(AFFILIATED TO MADURAI KAMARAJ UNIVERSITY, MADURAI RE-ACCREDITED WITH 'A' GRADE (THIRD CYCLE) BY NAAC WITH CGPA 3.11)



Programme Scheme, Scheme of Examination and Syllabi (From 2023 - 2024 Batch onwards)

## **PG Department of Commerce**

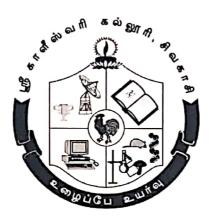
**PG Programme - M.Com (Computer Application)** 

Approved in the Academic Council - XIV held on 31/07/2023

**Curriculum Design and Development Cell** 

Annexure Q

(AFFILIATED TO MADURAI KAMARAJ UNIVERSITY, MADURAI RE-ACCREDITED WITH 'A' GRADE (THIRD CYCLE) BY NAAC WITH CGPA 3.11)



Programme Scheme, Scheme of Examination and Syllabi (From 2023 - 2024 Batch onwards)

## **PG Department of Commerce**

PG Programme - M.Com

Approved in the Academic Council - XIV held on 31/07/2023

**Curriculum Design and Development Cell** 

∨Dean of

**Business Science** 

Dean of

**Academic Affairs** 

S. Fining

**Principal** 

# (AFFILIATED TO MADURAI KAMARAJ UNIVERSITY, MADURAI RE-ACCREDITED 'A' GRADE (THIRD CYCLE) BY NAAC WITH CGPA 3.11) SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI PG DEPARTMENT OF COMMERCE

# PG Programme - M.Com. (Computer Application) MEMBERS OF BOARD OF STUDIES

S.No.	Board Members	Name and Designation
1.	Chairman of the Board	Dr.S.Amutharani
		Head, PG Department of Commerce
		Sri Kaliswari College (Autonomous), Sivakasi.
2.	University Nominee	Dr. M.Sivakumar
		Professor,
		Department of Entrepreneurship Studies
		School of Management Studies
		Madurai Kamaraj University, Madurai.
3.	Academic Expert 1.	Dr.S.Valli Devesena
		Assistant Professor of Commerce
		Mother Teresa University, Kodaikanal
4.	Academic Expert 2.	Dr.P.Ramalakshmi,
		Assistant Professor of Commerce
		Government Arts and Science College,
		Sivakasi.
5.	Industrialist	Mr.P.Vijay Ananth
		Entrepreneur, Shiv Traders, Sivakasi
6.	Alumnus	G.Arunkarthick
		Clerk, TMB Bank
		Antheri East Branch , Mumbai
Memb	ers	
7.	Dr.K.Sadeeshkumar	Associate professor of PG Commerce
8.	Dr.S.Saraswathi	Assistant professor of PG Commerce
9.	Dr.M.Lakshmanakumar	Assistant professor of PG Commerce
10.	Ms.S.Thanga Pandeeswari	Assistant professor of PG Commerce

(Affiliated to Madurai Kamaraj University, Re-accredited with A Grade (CGPA 3.11) by NAAC)
PG DEPARTMENT OF COMMERCE

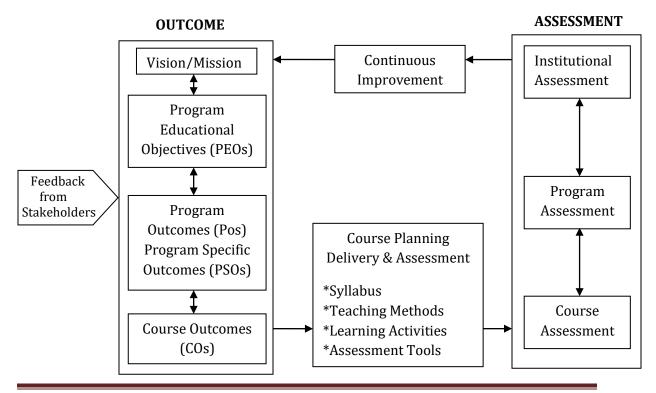
PG Programme – M.Com(Computer Application)
GUIDELINES FOR OUTCOME-BASED EDUCATION WITH CHOICE BASED CREDIT SYSTEM
(From 2023-2024 Batch onwards)

#### **INTRODUCTION**

Sri Kaliswari College in its pursuit of imparting quality education has marked a remarkable growth in terms of academic excellence, infrastructure, student strength, ICT facilities, library and placement records since its establishment in 2000-2001. This institution constitutes an academic community that is committed to encourage the student community to experience and share knowledge, identify their potential, enhance the employability skills and enable them to pursue their goals. After the conferment of autonomous status in the year 2012, the college has so far gone for revision of the syllabi three times and is continually updating the syllabi to meet the needs and demands of the student community.

The institution in its success journey of imparting quality education has Re-Accredited with A grade with CGPA (3.11) in its third cycle of accreditation by NAAC. As an added feather to its cap, the institution has taken a giant leap to embrace the Outcome-Based Education system to enable the student community to develop their knowledge, skill and attitude simultaneously through a focussed learning and help the graduates to compete with their global counterparts and prepare them for life.

#### I. OUTCOME-BASED EDUCATION (OBE) FRAMEWORK



#### II. VISION OF THE INSTITUTION

 To impart quality higher education to produce highly talented youth capable of developing the nation

#### III. MISSION OF THE INSTITUTION

- Ensuring quality in all aspects of the activities
- Developing the latent skills of the rural youth
- Providing value based education to instill courage and confidence
- Nurturing the entrepreneurial skills of the rural youth
- Creating competency to meet global challenges
- Imbibing social awareness and social responsibilities

#### IV. VISION OF THE DEPARTMENT

• To produce socially responsible competent professionals in commerce with managerial skills, entrepreneurial skills and employability skills.

#### V. MISSION OF THE DEPARTMENT

- To conduct various educational innovative programs to groom students for global competency resulting in career readiness.
- To provide opportunities to develop interpersonal and intrapersonal skills through training and research.
- To develop a conducive environment for quality commerce education, training and research.

#### VI. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The Graduate will,

**PEO1:** demonstrate comprehensive knowledge and understanding in Accounting, Banking, Insurance, software and Computer Programs and apply their learning in real-life scenarios.

**PEO2:** apply quantitative, qualitative, cognitive and analytical skills to identify, analyse issues to carry out research, to create business opportunities and to become successful entrepreneurs and Software Developers

**PEO3**: obtain ability to work constructively, cooperatively and effectively as part of a team with good communication skills sharing their views on Accounting, Banking, Insurance, Software Companies, Academics and other business.

**PEO4:** excel in latest trends in the industry, move forward with research and keep pace with the ever changing tides of the service sectors through developing inclination towards lifelong learning.

**PEO5:** possess knowledge of ethical and professional values with global perspective to move in Academics and Industry and acquire knowledge and aptitude skills to face the competitive exams

#### VII. PROGRAMME OUTCOMES (POs)

#### PO1: Disciplinary knowledge

Acquire comprehensive knowledge related to their academic disciplines that form a part of a postgraduate programme of study.

#### PO2: Critical thinking, Problem solving and Analytical reasoning

Develop students' ability of critical observation, capacity to apply their competencies and skills to identify, evaluate, analyse and solve problems in order to draw valid conclusions.

#### PO3: Scientific reasoning and Research related skills

Ability to gather, analyze, draw conclusions by using both qualitative and quantitative data to evaluate the critical ideas furthermore acquire necessary research skills to carry out survey and investigation.

#### PO4: Communication skills and Digital literacy

Communicate effectively both in oral and written form and apply these skills in banking & business fields to write effective reports, design documents and make effective presentations integrating modern technology.

#### PO5: Ethics, Values and Multicultural Competence

Embrace ethical principles in all their activities, commit to professional ethics and familiarize with multiple cultures and gain social, functional and monetary values

#### PO6: Team Work, Leadership and Employability skills

Develop the ability to function as an individual & as a group to collaborate effectively with others, and acquire entrepreneurial skill.

#### PO7: Self-directed and Life-long learning

Acquire knowledge & business skills through recognising the need of self-directed and lifelong learning.

#### VIII.PROGRAMME SPECIFIC OUTCOMES (PSOs) – M.COM (CA)

On successful completion of M.Com (Computer Application), the students will

**PSO1:** acquire comprehensive knowledge in fields of Accounting, Banking, Computer and Software.

**PSO2:** develop critical observation, capacity to apply their competencies and skills to identify and solve issues in Academics ,Industries and Software companies.

**PSO3:** demonstrate a broad knowledge to analyse business issues and draw conclusions from qualitative and quantitative data and critically evaluate ideas and also acquire research skills to carry out an investigation.

**PSO4:** communicate effectively the concepts and participate in healthy arguments, portray skill in oral communication and in writing and apply digital knowledge efficiently.

**PSO5:** exhibit moral and ethical values in the workplace and community and develop a sense of social responsibility.

**PSO6:** develop the ability to work collaboratively, respectfully as part of a team and acquire qualities associated with leadership to excel in Academics ,Industry and Software Companies.

**PSO7:** demonstrate the ability to acquire knowledge and business skills and adapt to the technological changes through self-directed and lifelong learning.

#### IX. PO-PSO Mapping Matrix – M.COM(CA)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
PO PSO							
PO1	✓						
PO2		✓					
PO3			<b>√</b>				
PO4				<b>√</b>			
PO5					<b>√</b>		
PO6						<b>√</b>	
PO7							<b>✓</b>

#### X. PO-PEO Mapping Matrix— M.Com

	PEO1	PEO2	PEO3	PEO4	PEO5
PO PEO					
PO1	<b>✓</b>		✓		<b>✓</b>
PO2		✓			✓
PO3		✓	✓	✓	
PO4		✓	<b>✓</b>	<b>✓</b>	
PO5					✓
PO6		✓	✓		✓
PO7			<b>✓</b>	<b>✓</b>	<b>✓</b>

#### **PG Programme - M.Com (Compter Application)**

#### REGULATIONS

**Duration of the Programme** : Two years (equivalent to four semesters)

#### **Eligibility**

Candidate should have passed B.Com., B.Com(CA)., B.Com (E-Com)., B.Com(CS)., BBA., BBM., BBA/BBM(CA)., BA(Corporate Secretaryship)., BA(Corporate Secretaryship with CA)

**Medium of Instruction** : English

**Age Limit** 

Maximum age limit : No Age limit

#### **Transitory Permission**

Students joined from 2023 - 2025 may be permitted to write their examinations in this pattern up to April 2028.

# SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI PG DEPARTMENT OF COMMERCE PG Programme – M.Com(CA)

#### **SCHEME OF EXAMINATION**

For all the PG Programmes, the internal and external marks are distributed as follows:

For all Theory Courses: Internal Marks: 25; External Marks: 75

For Courses with both Theory and Practical, assessment will be for both Theory and Practical.

For Skill Enhancement Professional Competency Course: Internal Assessment for 100 Marks in Online Mode will be conducted (Objective Type Questions)

For all Practical Courses, Project and

Internship : Internal Marks: 25; External Marks: 75

#### **Internal Mark Distribution for Theory Courses**

Assessment Type	Marks	Scheme of Assessment
Internal Test	10 marks	Two Internal Tests and 1 Model Exam will be conducted and average of the best two will be considered
Written Assignment E- Assignment/ Case Studies/ Reviews/ Field Assignments/ Poster Presentations/ Portfolios	5 marks	Any two of the Assignments will be given and the average of the two will be considered
Seminar	5 marks	One Seminar for each course
Viva/ Oral Exam/ Group Discussion/ Role Play	5 marks	Test will be conducted in any one of the Oral Mode

#### **Internal Mark Distribution for Practical Courses**

Assessment Type	Marks	Scheme of Assessment
Lab work /Program Execution	15 marks	Two Internal Tests will be conducted and the average of the two will be considered
Observation/Record Notebook	5 marks	Assessment will be done during every practical class
Viva -Voce / Lab Quiz	5 marks	Two Lab Quiz Tests/viva-voce will be conducted and the average of the two will be considered

#### **External Mark Distribution for Practical Courses**

Assessment Type	Marks	Scheme of Assessment
Lab work/Program Execution	65 marks	End result of the Practical
Viva -Voce	10 marks	Oral Mode Test

#### Internal Mark Distribution for Courses with both Theory and Practical

Assessment Type	Marks	Scheme of Assessment
Internal Test	10 marks	Two Internal Tests and 1 Model Exam will be conducted and average of the best two will be considered
Written Assignment E- Assignment/ Case Studies/ Reviews/ Field Assignments/ Poster Presentations/ Portfolios	5 marks	Any two of the Assignments will be given and the average of the two will be considered
Lab work /Program Execution	10 marks	Two Internal Tests will be conducted and the average of the two will be considered

#### **External Mark Distribution for Courses with both Theory and Practical**

Assessment Type	Marks	Scheme of Assessment
External Written Test	50 marks	Two hours External Exam will be conducted for 50 marks
Lab work /Program Execution	20 marks	End result of the Practical
Viva -Voce	05 marks	Oral Mode Test

#### Internal Test - 40 Marks - 1 hr 45 mins Duration

S.No	Type of Questions	Marks
1.	Objective type Questions:	
	Multiple Choice – 5 questions	05
	Answer in a Word/Sentence – 4 questions	04
2.	Short Answer–2 questions –either or type	3x7=21
3.	Long Answer–1 question – either or type	1x10=10

#### **Summative Examinations 75 Marks -3 hrs Duration**

S.No	Type of Questions	Marks
1.	Objective type Questions:	
	Multiple Choice – 5 questions	05
	Answer in a Word/Sentence - 5 questions	05
2.	Short Answer - 5 questions – either or type	5x7=35
3.	Long Answer - 3 questions – either or type	3x10=30

PG Programme - M.Com(Compter Application)

#### **Attainment of Course outcomes**

Attainment of Course outcomes is computed using Direct and Indirect assessment methods. Direct Method of Assessment is based on performance of the students in the Continuous Internal Assessment Tests, Summative Examinations and supporting activities such as Seminar, Assignment, Case study, Group Discussion, Quiz, etc and Indirect Method of Assessment is based on periodical feedback from the students at the end of each course.

Weightage of Direct and Indirect Assessment in computation of attainment of each course is 70% for Direct Assessment and 30% for Indirect Assessment.

#### Direct Assessment of Course outcome attainment

#### i) Rubrics:

Internal Assessment contributes 60% and Summative Examinations Assessment contributes 40% to the Direct Assessment of a course outcome for Theory Courses. For the Practical Courses, Internal Assessment contributes 70% and Summative Examinations Assessment contributes 30% to the Direct Assessment of a course outcome.

#### ii) Setting of Target:

50% of the maximum mark is set as target of Internal Assessment tools and the average mark of the class is set as target of Summative Examinations Assessment.

#### Formula for calculating percentage attainment of each course outcome

Based on the result of Summative Examinations and Internal Assessment tools, the number of students scoring more than the target is found out.

#### For each Internal Assessment Tools,

 $Percentage \ attainment \ of \ each \ course \ outcome = \frac{No. \ of. \ Students \ who \ scored \ more \ than \ the}{target \ in \ the \ concerned \ course \ outcome} \times 100$   $Total \ Number \ of \ Students$ 

Percentage attainment of each Course outcome for Internal Assessment tools

Average of percentage attainment of all Internal Assessment tools

#### For Summative Examinations,

Percentage attainment of each Course outcome

No. of. Students who scored more than the target in the concerned CO

Total Number of Students

#### Formula for calculating Attainment Percentage of Course outcome of a course

Percentage Attainment of Course outcome for Internal Assessment tools

Average of percentage attainment of all COs

Percentage Attainment of Course outcome for Summative Examinations

Average of percentage attainment of all COs

#### Final Direct Assessment of Course outcome Attainment

#### For Theory Courses

Percentage Attainment of Course outcome through Direct Assessment

(0.6 x percentage attainment of CO for internal assessment tool)+
 (0.4 x percentage attainment of CO for summative examinations)

#### For Practical Courses

Percentage Attainment of Course outcome through Direct Assessment

 0.7 x percentage attainment of CO for Internal Assessment tools + 0.3 x percentage attainment of CO for Summative Examinations

#### **Indirect Assessment of CO Attainment**

The course outcome feedback is conducted at the end of every semester by distributing structured feedback questionnaire to the students. The analysis of this feedback questionnaire is done on the following score. The feedback forms will be sorted with various scores and feedbacks with a score more than 5.5 are considered as satisfactory level for calculations for indirect attainment.

**A**: 10-8.5

**B**: 8.4-7.0

**C**: 6.9-5.5

**D**: 5.4-4.0

E: 3.9-0

Percentage attainment for each CO =  $\frac{\text{Satisfaction Number}}{\text{Response Received}} \times 100$ 

Percentage Attainment of CO of a course = Average of percentage attainment of all COs

#### Final Assessment of CO attainment

Average course attain and x Direct assessment of CO attainment + 0.3 x Indirect assessment of CO

#### **Expected Level of Attainment for each of the Course Outcomes**

Percentage of PO Attainment	Level of Attainment
= 70% and above	Excellent
= 60% - <70 %	Very good
= 50% -< 60 %	Good
= 40% - < 50 %	Satisfactory
Below 40%	Not Satisfactory

#### **Assessment of PO Attainment**

At the end of the each programme, the Direct PO Assessment is done from the CO Attainment of all courses. The Direct PO Attainment for a particular course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values.

Weighted contribution of the course in

attainment of each PO

Weighted Percentage of contribution of the course in attainment of each PO x

average course attainment

100

Percentage = attainment for each PO = Total weightage of all courses contributed to each PO Total weightage of all courses contributed to all POs the attainment of each PO

Percentage Attainment of PO = Average of Percentage attainment of all POs

#### **Expected Level of Attainment for each of the Programme Outcomes**

Percentage of PEO Attainment	Level of Attainment
= 70% and above	Excellent
= 60% - <70 %	Very good
= 50% -< 60 %	Good
= 40% - < 50 %	Satisfactory
Below 40%	Not Satisfactory

#### **Attainment of Programme Educational Objectives (PEO)**

PEOs are assessed after 3 to 4 years of graduation. Attainment is measured based on the Feedback from Stakeholders

- 1. Alumni
- 2. Parents
- 3. Employer

The analysis of this feedback questionnaire is done on the following score. The feedback forms will be sorted with various scores and feedbacks with a score more than 5.5 are considered as satisfactory level for calculations for Indirect Attainment.

$$Percentage \ attainment \ of \ PEOs = \frac{Satisfaction \ number}{Response \ Received} \times 100$$

# **Expected Level of Attainment for each of the Programme Educational Objectives**

PEO	Level of Attainment
= 70% and above	Excellent
= 60% - <70 %	Very good
= 50% -< 60 %	Good
= 40% - < 50 %	Satisfactory
Below 40%	Not Satisfactory

(Affiliated to Madurai Kamaraj University, Re-accredited with A Grade (CGPA 3.11) by NAAC)

#### PG DEPARTMENT OF COMMERCE

#### PG Programme - M.Com(CA)

#### **CURRICULUM STRUCTURE**

#### **OUTCOME-BASED EDUCATION WITH CHOICE BASED CREDIT SYSTEM**

(From 2023-2024 Batch onwards)

Courses	Sem I	Sem II	Sem III	Sem IV	Credits
Core Courses	7 (5) 7 (5) 6 (4)	6 (5) 6 (5) 6 (4)	6 (5) 6 (5) 6 (5) 6 (4)	6 (5) 6 (5)	57
Project with Viva Voce	-	-		10 (7)	7
Elective Courses	5(3) 5(3)	4 (3) 4 (3) 4 (2)(NME-I)	3(3) 3(2)(NME-II)	4 (3)	22
Skill Enhancement Course/ Professional Competency Skill	-	-	-	4 (2)	2
Internship/Industrial Training	-	-	(2)	-	2
Extension Activity	-	-	-	(1)	1
Total Hours(Per week)/Credits	301/01   301/71   301/61		30(23)	91	
Self-paced Learning	_	-	2	_	2
(Swayam Course)			Credits		Credits

(Affiliated to Madurai Kamaraj University, Re-accredited with A Grade (CGPA 3.11) by NAAC)

#### PG DEPARTMENT OF COMMERCE

#### PG Programme – M.Com(CA) CURRICULUM PATTERN

#### OUTCOME-BASED EDUCATION WITH CHOICE BASED CREDIT SYSTEM

# (From 2023-2024 Batch onwards) PROGRAMME CODE – PCP

		I ROURAMME CODE - I CI				
Semester	Course Code	Course Name	Hours	Credits	Internal	Externals
	23PCPC11	Core Course- I : Business Finance	7	5	25	75
	23PCPC12	Core Course - II: Digital Marketing	7	5	25	75
	23PCPC13	Core Course -III : Banking and Insurance	6	4	25	75
		Elective Courses Generic/ Discipline Specific - I:	5	3	25	75
I	23PCP011	1. Introduction to Industry 4.0				
1	23PCPO12	2. Big Data Analytics				
		Elective Courses Generic/ Discipline Specific - II:	5	3	25	75
	23PCP013	1. Enterprise Resource Planning				
	23PCP014	2. Database Management System				
		Total	30	20		
	23PCPC21	Core Course - IV: Strategic Cost Management	6	5	25	75
	23PCPC22	Core Course- V: Corporate Accounting	6	5	25	75
	23PCPC23	<b>Core Course - VI:</b> Setting up of Business Entities	6	4	25	75
		Elective Courses Generic/ Discipline Specific - III:	4	3	25	75
	23PCPO21	1. Data Mining and Data Interpretation				
	23PCP022	2. Technology in Banking				
II						
		Elective Courses Generic/ Discipline Specific - IV:	4	3	25	75
	23PCPO2P	1. Financial Analytics (Practical)				
	23PCP023	2. Management Information System				
	23PCPN21	Non- Major Elective Course: Principles of Modern	4	2	25	75
		Banking				
		Total	30	22		
	23PCPC31	Core Course - VII: Taxation	6	5	25	75
	23PCPC32	Core Course - VIII: Research Methodology	6	5	25	75
	23PCPC3P	Core Course -IX: Practical: Computers in Business	6	5	25	75
	23PCPC33	Core- X: International Business	6	4	25	75

		Elective Courses Generic/ Discipline Specific - V:	3	3	25	75
	23PCPO31	1. Applied Data Analytics and Machine Learning				
	23PCPO32	2. Python and R Programming				
III	23PCPN31	Non- Major Elective Course II : Entrepreneurship	3	2	25	75
		Development				
	23PCPJ31	Internship/Industrial Activity	ı	2	25	75
		Total	30	26		
	23PCPC41	Core Course - XI: Corporate and Economic Laws	6	5	25	75
	23PCPC42	Core Course -XII: Human Resource Analytics	6	5	25	75
		Core Course -XIII: Project with Viva Voce	10	7	25	75
	23PCPCJ41					
		Elective Courses Generic/ Discipline Specific - VI:	4	3	25	75
IV	23PCPO41	1. Cyber and Data Security				
	23PCPO42	2. E-Commerce				
	23PCPS41	Skill Enhancement Course - IV: Professional	4	2	100	-
		Competency Course - Commerce for NET/SET/TRB				
		Examinations				
		Extension Activity	-	1	100	-
		Total	30	23		

# M.COM(CA) DEGREE PROGRAMME (From 2023-2024 Batch onwards)

PROGRAMME ARTICULATION MATRIX (PAM)

Semester	Course Code	Course Name	P01	P02	P03	P04	P05	P06	P07
	23PCPC11	<b>Core Course- I</b> : Business Finance	13	14	14	6	7	9	10
	23PCPC12	Core Course - II: Digital Marketing	13	13	11	15	3	10	10
	23PCPC13	Core Course -III : Banking and Insurance	13	13	13	7	7	13	10
I	23PCP011 23PCP012	Elective Courses Generic/ Discipline Specific – I:  1. Introduction to Industry 4.0  2. Big Data Analytics	12	12	12	13	8	13	15
	23PCP013 23PCP014	Elective Courses Generic/ Discipline Specific - II:  1. Enterprise Resource Planning 2. Database Management System	14	14	13	14	10	12	15
	23PCPC21	Core Course – IV: Strategic Cost Management	12	14	14	9	5	9	9
	23PCPC22	Core Course- V: Corporate Accounting	13	14	14	5	5	9	9
	23PCPC23	<b>Core Course - VI:</b> Setting up of Business Entities	14	13	14	5	6	12	13
П	23PCPO21 23PCPO22	Elective Courses Generic/ Discipline Specific - III: 1. Data Mining and Data Interpretation 2. Technology in Banking	13	14	12	12	-	15	12
	23PCPO2P 23PCPO23	Elective Courses Generic/ Discipline Specific - IV:  1. Financial Analytics (Practical)  2. Management Information	15	15	8	15	-	10	12

		System							
	23PCPN21	Non- Major Elective Course:	12	8	2	10	-	7	5
		Principles of Modern Banking			_			-	
	23PCPC31	Core Course - VII: Taxation	15	15	13	14	6	11	13
	23PCPC32	Core Course - VIII: Research Methodology	13	13	15	12	12	12	8
	23PCPC3P	Core Course -IX : Practical: Computers in Business	14	15	10	15	11	15	13
	23PCPC33	Core- X : International Business	15	12	12	10	13	13	12
		Elective Courses Generic/							
		Discipline Specific - V:	4.0	4.0	4.0	4.0		4.0	4.0
	23PCPO31	1. Applied Data Analytics and	13	13	13	13	-	13	12
		Machine Learning							
III	23PCPO32	2. Python and R Programming							
	23PCPN31	Non- Major Elective Course II	12	8	2	10	_	7	5
		: Entrepreneurship	12	O	2	10	-	,	J
	00000000	Development	0	4.0			4		
	23PCPJ31	Internship/Industrial Activity	8	12	4	7	1	5	8
	23PCPC41	Core Course – XI: Corporate	13	13	13	5	7	9	10
		and Economic Laws							
	23PCPC42	Core Course -XII: Human	13	13	13	5	7	9	10
	2DCDCI41	Resource Analytics							
	3PCPCJ41	<b>Core Course -XIII:</b> Project with Viva Voce	14	10	11	12	6	5	5
		Elective Courses Generic/							
		Discipline Specific - VI:	10	10	10	10	ı	4.2	10
IV	23PCPO41	1. Cyber and Data Security	13	13	12	13	5	13	10
	23PCPO42	2. E-Commerce							
	23PCPS41	Skill Enhancement Course -							
		IV: Professional Competency	11	10	6	8	_	10	7
		Course - Commerce for	11	10	0	J		10	'
		NET/SET/TRB Examinations							
		Extension Activity	8	2	1	7	9	8	5
Tota	al Weightage	of all courses contributing to PO	306	293	252	242	128	249	238

# M.COM(CA) DEGREE PROGRAMME (From 2023-2024 Batch onwards)

#### PROGRAMME ARTICULATION MATRIX - WEIGHTED PERCENTAGE

Semester	Course Code	Course Name	P01	PO2	PO3	P04	PO5	P06	P07
	23PCPC11	Core Course- I: Business Finance	4.25	4.78	5.56	2.48	5.47	3.61	4.2
	23PCPC12	Core Course - II: Digital Marketing	4.25	4.44	4.37	6.2	2.34	4.02	4.2
	23PCPC13	Core Course -III: Banking and Insurance	4.25	4.44	5.16	2.89	5.47	5.22	4.2
I	23PCPO11 23PCPO12	Elective Courses Generic/ Discipline Specific – I:  1. Introduction to Industry 4.0  2. Big Data Analytics	3.92	4.1	4.76	5.37	6.25	5.22	6.3
	23PCP013 23PCP014	Elective Courses Generic/ Discipline Specific - II: 1. Enterprise Resource Planning 2. Database Management System	4.58	4.78	5.16	5.79	7.81	4.82	6.3
	23PCPC21	Core Course – IV: Strategic Cost Management	3.92	4.78	5.56	3.72	3.91	3.61	3.78
	23PCPC22	Core Course- V: Corporate Accounting	4.25	4.78	5.56	2.07	3.91	3.61	3.78
	23PCPC23	<b>Core Course - VI:</b> Setting up of Business Entities	4.58	4.44	5.56	2.07	4.69	4.82	5.46
II	23PCP021	Elective Courses Generic/ Discipline Specific - III: 1. Data Mining and Data							
	23PCPO22	Interpretation 2. Technology in Banking	4.25	4.78	4.76	4.96	0	6.02	5.04
	23PCPO2P	Elective Courses Generic/ Discipline Specific - IV: 1. Financial Analytics (Practical)	4.9	5.12	3.17	6.2		4.02	5.04

	23PCP023	2. Management Information							
	23PCPN21	System Non- Major Elective Course:							
	23F GF IV21	Principles of Modern Banking	3.92	2.73	0.79	4.13		2.81	2.1
	23PCPC31	Core Course - VII : Taxation	4.9	5.12	5.16	5.79	4.69	4.42	5.46
	231 (1 (31	Core Course - vii. Taxation	7.7	5.12	3.10	3.7 )	4.07	7.72	3.40
	23PCPC32	Core Course - VIII: Research Methodology	4.25	4.44	5.95	4.96	9.38	4.82	3.36
	23PCPC3P	Core Course -IX : Practical :Computers in Business	4.58	5.12	3.97	6.2	8.59	6.02	5.46
	23PCPC33	Core- X: International Business	4.9	4.1	4.76	4.13	10.16	5.22	5.04
		Elective Courses Generic/							
		Discipline Specific - V:							
	23PCPO31	1. Applied Data Analytics and							
		Machine Learning	4.25	4.44	5.16	5.37	0	5.22	5.04
III	23PCPO32	2. Python and R Programming	7.23	7.77	3.10	3.37	U	5.22	3.01
	23PCPN31	Non- Major Elective Course II							
		: Entrepreneurship	3.92	2.73	0.79	4.13	0	2.81	2.1
		Development							
	23PCPJ31	Internship/Industrial Activity	2.61	4.1	1.59	2.89	0.78	2.01	3.36
	23PCPC41	Core Course - XI: Corporate	4.25	4.44	5.16	2.07	5.47	3.61	4.2
		and Economic Laws	4.23	7.77	3.10	2.07	3.47	3.01	7.2
	23PCPC42	Core Course -XII: Human	4.25	4.44	5.16	2.07	5.47	3.61	4.2
		Resource Analytics	1.25	1.11	5.10	2.07	5.17	5.01	1.2
		Core Course -XIII: Project with	4.58	3.41	4.37	4.96	4.69	2.01	2.1
	23PCPCJ41	Viva Voce	1100	0.11	1.07	11,70	1103	2.01	
		Elective Courses Generic/							
IV		Discipline Specific - VI:							
	23PCPO41	1. Cyber and Data Security	4.25	4.44	4.76	5.37	3.91	5.22	4.2
	23PCPO42	2. E-Commerce							
	23PCPS41	Skill Enhancement Course -							
		IV: Professional Competency							
		Course - Commerce for	3.59	3.41	2.38	3.31	0	4.02	2.94
		NET/SET/TRB Examinations	0.11	0.55	2 /	0.00		0.01	
		Extension Activity	2.61	0.68	0.4	2.89	7.03	3.21	2.1
Tot	al Weightage	e of all courses contributing to PO	100	100	100	100	100	100	100

#### PG Programme - M.Com(CA).

#### SEMESTER -I

#### **CORE COURSE - I: BUSINESS FINANCE (23PCPC11)**

#### (From 2023-2024 Batch onwards)

HOURS/WEEK:7(L-7) INT.MARKS :25
CREDITS :5 EXT.MARKS :75
DURATION :105 hrs MAX.MARKS:100

#### **Course Objectives**

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

#### **Course Outcomes (CO)**

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

**CO1[K1]:**show the concepts in business finance

CO2[K2]:describe the risk, receivable and inventory management system

**CO3[K3]:** examine time value of money and capital budgeting appraisal of business

CO4[K4]: determine the management decision for business finance

CO5[K5]:assess the various techniques for adopting long term financial management

#### CO-PO Mapping Table (Course Articulation Matrix)

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	2	2	2	1	2
CO2[K2]	3	3	3	1	1	2	2
CO3[K3]	3	3	3	1	1	2	2
CO4[K4]	2	3	3	1	1	2	2
CO5[K5]	2	3	3	1	2	2	2
Weightage of the Course	13	14	14	6	7	9	10
Weighted percentage of Course contribution to POs	4.25	4.78	5.56	2.48	5.47	3.61	4.2

Based on the level of contribution ('3'-High,'2'-Medium,'1'-Low'-'NoCorrelation)

UNIT I (21 hrs)

Introduction to Business Finance and Time vale of money: Business Finance: Meaning, Objectives, Scope -Time Value of money: Meaning, Causes – Compounding – Discounting – Sinking Fund Deposit Factor – Capital Recovery Factor – Multiple Compounding – Effective rate of interest – Doubling period (Rule of 69 and Rule of 72) – Practical problems.

UNIT II (21 hrs)

**Risk Management:** Risk and Uncertainty: Meaning – Sources of Risk – Measures of Risk – Measurement of Return – General pattern of Risk and Return – Criteria for evaluating proposals to minimize Risk (Single Asset and Portfolio) – Methods of Risk Management – Hedging currency risk.

UNIT III (21 hrs)

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

UNIT IV (21 hrs)

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

UNIT V (21 hrs)

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

Note: Question pattern: Theory 40% and Problems 60%.

#### **TEXTBOOKS**

- 1. Maheshwari S.N. *Financial Management Principles and Practices.* New Delhi:Sultan Chand & Sons, 2019.
- 2. Khan M.Y & Jain P.K. *Financial Management: Text, Problems and Cases.* New Delhi:McGraw Hill Education 8th Edition, 2011.
- 3. Prasanna Chandra. *Financial Management, Theory and Practice.* New Delhi: McGraw Hill Education, 10th Edition, 2019.
- 4. Apte P.G. *International Financial Management.* New Delhi:Tata McGraw Hill, 8th Edition, 2020.

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#### Books

- 1. Pandey I. M. *Financial Management*. Noida: Pearson India Education Services Pvt. Ltd, 12th Edition, 2021.
- 2. Kulkarni P. V. & Satyaprasad B. G. *Financial Management*. Mumbai: Himalaya Publishing House PvtLtd,. 14<sup>th</sup> Edition, 2015.
- 3. Rustagi R.P. *Financial Management, Theory, Concept, Problems.* New Delhi: Taxmann Publications Pvt. Ltd., 6th Edition, 2022.
- 4. ArokiamaryGeetha Rufus, Ramani N. & Others. *Financial Management.* Mumbai: Himalaya Publishing House PvtLtd, 1stEdition, 2017.

#### WebSources

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

# PG Programme - M.Com(CA). SEMESTER -I

#### **CORE COURSE - II: DIGITAL MARKETING (23PCPC12)**

(From 2023-2024 Batch onwards)

HOURS/WEEK:7(L-7) INT.MARKS :25
CREDITS :5 EXT.MARKS :75
DURATION :105 hrs MAX.MARKS:100

#### **Course Objectives**

- To assess the evolution of digital marketing.
- To appraise the dimensions of online marketing mix.
- To infer the techniques of digital marketing.
- To analyse online consumer behavior.
- To interpret data from social media and to evaluate game based Marketing.

#### **Course Outcomes (CO)**

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

**CO1[K1]**:outline the concepts in digital marketing

CO2[K2]: examine online marketing strategies

**CO3[K3]**: elucidate the impact of digital media on consumer buying behavior

**CO4[K4]**: analyze the importance of marketing mix in digitalized era

**CO5[K5]**: assess the recent trends in digital marketing

#### **CO-PO Mapping Table(Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	3	3	2	3	-	2	2
CO2[K2]	3	2	2	3	-	2	2
CO3[K3]	3	3	3	3	1	2	2
CO4[K4]	2	2	2	3	1	2	1
CO5[K5]	2	3	2	3	1	2	3
Weightage of the Course	13	13	11	15	3	10	10
Weighted percentage of Course contribution to POs	4.25	4.44	4.37	6.2	2.34	4.02	4.2

Based on the level of contribution ('3'-High,'2'-Medium,'1'-Low'-'NoCorrelation)

UNIT I (21 hrs)

**Introduction to Digital Marketing:** Digital Marketing – Transition from traditional to digital marketing – Rise of internet – Growth of e-concepts – Growth of e-business to advanced e-commerce – Emergence of digital marketing as a tool – Digital marketing channels – Digital marketing applications, benefits and limitations – Factors for success of digital marketing – Emerging opportunities for digital marketing professionals.

UNIT II (21 hrs)

**Online marketing mix:** Online marketing mix – E-product – E-promotion – E-price – E-place – Consumer segmentation – Targeting – Positioning – Consumers and online shopping issues – Website characteristics affecting online purchase decisions – Distribution and implication on online marketing mix decisions.

UNIT III (21 hrs)

**Digital media channels:** Digital media channels – Search engine marketing – ePR – Affiliate marketing – Interactive display advertising – Opt-in-email marketing and mobile text messaging, Invasive marketing – Campaign management using – Facebook, Twitter, Corporate Blogs – Advantages and disadvantages of digital media channels – Metaverse marketing.

UNIT IV (21 hrs)

**Online consumer behavior:** Online consumer behavior – Cultural implications of key website characteristics – Dynamics of online consumer visit – Models of website visits – Web and consumer decision making process – Data base marketing – Electronic consumer relationship management – Goals – Process – Benefits – Role – Next generation CRM.

UNIT V (21 hrs)

Analytics and Gamification: Digital Analytics – Concept – Measurement framework – Demystifying web data - Owned social metrics – Measurement metrics for Facebook, Twitter, YouTube, Slide Share, Pinterest, Instagram, Snapchat and LinkedIn – Earned social media metrics - Digital brand analysis – Meaning – Benefits – Components – Brand share dimensions – Brand audience dimensions – Market influence analytics – Consumer generated media and opinion leaders – Peer review – Word of mouth – Influence analytics – Mining consumer generated media – Gamification and game based marketing – Benefits – Consumer motivation for playing online games.

#### **TEXTBOOKS**

- 1. Puneet Singh Bhatia. *Fundamentals of Digital Marketing*. Noida: Pearson Education PvtLtd,. 2nd Edition, 2019.
- 2. Dave Chaffey and Fiona Ellis-Chadwick. *Digital Marketing*. Noida: Pearson Education PvtLtd,.2019.
- 3. Chuck Hemannand Ken Burbary. *Digital Marketing Analytics.* Noida: Pearson Education Pvt Ltd, 2019.
- 4. Seema Gupta. *Digital Marketing*. Noida: McGraw Hill Publications, 3rd Edition.2022.
- 5. Kailash Chandra Upadhyay. *Digital Marketing: Complete Digital Marketing Tutorial*.Chennai: Notion Press, 2021.
- 6. Michael Branding. *Digital Marketing*. New Delhi: Empire Publications India Private Ltd, 2021.

#### REFERENCES

#### **Books**

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

#### **Web Sources**

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

# PG Programme - M.Com(CA). SEMESTER -I

#### CORE COURSE - III: BANKING AND INSURANCE (23PCPC13)

(From 2023-2024 Batch onwards)

HOURS/WEEK:6 (L-6) INT.MARKS:25
CREDITS:4 EXT.MARKS:75
DURATION:90 hrs MAX.MARKS:100

#### **Course Objectives**

- To know the evolution of new era banking.
- To explore the digital banking techniques.
- To analyse the role of insurance sector.
- To evaluate the mechanism of customer service in insurance and banks.
- To analsye risk and its impact in banking and insurance industry.

#### **Course Outcomes (CO)**

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

**CO1[K1]:** outline the basic concept in banking and insurance sectors

**CO2[K2**]: explain the functions of banking and insurance sectors

**CO3[K3]:** predict consumer services in banking and insurance sectors

**CO4[K4]:** apprise the risk management and control in banking and insurance sectors

CO5[K5]: assess the recent changes and challenges in banking and insurance

sectors

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	2	1	1	2	2
CO2[K2]	3	2	3	1	1	2	2
CO3[K3]	2	3	3	2	2	3	2
CO4[K4]	2	3	3	1	2	3	2
CO5[K5]	3	3	2	2	1	3	2
Weightage of the Course	13	13	13	7	7	13	10
Weighted percentage of Course contribution to POs	4.25	4.44	5.16	2.89	5.47	5.22	4.2

Based on the level of contribution ('3'-High, '2'-Medium, '1'-Low'-'NoCorrelation)

UNIT I (18 hrs)

Introduction to Banking: Banking: Brief History of Banking - Rapid Transformation in Banking: Customer Shift - Fintech Overview - Fintech Outlook - The Financial Disruptors - Digital Financial Revolution - New Era of Banking. Digital Banking - Electronic Payment Systems-Electronic Fund Transfer System - Electronic Credit and Debit Clearing - NEFT - RTGS - VSAT-SFMS-SWIFT.

UNIT II (18 hrs)

Contemporary Developments in Banking: Distributed Ledger Technology – Blockchain: Meaning - Structure of Block Chain - Types of Block Chain - Differences between DLT and Block chain - Benefits of Blockchain and DLT - Unlocking the potential of Block chain – Crypto currencies, Central Bank Digital Currency (CBDC) - Role of DLT in financial services - AI in Banking: Future of AI in Banking - Applications of AI in Banking - Importance of AI in banking - Banking reimagined with AI. Cloud banking - Meaning - Benefits in switching to Cloud Banking.

UNIT III (18 hrs)

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

UNIT IV (18 hrs)

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

UNIT V (18 hrs)

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

#### **TEXTBOOKS**

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

#### REFERENCES

#### **Books**

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

#### **Web Sources**

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

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#### **SEMESTER - I**

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC - I: INTRODUCTION TO INDUSTRY 4.0 (23PCPO11)

(From 2023-2024 Batch onwards)

HOURS/WEEK:5 (L-5) INT.MARKS:25
CREDITS:3 EXT.MARKS:75
DURATION:75 hrs MAX.MARKS:100

#### **Course Objectives**

- To enable the students to comprehend the change from industry 1.0 to 4.0.
- To expand knowledge on the challenges and future prospects of applying artificial intelligence.
- To learn the applications of big data for industrial growth and development.
- To identify with the applications of IoT in various sectors.
- To recognize why education has to be aligned with industry 4.0.

#### **Course Outcomes (CO)**

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

**CO1[K1]**:define the changes from industry 1.0 to 4.0

**CO2[K2]:**describe the challenges and future prospects of applying artificial intelligence big data IOT and industry 4.0

**CO3[K3]:** apply big data for industrial growth and development

**CO4[K4]:** analyze IOT in various sectors like manufacturing, healthcare, education, aerospace and defense

CO5[K5]: discuss education 4.0 aligned with industry 4.0

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО	1						
CO1[K1]	2	2	2	2	1	2	3
CO2[K2]	2	2	2	3	1	3	3
CO3[K3]	3	3	3	3	2	3	3
CO4[K4]	2	2	2	2	1	2	3
CO5[K5]	3	3	3	3	3	3	3
Weightage of the Course	12	12	12	13	8	13	15
Weighted percentage of	3.92	4.1	4.76	5.37	6.25	5.22	6.3
Course contribution to POs							

Based on the level of contribution ('3'-High,'2'-Medium,'1'-Low'-'NoCorrelation)

UNIT I (15 hrs)

**Introduction:** Industry: Meaning, Types - Industrial Revolution: Industrial Revolution 1.0 to 4.0: Meaning, Goals and Design Principles - Technologies of Industry 4.0 - Big Data - Artificial Intelligence (AI) - Industrial Internet of Things - Cyber Security - Cloud - Augmented Reality.

UNIT II (15 hrs)

**Artificial Intelligence:** Artificial Intelligence (AI): Need, History and Foundations -The AI - environment - Societal Influences of AI - Application Domains and Tools - Associated Technologies of AI - Future prospects of AI - Challenges of AI.

UNIT III (15 hrs)

**Big Data**: Evolution - Data Evolution - Data: Terminologies - Essential of Big Data in Industry 4.0 - Big Data Merits and Limitations - Big Data Components: Big Data Characteristics - Big Data Processing Frameworks - Big Data Tools - Big Data Applications - Big Data Domain Stack: Big Data in Data Science - Big Data in IoT - Big Data in Machine Learning - Big Data in Databases - Big Data Usecases: Big Data in Social Causes - Big Data for Industry - Big Data Roles - Learning Platforms; Internet of Things (IoT): Introduction to IoT - Architecture of IoT Technologies for IoT - Developing IoT Applications - Applications of IoT - Security in IoT.

UNIT IV (15 hrs)

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

UNIT V (15 hrs)

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

#### **TEXTBOOKS**

- 1. Seema Acharya and Subhasini Chellappan. *Big Data Analytics*. New Delhi: Wiley Publication, 2019.
- 2. Russel S and Norvig P. *Artificial Intelligence: A Modern approach.* New York: Prentice Hall, 2010.
- 3. Pethuru Raj and Anupama C. Raman. *The Internet of Things: Enabling Technologies, Platforms, and Use Cases .USA:* Auerbach Publications, 2017.

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#### **Books**

- 1. Judith Hurwitz, Alan Nugent, Fern Halper and Marcia Kaufman. *Big Data for Dummies*.USA: John Wiley & Sons, Inc.
- 2. Nilsson. *Artificial Intelligence: A new synthesis*. Asia: Nils J Harcourt Asia PTE Ltd., 2000.

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- 2. https://library.oapen.org/bitstream/handle/20.500.12657/43836/external\_content.pdf? sequence=1
- 3. https://www.vssut.ac.in/lecture\_notes/lecture1428643004.pdf

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#### **SEMESTER - I**

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC-I :BIG DATA ANALYTICS (23PCPO12)

### (From 2023-2024 Batch onwards)

HOURS/WEEK:5 (L-5) INT.MARKS:25
CREDITS:3 EXT.MARKS:75
DURATION:75 hrs MAX.MARKS:100

#### **Course Objectives**

- To identify with the various aspects of data science and applying them in real data.
- To define the applications of big data for industrial growth and development.
- To apply the characteristics of 5 V's in Big data.
- To analyze the big data problems.
- To recognize the Hadoop and Big Data Science.

### **Course Outcomes (CO)**

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

**CO1[K1]:**define the Big Data landscape including examples of real world bigdata problems and data sciences

**CO2[K2]:** explain the advantages of bigdata data science and hadoop.

**CO3[K3]:**apply the VS of big data and its impacts of data collection, monitoring, storage, analysis and reporting

**CO4[K4]:** analyze big data problems and be able to recast big data problems as data science questions

**CO5[K5]**: justify big data data science data system and hadoop technology

### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	2	2	2	1	2	3
CO2[K2]	2	2	2	3	1	3	3
CO3[K3]	3	3	3	3	2	3	3
CO4[K4]	2	2	2	2	1	2	3
CO5[K5]	3	3	3	3	3	3	3
Weightage of the Course	12	12	12	13	8	13	15
Weighted percentage of Course contribution to POs	3.92	4.1	4.76	5.37	6.25	5.22	6.3

UNIT I (15 hrs)

Introduction to Data Science: Introduction to data science – Case Studies – Data Science in Biomedicine and Healthcare – Sequence Processing – Medical Image Analysis – Natural Language Processing – Network Modelling and Probabilistic Modelling.

UNIT II (15 hrs)

**Big Data:** Meaning – Importance of Big Data – Example of Big Data – Source of Big Data - Machine -Generated Data - Advantages – Big Data generated by people – Organization of Generated Data - Integrating the data.

UNIT III (15 hrs)

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

UNIT IV (15 hrs)

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

UNIT V (15 hrs)

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

#### **TEXTBOOKS**

- 1. Peter Guerra and Kirk Borne. *Ten Signs of Data Science Maturity. USA:* O'Reily Media Pvt Ltd, 2016.
- 2. Tom White. *Hadoop: The Definitive Guide.* USA:O'Reily Media Pvt Ltd, 2012.
- 3. Seema Acharya and SubhasiniChellappan. *Big Data Analytics*. USA: Wiley, 2015.

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

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

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#### **SEMESTER - I**

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC-II : ENTERPRISE RESOURCE PLANNING (23PCPO13)

(From 2023-2024 Batch onwards)

HOURS/WEEK:5 (L-5) INT.MARKS:25
CREDITS:3 EXT.MARKS:75
DURATION:75 hrs MAX.MARKS:100

#### **Course Objectives**

- To define the history and growth of ERP.
- To describe the risks involved while using ERP.
- To expand knowledge on the various ERP technologies.
- To analyze the dynamics of ERP marketplace.
- To choose appropriate ERP solutions or packages.

### **Course Outcomes (CO)**

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

**CO1[K1]**:define the history risk technologies markets and implementation of ERP

**CO2[K2]:**explain the risks technologies markets and implementation involved while using ERP

**CO3[K3]:** apply various ERP technologies

**CO4[K4]:** analyze the dynamics of ERP marketplace

**CO5[K5]**:discuss appropriate ERP solutions or packages

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	PO2	P03	P04	P05	P06	P07
CO							
CO1[K1]	2	3	3	3	2	2	3
CO2[K2]	3	3	2	3	3	3	3
CO3[K3]	3	2	2	2	1	2	3
CO4[K4]	3	3	3	3	3	3	3
CO5[K5]	3	3	3	3	1	2	3
Weightage of the Course	14	14	13	14	10	12	15
Weighted percentage of Course contribution to POs	4.58	4.78	5.16	5.79	7.81	4.82	6.3

UNIT I (15 hrs)

**Enterprise on Overview:** Business Functions and Business Processes - Integrated Management Information - Business Modelling - Integrated Data Model. Business Processes: Major Business Processes. Introduction to ERP: Common ERP Myths - A Brief History of ERP - Reasons for the Growth of ERP Market - Advantages of ERP.

UNIT II (15 hrs)

**Risk of Overview:** People Issues - Process Risks - Technological Risks - Implementation Issues-Operation and Maintenance Issues - Unique Risks of ERP Projects - Managing Risks on ERP Projects. Benefits of ERP: Information Integration - Reduction of Lead Time - On-Time Shipment - Reduction in Cycle Time - Improved Resource Utilization - Better Customer Satisfaction - Improved Supplier Performance - Increased Flexibility - Reduced Quality Costs - Better Analysis and Planning Capabilities - Improved Information Accuracy and Decision Making Capability - Use of Latest Technology.

UNIT III (15 hrs)

ERP and Related Technologies: Business Process Reengineering (BPR) - Business Intelligence (BI) - Business Analytics (BA) - Data Warehousing- Data Mining - On - Line Analytical Processing (OLAP) - Product Life Cycle Management (PLM) - Supply Chain Management (SCM) - Customer Relationship Management (CRM) - Geographic Information Systems (GIS) - Intranets and Extranets. Advanced Technology and ERP Security: Technological Advancements - Computer Crimes - ERP and Security - Computer Security - Crime and Security.

UNIT IV (15 hrs)

**ERP Market Place and Market Place Dynamics:** Market Overview - ERP Market Tiers. Market Place Dynamics - Industry - Wise ERP Market Share - ERP: The Indian Scenario. Business Modules of an ERP Package: Functional Modules of ERP Software: Integration of ERP, Supply Chain, and Customer Relationship Applications.

UNIT V (15 hrs)

**ERP Implementation:** Benefits of Implementing ERP - Implementation Challenges. ERP Implementation Life Cycle: Objectives of ERP Implementation - Different Phases of ERP Implementation- Reasons for ERP Implementation Failure. ERP Package Selection: ERP Package Evaluation and Selection - The Selection Process - ERP Packages: Make or Buy.

### **TEXTBOOKS**

- 1. Alexis Leon. Enterprise Resource Planning . Noida: Tata McGraw-Hill, 2008.
- 2. Jagan Nathan Vaman. ERP in Practice. Noida: Tata McGraw-Hill, 2008.
- 3. MahadeoJaiswal and Ganesh Vanapalli. ERP. Noida: Macmillan India, 2009.

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#### **Books**

- 1. Sinha P. Magal and Jeffery Word. *Essentials of Business Process and Information System*. USA: Wiley India, 2012.
- 2. Summer. ERP. Noida: Pearson Education, 2008.
- 3. Vinod Kumar Grag and N.K. Venkitakrishnan. *ERP- Concepts and Practice*. India :Prentice Hall of India, 2006.

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- 2. https://mrcet.com/downloads/digital\_notes/ME/III%20year/ERP%20Complet e%20Digital%20notes.pdf
- 3. https://www.vssut.ac.in/lecture\_notes/lecture1428643004.pdf

PG Programme - M.Com(CA). SEMESTER - I

# ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC-II : DATA BASE MANAGEMENT SYSTEM (23PCPO14)

(From 2023-2024 Batch onwards)

HOURS/WEEK:5 (L-5) INT.MARKS:25
CREDITS:3 EXT.MARKS:75
DURATION:75 hrs MAX.MARKS:100

### **Course Objectives**

- To introduce the basic concepts of Relational Database Management System and the working knowledge of Linux environment.
- To describe about designing databases and gueries in SQL.
- To summarize Relational Data Base Management System.
- To upskill the functions and operators
- To recognize the constraints, locks and MySQL

### **Course Outcomes (CO)**

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

CO1[K1]:identify models and schemas in DBMS, LINUX and MYSQL

CO2[K2]:categorize Queries and data base design in SQL LINUX and MYSQL

**CO3[K3]:** write about handling files and databases

**CO4[K4]:** analyze skills on functions and operators in RDBMS

**CO5[K5]**: discuss constraints locks and data types in SQL

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	3	3	3	2	2	3
CO2[K2]	3	3	2	3	3	3	3
CO3[K3]	3	2	2	2	1	2	3
CO4[K4]	3	3	3	3	3	3	3
CO5[K5]	3	3	3	3	1	2	3
Weightage of the Course	14	14	13	14	10	12	15
Weighted percentage of Course contribution to POs	4.58	4.78	5.16	5.79	7.81	4.82	6.3

UNIT I (15 hrs)

Introduction to Database Systems and Linux: Introduction to File and Database systems Database System Structure - Data Models Introduction to Network Models: ER Model, Relational Model - Introduction to Linux Operating System - Properties of Linux - Desktop Environment - Linux basics commands - Working with Files - Text Editors - I/O Redirections - Pipes, Filters, and Wildcards - Changing Access Rights.

UNIT II (15 hrs)

**SQL Definition and Normalization:** SQL – Data Definition - Queries in SQL - Updates - Views - Integrity and Security. Relational Database design – Functional dependences and Normalization for relational databases (up to BCNF) - Query Forms.

UNIT III (15 hrs)

Files and RDBMS: Record Storage and Primary File Organization - Secondary Storage Devices - Operations on Files - Heap File - Sorted Files - Hashing Techniques - Index Structure for Files - Different Types of Indexes - B-Tree - B+Tree - Query Processing - Multimedia Databases - Basic Concepts and Applications - Indexing and Hashing - Text Databases - Overview of RDBMs - Advantages of RDBMs over DBMs - Introduction to Data Mining.

UNIT IV (15 hrs)

**Data Definition and Manipulation Language:** Data Definition Language - Data Manipulation Language - Transaction Control - Data Control Language Grant - Revoke Privilege Command - Set Operators - Joins- Kinds of Joins - Table Aliases - Sub queries - Multiple and Correlated Sub Queries - Functions - Single Row - Date, Character, Numeric, Conversion and Group Functions.

UNIT V (15 hrs)

**Constraints and MYSQL:** Constraints - Domain, Equity, Referential Integrity Constraints - Locks - Types of Locks, Table Partitions - Synonym - Introduction to PL/SQL - Introduction - MySQL as an RDBMS Tool - Data types and Commands.

#### **TEXTBOOKS**

- 1. Ramakrishnan Raghu and Gehrke Johannes. *Database Management Systems*. USA : McGraw-Hill.
- 2. Rajendra Prasad Mahapatra and GovindVerma .*Database Management System.* New Delhi: Khanna Publications.

#### REFERENCES

#### **Books**

- 1. Ramon A Mata-Toledo and Pauline K Cushman. *Database Management System*. New York: Schaun's Outlines.
- 2. Abraham Silberschatz, Henry F Korth and S. Sudarshan .*Database SystemConcepts*. USA :McGraw-Hill.

- 1. http://education-portal.com/academy/lesson/what-is-a-database-management-systempurpose-and-function.html.
- 2. http://www.comptechdoc.org/os/linux/usersguide/linux\_ugbasics.html.
- 3. http://www.dummies.com/how-to/content/common-linux-commands.html.

# PG Programme - M.Com(CA).

#### SEMESTER -II

# CORE COURSE - IV: STRATEGIC COST MANAGEMENT (23PCPC21) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

### **Course Objectives**

- To investigate the aspects of strategic and quality control management.
- To evaluate and select cost control techniques.
- To apply activity based costing for decision making.
- To utilise transfer pricing methods in cost determination.
- To apply cost management techniques in various sectors.

### **Course Outcomes (CO)**

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

**CO1[K1]**:outline the basic concepts in strategic cost management

**CO2[K2]**:describe the tools and techniques of Strategic cost management

**CO3[K3]**: determine transfer pricing and cost management in various sector

**CO4[K4]:** solve strategic cost management problems

**CO5[K5]**:assess the recent methods adopted in strategic cost management

### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	2	1	1	1	1
CO2[K2]	3	3	3	2	1	2	2
CO3[K3]	2	3	3	2	1	2	2
CO4[K4]	2	3	3	2	1	2	2
CO5[K5]	2	3	3	2	1	2	2
Weightage of the Course	12	14	14	9	5	9	9
Weighted percentage of Course contribution to POs	3.92	4.78	5.56	3.72	3.91	3.61	3.78

UNIT I (18 hrs)

Introduction to Strategic Cost Management: Introduction to Strategic Cost Management (SCM) – Need for SCM – Differences between SCM and Traditional Cost Management - Value Chain Analysis: Meaning and steps - Quality Cost Management: Meaning of Quality and Quality Management – Cost of Quality – Indian Cost Accounting Standard 21 on Quality Control - Introduction to Lean System – Benefits of Lean System – Just in Time (JIT) – Kaizen Costing.

UNIT II (18 hrs)

**Cost Control and Reduction:** Cost Management Techniques: Cost Control: Meaning and Prerequisites - Cost Reduction: Meaning and Scope - Differences between Cost control and cost reduction - Pareto Analysis: Meaning, importance and applications - Target Costing: Meaning, steps and Principles - Life Cycle Costing: Meaning, Strategies for each stage of product life cycle, Benefits - Learning Curve: Meaning, Learning curve ratio and applications.

UNIT III (18 hrs)

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

UNIT IV (18 hrs)

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

UNIT V (18 hrs)

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

#### **TEXTBOOKS**

- 1. Ravi M Kishore. *Strategic Cost Management*. New Delhi: Taxmann Publications Pvt. Ltd, 2018.
- 2. Bandgar P. K. *Strategic Cost Management*. Mumbai: Himalaya Publishing House Pvt Ltd, 2017.
- 3. Sexena V. K. Strategic Cost Management and Performance Evaluation. New Delhi : Sultan Chand & Sons, 2020.

#### REFERENCES

#### **Books**

- 1. John K Shank and Vijay Govindarajan. *Strategic Cost Management*. UK Simon & Schuster, 2008.
- 2. Jawahar Lal. Strategic Cost Management. Mumbai: Himalaya Publishing House Pvt Ltd, 2018.
- 3. Arora M. N. *A Text Book of Cost and Management Accounting*. New Delhi: Vikas Publishing House Pvt. Ltd., 2021.

- 1. https://www.accountingtools.com/articles/strategic-cost-management.html#:~:text=
- 2. Strategic%20cost%20management%20is%20the,it%20or%20have%20no%20impact.
- 3. https://ca-final.in/wp-content/uploads/2018/09/Chapter-4-Cost-Management-Techn iques.pdf
- 4. https://resource.cdn.icai.org/66530bos53753-cp5.pdf

# SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI

#### PG DEPARTMENT OF COMMERCE

# PG Programme - M.Com(CA). SEMESTER -II

### **CORE COURSE - V: CORPORATE ACCOUNTING (23PCPC22)**

(From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

#### **Course Objectives**

- To comprehend the accounting treatment for issue of shares.
- To determine profits for fire and marine insurance.
- To prepare consolidated financial statements.
- To account for price level changes.
- To adopt financial reporting standards.

### **Course Outcomes(CO)**

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

**CO1[K1]**: outline the basic concepts in corporate accounting

**CO2[K2]**:explain the provision to prepare company accounts

**CO3[K3]:**examine the accounting methods and accounting standard for reparation of corporate accounting statements

**CO4[K4]:** analyse the procedure stated to Accounting Standard to prepare final accounts of the corporate.

**CO5[K5]**: discuss the traditional and contemporary accounting methods

## **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	2	1	1	1	1
CO2[K2]	3	3	3	1	1	2	2
CO3[K3]	2	3	3	1	1	2	2
CO4[K4]	2	3	3	1	1	2	2
CO5[K5]	3	3	3	1	1	2	2
Weightage of the Course	13	14	14	5	5	9	9
Weighted percentage of Course contribution to POs	4.25	4.78	5.56	2.07	3.91	3.61	3.78

UNIT I (18 hrs)

**Issue of Shares and Final Accounts of Companies:** Issue of Shares: ESOPs - ESPS - Sweat Equity Shares - Book Building - Buy-back of Shares - Conversion of debentures into shares - Final accounts of Companies as per Schedule III of the Companies Act, 2013 – Managerial remuneration.

UNIT II (18 hrs)

**Insurance Company Accounts:** Types of Insurance - Final accounts of life assurance Companies- Ascertainment of profit - Valuation Balance Sheet - Final accounts of Fire, Marine and miscellaneous Insurance Companies.

UNIT III (18 hrs)

**Consolidated financial statements:** Consolidated financial statements as per AS 21: Consolidated Profit and Loss Account – Minority interest – Cost of control – Capital reserve – Inter-company holdings – Preparation of consolidated Balance Sheet.

UNIT IV (18 hrs)

**Contemporary Accounting Methods:** Accounting for price level changes – Social responsibility accounting – Human resource accounting - Forensic Accounting.

UNIT V (18 hrs)

**Financial reporting:** Financial reporting: Meaning, Objectives, Characteristics – Indian Accounting Standards (AS 5, AS 10, AS 19, AS 20) – Corporate Social Responsibility: Meaning, Key provisions of Companies Act, 2013, Accounting for CSR expenditure, Reporting of CSR, Presentation and disclosure in the financial statements.

#### **TEXTBOOKS**

- 1. Gupta R. L. & Radhaswamy. *Corporate Accounting*. New Delhi: Sultan Chand & Sons, 2021.
- 2. Maheshwari S. N., Sharad K. Maheshwari & Suneel K. Maheshwari. *Advanced Accountancy*. New Delhi.: Vikas Publishing House Pvt. Ltd., 2022.
- 3. Jain S. P., Narang K. L., Simmi Agrawal and Monika Sehgal. *Advanced Accountancy Corporate Accounting*. New Delhi: Kalyani Publishers, 2019.

4. Reddy T. S. & Murthy A. *Corporate Accounting*. Chennai: Margham Publications, 2022.

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#### **Books**

- 1. Arulanandam M.A & Raman K.S. *Advanced Accounting (Corporate Accounting II)*". Mumbai: Himalaya Publishing House Pvt Ltd, 2021.
- 2. Shukla M C, Grewal T S and Gupta S C. *Advanced Accounts Volume II*. New Delhi: Sultan Chand & Sons, 2022.
- 3. Gupta R. L. *Problems and Solutions in Company Accounts.* New Delhi: Sultan chand and sons, 2022.

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# PG Programme - M.Com(CA).

#### **SEMESTER-II**

# CORE COURSE - VI: SETTING UP OF BUSINESS ENTITIES (23PCPC23) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 4 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

### **Course Objectives**

- To be aware of the startup landscape and its financing.
- To analyse the formation and registration of Section 8 company.
- To outline the concept of LLP and business collaboration.
- To recognize the procedure for obtaining registration and license.
- To create awareness about the legal compliances governing business entities.

### **Course Outcomes(CO)**

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

CO1[K1]:identify the scope for setting up of business entities

CO2[K2]: categories various forms and legal requirements to formulate business entities

**CO3[K3]:** examine various avenues of acquiring finance for startups, NGOs and LLP

**CO4[K4]:** analyze the compliance of regulatory framework to register business entities

**CO5[K5]:**assess the recent changes and challenges for setting up of business entities.

# CO-PO Mapping Table (Course Articulation Matrix)

PO	P01	PO2	PO3	P04	PO5	P06	P07
CO							
CO1[K1]	2	2	2	1	1	2	2
CO2[K2]	3	3	3	1	1	3	2
CO3[K3]	3	3	3	1	1	2	3
CO4[K4]	3	3	3	1	1	2	3
CO5[K5]	3	2	3	1	2	3	3
Weightage of the Course	14	13	14	5	6	12	13
Weighted percentage of Course contribution to POs	4.58	4.44	5.56	2.07	4.69	4.82	5.46

UNIT I (18 hrs)

**Startups in India:** Types of business organisations – Factors governing selection of an organisation - Startups – Evolution – Definition of a Startup – Startup landscape in India – Startup India policy – Funding support and incentives – Indian states with Startup policies – Exemptions for startups – Life cycle of a Startup – Important points for Startups – Financing options available for Startups – Equity financing – Debt financing – Venture capital financing – IPO – Crowd funding – Incubators - Mudra banks – Successful Startups in India.

UNIT II (18 hrs)

**Not-for-Profit Organisations:** Formation and registration of NGOs – Section 8 Company – Definition – Features – Exemptions – Requirements of Section 8 Company – Application for incorporation – Trust: Objectives of a trust – Persons who can create a trust – Differences between a public and private trust – Exemptions available to trusts – Formation of a trust - Trust deed –Society – Advantages – Disadvantages – Formation of a society – Tax exemption to NGOs.

UNIT III (18 hrs)

**Limited Liability Partnership and Joint Venture:** Limited Liability Partnership: Definition – Nature and characteristics – Advantages and disadvantages – Procedure for incorporation – LLP agreement – Annual compliances of LLP - Business collaboration: Definition – Types – Joint venture: Advantages and disadvantages – Types – Joint venture agreement - Successful joint ventures in India– Special Purpose Vehicle – Meaning – Benefits – Formation.

UNIT IV (18 hrs)

**Registration and Licenses:** Introduction – Business entity registration – Mandatory registration – PAN – Significance – Application and registration of PAN – Linking of PAN with Aadhar – TAN – Persons liable to apply for TAN – Relevance of TAN – Procedure to apply for TAN – GST: Procedure for registration – Registration under Shops and Establishment Act – MSME registration – Clearance from Pollution Control Board – FSSAI registration and license – Trade mark, Patent and Design registration.

UNIT V (18 hrs)

**Environmental Legislations in India:** Geographical Indication of Goods (Registration and Protection) Act, 1999: Objectives, Salient Features - The Environmental Protection Act, 1986: Prevention, control and abatement of

environmental pollution - The Water (Prevention And Control of Pollution) Act, 1974: The Central and State Boards for Prevention and Control of Water Pollution - Powers and Functions of Boards - Prevention and Control of Water Pollution - Penalties and Procedure- The Air (Prevention and Control of Pollution) Act, 1981: Central and State Boards for The Prevention and Control of Air Pollution - Powers And Functions - Prevention and Control of Air Pollution - Penalties and Procedure.

#### **TEXTBOOKS**

- 1. Kailash Thakur. *Environment Protection Law and Policy in India.* New Delhi: Deep & Deep Publication Pvt. Ltd., 2007.
- 2. Avtar Singh. Intellectual Property Law. Bangalore: Eastern Book Company, 2018.
- 3. Zad N.S and Divya Bajpa. *Setting up of Business Entities and Closure" (SUBEC*). Chennai: Taxmann, 2022.
- 4. Amit Vohra & Rachit Dhingra. *Setting Up of Business Entities & Closure.* New Delhi: Bharath Law House, 2022.

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#### **Books**

- 1. Setting up of Business Entities and Closure (2021), Module 1, Paper 3, Noida: *The Institute of Company Secretaries of India*, MP Printers,
- 2. The Air (Prevention and Control of Pollution) Act, 1981, Bare Act, 2022. Noida :Edition, Universal/LexisNexis.
- 3. The Water (Prevention and Control of Pollution) Act, 1974, Bare Act, 2022. Noida: Edition, Universal/LexisNexis,
- 4. Cliff Ennico, (2005) "Small Business Survival Guide Starting Protecting and Securing your Business for Long-Term Success", Adams Media, USA

- https://www.icsi.edu/media/webmodules/FINAL\_FULL\_BOOK\_of\_EP\_ SBEC\_2018.pdf
- 2. https://www.mca.gov.in/MinistryV2/incorporation\_company.html 3)
- 3. https://legislative.gov.in/sites/default/files/The%20Limited%20Liability%20 Partnership%20 Act,%202008.pdf
- 4. https://legislative.gov.in/sites/default/files/A1999-48.pdf
- 5. https://www.indiacode.nic.in/bitstream/123456789/6196/1/the\_environment\_protection\_act%2C1986.pdf

# PG Programme - M.Com(CA).

#### **SEMESTER-II**

# ELECTIVE COURSES GENERIC/DISCIPLINE SPECIFIC – III : DATA MINING AND DATA INTERPRETATION (23PCPO21)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L-4) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

#### **Course Objectives**

- To define the basic concepts, principles and need of data warehousing
- To describe the data warehouse architecture, modeling and its implementation.
- To identify steps in implementing data mart and its various dimensions
- To apply the features, types and challenges of data mining
- To analyze the various data mining tools and techniques

### **Course Outcomes (CO)**

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

- **CO1[K1]:**define the basic concepts, principles tools architecture and need of data warehousing
- **CO2[K2]:**describe data warehouse architecture, modeling and its implementation using data mining tools
- **CO3[K3]:**apply various steps in implementing data warehouse, data mart and its dimensions in data mining
- **CO4[K4]:** analyze the features and types of data mining and data marts
- CO5[K5]:construct various data mining tools, techniques and architecture

# CO-PO Mapping Table (Course Articulation Matrix)

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	2	2	1	1	ı	3	2
CO2[K2]	2	3	2	2	ı	3	2
CO3[K3]	3	3	3	3	ı	3	2
CO4[K4]	3	3	3	3	1	3	3
CO5[K5]	3	3	3	3	ı	3	3
Weightage of the Course	13	14	12	12	ı	15	12
Weighted percentage of	4.25	4.78	4.76	4.96	_	6.02	5.04
Course contribution to POs	1120	11, 0	11, 0	1170		0.02	5.01

UNIT I (12 hrs)

**Data Warehouse:** Definition - history of data warehouse - features of data warehouses - characteristics of data warehouse - goals of data warehousing-principles of data warehousing - need for data warehouse - benefits of data warehouse - need for separate data warehouse - difference between database and data warehouse - applications of data warehouses - components of data warehousedata staging component.

UNIT II (12 hrs)

**Data warehouse architecture:** Data warehouse architecture - properties of data warehouse architectures - types of data warehouse architectures - three-tier data warehouse architecture - ETL (extract, transform, and load) process - selecting an ELT tool- Difference between ETL and ELT types of data warehouses - data warehouse modelling - data modelling life cycle - types of data warehouse models-data warehouse design - data warehouse implementation implementation guidelines - meta data - necessary of metadata in data warehouses - types of metadata-metadata repository - benefits of metadata repository.

UNIT III (12 hrs)

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

UNIT IV (12 hrs)

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

UNIT V (12 hrs)

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

#### **TEXTBOOKS**

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

#### **REFERENCES**

#### **Books**

- 1. BPB Editorial Board. *Data Mining*. Nodia: BPB publications.
- 2. Ian H. Witten, Eibe Frank and S. Sudarshan. *Data Mining, Practical Machine Learning Tools and Techniques*. Morgan Kaufmann series, 2011.
- 3. Ramesh Sharda, Dursun Delen and Efraim Turban. *Business Intelligence*. Nodia: Pearson Education Services Pvt Ltd.

- 1. https://mrcet.com/downloads/digital\_notes/ME/III%20year/ERP%20Complete%20Digital%20notes.pdf.
- 2. https://mrcet.com/pdf/Lab%20Manuals/IT/DATA%20WAREHOUSING%20A ND% 020DATA%20MINING%20(R18A0524).pdf00

# PG Programme - M.Com(CA).

#### **SEMESTER-II**

# ELECTIVE COURSES GENERIC/DISCIPLINE SPECIFIC -III : TECHNOLOGY IN BANKING (23PCPO22)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L-4) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

### **Course Objectives**

- To understand the network essentials for an operational core banking system
- To provide an overview of customer centric electronic banking.
- To understand the evolution of electronic fund transfer systems in the banking sector
- To analyze the digital technologies offered in banking services.
- To understand the information security system

### **Course Outcomes (CO)**

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

**CO1[K1]**:recall the basic concepts in banking technology

**CO2[K2]:**explain the information security system and digital services offered by the banking services

**CO3[K3]:**examine the role of technology from introduction stage to recent development

**CO4[K4]:** analyse the digital technology used in banking services

CO5[K5]:assess the customer centric electronic banking & information security System

**CO-PO Mapping Table (Course Articulation Matrix)** 

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	2	1	1	ı	3	2
CO2[K2]	2	3	2	2	ı	3	2
CO3[K3]	3	3	3	3	ı	3	2
CO4[K4]	3	3	3	3	1	3	3
CO5[K5]	3	3	3	3	1	3	3
Weightage of the Course	13	14	12	12	1	15	12
Weighted percentage of	4.25	4.78	4.76	4.96	1	6.02	5.04
Course contribution to POs							

UNIT I (12 hrs)

**Introduction to Core Banking and Computerization:** Essentials of Bank Computerization – StandAlone and Multi-User System – Local Area Network and Wide Area Network: Features, Advantages and Limitations – Core Banking: Essential Requirements and Benefit.

UNIT II (12 hrs)

Electronic Payment Systems and Banking Facilities: Electronic Payment Systems – ATM: Features – Advantages – Disadvantages – Brown Labe l and White Label ATM, PIN, Electro Magnetic Cards, Credit Cards, Debit Cards and Smart Cards: Features, Benefits and Limitations – Multiple Pin in Smart Card – Electronic Purse – Electronic Cheque – Electronic Cash – Electronic Banking – Home Banking (Corporate and Personal) – Update Facilities – Internet Banking – Mobile Banking: Features, Advantages and Limitations – Signature Storage and Retrieval System – Cheque Truncation – MICR and OCR: Characteristics – Advantages and Limitations.

UNIT III (12 hrs)

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

UNIT IV (12 hrs)

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

UNIT V (12 hrs)

**Information Security System :** Information security - Software based security systems - Hardware based security systems (smart card, M chip) – Hackers: Techniques used by the hackers, Phishing, Pharming, Key loggers, Screen loggers, Phishing - Trojans transaction poisoning - Card related fraud - Site

cloning – False merchant site - Authentication methodologies and security measures (Password protection - Smart cards - Biometric characteristics) - Encryption and security - Customer confidentiality - Regulatory environment of internet banking - Legal Framework for Electronic Transactions – Cyber security as per Information Technology Act, 2000 – RBI Guidelines on Internet Banking.

#### **TEXTBOOKS**

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

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

- 1. https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/64767.pdf
- 2. https://www.researchgate.net/profile/RaviVadlamani/publication/23738382 8\_Chapter\_I\_Introduction\_to\_Banking\_Technology\_and\_Management/links/572 a89bc08aef7c7e2c4fbc3/Chapter-I-Introduction-to-Banking-Technology-and-Management.pdf.
- 3. https://eprocure.gov.in/cppp/rulesandprocs/kbadqkdlcswfjdelrquehwuxcfmi jmuixngudufgbuubgubfugbububjxcgfvsbdihbgfGhdfgFHytyhRtMjk4NzY=#:~:te xt=%5B9th%20June%2C%202000%5D%20An,communication%20and%20sto rage%20of%20information%2C

# PG Programme - M.Com(CA).

#### SEMESTER-II

# ELECTIVE COURSES GENERIC/DISCIPLINE SPECIFIC-IV: PRACTCAL: FINANCIAL ANALYTICS (23PCPO2P)

#### (From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (T-1, P-3) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75

**DURATION**: 60 hrs

### **Course Objectives**

- To understand the statistical concepts relating to Probability, decision making under uncertainty
- To learn the use of regression, time series analysis and building of models using accounting data
- To gain knowledge on R and python programming
- To prepare, analyse and forecast financial statements using cash flow statements
- To gain knowledge on concept, application, and issues in capital budgeting

### **Course Outcomes (CO)**

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

**CO1[K2]:** state the concepts Financial Analytics

**CO2[K3]:**apply appropriate tools in accounting data

**CO3[K4]:** analyze various applications used to sole accounting problems

**CO4[K5]:** assess the techniques used in financial analysis

CO5[K6]:build models using accounting data

## **CO-PO Mapping Table (Course Articulation Matrix)**

P0	P01	<b>PO2</b>	<b>PO3</b>	P04	P05	P06	P07
CO							
CO1[K2]	3	3	1	3	ı	2	2
CO2[K3]	3	3	2	3	-	2	2
CO3[K4]	3	3	2	3	ı	2	2
CO4[K5]	3	3	2	3	ı	2	3
CO5[K6]	3	3	1	3	ı	2	3
Weightage of the Course	15	15	8	15	ı	10	12
Weighted percentage of	4.9	5.12	3.17	6.2		4.02	5.04
Course contribution to POs							

UNIT I (12 hrs)

**Statistical Concepts:** Probability, Normal, Lognormal distribution properties, Decision making under uncertainty - Cleaning and pre-processing financial data, Exploratory Data Analysis in Finance.

UNIT II (12 hrs)

**Simple Linear Models:** Use of Regression in Finance, Building Models using Accounting Data, Understanding stock price behaviour, time series analysis in finance.

UNIT III (12 hrs)

**Using R Analyze of Data:** Quick introduction to R and Python, understanding data in finance, sources of data, Using R for analysis of data.

UNIT IV (12 hrs)

**Cash Flow Concepts:** Cash flow statement – Prepare and Analyse, Modelling and forecasting of financial statements.

UNIT V (12 hrs)

**Capital Budgeting:** NPV, IRR – Concept, application, and issues, Use of real options for better financial outcomes.

# **List of Programs**

- 1. Use Probability, Normal, Lognormal distribution properties
- 2. Apply Exploratory Data Analysis
- 3. Use of Regression in Finance
- 4. Building Models using Accounting Data
- 5. Understand stock price behaviour
- 6. Use time series analysis
- 7. Prepare Cash Flow statement
- 8. Input from a user
- 9. Working with operators
- 10. Create a vector and access a elements in a vector
- 11. Create a matrix from a vector using dim() functions
- 12. Data frame like a list
- 13. Data frame like a matrix

- 14. Built a Model and forecasting of financial statements
- 15. Apply techniques of Capital Budgeting.

#### **TEXTBOOKS**

- 1. Gary Koop. *Analysis of Economic Data. USA:* Chennai: Wiley.
- 2. David Ruppert, David S, Matteson. *Statistics and Data Analysis for Financial Engineering:* with *R examples*.USA: Springers.

#### REFERENCES

#### Books

- 1. Ang Clifford. *Analyzing Financial Data and Implementing Financial Models Using 'R'*. USA: Springers.
- 2. Wayne L. Winston. *Microsoft Excel 2013*.USA: Microsoft Publishing.

- 1. https://personal.ntu.edu.sg/nprivault/MH8331/financial\_risk\_analytics.pdf
- 2. https://dynamics.microsoft.com/en-us/finance/what-is-financial-analytics/.

# PG Programme - M.Com(CA). SEMESTER -II

# ELECTIVE COURSES GENERIC/DISCIPLINE SPECIFIC-IV: MANAGEMENT INFORMATION SYSTEM (23PCPO23)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L - 4) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

### **Course Objectives**

- To define the basic concept of Information system
- To identify the importance of MIS
- To describe the Functional Management Information System
- To demonstrate the role of system analyst
- To apply the concept of Enterprise Resource Planning

## **Course Outcomes (CO)**

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

**CO1[K1]:**identify the basic concept of management Information system design , data base and ERP

**CO2[K2]**:explain the importance of MIS, system design, data base and ERP

CO3[K3]: apply the functional MIS system design database and ERP

CO4[K4]:determine the role of MIS, system analyst and ERP

CO5[K5]:prepare the concept of MIS and Enterprise resource planning

# **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	3	3	1	3	1	2	2
CO2[K2]	3	3	2	3	ı	2	2
CO3[K3]	3	3	2	3	-	2	2
CO4[K4]	3	3	2	3	1	2	3
CO5[K5]	3	3	1	3	ı	2	3
Weightage of the Course	15	15	8	15	1	10	12
Weighted percentage of	4.9	5.12	3.17	6.2		4.02	5.04
Course contribution to POs							

UNIT I (12 hrs)

**Information System:** Introduction to information system - Management - Structure and Activities - Information needs and sources - Types of management decisions and information need - System classification - Elements of system, input, output, process and feedback.

UNIT II (12 hrs)

**Types of Management Information System:** Transaction Processing Information System - Information system for managers - Intelligence information system - Decision support system - Executive information systems.

UNIT III (12 hrs)

**Functional Management Information System:** Functional Management Information System: Production Information system - Marketing Information Systems - Accounting Information System - Financial Information System - Human Resource Information System.

UNIT IV (12 hrs)

**System Design and Database:** System Analysis and Design: The work of a system analyst - SDLC- System design - Requirement analysis - Data flow diagram - Relationship diagram - Design -Implementation - Evaluation and maintenance of MIS - Database System: Overview of Database - Components - Advantages and disadvantages of database.

UNIT V (12 hrs)

**Enterprise Resource Planning:** Enterprise Resource Planning (ERP) System - Benefits of the ERP - How ERP is different from conventional packages - Need for ERP - ERP components - Selection of ERP Package - ERP implementation - Customer Relationship management - Organisation & Types - Decision Making - Data & information - Characteristics & Classification of information - Cost & value of information - Various channels of information and MIS.

#### **TEXTBOOKS**

- 1. Azam. Management Information System. Noida: McGrawHill Education, 2012.
- 2. Laudon K., Laudon J and Dass. *Management Information Systems Managing the Digital Firm.* Noida: Pearson, 2010.
- 3. Murdick, R.G., Ross, J.E., and Claggett. *Information Systems for Modern Management*. New Delhi:PHI,2011.

#### REFERENCES

#### **Books**

- 1. O'Brien, J.A., Morakas, G.M. and Behl, R. *Management Information Systems*. Noida: Tata McGraw-Hill Education, 2009.
- 2. Saunders, C.S. and Pearson, K.E. *Managing and Using Information Systems*. New Delhi: Wiley India Pvt. Ltd, 2009.
- 3. Stair, R., Reynolds, G. *Information Systems*. Noida: Cengage Learning, 2012.

- 1. https://cleartax.in/g/terms/mis-meaning-mis-full-form-marketing-information-system/amp
- 2. https://www.techtarget.com/searchitoperations/definition/MIS-management-information-systems

PG Programme - M.Com(CA).

#### **SEMESTER-II**

# NON MAJOR ELECTIVE COURSE: PRINCIPLES AND PRACTICES OF MODERN BANKING (23PCPN21)

#### (From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L - 4) INT.MARKS: 25
CREDITS: 2 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

#### **Course Objectives**

- To create awareness about the services in banks
- To know about Indian banking system
- To analyse e-banking services offered by the banks
- To determine the role of RBI and functions of commercial banks
- To evaluate recent changes in banking sectors

### Course Outcomes (CO)

On Successful completion of the course, the learners will be able to

**CO1 [K1]**: identify the basic concepts of banking.

**CO2[K2]:**explain the Indian banking system and modern technologies prevailing in the Banking Sector

CO3 [K3]: elucidate the development of banking system in India

**CO4** [K4]:determine the e-banking and mobile banking services

**CO5[K5]:**asses the commercial banks services offered to different types of customers as per RBI regulations

# **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	3	2	1	2	-	2	2
CO2[K2]	3	2	-	2	-	2	-
CO3[K3]	2	2	1	2	-	2	1
CO4[K4]	2	1	1	2	-	1	1
CO5[K5]	2	1	-	2	-	-	1
Weightage of the Course	12	8	2	10	ı	7	5
Weighted percentage of Course contribution to POs	3.92	2.73	0.79	4.13		2.81	2.1

UNIT I (12 hrs)

**Introduction to Banking:** Indian Banking System - Phases of Development - Banking Structure in India -Banker and Customer Relationship. Special Types of Customers: Minor - Partnership Firm - Joint Stock Company.

UNIT II (12 hrs)

**Reserve Bank of India:** History - Structure - Organisation and Governance of RBI - Objectives - Functions - RBI Efforts towards Financial Inclusion. Commercial banking: Definition - Classifications - Functions - Role of Public and Private Sector Banks in the Indian Banking System. - Role of Banks in Economic Development.

UNIT III (12 hrs)

**Deposit Mobilization by Commercial Banks:** Different Types of Deposits - Factors Affecting Deposit Levels. Various Forms of Advances: Cash Credit - Overdraft - Loans. **Different Types of Securities:** Goods - Document of Title to Goods - Life Insurance Policies - Corporate Securities - Government Securities - Real Estate - Fixed Deposit Receipts - Advances Against Jewels.

UNIT IV (12 hrs)

**E-Banking:** Meaning - Services - Facets of E-Banking - Initiatives - Opportunities. Internet Banking Vs. Traditional Banking - Services - Drawbacks - Frauds in Internet Banking.

UNIT V (12 hrs)

**Mobile banking:** Meaning - Features - Services - Security Issues - Electronic Mobile Wallets. ATM: Evolution - Concept - Features - Types - Mechanism - Functions. Electronic Delivery Channels: RTGS - NEFT - ECS - EFT - NFS - CTS.

#### **TEXTBOOKS**

- 1. Sundaram S.M. *Banking Theory Law and Practice*. Karaikudi: Sree Meenakshi Publications, 2014.
- 2. Gurusamy, S. *Banking Theory: Law and Practice*. Chennai: Vijay Nicole Publications, 2018.
- 3. Santhanam, B. *Banking Theory Law and Practice. Chennai:* Margam Publications, 2017.

#### REFERENCES

#### **Books**

- 1. Clifford and Gomez. *Banking and Finance Theory, Law and Practice.* Mumbai: Jain Book Agency, 2010.
- 2. Gupta R.K. Banking Law and Practice. New Delhi: Jain Book Agency, 2001.
- 3. Sundaram and Varshney. *Banking Theory Law and Practice*. New Delhi:Sultan and Chand Co, New Delhi, 2010.
- 4. MaheswariS.N. *Banking Law Theory and Practice.* Mumbai: Kalyani Publications, 2010.
- 5. Nirmala Prasad. *Banking and Financial Services.* Mumbai: Himalaya Publications, 2011.

- 1. https://app1.unipune.ac.in/external/course-material/Fundamental-of-Banking-English.pdf
- 2. https://ebooks.lpude.in/commerce/bcom/term\_4/DCOM208\_BANKING\_THEO RY\_AND\_PRACTICE.pdf
- 3. https://nptel.ac.in/courses/110/105/110105143/

# SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI

#### PG DEPARTMENT OF COMMERCE

## PG Programme - M.Com(CA). SEMESTER - III

# **CORE COURSE - VII: TAXATION (23PCPC31)**

(From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-5, T-1) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

#### **Course Objectives**

- To identify deductions from gross total income and computation of income for different classes of assesse.
- To explain the procedure for filing of returns and tax planning.
- To analyse the structure on international business taxation.
- To assess Goods and Services Tax and filing GST returns.
- To compute customs duty as per Customs Act.

### **Course Outcomes (CO)**

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

**CO1[K1]:** show the basic concepts in Indian Taxation system.

**CO2[K2]:** explain the provisions of National and International business taxation.

**CO3[K3]:** examine the procedure for filling of Income Tax return and GST return.

**CO4[K4]:** illustrate nuances of National and International business taxation.

**CO5[K5]:** assess the recent amendments in Income Tax return and GST laws.

# **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	3	3	2	1	2	2
CO2[K2]	3	3	2	3	1	2	2
CO3[K3]	3	3	2	3	1	2	3
CO4[K4]	3	3	3	3	1	2	3
CO5[K5]	3	3	3	3	2	3	3
Weightage of the Course	15	15	13	14	6	11	13
Weighted percentage of Course contribution to POs	4.9	5.12	5.16	5.79	4.69	4.42	5.46

UNIT I (18 hrs)

**Assessment of persons:** Tax Exemptions for Agricultural Income - Deductions to be made in computing total income (80G, 80GGB & 80GGC, 80IA, 80IAB, 80IAC, 80IB, 80IBA, 80ID, 80IE, 80JJA, 80JJAA, 80LA, 80M, 80P, 80PA) – Assessment of Firms, AOP, BOI, Company and Co-operative society.

UNIT II (18 hrs)

Tax Returns and Tax planning: Return of income: Statutory obligation, Return Forms, Time for filing of return, Revised return, Modified return - Assessment - Tax Deducted at Source - Advance payment of Tax: Persons liable to pay, Due date, Computation - Payment in pursuance of order of Assessing Officer, Consequences on non-payment. – Tax planning, Tax avoidance and Tax evasion - Tax planning and specific management decisions: Make or buy, Own or lease, Retain or replace, Shut down or continue.

UNIT III (18 hrs)

**International business taxation:** International business taxation - Taxation of Non-resident - Double taxation relief - Transfer pricing and other anti-avoidance measure - Application and interpretation of tax treaties - (Double taxation avoidance agreement - DTAA) - Equalization levy.

UNIT IV (18 hrs)

**Goods and Services Tax:** GST Act, 2017 - Registration - Procedure for registration under Schedule III - Amendment of registration - Rates of Tax of IGST, CGST, SGST/UGTST - Assessment of GST - Self-assessment - Provisional assessment - Scrutiny of returns - Assessment of non filers of returns - Assessment of unregistered persons - Assessment in certain special cases - Tax Invoice - Credit and Debit Notes - Payment of Tax - Input Tax Credit - Anti profiteering -- Filing of Returns - Penalties - Prosecution - Appeal and Revision.

UNIT V (18 hrs)

**Customs Act, 1962:** Important Definitions – Basics – Importance of Customs Duty – Constitutional authority for levy of Customs Duty – Types of Customs Duty – Prohibition of Importation and Exportation of goods – Valuation of goods for Customs Duty – Transaction Value – Assessable Value – Computation of Assessable Value and Customs Duty.

#### **TEXTBOOKS**

- 1. Vinod Singhania and Kapil Singhania. *Direct Taxes Law & Practice.* New Delhi: Professional Edition, Taxmann Publications.
- 2. Mehrotra H.C. and Goyal S.P. *Income Tax including Tax Planning & Management*. Agra: Sahitya Bhawan Publications.
- 3. Sekar G. Direct Taxes A Ready Refresher. Chennai: Sitaraman C. & Co Pvt.Ltd.
- 4. Balachandran V. *Textbook of GST and Customs Law.* New Delhi: Sultan Chand and Sons, 2021.
- 5. Vandana Bangar and Yogendra Bangar. *Comprehensive Guide to Taxation (Vol. I and II)*. Uttar Pradesh: Aadhya Prakashan, Prayagraj.

#### REFERENCES

#### **Books**

- 1. Sha R.G. and Usha Devi N. Income Tax (Direct and Indirect Tax). Mumbai: Himalaya Publishing House, 2022.
- 2. Girish Ahuja and Ravi Gupta. Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST. Wolters Kluwer India Private Limited.
- 3. Swetha Jain. GST Law & Practice. Chennai: Taxmann Publishers Pvt. Ltd.
- 4. Daty V.S. GST Input Tax Credit. Chennai: Taxmann Publishers.
- 5. Anurag Pandy. Law & Practices of GST and Service Tax. New Delhi: Sumedha Publication House.

- 1. https://www.icsi.edu/media/webmodules/16112021\_Advance\_Tax\_Laws.pdf
- 2. https://www.icsi.edu/media/webmodules/Final\_Direct\_Tax\_Law\_17\_12\_2020 .p
- $3. \quad https://www.icsi.edu/media/webmodules/TL\_Final\_pdf\_25102021.pdf$

## SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI

#### PG DEPARTMENT OF COMMERCE

## PG Programme - M.Com (CA). SEMESTER - III

## CORE COURSE – VIII: RESEARCH METHODOLOGY (23PCPC32) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

#### **Course Objectives**

- To understand the fundamentals of research.
- To construct theoretical design and formulate hypotheses.
- To evaluate the data collection techniques.
- To perform parametric and non-parametric tests.
- To enhance report writing skills and develop ethical conduct in research.

### **Course Outcomes (CO)**

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

**CO1[K1]:** show the basic concepts in research methodology.

**CO2[K2]:** explain the research process.

**CO3[K3]:** examine various methods for collecting, analyzing and reporting the data.

**CO4[K4]:** apply parametric and non-parametric tools to test the hypothesis.

**CO5[K5]:** evaluate the procedure from identification of research problem to preparation of research report.

## **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	2	2	3	2	2	2	1
CO2[K2]	2	2	3	2	2	2	1
CO3[K3]	3	3	3	3	2	2	2
CO4[K4]	3	3	3	2	3	3	2
CO5[K5]	3	3	3	3	3	3	2
Weightage of the Course	13	13	15	12	12	12	8
Weighted percentage of Course contribution to POs	4.25	4.44	5.95	4.96	9.38	4.82	3.36

UNIT I (18 hrs)

Introduction to Research Methodology: Research: Definition – Objectives – Motivations for research – Types of research – Maintaining objectivity in research – Criteria of good research – Applications of research in business - Formulating a research problem – Literature Review – Reasons for review – Reference management tools - Identification of research gap – Framing of objectives.

UNIT II (18 hrs)

**Hypothesis Testing and Research Design:** Hypothesis: Formulation of hypothesis – Testing of hypothesis – Type I and Type II errors – Research design – Types of research design - Methods of data collection: Census, Sample survey, Case study – **Sampling:** Steps in sampling design, Methods of sampling – Testing of reliability and validity – Sampling errors.

UNIT III (18 hrs)

**Data Collection: Variable:** Meaning and types - Techniques of data collection - **Primary data:** Meaning, Advantages and limitations - **Techniques:** Interview, Schedule, Questionnaire, Observation - **Secondary Data:** Meaning and sources.

UNIT IV (18 hrs)

**Data Analysis:** Data Analysis – **Uni-variate Analysis:** Percentile, Mean, Median, Mode, Standard deviation, Range, Minimum, Maximum, Independent sample t-test – **Bi-variate analysis:** Simple correlation, Simple Regression, Chisquare, Paired samples t-test, ANOVA, Man-Whitney test – Wilcoxon signed rank test – Kruskal Wallis test (Simple problems) **Multi Variate Analysis:** Multiple Correlation, Multiple Regression, Factor Analysis, Friedman's test, Cluster analysis, Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM), Multiple Discriminant Analysis.

UNIT V (18 hrs)

**Preparation of Research Report:** Report preparation – Guidelines and precautions for interpretation – Steps in Report writing - Style of research reports (APA, MLA, Anderson, Harvard) – Mechanics of report writing – Ethics in Research – Avoiding plagiarism – Plagiarism checker tools – Funding agencies for business research.

Question pattern: Theory: 80%; Problems: 20%

#### **TEXTBOOKS**

- 1. Kothari C.R and Gaurav Garg. *Research Methodology Methods and Techniques.* New Delhi: New Age International (P) Limited, 2020.
- 2. Tripathi. *Research Methodology in Management and Social Sciences.* New Delhi: Sultan Chand & Sons, 2014.
- 3. Krishnaswami and Ranganathan. *Methodology of Research in Social Sciences.* Mumbai: Himalaya Publishing House, 2011.

#### REFERENCES

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- 1. Sashi K.Guptha and Parneet Rangi. *Research Methodology.* Ludhiana: Kalyani Publisher, 2018.
- 2. Donald R. Cooper, Pamela S. Schindler and J.K.Sharma. *Business Research Methodology*. Noida (UP): Tata Mcgraw Hill, 12th Edition, 2006.
- 3. Sharma R D and Hardeep Chahal. *Research Methodology In Commerce and Management*. New Delhi: Anmol Publications, 2004.

- 1. https://www.cartercenter.org/resources/pdfs/health/ephti/library/lecture\_n otes/health\_science\_students/ln\_research\_method\_final.pdf
- 2. https://ccsuniversity.ac.in/bridge-library/pdf/MPhil%20Stats%20Research%2 0Methodology-Part1.pdf
- 3. https://prog.lmu.edu.ng/colleges\_CMS/document/books/EIE%20510%20LEC TURE%20NOTES%20first.pdf
- 4. https://www.statisticssolutions.com/academic-research-consulting/data-analy sis-plan/

## SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI

#### PG DEPARTMENT OF COMMERCE

## PG Programme - M.Com (CA). SEMESTER - III

CORE COURSE – IX: PRACTICAL : COMPUTERS IN BUSINESS (23PCPC3P) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-1, P-5) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

#### **Course Objectives**

To understand the fundamentals of SPSS.

- To compare the values obtained in t-test and ANOVA.
- To perform regression and non-parametric tests.
- To create company, groups and ledgers and obtain financial statements using Tally Prime.
- To understand inventory management and account for goods and services tax.

### **Course Outcomes (CO)**

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

**CO1[K2]:** explain the uses of SPSS and Tally Prime in business

CO2[K3]: solve business problem by applying SPSS and Tally Prime

CO3[K4]: analyse the results derived from SPSS and Tally Prime

CO4[K5]: interpret the results obtained from SPSS and Tally Prime

**CO5[K6]:** prepare the accounting and GST bills in business.

## **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K2]	2	3	2	3	2	3	2
CO2[K3]	3	3	2	3	2	3	2
CO3[K4]	3	3	2	3	2	3	3
CO4[K5]	3	3	2	3	2	3	3
CO5[K6]	3	3	2	3	3	3	3
Weightage of the Course	14	15	10	15	11	15	13
Weighted percentage of Course contribution to POs	4.58	5.12	3.97	6.2	8.59	6.02	5.46

UNIT I (18 hrs)

**Introduction to SPSS:** Opening a data file in SPSS – Variable view – Data view – Entering data into the data editor – Saving the data file – Table creation – **Descriptive statistics:** Percentile values, Measures of central tendency, Measures of dispersion, Distribution – Cronbach's Alpha test – Charts and graphs - Editing and copying SPSS output.

UNIT II (18 hrs)

**Parametric Tests in SPSS:** Compare means: One-sample t-test, Independent Samples t-test, Paired-samples t-test and One-way ANOVA, Two-way ANOVA - **Correlation:** Bi-variate, Partial and Multiple. Simple linear regression.

UNIT III (18 hrs)

**Non-parametric Tests in SPSS:** Chi-square test - Mann Whitney's test for independent samples - Wilcoxon matched pairs sample test- Friedman's test - Wilcoxon signed rank test - Kruskal Wallis test.

UNIT IV (18 hrs)

Introduction to Tally Prime: Introduction – Starting Tally Prime – Creation of a Company - Selecting company - Shutting a company - Altering company – Creating Accounting groups and ledgers – Vouchers – Practical problems for a new and existing business and not-for profit organisation. Accounting reports: Introduction – Displaying Trial balance, Profit and Loss Account, Balance sheet, Day book, Purchase register, Sales register, Cashflow/Funds flow and ratio analysis – Practical problems.

UNIT V (18 hrs)

**Inventory and GST in Tally Prime: Inventory:** Introduction to Inventory Masters – Creation of stock group – Creation of Godown – Creation of unit of measurement – Creation of stock item – Entering inventory details in Accounting vouchers – Practical problems. **GST:** Introduction – Enabling GST – Defining tax details – Entries in Accounting vouchers – View invoice report – Practical problems.

**Question Pattern: 100% Practical** 

#### **List of Practicals**

- 1. Apply Measures of central tendency, Measures of dispersion &Distribution in SPSS
- 2. Prepare Charts and graphs in SPSS
- 3. Apply One-sample t-test, Independent Samples t-test & Paired-samples t-test in SPSS
- 4. Test a hypothesis using One-way ANOVA and Two-way ANOVA in SPSS.
- 5. Find Correlation between variables.
- 6. Apply Chi-square test
- 7. Test a hypothesis using Mann Whitney's test for independent samples
- 8. Apply Wilcoxon matched pairs sample test-
- 9. ApplyFriedman's test
- 10. Test a hypothesis using Wilcoxon signed rank test
- 11. Apply Kruskal Wallis test in SPSS.
- 12. Prepare Trial balance, Profit and loss A/c and Balance sheet.
- 13. Prepare Cash Flow/ Fund Flow Statement
- 14. Analyze the performance of business through ratio analysis
- 15. Prepare Outstanding Bill Wise Details Report.
- 16. Find Interest for Credit Purchase and Sales Voucher.
- 17. Show Godown Transfer.
- 18. Prepare an invoice under GST Act.
- 19. Input Tax Credit Set Off.
- 20. Make GST Payment.
- 21. Register Purchase from Registered and Unregistered Dealers.

#### **TEXTBOOKS**

- 1. Sundara Pandian. P, Muthulakshmi. S & Vijayakumar, T. Research Methodology & Applications of SPSS in Social Science Research. New Delhi: Sultan Chand & Sons, 2022.
- 2. *Official Guide to Financial Accounting using Tally Prime*. New Delhi: BPB Publication, 2021.
- 3. Chheda Rajesh, U. *Learn Tally Prime*. New Delhi: Ane Books, 4th Edition, 2020.
- 4. Morgan George. A, Barrett C Karen, Leech L Nancy and Gloeckner Gene W. *IBM SPSS for Introductory Statistics*. United Kingdom: Routledge, 6th Edition, 2019.

#### REFERENCES

#### **Books**

- 1. Sangwan Rakesh. *Learn Tally Prime in English*. Pilani: Ascend Prime Publication, 2022.
- 2. Lodha Roshan. *Tally Prime with GST Accounting*. Kolkata: Law Point Publication, 2022. Kulas John, Renata Garcia Prieto Palacios Roji, Smith Adams. *IBM SPSS Essentials: Managing and Analysing Social Sciences Data*. New York: John Wiley & Sons Inc., 2<sup>nd</sup> Edition, 2021.
- 3. Rajathi. A, Chandran. P. SPSS for You. Chennai: MJP Publishers, 2011.

- 1. https://www.spss-tutorials.com/basics/
- 2. https://www.tallyclub.in/
- 3. https://tallysolutions.com/business-guides/inventory-management-in-tally-erp 9/

## PG Programme - M.Com (CA). SEMESTER - III

## **CORE COURSE - X: INTERNATIONAL BUSINESS (23PCPC33)**

(From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 4 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

### **Course Objectives**

- To understand the concepts of International Business and International Business Environment.
- To analyse the different theories of International Business.
- To understand the legal procedures involved in International Business.
- To evaluate the different types of economic integrations.
- To analyse the operations of MNCs through real case assessment.

#### **Course Outcomes (CO)**

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

- **CO1[K1]:** outline the basic concept in International Business.
- **CO2[K2]:** explain the process and theories involved in International Business.
- **CO3[K3]:** examine the various theories and legal framework of International Business.
- **CO4[K4]:** analyse the role of multilateral institutions for doing business at International Level.
- **CO5[K5]**:assess the recent development and challenges in International Business.

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	3	3	3	2	2	2	2
CO2[K2]	3	2	3	1	2	2	2
CO3[K3]	3	2	2	3	3	3	2
CO4[K4]	3	3	2	2	3	3	3
CO5[K5]	3	2	2	2	3	3	3
Weightage of the Course	15	12	12	10	13	13	12
Weighted percentage of Course contribution to POs	4.9	4.1	4.76	4.13	10.16	5.22	5.04

UNIT I (18 hrs)

**Introduction to International business:** Meaning, Nature, Scope and Importance - Stages of internationalization of Business-Methods of entry into foreign markets: Licensing - Franchising- Joint Ventures - Strategic Alliances - Subsidiaries and Acquisitions - Framework for analyzing international business environment - Domestic, Foreign and Global Environment - Recent Developments in International Business.

UNIT II (18 hrs)

**Theoretical Foundations of International Business:** Theory of Mercantilism - Theory of Absolute and Comparative Cost Advantage - Haberler's Theory of Opportunity Cost - Heckscher-Ohlin Theory Market Imperfections Approach - Product Life Cycle Approach - Transaction Cost Approach - Dunning's Eclectic Theory of International Production.

UNIT III (18 hrs)

**Legal framework of International Business:** Nature and complexities: Code and common laws and their implications to Business - International Business contract - Legal provisions, Payment terms.

UNIT IV (18 hrs)

**Multi-Lateral Agreements and Institutions:** Economic Integration – **Forms:** Free Trade Area, Customs Union, Common Market and Economic Union-Regional Blocks: Developed and Developing Countries – NAFTA – EU - SAARC, ASEAN – BRICS - OPEC-Promotional role played by IMF-World Bank and its affiliates - IFC, MIGA and ICSID – ADB-Regulatory role played by WTO and UNCTAD.

UNIT V (18 hrs)

**Multinational Companies (MNCs) and Host Countries:** MNCs – Nature and characteristics. Decision Making-Intra Firm Trade and Transfer Pricing – Technology Transfer - Employment and labour relations - Management Practices - Host Country Government Policies - International Business and Developing countries: Motives of MNC operations in Developing Countries (Discuss case studies) - Challenges posed by MNCs.

#### **TEXTBOOKS**

- 1. Charles W.L. Hill. International Business:Competing in the Global Market Place, NewYork: Mc Graw Hill.
- 2. Charles W. L. Hill, Chow How Wee & Krishna Udayasankar. International Business: An Asian Perspective. NewYork: Mc Graw Hill.
- 3. Rakesh Mohan Joshi. International Business. Oxford University Press, 2009.

#### REFERENCES

#### **Books**

- 1. Donald Ball, Michael Geringer, Michael Minor & Jeanne McNett. *International Business: The Challenge of Global Competition*. NewYork: Mc Graw Hill.
- 2. Alan M Rugman & Simon Collinson. *International Business: Pearson Education,* Singapore.

- 1. https://www.icsi.edu/media/webmodules/publications/9.5%20International %20Business.pdf
- 2. https://ebooks.lpude.in/commerce/mcom/term\_3/DCOM501\_ INTERNATIO NAL\_BUSINESS.pdf
- 3. https://www.shobhituniversity.ac.in/pdf/econtent/International-Business-Unit -1-Dr-Neha-Yajurvedi.pdf

PG Programme - M.Com (CA). SEMESTER - III

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC-V:APPLIED DATA ANALYTICS AND MACHINE LEARNING (23PCPO31)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 3 (L-3) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 45 hrs MAX.MARKS: 100

#### **Course Objectives**

- To define basics of data analysis in Python
- To interpret the data analysis pipeline via usage of NumPy and Pandas
- To examine methods of working with textual and time series data
- To investigate machine learning techniques with Scikit-Learn
- To analyze advanced machine learning techniques

### Course Outcomes (CO)

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

**CO1[K1]:**define the data analysis with apt knowledge in foundational concepts of Python and data analysis

CO2[K2]:explain about getting, cleaning and manipulation of data using NumPy and Pandas using python

**CO3[K3]:** apply Python for Statistical Data analysis

**CO4[K4]:** analyze Scikit-Learn for advanced Data analysis in python

**CO5[K5]:**develop data textual time series and advanced machine learning techniques in python

### **CO-PO Mapping Table (Course Articulation Matrix)**

P0	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	2	2	2	Ī	2	2
CO2[K2]	2	2	2	2	Ī	2	2
CO3[K3]	3	3	3	3	Ī	3	2
CO4[K4]	3	3	3	3	-	3	3
CO5[K5]	3	3	3	3	-	3	3
Weightage of the Course	13	13	13	13	İ	13	12
Weighted percentage of Course contribution to POs	4.25	4.44	5.16	5.37		5.22	5.04

UNIT I (9 hrs)

**Introduction to Data Analysis with Python:** Introduction to Data Analysis with Python: Data Analysis - Understanding Nature of Data -Data Analysis Process - Quantitative and Qualitative Data Analysis-Introduction to Python - PyPI, SciPy. Getting started with Python - Explore the first data set - The Jupyter notebook.

UNIT II (9 hrs)

**Working across the entire data analysis pipeline:** Working across the entire data analysis pipeline - Getting, cleaning and manipulating the data - Numpy library - Ndarrray - Basic Operation- Shape Manipulation - Array Manipulation - General Concepts - Pandas Library- Introduction to Pandas Data Structures - Index functionalities - Operations between Data Structures - Interacting with Databases.

UNIT III (9 hrs)

**Working with Textual and Time Series data:** Working with textual data - Working with time-series data - Databases in Python - Statistical data analysis.

UNIT IV (9 hrs)

**Basics of machine learning with Scikit-learn:** Basics of machine learning with Scikit-learn - Introduction to machine learning -Fitting a first model - Cost functions and outliers - Linear regressions - Gradient descent - Feature engineering.

UNIT V (9 hrs)

**Advanced machine learning techniques:** Advanced machine learning techniques: K-nearest neighbours - Logistic regressions - Decision trees and SVMs - Clustering and Dimensionality reduction - Introduction to deep learning.

#### **TEXTBOOKS**

- 1. Fabio Nelli. *Python Data Analytics with Pandas,Numpy and Matplotlib.* NewYork : Apress, 2018.
- 2. Paul Barryand Shroff. *Head First Python*. USA: , O'Reilly Media, 2011.
- 3. Mark Lutz and Shroff. *Programming Python*.USA: O'Reilly Media, 2011.

#### REFERENCES

#### **Books**

- 1. Wes McKinney. *Python for Data Analysis.USA*:O'Reilly publication.
- 2. Martin C Brown. *Python the Complete Reference*. USA: McGrawHill, 2001.
- 3. Mark Lutz, Shroff . *Python Pocket Reference*: USA: O'Reilly Media, 2010.
- 4. Ashok Namdev Kamthane, Amit Ashok Kamthane. *Problem Solving and Python Programming*. Noida: McGraw Hill Education Pvt. Ltd, 2018.

- $1. \ https://pandas.pydata.org/pandas-docs/version/1.4.4/pandas.pdf$
- $2. \ https://mrcet.com/downloads/digital\_notes/CSE/IV\%20Year/MACHINE\%\\ 20LEARNING(R17A0534).pdf$

## SRI KALISWARI COLLEGE (AUTONOMOUS), SIVAKASI

### PG DEPARTMENT OF COMMERCE

## PG Programme - M.Com (CA). SEMESTER - III

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC-V :PYTHON AND R PROGRAMMING (23PCPO32)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 3 (L-3)
CREDITS: 3
EXT.MARKS: 75
DURATION: 45 hrs
MAX.MARKS: 100

#### **Course Objectives**

- To define the basics of Python
- To learn Bio Python
- To describe the features of R
- To expand data handling
- To identify the use of bio conductor

## **Course Outcomes (CO)**

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

**CO1[K1]**:define the basics of Python and R

CO2[K2]:describe the necessity for programming in Python and R

**CO3[K3]:** apply methods and functions in Python and R

**CO4[K4]:** analyze Data handling in R and Python

**CO5[K5]:**justify python and R in Phylogenetics

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	2	2	2	ı	2	2
CO2[K2]	2	2	2	2	ı	2	2
CO3[K3]	3	3	3	3	-	3	2
CO4[K4]	3	3	3	3	ı	3	3
CO5[K5]	3	3	3	3	ı	3	3
Weightage of the Course	13	13	13	13	-	13	12
Weighted percentage of	4.25	4.44	5.16	5.37	_	5.22	5.04
Course contribution to POs							

UNIT I (9 hrs)

**Introduction to Python:** Installation of Python - Variables - Types - Strings - Jupiter notebooks - Objects - Functions - Control structures - Operators - User-Defined Functions - Data Structures - List, Tuple - Dictionary.

UNIT II (9 hrs)

**Numpy and Scipy:** Numpy library – Ndarrray - Basic Operations - Conditions and Boolean Arrays - Shape Manipulation - Array Manipulation - General Concepts - Structured Arrays - Reading and Writing Array on Files - SciPy Library for Statistics: linalg sub package - Normality- Correlation - t-Test- Chi-Test- ANOVA.

UNIT III (9 hrs)

**R Programming:** Introduction to R - Installing R - Features of R - Reserved words - Operators, -Strings - Data types and operations - Basic Data types - Vectors - List, Matrices - Arrays - Factors - Data frames - Flow control - Decision making - Loop Control Statements - Loops.

UNIT IV (9 hrs)

**Visualisation using R:** R as a Deluxe Calculator - Creating Objects and Assigning Values - Graphics: Simple Plotting - Advanced Plotting - Using Color in Plots - Using Subscripts and Superscripts in Graph Labels - Interactive Graphics - Saving Graphical Output - Loops.

UNIT V (9 hrs)

**Data Handling:** Feature selection models - Data Preprocessing - Normalization - Methods - Data reduction - Data sampling - Heat maps - Classification: Based on analogy - rules - probabilities - statistics and prediction with R.

#### **TEXTBOOKS**

- 1. Fabio Nelli. *Python Data Analytics with Pandas,Numpy and Matplotlib.* NewYork: Apress, 2018.
- 2. Wes McKinney. *Python for Data Analysis.* USA: ,O'ReillypublicationJeeva Jose. *Beginner's Guide for Data Analysis using R Programming.* NewDelhi: Khanna Book Publishing Co. Ltd., 2018.
- 3. Norman Matloff. *The Art of R programming A tour of statistical software design*.USA: No Starch Press, 2011.

#### REFERENCES

#### **Books**

- 1. Mark Lutz. *Learning Python.* USA: O'Reilly publication, 2009.
- 2. Martin C Brown. *Python: The Complete Reference*. USA: McGraw Hill, 2001.
- 3. Gentleman R, Carey V.J, Huber W, Irizarry, RA, and Dudoit, S. Bioinformatics and Computational Biology Solutions Using R and Bioconductor. New York: Springer.

- 1. www.sthurlow.com/python/
- 2. www.learnpython.org
- 3. www.codecademy.com/en/tracks/python

## PG Programme - M.Com (CA).

#### **SEMESTER - III**

## NON- MAJOR ELECTIVE COURSE II: ENTREPRENEURSHIP DEVELOPMENT (23PCPN31)

#### (From 2023-2024 Batch onwards)

HOURS/WEEK: 3 (L-3) INT.MARKS: 25
CREDITS: 2 EXT.MARKS: 75
DURATION: 45 hrs MAX.MARKS: 100

### **Course Objectives**

- To know about entrepreneurship,
- To understand the MSMEs in the economic development
- To analyse the source of venture capital
- To assess the procedure to start new business.
- To analyse the problems faced by the entrepreneurs from setting up of business to sickness

#### Course Outcomes (CO)

On Successful completion of the course, the learners will be able to

**CO1[K1]:**recall the concepts in entrepreneurship development

**CO2[K2]:** explain the problems faced by the entrepreneurs from setting up of business to sickness

**CO3[K3]:**examine the role of Financial Institutional to support entrepreneurs from setting up of business to sickness

**CO4[K4]:** examine the various forms of business, Financial Institutions and Measures Prevent Sickness

**CO5[K5]:** assess the procedure to start a new business and role of entrepreneur in economic development.

## **CO-PO Mapping Table (Course Articulation Matrix)**

P0	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	1	2	ı	2	2
CO2[K2]	3	2	-	2	-	2	1
CO3[K3]	2	2	1	2	ı	2	1
CO4[K4]	2	1	1	2	-	1	1
CO5[K5]	2	1	-	2	ı	1	1
Weightage of the Course	12	8	2	10	ı	7	5
Weighted percentage of Course contribution to POs	3.92	2.73	0.79	4.13		2.81	2.1

UNIT I (9 hrs)

**Entrepreneur:** Meaning - Definition-Characteristics and Functions of an Entrepreneur - Types - Women Entrepreneur - Opportunity for Women Entrepreneur-Problems of Women Entrepreneur - Remedial Measures- Role of Entrepreneur in Economic Development.

UNIT II (9 hrs)

**Micro Small and Medium Enterprises:** Concepts and Definitions - Importance of MSMEs - MSME Development Act 2006 - Forms of Business Organization - Sole Proprietor Concerns - Partnership - Limited Liability Partnership - Private Limited and Public Limited Company.

UNIT III (9 hrs)

**Setting up of Business:** Business Idea - Preparation of Project - Selection of Location - Procurement of Raw Material - Land/Shed - Machinery - Power Connection - Insurance - Government Clearance - Registration Procedure.

UNIT IV (9 hrs)

Finance and Institutional Support to Entrepreneurs: Financial Requirement - Working Capital - Fixed Capital - Institutional Support - SIDO - SIDBI - NSIC - KVIC - SFCs - DIC (Central Government Schemes NEED, UYEGP) -TIIC - MUDRA Bank and Commercial Banks - Incentives and Subsidies for Entrepreneurs.

UNIT V (9 hrs)

**Sickness and Revival of Business:** Definition of Sickness of Business - Signals and Symptoms of Sickness - Causes of Sickness - Measures to Prevent Sickness - Policy Initiatives and Corresponding Measures to Deal with Sickness.

#### **TEXTBOOK**

1. Gordon E. and Natarajan K. *Entrepreneurship Development.* Mumbai: Himalaya Publishing House, 2017.

#### **REFERENCES**

#### **Books**

- 1. Dr Khanka S.S. *Entrepreneurial Development.* New Delhi: S.Chand and Company Ltd, 2011.
- 2. Indian Institute of Banking and Finance. *Micro, Small and Medium Enterprises in India.* New Delhi: Taxmann Publication (P) Ltd, 2017.
- 3. Shejwalkar P.C. *Entrepreneurship Development.* New Delhi: Everest Publishing House, 2011.

- 1. https://www.youtube.com/watch?v=Hgj\_kRrvbhQ
- 2. https://www.youtube.com/watch?v=F5-sDkIM0uY
- 3. https://onlinecourses.nptel.ac.in/noc19\_mg55/preview

### PG Programme - M.Com (CA). SEMESTER - III

## INTERNSHIP / INDUSTRIAL ACTIVITY (23PCPJ31) (From 2023-2024 Batch onwards)

HOURS/WEEK: INT.MARKS :25
CREDITS : 2 EXT.MARKS :75
DURATION : 25 Days MAX.MARKS :100

#### **Course Objectives**

- To learn and develop new skills relevant to the field of study or career interests.
- To understand different departments, roles, and functions within the organization to broaden knowledge and explore potential career paths.
- To apply the knowledge gained in academic studies to real-world scenarios.
- To bridge the gap between classroom learning and professional life.
- To gain exposure to different tasks, projects, and challenges relevant to the chosen field.

#### **Course Outcomes (CO)**

On successful completion of the course, the learners should be able to

- **CO1[K1]:** Identify different career paths within the industry and gain insights into potential future roles.
- **CO2[K3]:** apply theoretical concepts and academic knowledge to real-world situations and challenges encountered during the internship.
- **CO3[K4]:** analyse problems, generate innovative solutions, and make informed decisions.
- **CO4[K5]:** evaluate how to manage time effectively and prioritize tasks to meet deadlines and deliver quality work.
- **CO5[K6]:** create a portfolio of the work, projects, and achievements during the internship.

#### CO-PO Mapping Table (Course Articulation Matrix)

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	ı	1	1	1	2
CO2[K3]	2	3	1	1	ı	1	2
CO3[K4]	2	2	ı	2	ı	1	1
CO4[K5]	-	2	1	-	-	1	1
CO5[K6]	1	3	3	3	ı	1	2
Weightage of the Course	8	12	4	7	1	5	8
Weighted percentage of	2.61	4.1	1.59	2.89	0.78	2.01	3.36
Course contribution to POs							

### **Rules and Regulations**

- 1. Each Student has to undergo 25 days institutional/industry based training during the fourth semester summer vacation.
- 2. Internships could be undertaken in different media organizations, industries and educational institutions which should be approved by the department.
- 3. Students should keep a detailed record of activities performed and hours spent in training and report the same to the Faculty Coordinator/Mentor/Guide regularly about the progress of internship on weekly basis
- 4. At the end of the internship, the student must submit a full-fledged detailed internship report (not exceeding 20 pages) along with attendance certificate
- 5. The Internship carries 100 marks out of which 25 marks for Internal and 75 Marks for External.
- 6. The viva voce board shall consist of the Head of the Department and the Internal Examiner (Senior Faculty member)
- 7. The training programme shall be evaluated as per the following pattern

Internal (25 Marks) External (75 Marks)
Training Review: 15 Marks Training Report: 25 Marks

Daily Log Report: 5 Marks Viva Voce : 50 Marks

PPT Presentation: 5 Marks

#### EACH INTERNSHIP REPORT WILL FOLLOW THE FORMAT DESCRIBED:

- Title Page
- · College Certificate Page
- · Internship Certificate provided by the internship institution
- Declaration Page
- Acknowledgement
- Company Profile
- Organizational structure of the concern
- Weekly work plan
- · List of figures, List of Tables
- Index
- Chapters

#### **List of Chapters**

- 1. Introduction
- 2. Nature of work
- 3. Role in the organization
- 4. Questionnaires and Observations about work
- 5. Operating Environment
- 6. Detailed Description of Technology used
- 7. Implementation
- 8. Conclusion
- 9. Appendix

Text Format in the report : Times New Roman 12 with 1.5 line Margins 1.5" left and 1" all other

## PG Programme - M.Com (CA). SEMESTER - IV

## CORE COURSE - XI: CORPORATE AND ECONOMIC LAWS (23PCPC41) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

### **Course Objectives**

- To analyse current and capital account transactions and dealings in foreign currency under FEMA.
- To understand unethical competitive practices and forums for redressal of consumer disputes under Competition Act and Consumer Protection Act.
- To understand the procedure for obtaining patents and copyright under The Copyright and Patents Act.
- To evaluate offences and punishment for money laundering under Prevention of Money Laundering Act.
- To explain the registration and related procedures under Real Estate Act.

### **Course Outcomes (CO)**

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

**CO1[K1]**: outline the basic concept in various Corporate and Economic Laws

**CO2[K2]:**explain the objectives of Corporate and Economic Laws

**CO3[K3]:** examine the procedure for application of Corporate and Economic Laws

**CO4[K4]:** analyze the provision of Corporate and Economic Laws

**CO5[K5]:**evaluate the offences, penalties, adjudications and appeals procedure for Corporate and Economic Laws

## **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	<b>PO2</b>	PO3	P04	<b>PO5</b>	P06	P07
CO							
CO1[K1]	3	2	2	1	1	1	2
CO2[K2]	3	2	2	1	1	2	2
CO3[K3]	2	3	3	1	1	2	2
CO4[K4]	2	3	3	1	1	2	2
CO5[K5]	3	3	3	1	3	2	2
Weightage of the Course	13	13	13	5	7	9	10
Weighted percentage of	4.25	4.44	5.16	2.07	5.47	3.61	4.2
Course contribution to POs							

UNIT I (18 hrs)

**Introduction to Foreign Exchange Management Act, 1999:** Foreign Exchange Management Act, 1999: Introduction – Definitions – Current Account transactions – Capital Account transactions – Realisation, repatriation and surrender of foreign currency – Remittance of assets – Possession and retention of foreign currency or foreign coins – Authorised person – Adjudication and Appeal.

UNIT II (18 hrs)

**Competition Act, 2002 and Consumer Protection Act, 2019:** Competition Act, 2002: Objective – Prohibition of Agreements, Prohibition of Abuse of Dominant Position - Regulation of combinations - Competition Commission of India: Duties, Powers and Functions of Commission - Appellate Tribunal.

**The Consumer Protection Act, 2019:** Objects; Rights of consumers – Consumer Dispute Redressal Commissions - Consumer protection councils – Procedure for admission to complaints – Appeal against orders.

UNIT III (18 hrs)

**Law relating to intellectual property rights:** Law relating to intellectual property rights: Introduction - The Copyright Act, 1957: Works in which copyright subsist - Ownership of copyright and the rights of the owner - Assignment of copyright - Disputes with respect to assignment of copyright - Term of copyright - Registration of copyright - Infringement of copyright.

**The Patents Act, 1970:** Inventions not patentable - Applications for patents - Publication and examination of applications - Grant of patents and rights conferred - Register of patents. Trademarks Act, 1999: Conditions for registration - Procedure for and duration of registration - Effect of registration - Collective marks.

UNIT IV (18 hrs)

**Prevention of Money Laundering Act, 2002:** Prevention of Money Laundering Act, 2002: Offence of money laundering –Punishment for money laundering –Attachment, adjudication and confiscation - Obligations of Banking Companies, Financial Institutions and Intermediaries – Summons, Search and Seizure – Appellate Tribunal.

UNIT V (18 hrs)

**Real Estate (Regulation and Development) Act, 2016:** Real Estate (Regulation and Development) Act, 2016: Introduction - Salient features of the Act - Registration of Real Estate Project - Registration of Real Estate agents - Functions and duties of promoter - Rights and duties of Allottees - Offences, penalties and adjudication - Specimen agreement for sale to be executed between the promoter and the allottee.

#### **TEXTBOOKS**

- 1. Munish Bandari. *A Textbook on Corporate and Economic Laws.* New Delhi: Bestword Publications 33rd Edition, 2022.
- 2. Amit Vohra and Rachit Dhingra. *Economic, Business and Commercial Laws.* Siliguri: Bharat Book House, 18th Edition, 2022.
- 3. Pankaj Garg. *Taxmann's Corporate and Economic Laws.* New Delhi: Taxmann Publications, 7th Edition, 2021.

#### REFERENCES

#### Books

- 1. Sekar.G. and Saravana Prasath.B. *Students' Handbook on Corporate and Economic Law.* New Delhi: Commercial Law Publishers (India) Pvt.Ltd., 2022.
- 2. Taxmann. *FEMA & FDI Ready Reckone.* New Delhi: Taxmann Publications, 15th Edition, 2021.
- 3. Ahuja. V.K. and Archa Vashishtha. *Intellectual Property Rights (contemporary Developments)* Toronto, (CAN): Thomson Reuters, 2020.

- 1. https://resource.cdn.icai.org/67333bos54154-m3cp1.pdf
- 2. https://resource.cdn.icai.org/67335bos54154-m3cp3.pdf
- 3. https://resource.cdn.icai.org/68523bos54855-cp1.pdf
- 4. https://resource.cdn.icai.org/68524bos54855-cp2.pdf

## PG Programme - M.Com (CA). SEMESTER - IV

## CORE COURSE - XII: HUMAN RESOURCE ANALYTICS (23PCPC42) (From 2023-2024 Batch onwards)

HOURS/WEEK: 6 (L-6) INT.MARKS: 25
CREDITS: 5 EXT.MARKS: 75
DURATION: 90 hrs MAX.MARKS: 100

### **Course Objectives**

- To understand the concept and framework of human resource analytics
- To evaluate the process of human resource analytics and the relevant research tools
- To illustrate the evolution, types and design of HR metrics
- To deal with data collection and transformation
- To adopt tools and techniques for predictive modelling

#### **Course Outcomes (CO)**

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

CO1[K1]:recall the concept of human resource analytics

CO2[K2]:explain the HR tools and techniques in decision making

CO3[K3]: examine the different types of HR metrics and their relative merits

CO4[K4]: collect and transform data leading to HR reporting

CO5[K5]:build models for predictive analysis

## **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	3	2	2	1	1	1	2
CO2[K2]	3	2	2	1	1	2	2
CO3[K3]	2	3	3	1	1	2	2
CO4[K4]	2	3	3	1	1	2	2
CO5[K5]	3	3	3	1	3	2	2
Weightage of the Course	13	13	13	5	7	9	10
Weighted percentage of Course contribution to POs	4.25	4.44	5.16	2.07	5.47	3.61	4.2

UNIT I (18 hrs)

**Introduction to Human Resource Analytics:** Human Resource Analytics: Introduction – Concept – Evolution - Importance – Benefits – Challenges - Types of HR Analytics – HR Analytics Framework and Models.

UNIT II (18 hrs)

**Business Process and HR Analytics:** Business Process and HR Analytics: Introduction – Data Driven Decision Making in HR - Data Issues – Data Validity – Data Reliability - HR Research tools and techniques –Statistics and Statistics Modelling for HR research.

UNIT III (18 hrs)

**Introduction to HR Matrics:** HR Metrics: Introduction - Historical Evolution of HR metrics- Importance - Types of HR Metrics - Types of data - HR Metrics Design Principles -- HR Scorecard - HR dashboards.

UNIT IV (18 hrs)

**HR Analytics and Data:** HR Analytics and Data: Introduction – HR Data Collection – Data quality – Big data for Human Resources – Process of data collection for HR Analytics - – Transforming data into HR information – HR Reporting – Data Visualization – Root cause analysis.

UNIT V (18 hrs)

**HR Analytics and Predictive Modelling:** HR Analytics and Predictive Modelling: Introduction – HR Predictive Modelling – Different phases – Predictive analytic tools and techniques – Information for Predictive analysis - Software solutions - Predictive Analytic Models for Quantitative Data - Steps involved in predictive analytics.

#### **TEXTBOOKS**

- 1. Nishant Uppal (2020), Human Resource Analytics Strategic Decision Making, 1st Edition, Pearson Education Pvt. Ltd., Chennai
- 2. Sarojkumar and Vikrant Verma (2022), HR analytics, Thakur Publication Pvt. Ltd, Lucknow.
- 3. Dipak Kumar Bhattacharyya (2017), HR analytics: understanding theories and applications, 1st Edition, Sage Publications India Private Limited, New Delhi

#### REFERENCES

#### **Books**

- 1. Ramesh Soundararajan and Kuldeep Singh (2019), Winning on HR analytics, Sage publishing, New Delhi
- 2. Anshul Saxena (2021), HR analytics: quantifying the intangible, 1st Edition, Blue Rose publishers, New Delhi
- 3. Michael J. Walsh (2021), "HR analytics essentials you always wanted to know", 7th Edition, Vibrant publishers, Mumbai.

- 1. https://hbr.org/webinar/2017/06/leveraging-hr-analytics-in-strategic-decisions
- 2. https://www.mbaknol.com/human-resource-management/human-resource-metrics/
- 3. https://www.managementstudyguide.com/hr-metrics-and-workforce-analysis.htm

## PG Programme - M.Com (CA). SEMESTER - IV

CORE COURSE - XIII : PROJECT WITH VIVA VOCE (23PCPJ41)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 10 INT.MARKS: 25
CREDITS: 7 EXT.MARKS: 75
DURATION: 150 hrs MAX.MARKS: 100

#### **Course Objectives**

- To familiarize the students with the objectives and stages in formulating a Research Project
- To enable the learners to identify the different stages of Research Methodology
- To adhere to the rules formulated in the latest edition of MLA hand book
- To employ the accurate documentation in executing Research project

### Course Outcomes (CO)

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

**CO1[K1]:**identify the unexplored areas of research

**CO2[K2]:**outline the objectives in formulating a research paper

**CO3[K3]**:apply the latest rules of documentation to cite Print, Non-print and Web Publications in a research paper

**CO4[K4]:** analyze the stages in writing a thesis – collecting and evaluating Sources and drafting documentation

**CO5[K6]:**prepare a rightly documented research project with adequate discussion, interpretation and evaluation

### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	3	2	1	2	1	1	1
CO2[K2]	3	2	2	2	1	1	1
CO3[K3]	3	2	2	2	1	1	1
CO4[K4]	3	2	3	3	1	1	1
CO5[K6]	2	2	3	3	2	1	1
Weightage of the Course	14	10	11	12	6	5	5
Weighted percentage of Course contribution to POs	4.58	3.41	4.37	4.96	4.69	2.01	2.1

#### **Guidelines**

- 1. Students are required to submit a project at the end of the IV semester. The student will work under a faculty member as the research guide.
- 2. Depending on the interest of the students, project research areas will be chosen.
- 3. Students must meet the guide periodically.
- 4. The project carries 100 marks of which 25 Marks for Internal Assessment and 75 Marks for External Examination.
- 5. There will be two project review sessions.
- 6. Each student must either present paper or participate in Conferences/Seminars related to his Project work.
- 7. A draft of the final project report should be submitted to the Project Guide for review at least three weeks prior to the end of the semester.
- 8. The project report should be of minimum 40 pages (excluding bibliography &appendices)
- 9. Three copies of the final project report should be submitted.
- 10. The Head of the department and the Project Guide will evaluate the final Project Report.
- 11. The viva voce board shall consist of the External Examiner, the Head of the Department and the Internal Examiner (Research Project Guide)

The following rubrics will be taken into account for the evaluation of Project work and viva-voce:

Internal Assessment (25 Marks)	External Examination (75 Marks)					
Project Report & Review : 15 Marks	Project Report : 25 Marks					
PowerPoint Presentation : 5 Marks	Viva Voce : 50 Marks					
Participation/Publications in Conferences or Seminars : 5 Marks						

PG Programme - M.Com (CA). SEMESTER - IV

## ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC-VI:CYBER AND DATA SECURITY (23PCPO41)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L-4) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

#### **Course Objectives**

- To identify threats and risks in cyber security landscape
- To interpret cyber security framework and regulations
- To examine data security and integrity regulations
- To discuss network security management
- To recall cyber security disasters

### **Course Outcomes (CO)**

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

**CO1[K1]**:define plans to mitigate risks and threats to cyber security

**CO2[K2]:**explain vulnerabilities in cyber security frameworks, data security and network security

**CO3[K3]:** apply issues in integrity issues in cyber data security and network security

**CO4[K4]:** illustrate radical changes in cyber security management

**CO5[K5]**:develop strategies to overcome cyber security disasters

### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
CO							
CO1[K1]	2	2	1	2	1	2	2
CO2[K2]	2	2	2	2	1	2	2
CO3[K3]	3	3	3	3	1	3	2
CO4[K4]	3	3	3	3	1	3	2
CO5[K5]	3	3	3	3	1	3	2
Weightage of the Course	13	13	12	13	5	13	10
Weighted percentage of	4.25	4.44	4.76	5.37	3.91	5.22	4.2
Course contribution to POs							

UNIT I (12 hrs)

**Cybersecurity Landscape:** Threats that are related to current and emerging trends, cyber security awareness, high profile cybercrime statistics and methods, the importance and functions of Governance, Risk Management, and Compliance in Cyber security program management, best practices in risk management including the domains of risk assessment and risk treatment, the structure and content of Cybersecurity-related strategy, plans, and planning. types of vulnerabilities and frauds in different domains eg. Financial and Banking, Ecommerce, Telecom, GDPR.

UNIT II (12 hrs)

**Cybersecurity Frameworks:** International and industry-specific cybersecurity regulations, challenges to organisation, multiple security regulations, Define key concepts and terminology in Cybersecurity, threats to cybersecurity, strategies to identify and remediate vulnerabilities in information assets, the systemic components (including personnel) necessary for an effective cybersecurity program, NIST Framework.

UNIT III (12 hrs)

**Data Security:** Data Integrity and Security, digital security, Data volume and velocity, Bigdata, multiple data sources, data diversity, Data (dis)organization, Unique data storage requirements, Security tools, Inflexible reporting and query systems.

UNIT IV (12 hrs)

**Managing Network Security:** The threats to data from information communication technology (ICT), the issues and practices associated with managing network security, Identify the practices, tools, and methodologies associated with assessing network security, the components of an effective network security program. Phishing attacks on sites, digital advertising spoofing, Search indexing.

UNIT V (12 hrs)

**Cybersecurity Incidents and Disasters:** Hacking attempts, web site defacement, denial of service attacks, information disclosures, natural and manmade cybersecurity disasters, the components of a cybersecurity contingency planning program, contingency strategies including data backup and recovery and continuity of cybersecurity operations, the components and structure of an effective cybersecurity disaster recovery program, the components and structure of an effective cybersecurity incident response program. Digital ecosystem, Cloud computing.

#### **TEXTBOOKS**

- 1. Nina Godbole and SunitBelapure. Cyber Security. New Delhi: Wiley India, 2016.
- 2. Avantika Yadav. *Cyber Security.* New Delhi: Narosa Publishing House Pvt Ltd,2017.
- 3. Tim Mather, Subra Kumaraswamy and Shahed Latif. *Cloud Security and Privacy*. USA: OREILLY Media, 2010.

#### REFERENCES

#### **Books**

- 1. Nina Godbole and SunitBelapure. *Information Systems Security*. New Delhi: Wiley India.
- 2. Kennetch J. Knapp. *Cyber Security & Global Information Assurance*. Information Science Publishing.
- 3. Thomas J Mowbray. *Cyber Security Managing Systems, Conducting Testing and Investigating Intrusions* . New Delhi: Wiley India Pvt. Ltd,2016.

- 1. https://mrcet.com/pdf/Lab%20Manuals/IT/CYBER%20SECURITY%20(R18A0 521).pdf
- 2. http://www.uptti.ac.in/classroomcontent/data/cyber%20security%20unit-3.pdf

## PG Programme - M.Com (CA).

#### **SEMESTER - IV**

# ELECTIVE COURSES GENERIC / DISCIPLINE SPECIFIC-VI:E-COMMERCE (23PCPO42)

#### (From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L-4) INT.MARKS: 25
CREDITS: 3 EXT.MARKS: 75
DURATION: 60 hrs MAX.MARKS: 100

#### **Course Objectives**

- To explain use of Information technology and e-commerce for entrepreneur
- To apply the functions of Windows operating system
- To analyze the advance functions of MS word
- To define the functions of MS excel
- To describe the concept of E-Commerce and Electronic payments

### **Course Outcomes (CO)**

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

**CO1[K1]**:describe the hardware and software of a system in E-Commerce

**CO2[K2]:** explain the functions of Windows operating system in E-Commerce

**CO3[K3]:** apply the advance functions of MS word in E-Commerce

**CO4[K4]:** analyze the functions of MS excel in E-Commerce

**CO5[K5]**: justify the concept of E-Commerce and Electronic payments

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	2	1	2	1	2	2
CO2[K2]	2	2	2	2	1	2	2
CO3[K3]	3	3	3	3	1	3	2
CO4[K4]	3	3	3	3	1	3	2
CO5[K5]	3	3	3	3	1	3	2
Weightage of the Course	13	13	12	13	5	13	10
Weighted percentage of	4.25	4.44	4.76	5.37	3.91	5.22	4.2
Course contribution to POs	1.20		2.70	0.07	5.71	J.22	

UNIT I (12 hrs)

**E-Commerce and Electronic Payment System:** What is Electronic Commerce - Brief history of Electronic Commerce - Advantages and Limitations of Electronic Commerce - Types of Electronic commerce - Integrating Electronic Commerce - Key questions for management - Overview of the Electronic payment technology- Requirements for Internet based payments - Electronic payment medium - Electronic Commerce and Banking

UNIT II (12 hrs)

**Electronic Data Interchange:** Benefits of EDI, EDI technology, EDI standards, EDI communications, EDI Implementation, EDI Agreements, EDI Security. Electronic Payment Systems, Need of Electronic Payment System: Study and examine the use of Electronic Payment system and the protocols used, Study Electronic Fund Transfer and secure electronic transaction protocol for credit card payment. Digital economy: Identify the methods of payments on the net – Electronic Cash, cheques and credit cards on the Internet.

UNIT III (12 hrs)

**Consumer Oriented E-Commerce:** E-Retailing: Traditional retailing and e retailing, Benefits of e retailing, Key success factors, Models of e retailing, Features of e retailing. E services: Categories of e-services, Web-enabled services, matchmaking services, Information-selling on the web, e entertainment, Auctions and other specialized services. Business to Business Electronic Commerce.

UNIT IV (12 hrs)

**E-Security and Web Based Business:** Security in the cyberspace - Designing for security -Virus -Security Protection and Recovery - Encryption - Business-to-Business Electronic Commerce - Intranets and Extranets - Intranets and Supply Chain Management - Legal and Ethical issues - Case studies.

UNIT V (12 hrs)

**Issues in E-Commerce:** Understanding Ethical, Social and Political issues in E-Commerce: A model for Organizing the issues, Basic Ethical Concepts, Analyzing Ethical Dilemmas, Candidate Ethical principles Privacy and Information Rights: Information collected at E-Commerce Websites, The Concept of Privacy, Legal protections Intellectual Property Rights: Types of Intellectual Property protection, Governance.

#### **TEXTBOOKS**

- 1. Ravi Kalkota and Andrew B Whinston. *Frontiers of Electronic Commerce*. Noida: Pearson.
- 2. Chan, Raymond Lee, Tharam Dillon and Elizabeth Chang. E-Commerce
- 3. Fundamentals and Applications. New Delhi: Wiley Publishers.
- 4. Senn. Information Technology: *Principles, Practices and Opportunities James*. New Delhi: Prentice Hall.
- 5. Richard Hammer. *Enterprise Resource Planning*.1998.

#### REFERENCES

#### **Books**

- 1. Efraim Turban, Jae Lee and David King ,H Electronic Commerce A Managerial Perspective. USA: Addison-Wesley, 2001.
- 2. Agrawal, Rahul Kotian, Tushar Agarwal and Vijalakshmi Kannan. *E Commerce and Digital Marketing*.Mumbai: Himalaya Publishing House. 2016.

- 1. https://www.slideshare.net/kamalgulati7/full-notes-on-ecommerce-study-m material-for-ecommerce
- 2. https://www.techtarget.com/searchcio/definition/e-commerce?amp

PG Programme - M.Com (CA). SEMESTER - IV

# SKILL ENHANCEMENT COURSE/ PROFESSIONAL COMPETENCY SKILL: COMMERCE FOR NET/SET/TRB EXAMINATIONS (23PCPS41)

(From 2023-2024 Batch onwards)

HOURS/WEEK: 4 (L-4)

CREDITS : 2 INT.MARKS :100 DURATION : 60 hrs MAX.MARKS :100

### **Course Objectives**

- To help the students update their knowledge in Commerce.
- To orient students with the broader genres of commerce in general.
- To introduce the learners to the elements of Business Environment, Accounting, Auditing, business economics
- To train the students to acquaint with strategies to crack NET/SET/TRB.

### **Course Outcomes (CO)**

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

**CO1[K1]:** identify the terms employed in the various commerce related subjects.

**CO2[K2]:** explain the prominent changes happen the business environment

**CO3[K3]:** articulate the major critical concepts in commerce focused in the competitive examinations

**CO4[K4]:** examine the recent changes in the commerce related field

**CO5[K5]:** assess the theories developed in commerce related field.

#### **CO-PO Mapping Table (Course Articulation Matrix)**

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	1	1	1	-	2	1
CO2[K2]	2	2	1	1	-	2	1
CO3[K3]	2	2	1	2	-	2	1
CO4[K4]	3	2	1	2	-	2	2
CO5[K5]	2	3	2	2	-	2	2
Weightage of the Course	11	10	6	8	-	10	7
Weighted percentage of Course contribution to POs	3.59	3.41	2.38	3.31	1	4.02	2.94

UNIT I (12 hrs)

**Business Environment:** Concepts and Elements of Business Environment. International Business: Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) - Balance of Payments (BOP) - Regional Economic Integration - International Economic institutions-World Trade Organisation (WTO)

UNIT II (12 hrs)

**Accounting:** Basic Accounting Principles and Concepts - Partnership Accounts - Corporate Accounting - Cost and Management Accounting - Financial Statements Analysis - Human Resources Accounting-Indian Accounting Standards and IFRS. Auditing: Recent Trends in Auditing. **Business Economics:** Demand Analysis - Consumer Behaviour - Cost of Capital and Time Value of Money.

UNIT III (12 hrs)

**Business Management:** Principles and Functions of Management - Organization Structure - Responsibility and Authority - Motivation and Leadership-Corporate Governance and Business Ethics. **Human Resource Management:** Human Resource Management - Performance Appraisal - Organizational Culture.

UNIT IV (12 hrs)

Banking and Financial Institutions: Types of Banks-Reserve Bank of India-Banking Sector Reforms in India-Financial markets - Financial Institutions-Digitisation of Banking and Other Financial Services - Insurance. Marketing Management: Marketing Concept and Approaches - Product Decisions - Pricing Decisions - Promotion Decisions - Distribution Decisions- Service Marketing - Trends in Marketing - Logistics Management

UNIT V (12 hrs)

**Income-Tax:** Income-Tax Basic Concepts- International Taxation. **Corporate Tax Planning:** Corporate Tax Planning - Techniques of Corporate Tax Planning - Deduction and Collection of Tax at Source; Advance Payment of Tax; E-filing of Income - Tax Returns.

#### **TEXTBOOK**

1. Truman.UGC NET/SET Commerce.New Delhi: Danika Publishing Company, Revised Edition. 2019.

#### REFERENCE

#### **Books**

- 1. Gupta,R.*UGC-NET Paper-I Teaching and Research Aptitude*.New Delhi:Ramesh Publishing House, Revised Edition, 2018.
- 2. Neetu Singh and ApekshaAgiwal. *NTA UGC NET/JRF/SET Commerce Paper-2*. New Delhi: Arihant Publication (India) Limited, Revised Edition, 2019.

- 1. https://testbook.com/banking-awareness/financial-market-in-india
- 2. https://www.innovative.org.in/study-material/ugc-net-jrf-commerce-study-materials/

PG Programme - M.Com (CA).

## SEMESTER - IV EXTENSION ACTIVITY

(From 2023-2024 Batch onwards)

HOURS/WEEK: CREDITS: 1

DURATION: INT.MARKS:100

### **Course Objectives**

- To promote community involvement, encourage civic participation, and foster a sense of ownership and responsibility.
- To involve the learners in organizing campaigns, seminars, or public events to educate the public, promote understanding, and advocate for positive change.
- To create platforms for knowledge sharing, partnership development, and collective action.
- To encourage environmental conservation, promote responsible resource management, or foster sustainable livelihoods.
- To raise awareness about social issues, advocate for marginalized groups, or implement programs that promote inclusivity and equal opportunities.

#### **Course Outcomes (CO)**

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

- **CO1[K1]:** recognize the importance of community service through training and education
- **CO2[K2]:** interpret ecological concerns, consumer rights, gender issues & legal protection
- **CO3[K3]:** develop team spirit, verbal/nonverbal communication and organizational ethics by participating in community service
- **CO4[K4]:** examine the necessity of professional skills & community-oriented services for a holistic development
- **CO5[K6]:** create awareness on human rights, legal rights, First Aid, Physical fitness and wellbeing

**CO-PO Mapping Table (Course Articulation Matrix)** 

PO	P01	P02	P03	P04	P05	P06	P07
СО							
CO1[K1]	2	ı	ı	2	2	1	1
CO2[K2]	2	1	ı	2	1	1	1
CO3[K3]	2	-	-	1	2	2	1
CO4[K4]	1	1	1	1	2	2	1
CO5[K5]	1	-	-	1	2	2	1
Weightage of the Course	8	2	1	7	9	8	5
Weighted percentage of	2.61	0.68	0.4	2.89	7.03	3.21	2.1
Course contribution to POs							

- 1. Physical Education
- 2. Red Ribbon Club (RRC)
- 3. Youth Red Cross (YRC)
- 4. Fine Arts Club
- 5. Library and Information Service Club
- 6. Yoga Club
- 7. ECO Club
- 8. Consumer Club
- 9. Human Rights Club
- 10. Women Empowerment Cell
- 11. Legal Awareness League