO2	K2		
				a)	b)
				c)	d)
5.	Unit - III	CO3	K1		
				a)	b)
				c)	d)
6.	Unit - III	CO3	K2		
				a)	b)
				c)	d)
7.	Unit - IV	CO4	K1		
				a)	b)
				c)	d)
8.	Unit - IV	CO4	K2		
				a)	b)
				c)	d)
9.	Unit - V	CO5	K1		
				a)	b)
				c)	d)
10.	Unit - V	CO5	K2		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	Introduction to ERP			
<b>Course Code</b>	23UCCEC64	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Elective	5	-	4
<b>COURSE OBJECTIVES:</b>				
<ul style="list-style-type: none"><li>➤ To understand the ERP and its risks and benefits</li><li>➤ To be aware of ERP solutions and functional modules</li><li>➤ To analyze the ERP implementation</li><li>➤ To apply the post implementation and maintenance of ERP</li><li>➤ To examine of emerging trends in ERP</li></ul>				
<b>UNIT - I</b>	<b>Introduction</b>	<b>15</b>		
Introduction: Overview of enterprise systems ñ Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems				
<b>UNIT - II</b>	<b>ERP Solutions and Functional Modules</b>	<b>15</b>		
Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules				
<b>UNIT -III</b>	<b>ERP Implementation</b>	<b>15</b>		
Planning Evaluation and selection of ERP systems - Implementation life cycle - ERP implementation, Methodology and Frame work- Training ñ Data Migration - People Organization in implementation- Consultants, Vendors and Employees.				
<b>UNIT - IV</b>	<b>Post Implementation</b>	<b>15</b>		
Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.				
<b>UNIT - V</b>	<b>Emerging Trends on ERP</b>	<b>15</b>		
Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems- web enabled, Wireless technologies, cloud computing.				
<b>Total Lecture Hours</b>				<b>75</b>

**BOOKS FOR STUDY:**

- Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill,200
- Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India,2012
- Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill,2008

**BOOKS FOR REFERENCES:**

- Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill,2008
- Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India,2009
- Vinod Kumar Grag and N.K. Venkita krishnan, ERP- Concepts and Practice, PHI,2006

**WEB RESOURCES:**

- ❖ [https://www.google.co.in/books/edition/Enterprise\\_Resource\\_Planning/Z0M8BAAQBAJ?hl=en&gbpv=1&dq=Introduction%20to%20ERP&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Enterprise_Resource_Planning/Z0M8BAAQBAJ?hl=en&gbpv=1&dq=Introduction%20to%20ERP&pg=PP1&printsec=frontcover)
- ❖ [https://www.google.co.in/books/edition/Enterprise\\_Resource\\_Planning\\_Systems/7fzMFG-tCmkC?hl=en&gbpv=1&dq=Introduction%20to%20ERP&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Enterprise_Resource_Planning_Systems/7fzMFG-tCmkC?hl=en&gbpv=1&dq=Introduction%20to%20ERP&pg=PP1&printsec=frontcover)
- ❖ [https://www.google.co.in/books/edition/Enterprise\\_Resource\\_Planning/oTS-aoVMsykC?hl=en&gbpv=1&pg=PP1&printsec=frontcover](https://www.google.co.in/books/edition/Enterprise_Resource_Planning/oTS-aoVMsykC?hl=en&gbpv=1&pg=PP1&printsec=frontcover)

Nature of Course	EMPLOYABILITY		✓	SKILL ORIENTED		ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL		GLOBAL	✓
Changes Made in the Course	Percentage of Change			No Changes Made			New Course	✓
* Treat 20% as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Illustrate the Pros and cons of ERP	<b>K1 to K4</b>
<b>CO2</b>	Describe the different modules of ERP	<b>K1 to K4</b>
<b>CO3</b>	Enumerate the implementation of ERP	<b>K1 to K4</b>
<b>CO4</b>	Analyze the success and failure factors of ERP implementation	<b>K1 to K4</b>
<b>CO5</b>	Discuss the cloud computing	<b>K1 to K4</b>



MAPPING WITH PROGRAM OUTCOMES:								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	3	3	3	2	3	3
CO2	3	2	3	3	2	2	2	2
CO3	3	3	3	3	3	2	3	3
CO4	3	2	3	3	2	2	2	2
CO5	3	3	3	3	3	2	3	3
S- STRONG			M – MEDIUM			L - LOW		
CO / PO MAPPING:								
COS		PSO1	PSO2	PSO3		PSO4	PSO5	
CO 1		3	2	2				
CO 2		3	2	3				
CO 3		3	2	2				
CO 4		3	2	2				
CO 5		3	2	3				
WEIGHTAGE		15	10	12				
WEIGHTED PERCENTAGE OF COURSE CONTRIBUTION TO POS		3	2	2.4				
LESSON PLAN:								
UNIT	Introduction to ERP					HRS	PEDAGOGY	
I	Introduction: Overview of enterprise systems ñ Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems					15	Chalk & Talk, Ppt	
II	ERP Solutions and Functional Modules: Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules					15	Chalk & Talk, Ppt	
III	ERP Implementation: Planning Evaluation and selection of ERP systems - Implementation life cycle - ERP implementation, Methodology and Frame work- Training ñ Data Migration - People Organization in implementation-Consultants, Vendors and Employees.					15	Chalk & Talk, Ppt	
IV	Post Implementation: Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.					15	Chalk & Talk, Ppt	
V	Emerging Trends on ERP: Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.					15	Chalk & Talk, Ppt	

**Learning Outcome Based Education & Assessment (LOBE)**  
**Formative Examination - Blue Print**  
**Articulation Mapping – K Levels with Course Outcomes (COs)**

Internal	Cos	K Level	Section A		Section B Either or Choice	Section C Either or Choice
			MCQs			
			No. of. Questions	K - Level		
CI	CO1	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AI	CO2	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
CI	CO3	K1 – K4	2	K1,K1	2(K3, K3)	2(K4, K4)
AII	CO4	K1 – K4	2	K2,K2	2(K3, K3)	2(K4, K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		4	4
		No. of Questions to be answered	4		2	2
		Marks for each question	1		5	8
		Total Marks for each section	4		10	16

**Distribution of Marks with K Level CIA I & CIA II**

	K Level	Section A (Multiple Choice Questions)	Section B (Either / Or Choice)	Section C (Either / Or Choice)	Total Marks	% of (Marks without choice)	Consolidate of %
CIA I	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100
CIA II	K1	2			2	3	7
	K2	2			2	4	
	K3		20		20	36	36
	K4			32	32	57	57
	Marks	4	20	32	56	100	100

**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5 will be allotted for individual Assignment which carries five marks as part of CIA component**

Summative Examination – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)						
S. No	Cos	K - Level	Section A (MCQs)		Section B (Either / or Choice) With K - LEVEL	Section C (Either / or Choice) With K - LEVEL
			No. of Questions	K – Level		
1	CO1	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
2	CO2	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
3	CO3	K1 – K4	2	K1,K2	2(K2 & K2)	2(K3 & K3)
4	CO4	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
5	CO5	K1 – K4	2	K1,K2	2(K3 & K3)	2(K4 & K4)
No. of Questions to be Asked			10		10	10
No. of Questions to be answered			10		5	5
Marks for each question			01		5	8
Total Marks for each section			10		25	40
(Figures in parenthesis denotes, questions should be asked with the given K level)						

Distribution of Marks with K Level						
K Level	Section A (Multiple Choice Questions)	Section B (Either or Choice)	Section C (Either/ or Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5			5	3.58	4
K2	5	20		25	17.86	18
K3		30	32	62	44.28	44
K4			48	48	34.28	34
Marks	10	50	80	140	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.						

## Summative Examinations - Question Paper – Format

Q. No.	Unit	CO	K-level		
Answer <b>ALL</b> the questions				<b>PART – A</b>	<b>(10 x 1 = 10 Marks)</b>
1.	<b>Unit - I</b>	<b>CO1</b>	<b>CO1</b>		
				a)	b)
				c)	d)
2.	<b>Unit - I</b>	<b>CO1</b>	<b>CO1</b>		
				a)	b)
				c)	d)
3.	<b>Unit - II</b>	<b>CO2</b>	<b>CO2</b>		
				a)	b)
				c)	d)
4.	<b>Unit - II</b>	<b>CO2</b>	<b>CO2</b>		
				a)	b)
				c)	d)
5.	<b>Unit - III</b>	<b>CO3</b>	<b>CO3</b>		
				a)	b)
				c)	d)
6.	<b>Unit - III</b>	<b>CO3</b>	<b>CO3</b>		
				a)	b)
				c)	d)
7.	<b>Unit - IV</b>	<b>CO4</b>	<b>CO4</b>		
				a)	b)
				c)	d)
8.	<b>Unit - IV</b>	<b>CO4</b>	<b>CO4</b>		
				a)	b)
				c)	d)
9.	<b>Unit - V</b>	<b>CO5</b>	<b>CO5</b>		
				a)	b)
				c)	d)
10.	<b>Unit - V</b>	<b>CO5</b>	<b>CO5</b>		
				a)	b)
				c)	d)

Answer <b>ALL</b> the questions				<b>PART – B</b>	<b>(5 x 5 = 25 Marks)</b>
11. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
<b>OR</b>					
11. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K2</b>		
12. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
<b>OR</b>					
12. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K3</b>		
13. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
<b>OR</b>					
13. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K2</b>		
14. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
<b>OR</b>					
14. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K3</b>		
15. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		
<b>OR</b>					
15. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K3</b>		

Answer <b>ALL</b> the questions				<b>PART – C</b>	<b>(5 x 8 = 40 Marks)</b>
16. a)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
<b>OR</b>					
16. b)	<b>Unit - I</b>	<b>CO1</b>	<b>K3</b>		
17. a)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
<b>OR</b>					
17. b)	<b>Unit - II</b>	<b>CO2</b>	<b>K4</b>		
18. a)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
<b>OR</b>					
18. b)	<b>Unit - III</b>	<b>CO3</b>	<b>K3</b>		
19. a)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
<b>OR</b>					
19. b)	<b>Unit - IV</b>	<b>CO4</b>	<b>K4</b>		
20. a)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		
<b>OR</b>					
20. b)	<b>Unit - V</b>	<b>CO5</b>	<b>K4</b>		



# MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)

## PG DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

### FOR THOSE WHO JOINED IN 2023-2024 AND AFTER

<b>Course Name</b>	General awareness for Competitive Examination			
<b>Course Code</b>	23UCCSC61	<b>L</b>	<b>P</b>	<b>C</b>
<b>Category</b>	Skill	2	-	2

#### COURSE OBJECTIVES:

- To create the opportunity for learning across different disciplines and builds experience for students as they grow into lifelong learners.
- To build experiences for students as they grow into lifelong learners.
- To know the basic concepts of various discipline

#### UNIT - I Indian Polity 06

Basics concepts- Three organs of Indian government (Executives , Legislature, Judiciary), Introduction to Indian Constitution – Salient features of constitution, Preamble, Fundamental rights, Fundamental duties, Directive Principles of State policy, Types of Majority, Amendments to the Constitution, Basic structure Doctrine, Division of subjects between the union and the states local Governance, Elections in India and Election Commission,CAG.

#### UNIT - II Geography 06

Major oceans of the world –Important Canals – Gulfs – Straits and passes – Indian Rivers and its Tributaries – Climatology – Atmosphere, Wind systems, Clouds systems, World climatic classification – Indian climate – Indian Monsoon – Indian's physical features, Indian Soil types and Distribution – Importance Trade routes and projects, Indian natural vegetation – Indian agriculture- Major crops and its distribution, Indian Industries and its Distribution.

#### UNIT -III Economy 06

National Income – Inflation – Money and Banking - Agriculture in India – Union Budget – Planning in India – Poverty – Unemployment – Inclusive Development and Development issues – Industrial policies – Financial Markets.

#### UNIT - IV History 06

Modern India – formation of Indian National Congress – Morley Minto Reforms, Revolutionary activities – World War I and India's Response – Home Rule league – Montague Chelmsford reforms – Rowlatt Act – Non –Cooperation Movement – Simon commission and Nehru Report – Civil Disobedience Movement and Round Table conferences – Quit India Movement and Demand for Pakistan – Cabinet Mission – Formation of Constituents Assembly and partition of India.

#### UNIT - V 06

##### Environment and Ecology

Basic concepts – Ecology, Biodiversity- Food chain and food web – Bio Geo Chemical Cycles – International Bio Diversity organisations- International Conventions – Conferences and Protocol – Indian Environmental laws and Environment Related organisation

**Total Lecture Hours 30**

**BOOKS FOR STUDY:**

- Class XI and XII NCERT Geography
- History – Old NCERT'S Class XI and XII

**BOOKS FOR REFERENCES:**

- M. Laxmi kant (2019) , Indian polity, McGraw- Hill
- Ramesh Singh (2022) , Indian Economy , McGraw - Hill
- G.C Leong, Physical and Human Geography, Oxford University Press
- Majid Hussain- India Map Entries in Geography, GK Publications Pvt , Ltd.

**WEB RESOURCES:**

- ❖ <https://www.freebookkeepingaccounting.com/using-excel-in-accounts>
- ❖ <https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance>
- ❖ [https://www.youtube.com/watch?v=Nv\\_Nnw01FaU](https://www.youtube.com/watch?v=Nv_Nnw01FaU)

Nature of Course	EMPLOYABILITY		SKILL ORIENTED		✓	ENTREPRENEURSHIP		
Curriculum Relevance	LOCAL		REGIONAL		NATIONAL	✓	GLOBAL	
Changes Made in the Course	Percentage of Change			No Changes Made			New Course	✓
* Treat 20 % as each unit (20*5=100%) and calculate the percentage of change for the course.								

**COURSE OUTCOMES:****K LEVEL**

After studying this course, the students will be able to:

<b>CO1</b>	Develop board knowledge of the different components in polity	<b>K1 to K4</b>
<b>CO2</b>	Understand the Geographical features across countries and in India	<b>K1 to K4</b>
<b>CO3</b>	Acquire knowledge on the aspects of Indian Economy	<b>K1 to K4</b>
<b>CO4</b>	Understand the significance of India's Freedom Struggle	<b>K1 to K4</b>
<b>CO5</b>	Gain knowledge on Ecology and Environment	<b>K1 to K4</b>

**LESSON PLAN:**

UNIT	General awareness for Competitive Examination	HRS	PEDAGOGY
<b>I</b>	Indian Polity	<b>6</b>	<b>CHALK &amp; TALK, PPT</b>
<b>II</b>	Geography	<b>6</b>	<b>CHALK &amp; TALK, PPT</b>
<b>III</b>	Economy	<b>6</b>	<b>CHALK &amp; TALK, PPT</b>
<b>IV</b>	History	<b>6</b>	<b>CHALK &amp; TALK, PPT</b>
<b>V</b>	Environment and Ecology	<b>6</b>	<b>CHALK &amp; TALK, PPT</b>

Learning Outcome Based Education & Assessment (LOBE) Formative Examination - Blue Print Articulation Mapping – K Levels with Course Outcomes (COs)				
Internal	Cos	K Level	Section A	
			MCQs	
			No. of. Questions	K - Level
CIA I	CO1	K1 – K2	25	K1,K2
	CO2	K1 – K2	25	K1,K2
CIA II	CO3	K1 – K2	25	K1,K2
	CO4	K1 – K2	25	K1,K2
Question Pattern CIA I & II		No. of Questions to be asked	50	
		No. of Questions to be answered	50	
		Marks for each question	1	
		Total Marks for each section	50	

\*Two Formative examinations will be conducted as a part of Continuous Internal Assessment under which, 50 MCQ's will be asked [50X1=50 marks] from any 4 CO's. (I<sup>st</sup> Test-2 CO's & II<sup>nd</sup> Test-2 CO's) in equal weightage

Distribution of Marks with K Level CIA I & CIA II					
	K Level	Section A (Multiple Choice Questions)	Total Marks	(Marks without choice)	Consolidate of %
CIA I	K1	30	30	60	100
	K2	20	20	40	
	K3				100
	K4				
	Marks	50	50	100	
CIA II	K1	30	30	60	100
	K2	20	20	40	
	K3				100
	K4				
	Marks	50	50	100	



**K1-** Remembering and recalling facts with specific answers

**K2-** Basic understanding of facts and stating main ideas with general answers

**K3-** Application oriented- Solving Problems

**K4-** Examining, analyzing, presentation and make inferences with evidences

**CO5** will be allotted for individual Assignment which carries five marks as part of CIA component.

tion – Blue Print Articulation Mapping – K Level with Course Outcomes (COs)				
S. No	COs	K - Level	Section A (MCQs)	
			No. of Questions	K – Level
1	CO1	K1-K2	15	K1,K2
2	CO2	K1-K2	15	K1,K2
3	CO3	K1-K2	15	K1,K2
4	CO4	K1-K2	15	K1,K2
5	CO5	K1-K2	15	K1,K2
No. of Questions to be Asked			75	
No. of Questions to be answered			75	
Marks for each question			1	
Total Marks for each section			75	
(Figures in parenthesis denotes, questions should be asked with the given K level)				

In summative examinations, 75 MCQ's will be asked [75X1=75 marks] from all 5 CO's in equal weightage.

Distribution of Marks with K Level				
K Level	Section A (Multiple Choice Questions)	Total Marks	% of (Marks without choice)	Consolidated %
K1	40	40	53	100
K2	35	35	47	
K3				
K4				
Marks		75	100	100
NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.				