M Com COMMERCE with COMPUTER APPLICATIONS

LOCF SYLLABUS 2023

Department of Commerce Computer Applications

School of Management Studies

St. Joseph's College (Autonomous)

Tiruchirappalli - 620002, Tamil Nadu, India

SCHOOLS OF EXCELLENCE WITH CHOICE BASED CREDIT SYSTEM (CBCS) POSTGRADUATE COURSES

St. Joseph's College (Autonomous), an esteemed institution in the realm of higher education in India, has embarked on a journey to uphold and perpetuate academic excellence. One of the pivotal initiatives in this pursuit is the establishment of five Schools of Excellence commencing from the academic year 2014-15. These schools are strategically designed to confront and surpass the challenges of the 21st century.

Each School amalgamates correlated disciplines under a unified umbrella, fostering synergy and coherence. This integrated approach fosters the optimal utilization of both human expertise and infrastructure. Moreover, it facilitates academic fluidity and augments employability by nurturing a dynamic environment conducive to learning and innovation. Importantly, while promoting collaboration and interdisciplinary study, the Schools of Excellence also uphold the individual identity, autonomy, and distinctiveness of every department within.

The overarching objectives of these five schools are as follows:

1. Optimal Resource Utilization: Ensuring the efficient use of both human and material resources to foster academic flexibility and attain excellence across disciplines.

2. Horizontal Mobility for Students: Providing students with the freedom to choose courses aligning with their interests and facilitating credit transfers, thereby enhancing their academic mobility and enriching their learning experience.

3. Credit-Transfer Across Disciplines (CTAD): The existing curricular structure, compliant with regulations from entities such as TANSCHE and other higher educational institutions, facilitates seamless credit transfers across diverse disciplines. This underscores the adaptability and uniqueness of the choice-based credit system.

4. Promotion of Human Excellence: Nurturing excellence in specialized areas through focused attention and resources, thus empowering individuals to excel in their respective fields.

5. Emphasis on Internships and Projects: Encouraging students to engage in internships and projects, serving as stepping stones toward research endeavors, thereby fostering a culture of inquiry and innovation.

6. Addressing Stakeholder Needs: The multi-disciplinary nature of the School System is tailored to meet the requirements of various stakeholders, particularly employers, by equipping students with versatile skills and competencies essential for success in the contemporary professional landscape.

In essence, the Schools of Excellence at St. Joseph's College (Autonomous) epitomize a holistic approach towards education, aiming not only to impart knowledge but also to cultivate critical thinking, creativity, and adaptability – qualities indispensable for thriving in the dynamic global arena of the 21st century.

Credit system

The credit system at St. Joseph's College (Autonomous) assigns weightage to courses based on the hours allocated to each course. Typically, one credit is equivalent to one hour of instruction per week. However, credits are awarded regardless of actual teaching hours to ensure consistency and adherence to guidelines.

The credits and hours allotted to each course within a programme are detailed in the Programme Pattern table. While the table provides a framework, there may be some flexibility due to practical sessions, field visits, tutorials, and the nature of project work.

For postgraduate (PG) courses, students are required to accumulate a minimum of 110 credits, as stipulated in the programme pattern table. The total minimum number of courses offered by the department is outlined in the Programme Structure.

OUTCOME-BASED EDUCATION (OBE)

OBE is an educational approach that revolves around clearly defined goals or outcomes for every aspect of the educational system. The primary aim is for each student to successfully achieve these predetermined outcomes by the culmination of their educational journey. Unlike traditional methods, OBE does not prescribe a singular teaching style or assessment format. Instead, classes, activities, and evaluations are structured to support students in attaining the specified outcomes effectively.

In OBE, the emphasis lies on measurable outcomes, allowing educational institutions to establish their own set of objectives tailored to their unique context and priorities. The overarching objective of OBE is to establish a direct link between education and employability, ensuring that students acquire the necessary skills and competencies sought after by employers.

OBE fosters a student-centric approach to teaching and learning, where the delivery of courses and assessments are meticulously planned to align with the predetermined objectives and outcomes. It places significant emphasis on evaluating student performance at various levels to gauge their progress and proficiency in meeting the desired outcomes.

Here are some key aspects of Outcome-Based Education:

Course: A course refers to a theory, practical, or a combination of both that is done within a semester.

Course Outcomes (COs): These are statements that delineate the significant and essential learning outcomes that learners should have achieved and can reliably demonstrate by the conclusion of a course. Typically, three or more course outcomes are specified for each course, depending on its importance.

Programme: This term pertains to the specialization or discipline of a degree programme.

Programme Outcomes (POs): POs are statements that articulate what students are expected to be capable of by the time they graduate. These outcomes are closely aligned with Graduate Attributes.

Programme Specific Outcomes (PSOs): PSOs outline the specific skills and abilities that students should possess upon graduation within a particular discipline or specialization.

Programme Educational Objectives (PEOs): PEOs encapsulate the expected accomplishments of graduates in their careers, particularly highlighting what they are expected to achieve and perform during the initial years postgraduation.

LEARNING OUTCOME-BASED CURRICULUM FRAMEWORK (LOCF)

The Learning Outcomes-Centric Framework (LOCF) places the learning outcomes at the forefront of curriculum design and execution. It underscores the importance of ensuring that these outcomes are clear, measurable, and relevant. LOCF orchestrates teaching methodologies, evaluations, and activities in direct correlation with these outcomes. Furthermore, LOCF adopts a backward design approach, focusing on defining precise and attainable learning objectives. The goal is to create a cohesive framework where every educational element is in harmony with these outcomes.

Assessment practices within LOCF are intricately linked to the established learning objectives. Evaluations are crafted to gauge students' achievement of these outcomes accurately. Emphasis is often placed on employing authentic assessment methods, allowing students to showcase their learning in real-life scenarios. Additionally, LOCF frameworks emphasize flexibility and adaptability, enabling educators to tailor curriculum and instructional approaches to suit the diverse needs of students while ensuring alignment with the defined learning outcomes.

Some important terminologies

Core Courses (CC): *These are compulsory courses that students must undertake as essential components of their curriculum, providing fundamental knowledge within their primary discipline. Including core courses is essential to maintain a standardized academic programme, ensuring recognition and consistency across institutions.*

Common Core (CC): *A common core course is a shared educational element encompassing fundamental topics across disciplines within a school. It promotes interdisciplinary comprehension and collaboration among students by providing a foundational understanding of key subjects essential for academic and professional success across diverse fields of study.*

Elective Courses (ES): *Elective courses are offered within the main discipline or subject of study. They allow students to select specialized or advanced options from a range of courses, offering in-depth exposure to their chosen area of study. Typically, ES are more applied in nature and provide a deeper understanding of specific topics.*

Generic Elective Courses (EG): *These elective courses are chosen from disciplines unrelated to the student's main area of study, aiming to broaden their exposure and knowledge base. As per the Choice Based Credit System (CBCS) policy, students may opt for generic elective courses offered by other disciplines within the college, enhancing the diversity of their learning experience.*

Ability Enhancement Course (AE): *AE is designed to enhance skills and proficiencies related to the student's main discipline. It aims to provide practical training and hands-on experience, contributing to the overall development of students pursuing academic programmes.*

Skill Enhancement Course (SE): *SE focus on developing specific skills or proficiencies relevant to students' academic pursuits. While it is open to students from any discipline, SE is particularly beneficial for those within the related academic programme.*

Self-paced Learning (SP): *This course promotes independent learning habits among students and they have to undergo the course outside the regular class hours within a specified timeframe.*

Comprehensive Examinations (CE): *These examinations cover detailed syllabi comprising select units from courses offered throughout the programme. They are designed to assess crucial knowledge and content that may not have been covered extensively in regular coursework.*

Extra Credit Courses: *To support students in acquiring knowledge and skills through online platforms such as Massive Open Online Courses (MOOCs), additional credits are granted upon verification of course completion. These extra credits can be availed across five semesters (2 - 6). In line with UGC guidelines, students are encouraged to enhance their learning by enrolling in MOOCs offered by portals like SWAYAM, NPTEL, and others. Additionally, certificate courses provided by the college are also considered for these extra credits.*

Outreach Programme (OR): *It is a compulsory course to create a sense of social concern among all the students and to inspire them to dedicated service to the needy.*

Course Coding

The following code system (10 alphanumeric characters) is adopted for Postgraduate courses:

23	**UXX**	**0**	**XX**	**00/X**
Year of Revision	PG Department Code	Semester Number	Course Specific Initials*	Running Number/with Choice

***Course Specific Initials**

CC - Core Course

CP - Core Practical

ES - Elective

AE - Ability Enhancement Course

SP - Self-paced Learning

EG - Generic Elective

PW - Project and Viva Voce

CE - Comprehensive Examination

OR - Outreach Programme

IS - Internship

EVALUATION PATTERN

Continuous Internal Assessment

Sl No	Component	Marks Alloted
1	Mid Semester Test	30
2	End Semester Test	30
3	*Three Components (15 + 10 + 10)	35
4	Library Referencing (30 hours)	5
	Total	**100**

Passing minimum: 50 marks

* *The first component is a compulsory online test (JosTEL platform) comprising 15 multiple choice questions (10 questions at K1 level and 5 questions at K2 level); The second and the third components are decided by the course in-charge.*

Question Paper Blueprint for Mid and End Semester Tests

<table>
<tr><td colspan="3">Duration: 2 Hours</td><td colspan="6">Maximum Marks: 60</td></tr>
<tr><td colspan="2" rowspan="2">Section</td><td colspan="6">K levels</td><td rowspan="2">Marks</td></tr>
<tr><td>K1</td><td>K2</td><td>K3</td><td>K4</td><td>K5</td><td>K6</td></tr>
<tr><td colspan="2">A (compulsory)</td><td>7</td><td></td><td></td><td></td><td></td><td></td><td>7 × 1 = 7</td></tr>
<tr><td colspan="2">B (compulsory)</td><td></td><td>5</td><td></td><td></td><td></td><td></td><td>5 × 3 = 15</td></tr>
<tr><td colspan="2">C (either…or type)</td><td></td><td></td><td>3</td><td></td><td></td><td></td><td>3 × 6 = 18</td></tr>
<tr><td rowspan="4">D (2 out of 3)</td><td>For courses with K5 as the highest cognitive level, one K4 and one K5 question is compulsory.
(Note: two questions on K4 and one question on K5)</td><td></td><td></td><td></td><td>1</td><td>1*</td><td></td><td rowspan="4">2 × 10 = 20</td></tr>
<tr><td rowspan="3">For courses with K6 as the highest cognitive level: Mid Sem: two questions on K4 and one question on K5; End Sem: two questions on K5 and one question on K6)</td><td></td><td></td><td></td><td colspan="2">Mid Sem</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td colspan="2">End Sem</td></tr>
<tr><td></td><td></td><td></td><td>1</td><td>1</td><td>1*</td></tr>
<tr><td colspan="7">Total</td><td>60</td></tr>
</table>

***** *Compulsory*

Question Paper Blueprint for Semester Examination

Duration: 3 Hours						**Maximum Marks: 100**
UNIT	**Section A** *(Compulsory)*	**Section B** *(Compulsory)*	**Section C** *(Either…or type)*	**Section D** *(3 out of 5)*		
	K1	**K2**	**K3**	**K4**	**K5**	**K6**
UNIT I	2	2	2	2*	2*	1*
UNIT II	2	2	2			
UNIT III	2	2	2			
UNIT IV	2	2	2			
UNIT V	2	2	2			
Marks	**10 × 1 = 10**	**10 × 3 = 30**	**5 × 6 = 30**	**3 × 10 = 30**		

** For courses with K6 as the highest cognitive level wherein one question each on K4, K5 and K6 is compulsory.*
(Note: two questions each on K4 and K5 and one question on K6)

Evaluation Pattern for One/Two-credit Courses

Title of the Course	CIA	Semester Examination	Total Marks
• Ability Enhancement Course	20 + 10 + 20 = 50	50 *(A member from the Department other than the course instructors)*	100
• Self-paced Learning • Comprehensive Examination	25 + 25 = 50	50 *(CoE)*	100
• Internship	100	-	100
• Skill Enhancement Course: Soft Skills	100	-	100
• Project Work and Viva Voce	100	100	100

Grading System

The marks obtained in the CIA and semester for each course will be graded as per the scheme provided in Table - 1.

From the second semester onwards, the total performance within a semester and the continuous performance starting from the first semester are indicated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), respectively. These two are calculated by the following formulae:

$$SGPA \ and \ CGPA = \frac{\sum_{i=1}^{n} C_i Gp_i}{\sum_{i=1}^{n} C_i}$$

$$WAM = \frac{\sum_{i=1}^{n} C_i M_i}{\sum_{i=1}^{n} C_i}$$

Where,

Ci - credit earned for the Course i

Gpi - Grade Point obtained for the Course i

Mi - Marks obtained for the Course i

*n - Number of Courses **passed** in that semester*

WAM - Weighted Average Marks

Table - 1: Grading of the Courses

Mark Range	Grade Point	Corresponding Grade
90 and above	10	O
80 and above and below 90	9	A+
70 and above and below 80	8	A
60 and above and below 70	7	B+
50 and above and below 60	6	B
Below 50	0	RA

Table - 2: Grading of the Final Performance

CGPA	Grade	Performance
9.00 and above	O	Outstanding*
8.00 to 8.99	A+	Excellent*
7.00 to 7.99	A	Very Good
6.00 to 6.99	B+	Good
5.00 to 5.99	B	Above Average
Below 5.00	RA	Re-appear

**The Candidates who have passed in the first appearance and within the prescribed duration of the PG programme are eligible. If the Candidates Grade is O/A+ with more than one attempt, the performance is considered "Very Good".*

Vision

Forming globally competent, committed, compassionate and holistic persons, to be men and women for others, promoting a just society.

Mission

- Fostering learning environment to students of diverse background, developing their inherent skills and competencies through reflection, creation of knowledge and service.
- Nurturing comprehensive learning and best practices through innovative and value- driven pedagogy.
- Contributing significantly to Higher Education through Teaching, Learning, Research and Extension.

Programme Educational Objectives (PEOs)

1. Graduates will be able to accomplish professional standards in the global environment.
2. Graduates will be able to uphold integrity and human values.
3. Graduates will be able to appreciate and promote pluralism and multiculturalism in working environment.

Programme Outcomes (POs)

1. Graduates will be able to apply assimilated knowledge to evolve tangible solution to emerging problems.
2. Graduates will be able to analyze and interpret data to create and design new knowledge.
3. Graduates will be able to engage in innovative and socially relevant research and effectively communicate the findings.
4. Graduates will become ethically committed professional and entrepreneurs upholding human values.
5. Graduates imbibed with ethical values and social concern will be able to understand and appreciate cultural diversity, social harmony and ensure sustainable environment.

Programme Specific Objectives (PSOs)

1. Graduates will obtain the knowledge and ability in computer applications by gaining and training in Data base systems, RDBMS, web designing, OOP with C++ and JAVA , Object-Oriented Programming, Financial Accounting Package-Tally ERP-9 and have inter-twining competence in the field of Commerce and Computer Application.
2. Graduates are trained with managerial skills, human resource management, and management information system to get employment and leadership in global level.
3. Graduates are trained with the applicationoriented research through research for business decisions.
4. Graduates become proficient in using information technology and accounting tools in decision making process, get acquainted with the knowledge to pursue higher education through research.
5. Graduates will acquire the ability of entrepreneurship sills in business and techniques of managing the business with special focus on cost Accounting, labour laws, operation research and Business taxation.

PROGRAMME STRUCTURE				
Semester	**Course Specification**	**Number of Courses**	**Hours**	**Credits**
1 - 4	Core Course	12	58	53
1 - 4	Core Practical	5	17	16
1, 2, 4	Elective	4	20	14
1	Ability Enhancement Course	1	2	1
2	Self-paced Learning	1	-	2
2	Skill Enhancement Course	1	4	3
2, 3	Generic Elective	2	8	6
3	Common Core	1	5	4
2 - 4	Extra Credit Course	3	-	(9)
4	Project Work and Viva Voce	1	6	5
4	Comprehensive Examination	1	-	2
2 - 4	Outreach Programme (SHEPHERD)	-	-	4
	Total	**32**	**120**	**110(9)**

M.Com COMMERCE with COMPUTER APPLICATIONS							
Course Details					Scheme of Exams		
Sem	**Course Code**	**Title of the Course**	**Hours**	**Credits**	**CIA**	**SE**	**Final**
1	23PCC1CC01	**Core Course - 1:** Business Finance	6	5	100	100	100
	23PCC1CC02	**Core Course - 2:** Digital Marketing	4	3	100	100	100
	23PCC1CC03	**Core Course - 3:** Banking and Insurance	5	5	100	100	100
	23PCC1CP01	**Core Practical - 1:** Digital Marketing	3	3	100	100	100
	23PCC1ES01	**Elective - 1:** Industry 4.0	5	3	100	100	100
	23PCC1ES02	**Elective - 2:** Enterprise Resource Planning	5	3	100	100	100
	23PCC1AE01	**Ability Enhancement Course:** Advanced Excel	2	1	100	-	100
		Total	**30**	**23**			
2	23PCC2CC04	**Core Course - 4:** Managerial Skills	5	4	100	100	100
	23PCC2CC05	**Core Course - 5:** Cost Accounting Techniques	6	5	100	100	100
	23PCC2CC06	**Core Course - 6:** Python Programming	3	3	100	100	100
	23PCC2CP02	**Core Practical - 2:** Python Programming	3	3	100	100	100
	23PCC2SP01A	**Self-paced Learning:** Fundamentals of Insurance*	-	2	50	50	50
	23PCC2SP01B	**Self-paced Learning:** Cloud Computing*					
	23PCC2ES03A	**Elective - 3:** Operations Research	5	4	100	100	100
	23PCC2ES03B	**Elective - 3:** Knowledge Management					
	23PSS2SE01	**Skill Enhancement Course:** Soft Skills	4	3	100	-	100
	-	**Generic Elective - 1(WS):** Refer ANNEXURE 1	4	3	100	100	100
	-	Extra Credit Courses (MOOC/ Certificate Courses) - 1	-	(3)			
		Total	**30**	**27(3)**			
3	23PCC3CC07	**Core Course - 7:** Methodology for Social Science Research	5	5	100	100	100
	23PCC3CP03	**Core Practical - 3:** Computer Application in Business Statistics	3	3	100	100	100
	23PCC3CC08	**Core Course - 8:** Organizational Behaviour	5	5	100	100	100
	23PCC3CC09	**Core Course - 9:** Big Data Analysis	5	5	100	100	100
	23PCC3CP04	**Core Practical - 4:** Data Analysis Using R	3	3	100	100	100
	23SMS3CC01	**Common Core:** Human Resource Management	5	4	100	100	100
	-	**Generic Elective - 2 (BS):** Refer ANNEXURE 2	4	3	100	100	100
	-	Extra Credit Courses (MOOC/ Certificate Courses) - 2	-	(3)			
		Total	**30**	**28(3)**			
4	23PCC4CC10	**Core Course - 10:** Business Taxation	7	6	100	100	100
	23PCC4CC11	**Core Course - 11:** Financial Accounting Package - TallyPrime	3	3	100	100	100
	23PCC4CC12	**Core Course - 12:** Software Engineering	4	4	100	100	100
	23PCC4CP05	**Core Practical - 5:** Financial Accounting Package - TallyPrime	5	4	100	100	100
	23PCC4ES04A	**Elective - 4:** Labour Legislations	5	4	100	100	100
	23PCC4ES04B	**Elective - 4:** International Business					
	23PCC4PW01	Project Work and Viva Voce	6	5	100	100	100
	23PCC4CE01	Comprehensive Examination*	-	2	50	50	50
	-	Extra Credit Courses (MOOC/ Certificate Courses) - 3	-	(3)			
		Total	**30**	**28(3)**			
2 - 4	23PCW4OR01	Outreach Programme (SHEPHERD)		4			
1 - 4		**Total (2 years)**	**120**	**110(9)**			

*- for grade calculation 50 marks are converted into 100 in the mark statements

Passed by	***Board of Studies held on 18.12.2023***
Approved by	***48th Academic Council Meeting held on 27.03.2024***

ANNEXURE 1
Generic Elective - 1 (WS)*

Course Details		
School	**Course Code**	**Title of the Course**
SMS	23PCO2EG01	Accounting for Managers
	23PCP2EG01	Personality Development
	23PEC2EG01	Labour Economics
	23PHR2EG01	Human Behaviour

**Offered to students from other Departments within School*

ANNEXURE 2
Generic Elective - 1 (BS)*

Course Details		
School	**Course Code**	**Title of the Course**
SBS	23PBI3EG02	First Aid Management
	23PBT3EG02	Food Technology
	23PBO3EG02	Horticulture and Landscaping
SCS	23PCA3EG02	Web Design
	23PCS3EG02	Advances in Computer Science
	23PDS3EG02	Information Security and Ethics
	23PMA3EG02	Operations Research
SLAC	23PEN3EG02	English for Effective Communication
SPS	23PCH3EG02	Health Science
	23PEL3EG02	Computer Hardware and Networks
	23PPH3EG02A	Physics for Competitive Exams
	23PPH3EG02B	Nanoscience

**Offered to students from other Schools*

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1CC01	**Core Course - 1:** Business Finance	6	5

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 start-up financing
To examine cash and inventory management techniques
To appraise capital budgeting techniques for MNCs

UNIT I: Introduction to Business Finance and Time vale of money (18 hours)

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: Risk Management (18 hours)

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

UNIT III: Start-up Financing and Leasing (18 hours)

Start-up 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: Cash, Receivable and Inventory Management (18 hours)

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: Multi National Capital Budgeting (18 hours)

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.

Teaching Methodology	Black Board, PPT and Case Study

Books for Study

1. Maheshwari, S. N. (2019). *Financial Management: Principles and Practices*, (15th Ed.). Sultan Chand & Sons.
2. Khan, M. Y. & Jain, P. K. (2011). *Financial Management: Text, Problems and Cases*, (8th Ed.). McGraw Hill Education.
3. Chandra, P. (2019). *Financial Management: Theory and Practice*, (10th Ed.). McGraw Hill Education.
4. Apte, P. G. (2020). *International Financial Management*, (8th Ed.). Tata McGraw Hill.

Books for Reference

1. Pandey, I. M. (2021). *Financial Management*, (12th Ed.). Pearson India Education Services Pvt. Ltd.
2. Kulkarni, P. V. & Satyaprasad, B. G. (2015). *Financial Management*, (14th Ed.). Himalaya Publishing House Pvt Ltd.
3. Rustagi, R. P. (2022). *Financial Management: Theory, Concept, Problems*, (6th Ed.). Taxmann Publications Pvt. Ltd.
4. Rufus, A. G. *et al*. (2017). *Financial Management*, (1st Ed.). Himalaya Publishing House Pvt

Ltd.

Websites and eLearning Sources

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

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	enlighten the basic concepts of Business Finance	**K1**
CO2	extract and determine Time value of money and Capital budgeting tools	**K2**
CO3	discover lease finance and other sources of finance for start-ups	**K3**
CO4	illustrate cash receivable and inventory management techniques	**K4**
CO5	evaluate techniques of longterm investment decision incorporating risk factor	**K5**
CO6	develop the tools for business finance decision	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1CC01**			**Core Course - 1:** Business Finance						**6**	**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	1	3	3	2	1	2	**2.2**
CO2	2	2	3	1	3	2	3	2	2	2	**2.2**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	1	2	3	2	1	2	3	2	2	2	**2.0**
CO5	3	3	2	2	1	2	3	3	1	2	**2.2**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.23 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1CC02	**Core Course - 2:** Digital Marketing	4	3

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 behaviour
To interpret data from social media and to evaluate game based marketing

UNIT I: Introduction to Digital Marketing **(12 Hours)**

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: Online marketing mix **(12 Hours)**

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: Digital media channels **(12 Hours)**

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: Online consumer behavior **(12 Hours)**

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: Analytics and Gamification **(12 Hours)**

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.

Teaching Methodology	PPT, Videos and Demonstration models

Books for Study

1. Bhatia, P. S. (2019). *Fundamentals of Digital Marketing*, (2nd Ed.). Pearson Education Pvt Ltd.
2. Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital Marketing*. Pearson Education Pvt Ltd.
3. Hemann, C., & Burbary, K. (2019). *Digital Marketing Analytics*. Pearson Education Pvt Ltd.
4. Gupta, S. (2022). *Digital Marketing*, (3rd Ed.). McGraw Hill Publications.
5. Upadhyay, K. C. (2021). *Digital Marketing: Complete Digital Marketing Tutorial*. Notion Press.
6. Branding, M. (2021). *Digital Marketing*. Empire Publications India Private Ltd.

Books for Reference

1. Ahuja, V. (2016). *Digital Marketing*. Oxford University Press.
2. Deiss, R., & Henneberry, R. (2017). *Digital Marketing*. John Wiley & Sons Inc. Hoboken.
3. Charlesworth, A. (2014). *Digital Marketing - A Practical Approach*. Routledge.
4. Kingsnorth, S. (2022). *Digital Marketing Strategy: An Integrated Approach to Online Marketing*. Kogan Page Ltd.
5. Moutusy, M. (2022). *Digital Marketing*, (2nd Ed.). Oxford University Press.

Websites and eLearning Sources

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

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	explain the dynamics of digital marketing	**K1**
CO2	examine online marketing mix	**K2**
CO3	compare digital media channels	**K3**
CO4	interpret online consumer behavior	**K4**
CO5	analyse social media data	**K5**
CO6	design the Digital Branding and Marketing	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1CC02**			**Core Course - 2:** Digital Marketing						**4**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
									Mean Overall Score		**2.4 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1CC03	**Core Course - 3:** Banking and Insurance	5	5

Course Objectives
To understand the evolution of new banking era
To explore the digital banking techniques
To analyse the role of insurance sectors
To evaluate the mechanism of customer service in insurance and the relevant regulations
To examine the risk and its impact on banking and insurance industry

UNIT I: Introduction to Banking **(15 hours)**

Banking: Brief History of Banking - Rapid Transformation in Banking: Customer Shift - Fin tech Overview - Fin tech 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: Contemporary Developments in Banking **(15 hours)**

Distributed Ledger Technology - Block chain: Meaning - Structure of Block Chain - Types of Block Chain - Differences between DLT and Block chain - Benefits of Block chain 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: Indian Insurance Market **(15 hours)**

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

UNIT IV: Customer Services in Insurance **(15 hours)**

Customer Service in Insurance - Quality of Service-Role of Insurance Agents in Customer Service-Agent's Communication and Customer Service -Ethical Behavior 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: Risk Management **(15 hours)**

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

Teaching Methodology	Videos, PPT and Creation of Models

Books for Study

1. Indian Institute of Banking and Finance. (2021). *Principles & Practices of Banking,* (5th Ed.). Macmillan Education India Pvt. Ltd.
2. Mishra, M. N., & Mishra, S. B. (2016). *Insurance Principles and Practice,* (22nd Ed.). S. Chand & Company Ltd.
3. Vaughan, E. & Vaughan, T. M. (2013). *Fundamentals of Risk and Insurance,* (11th Ed.). Wiley & Sons.
4. Lynn, T. *et al*. (2018). *Disrupting Finance: FinTech and Strategy in the 21st century.* (Palgrave Studies in Digital Business & Enabling Technologies). Macmillan Publishers**.**

Books for Reference

1. Sundharam, K. P. M. & Varshney, P. N. (2020). *Banking Theory, Law and Practice,* (20th Ed.). Sultan Chand & Sons.
2. Gordon & Natarajan. (2022). *Banking Theory, Law and Practice,* (9th Ed.). Himalaya

Publishing House Pvt Ltd.
3. Gupta, P. K. (2021). *Insurance and Risk Management*, (6th Ed.). Himalaya Publishing House Pvt Ltd.
4. Chishti, C. & Barberis, J. (2016). *The Fintech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries*. John Wiley & Sons.

Websites and eLearning Sources

1. https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financialtechnology
2. https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%
3. 20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20 PDF.pdf
4. https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=Page No108&flag=1

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	understand the transformations in the new banking era.	**K1**
CO2	acquire knowledge on the modern techniques of digital banking	**K2**
CO3	apply the reforms and grievance redressel in insurance sectors	**K3**
CO4	examine the regulatory mechanism	**K4**
CO5	assess risk mitigation strategies	**K5**
CO6	formulate the tools for controlling risks	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1CC03**			**Core Course - 3:** Banking and Insurance						**5**	**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	1	3	3	2	1	2	**2.2**
CO2	2	2	3	1	3	2	3	2	2	2	**2.2**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	1	2	3	2	1	2	3	2	2	2	**2.0**
CO5	3	3	2	2	1	2	3	3	1	2	**2.2**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
									Mean Overall Score		**2.23 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1CP01	**Core Practical - 1:** Digital Marketing	3	3

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 behaviour
To interpret data from social media and to evaluate game based marketing

Course Units

1. Digital Marketing Channels
2. Applications in Digital Marketing
3. SEO Marketing
4. Email Advertising
5. Online Marketing:

a. E-Product, E-Promotion-Price, E-Place 6. Websites, online Shopping

6. Digital Media Channels:

a. Facebook, Twitter, Corporate blogs

7. Mobile / Web Marketing

a. YouTube, Slide share, Pinterest, Instagram, Snapchat, LinkedIn

Teaching Methodology	Practical Lab

Books for Study

1. Bhatia, P. S. (2019). *Fundamentals of Digital Marketing,* (2nd Ed.). Pearson Education Pvt Ltd.
2. Chaffey, D & Ellis-Chadwick, F. (2019). *Digital Marketing*. Pearson Education Pvt Ltd.
3. Hemann, C., & Burbary, K. (2019). *Digital Marketing Analytics*. Pearson Education Pvt Ltd.
4. Gupta, S. (2022). *Digital Marketing,* (3rd Ed.). McGraw Hill Publications.
5. Upadhyay, K. C. (2021). *Digital Marketing: Complete Digital Marketing Tutorial*. Notion Press.
6. Branding, M. (2021). *Digital Marketing*. Empire Publications India Private Ltd.

Books for Reference

1. Ahuja, V. (2016). *Digital Marketing*. Oxford University Press.
2. Deiss, R., & Henneberry, R. (2017). *Digital Marketing*. John Wiley & Sons Inc. Hoboken.
3. Charlesworth, A. (2014). *Digital Marketing - A Practical Approach*. Routledge.
4. Kingsnorth, S. (2022). *Digital Marketing Strategy: An Integrated Approach to Online Marketing*. Kogan Page Ltd.
5. Moutusy, M. (2022). *Digital Marketing,* (2nd Ed.). Oxford University Press.

Websites and eLearning Sources

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

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	explain the dynamics of digital marketing	**K1**
CO2	examine online marketing mix	**K2**
CO3	compare digital media channels	**K3**
CO4	interpret online consumer behavior	**K4**
CO5	analyse social media data	**K5**
CO6	design the Digital Branding and Marketing	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1CP01**			**Core Practical - 1:** Digital Marketing						**3**	**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean Overall Score	**2.4 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1ES01	**Elective - 1:** Industry 4.0	5	3

Course Objectives
To impart basic idea in Industry 4.0
To Introduce the basic principles, techniques, Applications and tools of Artificial Intelligence
To understand the essential of Big Data in Industry 4.0
To understand the various Application areas of IOT
To understand Framework for aligning Education with Industry 4.0

UNIT I: Introduction **(15 Hours)**

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: Artificial Intelligence **(15 Hours)**

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: Big Data **(15 Hours)**

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 Use cases: 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: Applications of IoT **(15 Hours)**

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: Industry 4.0 **(15 Hours)**

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.

Teaching Methodology	PPT and E-Videos

Books for Study

1. Acharya, S. J. & Chellappan, S. (2019). *Big Data and Analytics*, (2nd Ed.). Wiley Publication.
2. Russel, S. & Norvig, P. (2010). *Artificial Intelligence: A Modern Approach*, (3rd Ed.). Prentice Hall.
3. Raj, P. & Raman, A. C. (2017). T*he Internet of Things: Enabling Technologies, Platforms, and Use cases*. Auerbach Publications.

Books for Reference

1. Hurwitz, J. *et al. Big Data for Dummies*. John Wiley & Sons, Inc.
2. Nilsson. (2000). *Artificial Intelligence: A New Synthesis*. Nils J Harcourt Asia PTE Ltd.

Websites and eLearning Sources

1. https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SEEA1403.pdf
2. https://library.oapen.org/bitstream/handle/20.500.12657/43836/external_content.pdf?sequence=1
3. https://www.vssut.ac.in/lecture_notes/lecture1428643004.pdf

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	identify the changes from industry 1.0 to 4.0	**K1**
CO2	understand the challenges and future prospects of applying artificial intelligence	**K2**
CO3	apply big data for industrial growth and development	**K3**
CO4	analyze the implementation of IoT in various sectors like Manufacturing, Healthcare, Education, Aerospace and Defence	**K4**
CO5	evaluate why education has to be aligned with industry 4.0	**K5**
CO6	combine the various technologies of Industry 4.0	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1ES01**			**Elective - 1:** Industry 4.0						**5**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	1	2	3	3	2	1	2	**2.2**
CO2	2	3	3	2	1	3	3	3	2	2	**2.4**
CO3	2	3	3	2	2	2	3	3	2	2	**2.4**
CO4	3	3	3	1	2	3	3	3	2	3	**2.6**
CO5	2	3	3	1	2	2	3	3	2	1	**2.3**
CO6	2	3	3	2	2	2	3	3	2	2	**2.4**
									Mean Overall Score		**2.38 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1ES02	**Elective - 2:** Enterprise Resource Planning	5	3

Course Objectives
To learn the history and growth of ERP
To understand the risks involved while using ERP
To gain knowledge on the various ERP technologies
To learn the dynamics of ERP marketplace
To choose appropriate ERP solutions or packages

UNIT I: Enterprise an Overview **(15 Hours)**

Business Functions and Business Processes - Integrated Management Information - Business Modeling - 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: Risk of ERP **(15 Hours)**

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: ERP and related Technologies **(15 Hours)**

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: ERP Market Place and Market place dynamics **(15 Hours)**

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: ERP Implementation **(15 Hours)**

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

Teaching Methodology	Video, PPT, LCD demonstration

Books for Study

1. Leon, A. (2019). *Enterprise Resource Planning*, (4th Ed.). Tata McGraw-Hill.
2. Vaman, J. N. (2008). *ERP in Practice*. Tata McGraw Hill.
3. Jaiswal, M. & Vanapalli, G. (2009). *ERP*. McMillan India.

Books for Reference

1. Magal, S. P. & Word, J. (2012). *Essentials of Business Process and Information System*. Wiley.
2. Summer. (2008). *ERP*. Pearson Education.
3. Grag, V. K. & Venkitakrishnan, K. N. (2006). *ERP- Concepts and Practice*. Prentice Hall of India.

Websites and eLearning Sources

1. https://mrcet.com/downloads/digital_notes/CSE/III%20Year/ERP%20Digital% 20notes.pdf
2. https://mrcet.com/downloads/digital_notes/ME/III%20

year/ERP%20Complete%20Digital%20notes.pdf

3. https://www.vssut.ac.in/lecture_notes/lecture1428643004.pdf

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	recall the history and growth of ERP	**K1**
CO2	appraise the risks involved while using ERP	**K2**
CO3	select from among various ERP technologies	**K3**
CO4	analyze the dynamics of ERP marketplace	**K4**
CO5	distinguish and choose appropriate ERP solutions or packages	**K5**
CO6	evaluate ERP package selection and Implementation	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1ES02**			**Elective - 2:** Enterprise Resource Planning						**5**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	1	1	2	3	2	2	2	3	3	**2.1**
CO2	2	3	1	2	2	2	3	3	2	2	**2.2**
CO3	1	2	3	2	3	2	3	3	2	2	**2.3**
CO4	2	2	2	3	3	3	3	3	2	2	**2.5**
CO5	2	2	3	2	2	2	3	3	3	2	**2.4**
CO6	2	3	3	3	2	3	3	3	3	2	**2.7**
									Mean Overall Score		**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	23PCC1AE01	**Ability Enhancement Course:** Advanced Excel	2	1

Course Objectives
To know the Statistical concepts using functions
To learn how to compute large amount of data quickly using data analysis tools
To gain knowledge on data visualization in problem solving
To understand the concept of Macros
To acquire knowledge and skills on VBA

Exercises

1. Text and Statistical Functions
2. Nested Control Structures
3. Data consolidation
4. Sorting and Advanced Filters
5. VLOOKUP function
6. Data Tables - What -IF analysis
7. PIVOT Table creation and Report generation
8. Creation and manipulation of Gantt Chart
9. Macros
10. VBA

Teaching Methodology	Lab demonstration

Book for Study

1. Mehta, M. S. (2021). *Microsoft Excel Professional 2021 guide*. BPB Publications.

Books for Reference

1. Alexander, M. & Walkenbach, J. (2022). *Microsoft Excel Dashboards and Reports,* (2nd Ed.). Wiley India Pvt. Ltd.
2. McFedries, P. & Harvey, G. (2021). *Excel all-in-one for Dummies,* (2nd Ed.). Wiley India Pvt. Ltd.
3. Nigam, M. (2019). *Data Analysis with Excel,* (2nd Ed.). BPB Publications.

Websites and eLearning Sources

1. https://www.goskills.com/Excel
2. https://www.udemy.com/course/microsoft-excel-2013-from-beginner-to-advancedand-beyond
3. https://www.coursera.org/learn/excel-basics-data-analysis-ibm?

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	identify different Statistical methods for solving problems	**K1**
CO2	understand the Data analysis methods for extracting data	**K2**
CO3	apply advanced filters in table, and present it in visual form	**K3**
CO4	analyse the problem through Data Consolidation and Grouping	**K4**
CO5	evaluate the problem by applying Data tools	**K5**
CO6	create and run VBA codes	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**23PCC1AE01**			**Ability Enhancement Course:** Advanced Excel						**2**	**1**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	1	1	2	3	2	2	2	3	3	**2.1**
CO2	2	3	1	2	2	2	3	3	2	2	**2.2**
CO3	1	2	3	2	3	2	3	3	2	2	**2.3**
CO4	2	2	2	3	3	3	3	3	2	2	**2.5**
CO5	2	2	3	2	2	2	3	3	3	2	**2.4**
CO6	2	3	3	3	2	3	3	3	3	2	**2.7**
Mean Overall Score											**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2CC04	**Core Course - 4:** Managerial Skills	5	4

Course Objectives
To understand the concept of managerial personnel
To analyze the managerial problems in an organization
To develop the various skills required for the managerial personnel
To negotiate the socio and psychological problems in an organization
To live a balanced life between work and life

UNIT I: Strategic thinking **(15 Hours)**

Concepts- Need - Process - Meaning -competencies - importance- Lateral Thinking - Concepts - Need - Applications- Benefits- Techniques used in Lateral Thinking -Conventional Vs Lateral Leaders.

UNIT II: Conflict Resolution **(15 Hours)**

Concepts - sources of conflict - role of perception in conflict - steps of Conflict Resolution - Conflict handling matrix - Functional and Dysfunctional outcome of conflict. Negotiation skills - process - styles - outcome - principles - negotiation model - being a negotiator - qualities of a negotiator. Level V leader- Becoming a level V leader - attributes of level V leader - the level V hierarchy.

UNIT III: Change **(15 Hours)**

Concepts - Facing changes - meaning - characteristics -why changes - impact of resistance -Reasons for resistance - types of people in facing changes - introducing change. Facing challenges - meaning - importance - path to facing challenges - benefits of facing challenges.

UNIT IV: Risk taking **(15 Hours)**

meaning - factors determining Risk Taking - Risk management - users of Risk Management - Steps in Risk Management. Effective decision making - meaning - approaches - methods - steps - Decision making at the work place. Corporate Mentoring - from mentors perspective - from mentees perspective - mentoring Vs Coaching - mentoring techniques - types of mentoring - mentoring traits - mentoring programme.

UNIT V: Motivation and staying motivated **(15 Hours)**

Meaning - finding reason for being motivated - staying motivated at work place - staying motivated in negative work environment - staying motivated during crisis. Work life Balancing - meaning - work satisfaction - gender differences - responsibility of the employers and employees - ways of balancing work and life - handling professional and personal demands - organizing your desk.

Teaching Methodology	Black Board, PPT

Books for Study

1. Covey, S. (2009). *The Seven Habits of Highly Effective people.* (Unit I and II)
2. Alex, K. (2013). *Managerial Skills.* Person Publication. (Unit III, IV and V)

Books for Reference

1. Goleman, D. (2009). *Emotional Quotient*.
2. Peale, N.V. (2018). *Power of the Plus factor*.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	recognize the skills and enable to use the skills in organizations.	**K1**
CO2	infer in strengthening the bond between people.	**K2**
CO3	articulate in accelerating the decision-making process.	**K3**
CO4	correlate the position of potentially losing something to achieve a goal.	**K4**
CO5	reframe the willingness to execute duties in an organization.	**K5**
CO6	develop interpersonal skills and balance between work and life.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**			**Credits**
2	**23PCC2CC04**			**Core Course - 4:** Managerial Skills				**5**			**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	2	2	2	3	3	2	2	3	**2.4**
CO2	2	3	2	2	2	3	3	2	2	3	**2.4**
CO3	2	2	3	2	3	2	3	2	3	3	**2.5**
CO4	2	2	2	3	2	2	3	2	2	3	**2.3**
CO5	2	2	2	2	3	2	3	2	2	3	**2.3**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.38 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2CC05	**Core Course - 5:** Cost Accounting Techniques	6	5

Course Objectives
To enlighten the concepts of cost accounting and various material control techniques.
To compute the labour cost under different methods of wage payment systems and the rate of labour turnover
To allocate the overheads to various departments under primary and secondary distribution systems and to compute the machine hour rate
To have through knowledge on the practical application of process costing.
To apply the contract Costing, Service and Operating costing in the respective industries.

UNIT I: Material costing **(18 Hours)**

Cost Accounting - Functions -Differences between financial, cost accounting and Management accounting--Methods of costing- Elements of costing-cost concept- Preparation of cost sheet. Material Costing - Stock Levels - level-Economic order quantity (EOQ)-ABC Analysis - purchase procedure-storing of materials - Issue and pricing of materials--Inventory control-Stores Ledger : FIFO ,LIFO, Specific price, Base stock, Highest In- First-out , Average price methods and Notional price methods.

UNIT II: Labour Costing **(18 Hours)**

Classifications of labour - Time keeping-Preparation of pay roll-Wage payment and incentive systems-idle time-over time-accounting of labour cost - -merit rating-Time and motion study.

UNIT III: Overhead Costing **(18 Hours)**

Classifications of overheads-Primary distribution of overhead- overhead-over absorption and under absorption- Job costing - Contract costing.

UNIT IV: Standard Costing and Variance analysis **(18 Hours)**

Standard Costing - Advantage and Limitations of standard costing - Standard Hour - Standard cost card - Variance analysis -Relevance of standard cost for variance analysis - Significance of variance analysis - Computation of Material Variances - Labour Variances - Overhead Variances - Sales Variances

UNIT V: Marginal Costing **(18 Hours)**

Equation - Break-even Point - Profit Volume Ratio - Advantages and Limitations of Marginal Costing - Cost volume profit analysis - Computation of PV Ratio and Break Even Point - Make or Buy Decision - Margin of Safety - Effect of Change of sale price on overall BEP - Effect of change in product mix on BEP and PV Ratio.

Teaching Methodology	Black Board, PPT

Books for Study

1. Jain, S.P. & Narang, K.L. (2021). *Cost accounting*. Kalyani Publication.

Books for Reference

1. Alex, K. (2015). *Cost Accounting.* Pearson Publication.
2. Moorthy, A. & Gurusamy, S. (2018). *Cost accounting*. Vijay Nicole Imprints.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	gain knowledge on cost accounting techniques	**K1**
CO2	understand cost accounting techniques and process.	**K2**
CO3	apply Cost accounting techniques in real time situation	**K3**
CO4	analyse the various cost accounting tools in relation to material, labour , overheads, marginal costing and standard costing	**K4**
CO5	evaluate the material, labour and overheads cost under different methods and marginal costing and standard costing	**K5**
CO6	create the cost accounting techniques to the industries	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
2	**23PCC2CC05**			**Core Course - 5:** Cost Accounting Techniques						**6**	**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	3	3	2	3	3	2	**2.7**
CO2	3	3	3	2	2	3	3	3	2	2	**2.6**
CO3	3	3	3	3	2	3	3	2	3	3	**2.8**
CO4	3	3	2	3	2	3	3	2	3	2	**2.6**
CO5	3	3	3	2	2	3	3	3	2	3	**2.7**
CO6	3	3	3	3	3	3	3	2	3	2	**2.8**
									Mean Overall Score		**2.7 (Medium)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2CC06	**Core Course - 6:** Python Programming	3	3

Course Objectives
To learn different operators, expressions and data types available in Python
To understand the purpose of operations, strings, lists, tuples to solve Problems
To apply functions to solve problems using procedure oriented approach
To analyze the problems and solve it by applying appropriate logic
To implement Expressions, Variables, Quotes, Basic Math operations, Strings: List, Tuples, Dictionaries, Arrays

UNIT I: Introduction **(9 Hours)**

Features of Python - How to Run Python - Identifiers- Reserved Keywords - Variables - Comments in Python - Indentation in Python - Multi-Line Statements - Multiple Statement Group (Suite)

UNIT II: Input, Output and Import Functions **(9 Hours)**

Displaying the output -Reading the input-import function - Operators- Data Types and Operations: Numbers - Strings - List - Tuple - Set - Dictionary - Data type conversion.

UNIT III: Flow Control **(9 Hours)**

Decision Making - Loops - Nested Loops - Types of Loops. Functions: Function Definition - Function Calling - Function Arguments -Recursive Functions - Function with more than one return value.

UNIT IV: Modules **(9 Hours)**

Built-in Modules - Creating Modules - import Statement - Locating Modules - Namespaces and Scope - The dir() function- The reload() function-Packages in Python-Date and Time Modules.

UNIT V: File Handling **(9 Hours)**

Opening a File - Closing a File - Writing to a File - Reading from a File - File Methods - Renaming a File - Deleting a File - Directories in Python.

Teaching Methodology	Black Board, PPT, E-materials

Books for Study

1. Jeeva, J., & Sojan Lal, P. (2016). *Introduction to Computing and Problem Solving with PYTHON.* Khanna Book Publishing Co. (P) Ltd.,

Books for Reference

1. Chun, J. W. (2006). *Core Python Programming,* (2nd Ed.).
2. Hetland, M.L. (2008). *Beginning Python,* (2nd Ed.). Apress Publication.
3. Lambert, A. K. (2011). *The Fundamentals of Python: First Programs.* Cengage Learning.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K - Level)**
CO1	recall the Fundamentals of Python Syntax and Semantics	**K1**
CO2	classify the Operators and various Operations	**K2**
CO3	make use of the Data Types	**K3**
CO4	analyze different Decision Making statements and Functions	**K4**
CO5	explain the Modules and Packages	**K5**
CO6	develop the Scripts using Files and Directories	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**		**Credits**	
2	**23PCC2CC06**			**Core Course - 6:** Python Programming				**3**		**3**	
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	1	2	3	3	2	1	2	2.2
CO2	2	3	3	2	1	3	3	3	2	2	2.4
CO3	2	3	3	2	2	2	3	3	2	2	2.4
CO4	3	3	3	1	2	3	3	3	2	3	2.6
CO5	2	3	3	1	2	2	3	3	2	1	2.3
CO6	3	3	2	1	2	3	2	2	2	3	2.3
									Mean Overall Score		**2.36 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2CP02	**Core Practical - 2:** Python Programming	3	3

Course Objectives
To learn the syntax and semantics of the Python programming language.
To acquire programming skills in core Python.
To understand different data structures of python
To demonstrate the use of built-in functions, modules and packages.
To develop Python programs for solving problems.

EXERCISES

1. Operators
   - Arithmetic operators
   - Assignment operators
   - Comparison operators
   - Logical operators
   - Identity operators
   - Membership operators
   - Bitwise operators
2. Built in Data Structure
   - List
   - Dictionary
   - Tuple
   - Set
3. Control Structures
   - If
   - If else
   - Nested if
   - if-elif-else
4. Functions
   - String
   - List
   - Tuples
   - Dictionary
   - Set
5. Matrix
6. Built in Modules
7. Packages

Teaching Methodology	Lab practical

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	recall the Fundamentals of Python	**K1**
CO2	illustrate the Control Structures	**K2**
CO3	make use of Data Types	**K3**
CO4	analyze the Functions	**K4**
CO5	explain the Modules	**K5**
CO6	develop the Packages	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**		**Credits**	
2	**23PCC2CP02**			**Core Practical - 2:** Python Programming				**3**		**3**	
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	3	2	1	2	3	3	2	2	2	2.2
CO2	3	2	3	2	3	3	3	3	2	2	2.6
CO3	2	3	3	2	2	2	3	3	2	2	2.4
CO4	3	3	3	1	2	3	3	3	1	2	2.4
CO5	2	3	3	1	2	1	3	3	2	1	2.2
CO6	2	3	2	2	3	2	2	3	2	1	2.2
Mean Overall Score											**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2SP01A	**Self-paced Learning:** Fundamentals of Insurance	-	2

Course Objectives
To understand and Gain knowledge on the concept of insurance and the risk involved.
To assess the various principles of insurance market.
To analyze the terms plans offered by life insurance.
To evaluate the constituents of insurance market in the society
To synthesis the constituents of insurance to the society

UNIT I: **Introduction**

The basics and nature of insurance-evolution -importance of insurance - Risk Management: different types of risks - actual and consequential losses-management of risks-loss minimization techniques.

UNIT II: Fixing of premiums

Reinsurance and its importance for insurers - role of insurance in economic development and social security - contribution of insurance to the society - Business interruption insurance - Types of coverage - Groups of insurance professionals.

UNIT III: Insurance Market

The various constituents of the insurance market-operations of insurance companies - operations of intermediaries-specialist insurance companies-insurance specialists - the role of regulators-Insurance Customers: Customer needs - Importance - Customer satisfaction - customer behavior -The future of insurance.

UNIT IV: Insurance Contract

Terms of an insurance contract - principles which form the foundation of insurance - significance of the principle of insurable interest-the principle of indemnity - the principle of subrogation - the principle of contribution disclosure of all relevant information - principle of utmost good faith.

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UNIT V: Life Insurance products

Products offered by life insurers - term plans - pure endowment plans - combinations of plans - traditional products - linked policies - features of annuities and group policies. General Insurance Products: Risks faced by the owner of assets-exposure to perils- Features of products covering fire and allied perils.

Teaching Methodology	E-Material

Book for Study

1. Srinivasan, M.N. (2017). *Principles of Insurance Law*, (10th Ed.). Wadhwa & Co.

Books for Reference

1. Gupta, P.K. (2016). *Insurance and Risk Management,* (1st Ed.). Himalaya Years of Publishing.
2. Chaudhary, R.N. (2018). *General Principles of Law of Insurance,* (3rd Ed.). Central Law Publications.
3. Mishra, M.N., & Mishra, S.B. Insurance *Principles and Practice,* (1st Ed.). S.Chand & Company.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	recognize the ways to manage risk.	**K1**
CO2	extract the ways of transferring risk to another insurance company.	**K2**
CO3	articulate the buying and selling transactions to protect policy holders.	**K3**
CO4	correlate the risk covered, premium charged and value of insurance cover.	**K4**
CO5	reframe the risk management tools which ensures a secure future.	**K5**
CO6	collaborate the beneficiary features of the policy holders.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
2	**23PCC2SP01A**			**Self-paced Learning:** Fundamentals of Insurance						**-**	**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	2	3	3	2	2	2	**2.4**
CO2	2	2	3	2	3	2	3	2	2	2	**2.3**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	2	2	3	2	2	2	3	2	2	2	**2.2**
CO5	3	3	2	2	2	2	3	3	2	2	**2.4**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.35 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2SP01B	**Self-paced Learning:** Cloud Computing	-	2

Course Objectives
To recall the fundamental principles of Cloud Computing.
To learn the Concept of Cloud architecture and management.
To understand the cloud deployment models.
To analyze the services of Cloud Computing.
To describe the concept of cloud security.

UNIT I: Cloud Computing Fundamentals

Motivation for Cloud Computing - Defining Cloud Computing: NIST Definition - Cloud Computing is Service - Cloud Computing is a Platform - principles of Cloud Computing: Five Essential Characteristics - Four Cloud Deployment Models - Three Service Offering Models - Cloud Ecosystem - Requirements - Application-Benefits and Drawbacks.

UNIT II: Cloud Architecture and Management

Introduction - Cloud Architecture - Anatomy of Cloud - Network Connectivity in Cloud - Applications on the cloud - Managing the Cloud Migrating Application to the Cloud.

UNIT III: Cloud Deployment Models

Private Cloud- Public Cloud- Community Cloud- Hybrid Cloud.

UNIT IV: Cloud Service Models

Introduction - Infrastructure as a Service - Platform as a Service Software as a Service - Other Cloud Service Models.

UNIT V: Data Security in Cloud

An introduction to the idea of the Data Security-Current State of the Data Security - Data Security Risk-Content Level Security - Pros and Cons.

Teaching Methodology	E-Material

Books for Study

1. Chandrasekaran, (2015). *Essentials of Cloud Computing,* Taylor & Francis Group
2. Rajkumar, B, Broberg, J. & Goscinski, A. (2011). *Cloud Computing Principles and Paradigms,* John Wiley & Sons.

Books for Reference

1. Miller, M. (2008). *Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online.* Que Publishing.
2. Beard, H. (2008). *Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLA.* Emereo pvt. Ltd.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	recall the Cloud Fundamentals	**K1**
CO2	summarize the Requirements, Benefits and Drawbacks of Cloud	**K2**
CO3	utilize the Cloud Architecture and Management	**K3**
CO4	analyze the Cloud Deployment Models	**K4**
CO5	explain the Cloud Services	**K5**
CO6	discuss the Data Security Issues	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**		**Credits**	
2	**23PCC2SP01B**			**Self-paced Learning:** Cloud Computing				-		**2**	
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	2	1	2	3	3	2	1	2	**2.1**
CO2	3	3	2	2	1	3	3	3	2	2	**2.4**
CO3	2	3	3	2	2	2	3	3	2	2	**2.4**
CO4	3	3	3	1	2	3	3	3	2	2	**2.5**
CO5	2	3	3	2	2	2	3	3	2	2	**2.4**
CO6	3	3	2	3	2	3	2	3	2	2	**2.5**
										Mean Overall Score	**2.36 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2ES03A	**Elective - 3:** Operations Research	5	4

Course Objectives
To understand the concepts of operations research
To acquire knowledge on Queuing methods and Game theory
To analyse the solution for the Decision problems
To evaluate the problems of Assignment and Transportation
To frame the networks based on CPM and PERT

UNIT I: OR Concepts and Linear Programming Problem **(15 Hours)**

Operation research: Origin and nature- OR as a tool for decision-making; OR and management; features-phases -models - methods of deriving solution -Applications: Linear programming formulation of LPP; graphic solutions;

UNIT II: Assignment and Transportation **(15 Hours)**

Formulation. Hungarian method for optimal solution, Solving unbalanced problem, Traveling salesman problem and assignment problem Transportation: Formulation, solution, unbalanced Transportation problem. Finding basic feasible solutions - Northwest corner rule, least cost method and Vogel's approximation method.

UNIT III: Decision theory **(15 Hours)**

Basic concepts: quantitative approach to managerial decision-making; Decision-making under certainty-decision making under uncertainty-maximax- minimax - maximin- Laplace- Hurwicz. Decision-making under risk-EMV- EOL- EVPI- Decision making under competition- Decision tree analysis

UNIT IV: Network analysis **(15 Hours)**

CPM and PERT: construction of network diagrams; network calculation; concept of float; probability consideration in PERT; calculation of float under PERT; distinction Between CPM and PERT; limitations of PERT.

UNIT V: Simulation **(15 Hours)**

Basic concepts - Monte Carlo simulation - Game Theory: Competitive games, rectangular game, saddle point, minimax (maximin) method of optimal strategies, value of the game. Solution of games with saddle points, dominance principle.

Teaching Methodology	Black Board, PPT

Book for Study

1. Kapoor, V.K., & Kapoor, S. (2008). *OR Techniques for Management.* (1st Ed.). Sultan Chand & Sons.

Books for Reference

1. Sharma S.D., (2016). *Operations Research,* (1st Ed.). Kedar Nath Ram Nath & Co.
2. Hira, D.S. & Gupta, P. K. (2012). *Introduction to Operations Research.* S. Chand publishers.
3. Taha, H. A. (2009). *Operations Research - An Introduction*. Prentice Hall.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K- Level)**
CO1	know and understand the concepts of operations research, LPP, Assignment and Transportation Decision problems, Network analysis and Game theory	**K1**
CO2	acquire knowledge on LPP, Assignment and Transportation Decision problems, Network analysis and Game theory	**K2**
CO3	solve the problems as per mathematical models	**K3**
CO4	analyse the solution for the Assignment and Transportation Decision problems, Network analysis and Game theory	**K4**
CO5	evaluate the problems of Assignment and Transportation CPM, PERT and Game theory	**K5**
CO6	frame the networks based on CPM and PERT	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**			**Credits**
2	**23PCC2ES03A**			**Elective - 3:** Operations Research				**5**			**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean Overall Score	**2.4 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PCC2ES03B	**Elective - 3**: Knowledge Management	5	4

Course Objectives
To comprehend the fundamentals of how knowledge is formed and its implications in organizational contexts.
To grasp the processes involved in abstracting knowledge from diverse sources for organizational benefit.
To apply social network analysis to understand knowledge flow within organizations.
To understand the role of the balance scorecard in evaluating the overall effectiveness of knowledge management.
To develop a forward-thinking approach towards the evolution of knowledge management in different industries.

UNIT I: Transition from Industrial Economy to Knowledge Economy (15 Hours)

Introduction - History - Importance - Strategy - Prioritizing knowledge strategies - Knowledge Economy - Technology and Knowledge Management - Knowledge Management Cycle - Industrial Economy to Knowledge Economy.

UNIT II: Fundamentals of Knowledge Formation (15 Hours)

Knowledge Attributes - Fundamentals of knowledge formation - Tacit and Explicit knowledge - Knowledge sourcing, abstraction, conversion and diffusion.

UNIT III: Social Nature of Knowledge (15 Hours)

Social Nature of Knowledge, Social Network Analysis, Obstacles to knowledge sharing, Organizational learning & Social Capital. Knowledge Application - Individual level, Group level & Organization Level.

UNIT IV: Knowledge Management Strategy and Tools (15 Hours)

KM Strategy, Knowledge audit, GAP Analysis, Road Map, KM Metrics, Balance ScoreCard.KM Tools - Knowledge Capture & Creation tools, Knowledge sharing &Dissemination Tools, Knowledge Acquisition & Application tools.

UNIT V: Challenges and Future Trends in Knowledge Management (15 Hours)

Km Team-Roles & Responsibilities, Political issues in KM, Ethics in KM, Strategies issues in Knowledge Management, Future of Knowledge Management.

Teaching Methodology	Black Board, PPT and videos

Book for Study

1. Kimiz, D. (2017). *Knowledge Management in Theory and Practice*. published by The MIT Press Cambridge, Massachusetts.

Books for Reference

1. Warier, S. (2022). *Knowledge Management.* (3rd Ed.). Vikas Publishing House Private Limited.
2. Mertins, K., Heisig, P., & Vorbeck, J. (2020). *Knowledge Management: Concepts and Best Practices,* (2nd Ed.). Springer Nature Publications.
3. Awad, E.M. (2021). *Knowledge Management*, (2nd Ed.). published by Prentice Hall India Learning Private Limited.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K - Level)**
CO1	recall the historical evolution of economies, recognizing the shift from an industrial economy to a knowledge economy.	**K1**
CO2	the importance of knowledge management in the context of contemporary business strategies and the role of technology in facilitating knowledge processes.	**K2**
CO3	apply knowledge management strategies to real-world scenarios, demonstrating an understanding of how organizations prioritize and implement knowledge management.	**K3**
CO4	analyze the fundamental attributes of knowledge, differentiating between tacit and explicit knowledge, and evaluate the processes of knowledge sourcing, abstraction, conversion, and diffusion.	**K4**
CO5	evaluate the impact of knowledge formation processes on organizational effectiveness, considering the interplay between tacit and explicit knowledge.	**K5**
CO6	design strategies to enhance knowledge sharing within organizations, taking into account social network analysis, identifying and overcoming obstacles, and leveraging social capital.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**		**Credits**	
2	**23PCC2ES03B**			**Elective - 3:** Knowledge Management				**5**		**4**	
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	3	3	2	2	3	3	3	2	2	**2.5**
CO2	3	3	2	3	2	3	3	2	2	3	**2.6**
CO3	3	3	3	2	3	2	3	2	3	2	**2.6**
CO4	2	3	2	3	2	2	3	2	2	3	**2.4**
CO5	2	3	3	2	3	2	3	2	2	2	**2.4**
CO6	3	2	3	2	2	3	2	3	2	3	**2.5**
Mean Overall Score											**2.5 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	23PSS2SE01	**Skill Enhancement Course:** Soft Skills	4	3

Course Objectives
To provide a focused training on soft skills for students in colleges for better job prospects
To communicate effectively and professionally
To help the students take active part in group dynamics
To familiarize students with numeracy skills for quick problem solving
To make the students appraise themselves and assess others

Unit I: Effective Communication & Professional Communication **(12 Hours)**

Definition of communication, Barriers of Communication, Non-verbal Communication; Effective Communication - Conversation Techniques, Good manners and Etiquettes; Speech Preparations & Presentations; Professional Communication.

Unit II: Resume Writing & Interview Skills **(12 Hours)**

Resume Writing: What is a résumé? Types of résumés, - Chronological, Functional and Mixed Resume, Purpose and Structure of a Resume, Model Resume.

Interview Skills: Types of Interviews, Preparation for an interview, Attire, Body Language, Common interview questions, Mock interviews & Practicum

Unit III: Group Discussion & Personal effectiveness **(12 Hours)**

Basics of Group Discussion, Parameters of GD, Topics for Practice, Mock GD & Practicum & Team Building.

Personal Effectiveness: Self Discovery; Goal Setting with questionnaires & Exercises

Unit IV: Numerical Ability **(12 Hours)**

Introducing concepts Average, Percentage; Profit and Loss, Simple Interest, Compound Interest; Time and Work, Pipes and Cisterns.

Unit V: Test of Reasoning **(12 Hours)**

Introducing Verbal Reasoning: Series Completion, Analogy; Data Sufficiency, Assertion and Reasoning; and Logical Deduction. Non-Verbal Reasoning: Series; and Classification

Teaching Methodology	Chalk and talk, Lectures, Demonstrations, PPT.

Book for study

1. Melchias G., Balaiah, J. & Joy, J. L. (Eds). (2018). *Winner in the Making: A Primer on soft Skills.* Trichy, India: St. Joseph's College.

Books for Reference

1. Aggarwal, R. S. (2010). *A Modern Approach to Verbal and Non-Verbal Reasoning.* S. Chand.
2. Covey, S. (2004). *7 Habits of Highly effective people.* Free Press.
3. Gerard, E. (1994). *The Skilled Helper* (5th Ed.). Brooks/Cole.
4. Khera, S. (2003). *You Can Win.* Macmillan Books.
5. Murphy, R. (1998). *Essential English Grammar*, (2nd Ed.). Cambridge University Press.
6. Sankaran, K., & Kumar, M. (2010). *Group Discussion and Public Speaking* (5th Ed.). M.I. Publications.
7. Trishna, K. S. (2012). *How to do well in GDs & Interviews*? (3rd Ed.). Pearson Education.
8. Yate, M. (2005). *Hiring the Best: A Manager's Guide to Effective Interviewing and Recruiting*

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K - Level)**
CO1	recall various soft skill sets	**K1**
CO2	understand personal effectiveness in any managerial positions	**K2**
CO3	apply verbal and non-verbal reasoning skills to solve problems	**K3**
CO4	differentiate problems at work and home; and design solutions to maintain work-life balance	**K4**
CO5	assess growth and sustainability and infuse creativity in employment that increases professional productivity	**K5**
CO6	construct plans and strategies to work for better human society	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
2	**23PSS2SE01**			**Skill Enhancement Course:** Soft Skills					**4**		**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	3	2	3	2	3	2	3	**2.7**
CO2	3	3	3	2	3	3	3	3	3	3	**2.9**
CO3	3	2	2	3	3	3	3	3	3	3	**2.8**
CO4	3	3	2	2	3	3	3	3	3	3	**2.8**
CO5	3	3	3	2	2	3	3	3	3	3	**2.8**
CO6	3	3	3	2	2	3	3	3	3	3	**2.8**
										Mean Overall Score	**2.8 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	23PCC3CC07	**Core Course - 7:** Methodology for Social Science Research	5	5

Course Objectives
To understand the concept of research and its purposes
To identify the socio- economic problems of the society
To frame the title for research and carryout the research methodologically
To support the social development by way of presentation and publication
To analyse the social issues and find out solutions

UNIT I: Introduction **(15 Hours)**

Research - meaning - Objectives of Research - Types of Research - Research Approaches - significance of Research - Research and Scientific Method - importance - research process - criteria of good research - problems encountered by researchers in India.

UNIT II: Research Problem **(15 Hours)**

Research Problem - selection of the problem - techniques involved in defining problem - Meaning of Research Design - need - features concepts - types.

UNIT III: Sampling **(15 Hours)**

Sampling meaning -Census and sample survey - steps in sampling design - criteria of selecting a sampling procedure - characteristics of good sample design - different types of sample designs - Random sample from an infinite universe - complex random sampling designs - collection of data - primary sources and secondary sources. (OOC Based Learning)

UNIT IV: Editing **(15 Hours)**

Editing - Coding - Classification - tabulation -Graphic presentation- Testing of hypothesis- steps in hypothesis testing- content analysis - processing of data - analysis of data.

UNIT V: Interpretation and conclusion **(15 Hours)**

Interpretation meaning - techniques of interpretation - precaution in interpretation - Research report - significance - precautions - mechanism - steps - layout - types - oral presentation.

Teaching Methodology	Black Board , PPT and videos

Book for Study

1. Kothari, C.R. (2010*). Research Methodology Methods & Techniques.* Wishwa Prakashan.

Books for Reference

1. Wilkinson., & Bhandarkar. (2008). *Methodology & Techniques of Social Research*- Himalaya Publishing House.
2. Krishnaswami, O. R. (2003). *Methodology of Research in Social Sciences.* Himalaya Publishing House- Research Methodology.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	recall the fundamental concepts of research, including its meaning, objectives, types, and approaches.	**K1**
CO2	the significance of research and its relationship with the scientific method, emphasizing the importance of research in various fields.	**K2**
CO3	apply editing, coding, classification, and tabulation techniques in organizing and preparing data for analysis.	**K3**
CO4	analyze the steps involved in hypothesis testing and demonstrate the application of content analysis in research.	**K4**
CO5	evaluate the techniques of interpretation and demonstrate an understanding of the precautions necessary for accurate interpretation of research findings.	**K5**
CO6	create a comprehensive research report, considering its significance, mechanisms, layout, and the types of oral presentations suitable for different audiences and publications.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**23PCC3CC07**			**Core Course - 7:** Methodology for Social Science Research					**5**		**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	3	3	3	2	3	3	**2.7**
CO2	2	3	2	2	2	3	3	2	2	3	**2.4**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	2	2	2	3	3	3	3	2	2	3	**2.5**
CO5	2	3	2	3	3	3	3	2	2	3	**2.6**
CO6	2	3	3	2	2	3	3	3	2	2	**2.5**
										Mean Overall Score	**2.51 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	23PCC3CP03	**Core Practical - 3:** Computer Application in Business Statistics	3	3

Course Objectives
To Gain proficiency in creating and editing charts to visually represent relationships between variables.
To Grasp the concepts of descriptive statistics for multiple variables and comprehend inferential statistics, focusing on mean, median, and their significance.
To Develop competence in performing one-sample t-tests, t-tests for comparing two samples, and interpreting the results.
To Acquire the skills to conduct one-way ANOVA and Kruskal-Wallis tests to analyze differences between multiple groups.
To Develop the ability to build and select models effectively, optimizing predictive accuracy.

Exercises

1. Getting familiar with the interface
2. Importing data from excel
3. Data preparation and exploratory data analysis
4. Descriptive statistics for two or more variables
5. Creating and editing charts for two or more variables
6. Inferential statistics for the mean and the median
7. One-sample t-test
8. T-test
9. Power Analysis for t-test
10. One-way ANOVA and Kruskal-Wallis Test
11. Power Analysis for ANOVA and simple linear regression
12. Multiple linear regression and correlation
13. Model building and selection
14. One-sample Chi-square

Teaching Methodology	Lab practical

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	recall and identify the key features of the data analysis software interface.	**K1**
CO2	the basic functionalities of the interface, demonstrating comprehension of the tools available for data analysis.	**K2**
CO3	apply data importing techniques from Excel to the data analysis software, demonstrating the ability to transfer data efficiently.	**K3**
CO4	analyze datasets for completeness, identifying and handling missing values, outliers, and conducting exploratory data analysis.	**K4**
CO5	evaluate and interpret descriptive statistics for two or more variables, demonstrating an understanding of central tendency and dispersion measures.	**K5**
CO6	create and customize charts for visual representation of data, demonstrating the ability to effectively communicate complex information.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
3	**23PCC3CP03**			**Core Practical - 3:** Computer Application in Business Statistics						**3**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	1	3	3	1	2	3	2	3	2	**2.2**
CO2	3	1	2	3	2	3	3	3	3	3	**2.5**
CO3	2	3	2	3	2	2	3	3	2	1	**2.3**
CO4	3	3	3	3	3	3	2	3	2	1	**2.5**
CO5	2	3	3	2	3	2	3	1	3	2	**2.3**
CO6	2	2	3	2	3	2	3	2	3	2	**2.3**
Mean Overall Score											**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	23PCC3CC08	**Core Course - 8:** Organizational Behaviour	5	5

Course Objectives
To Know the concept of organizational behavior and understand the role of managers.
To apply group dynamics and leadership qualities in an organization...
To Analyze the best management practices across the world
To Evaluate the emerging trends in corporate structure, strategy and culture
To Create perception and motivation for employees in an organization.

UNIT I: Introduction of Concepts **(15 Hours)**

Organization meaning -Concept of organizational behavior-Importance of organizational behavior- Key elements of organizational behavior, Role of managers in OB- Impersonal roles- Informational roles, Decisional roles, Foundations or approaches to organizational behavior, Challenges and opportunities for OB.

UNIT II: Organization Structure and Design **(15 Hours)**

Authority and Responsibility Relationships - Delegation of Authority and Decentralization - Interdepartmental Coordination - Emerging Trends in Corporate Structure, Strategy and Culture - Impact of Technology on Organizational design - Mechanistic vs Adoptive Structures - Formal and Informal Organization.

UNIT III: Perception **(15 Hours)**

Personality and Individual Differences - Job Performance - Values, Attitudes and Beliefs - Stress Management - Motivation - Early theories, Contemporary theories- Motivation at work - Designing and Motivating for jobs.

UNIT IV: Group Dynamics **(15 Hours)**

Leadership - Styles - Approaches - Power and Politics - Organizational Structure - Organizational Climate and Culture - Organizational Change and Development.

UNIT V: Management Styles **(15 Hours)**

Comparative Management Styles and approaches Japanese Management Practices Organizational Creativity and Innovation - Management of Innovation - Entrepreneurial Management - Benchmarking - Best Management Practices across the world - Select cases of Domestic & International Corporations - Management of Diversity

Teaching Methodology	Black Board, PPT and Videos

Book for Study

1. Prasad, L.M. (2019). *Organizational Behaviour*, (5th Ed.). Sultan Chand & Sons.

Books for Reference

1. Aswathappa, K. (2016). *Organizational Behaviour*, (12th Ed.). Himalaya Publishing House.
2. Chandran, J.S. (2018). *Organizational Behaviour* (2nd Ed.). Vikas Publishing House.
3. Stephen, P., Robbins, Timothy, A. J. (2019). *Organizational Behaviour*, (18th Ed.). Pearson Publications.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	gain knowledge on the concept of organizational behavior and understand the role of managers.	**K1**
CO2	understand the concepts of organization structure and design and management styles	**K2**
CO3	apply group dynamics and leadership qualities in an organization.	**K3**
CO4	analyze the best management practices across the world	**K4**
CO5	evaluate the emerging trends in corporate structure, strategy and culture	**K5**
CO6	create organization structure and design and facilitate motivation for employees in an organization.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**23PCC3CC08**			**Core Course - 8:** Organizational Behaviour					**5**		**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	3	2	1	3	**2.4**
CO2	2	3	2	2	1	3	3	2	2	3	**2.3**
CO3	1	2	3	2	2	2	2	2	2	2	**2.0**
CO4	2	2	2	2	1	2	3	3	2	2	**2.1**
CO5	1	2	2	3	2	2	2	3	2	3	**2.2**
CO6	3	3	3	2	1	3	3	2	1	3	**2.4**
										Mean Overall Score	**2.2 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	23PCC3CC09	**Core Course - 9:** Big Data Analysis	5	5

Course Objectives
To Understand the Fundamental concepts of Big data
To Identify the Distributed Computing with Big Data and the various layers of the Stack
To Summarize the Big Data analytics in various Environments
To Determine the Operational Data bases, the HADOOP & Map Reduce techniques
To Integrate the Text data analytics with Customized approaches in creating the solution

UNIT I: Fundamentals of Big Data **(15 Hours)**

The Evolution of Data Management - Understanding the Waves of Managing Data - Defining Big Data - Building a successful Big Data Management Architecture - The Big Data Journey- **EXAMINING BIG DATA TYPES:** Defining Structured Data - Defining Unstructured Data - Looking at Real time and Non-Real time Requirements - Putting Big Data together.

UNIT II: Distributed Computing **(15 Hours)**

Understanding the Basics of Distributed Computing - Getting Performance Right. DIGGING INTO BIG DATA TECHNOLOGY COMPONENTS: Exploring the Big Data Stack - Layer 0: Redundant Physical Infrastructure - Layer 1: Security Infrastructure - Interfaces and Feeds to and from Applications and the Internet - Layer 2: Operational Databases - Layer 3: Organizing Data Services and Tools - Layer 4: Analytical Data Warehouses - Big Data Analytics - Big Data Applications.

UNIT III: Virtualization and its Support **(15 Hours)**

Understanding the Basics of Virtualization - Managing Virtualization with the Hypervisor - Abstraction and Virtualization Implementing Virtualization to work with Big Data. **EXAMINING THE CLOUD AND BIG DATA:** Defining the cloud in the context of Big Data - Understanding Cloud Deployment and Delivery Models - The Cloud as an Imperative for Big Data - Making use of the Cloud for Big Data Providers in the Big Data Cloud Market

UNIT IV: Operational Databases **(15 Hours)**

RDBMSs are Important in a Big Data Environment - Non relational databases - Key Value Pair Databases - Document Databases - Columnar Databases - Graph Databases - Spatial Databases - Polyglot Persistence.

MAPREDUCE FUNDAMENTALS: Tracing the origins of MapReduce - Understanding the Map Function - Adding the Reduce Function - Putting Map and Reduce Together - Optimizing Map Reduce Tasks.

EXPLORING THE WORLD OF HADOOP: Explaining Hadoop - Understanding the Hadoop Distributed File System (HDFS).

UNIT V: Defining Big Data Analytics **(15 Hours)**

Using Big Data for Results - Modifying Business Intelligence Products to Handle Big Data - Studying Big Data Analytics Examples. UNDERSTANDING TEXT ANALYTICS & BIG DATA: Exploring Unstructured Data - Understanding Text Analytics - Analysis and Extraction Techniques - Putting your results together with Structured Data - Putting Big Data to use - Text Analytics Tools for Big Data

Teaching Methodology	Black Board, PPT and e-videos

Book for Study

1. Judith Hurwitz, Alan Nugen, Dr. Fern Halper & Marcia Kaufman (2013). *"Big Data for Dummies"*. A Wiley Brand - Wiley Publications.

Books for Reference

1. Ohlhorst. F. (2013). *Big Data Analytics-Turning Big Data in to Big Money,* (1st Ed.). John Wiley & Sons. Inc.

2. Dean, J. (2014). *Big data. Data Mining and Machine Learning*, (2nd Ed.). John Wiley & Sons, Inc.
3. Jared, P. L. (2014). *R for Everyone*. Addison-Wesley.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	define the fundamental concepts of Big data, layers, virtualization, databases and text analytics	**K1**
CO2	understand the distributed computing with different Big Data and the various layers of the Stack.	**K2**
CO3	Summarize analysis and analytics of Big Data in various Environments	**K3**
CO4	apply the Operational Data bases, HADOOP & Map Reduce techniques	**K4**
CO5	analyse the data types, databases, Map and Reduce, Text data analytics with Customized approaches	**K5**
CO6	develop a solution for Business Intelligence by making use of cloud, databases and analytics tools	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**			**Credits**
3	**23PCC3CC09**			**Core Course - 9:** Big Data Analysis				**5**			**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	1	1	3	3	2	3	1	**2.3**
CO2	3	3	3	1	1	3	3	2	3	1	**2.3**
CO3	3	3	3	1	1	3	3	2	3	1	**2.3**
CO4	3	2	3	1	1	3	3	2	3	1	**2.2**
CO5	3	3	2	1	1	3	3	2	3	1	**2.2**
CO6	2	3	2	1	3	2	2	2	3	1	**2.1**
									Mean Overall Score		**2.23 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	23PCC3CP04	**Core Practical - 4:** Data Analysis Using R	3	3

Course Objectives
To Understand the concepts Vectors, Data frames and Arrays
To Apply and Analyze the Functions of R
To Explore the Basic R programming components
To Import dataset and analyze data.
To Create and Visualize data

EXERCISES

1. Implement Simple Calculator
2. Built in String functions
3. Creation of Sequence Vector and perform basic operations
4. Manipulation of Vector elements using Vector functions
5. Creation of Data frames and perform basic operations
6. Manipulation of Data frames.
7. Manipulation of Matrices
8. Creation of Arrays and Lists.
9. Creation of Barplots.
10. Creation of Scatterplots.
11. Importing and analysing mtcars dataset.
12. Importing and visualizing mtcars dataset.

Teaching Methodology	Lab practical

Course Outcomes		
CO No.	**CO- Statements** On successful completion of this record, students will be able to	**Cognitive Levels (K-Level)**
CO1	understand the fundamental concepts of R programming	**K1**
CO2	identify the data frames and vectors in problem.	**K2**
CO3	apply Arrays, Lists concepts in programs	**K3**
CO4	analyse the imported dataset in different ways.	**K4**
CO5	create matrix and perform manipulation of matrices	**K5**
CO6	develop a R program for analyzing and visualizing imported data.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**23PCC3CP04**			**Core Practical - 4:** Data Analysis Using R					**3**		**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	1	1	3	3	2	3	1	**2.3**
CO2	3	3	3	1	1	3	3	2	3	1	**2.3**
CO3	3	3	3	1	1	3	3	2	3	1	**2.3**
CO4	3	2	3	1	1	3	3	2	3	1	**2.2**
CO5	3	3	2	1	1	3	3	2	3	1	**2.2**
CO6	2	3	2	1	3	2	2	2	3	1	**2.1**
										Mean Overall Score	**2.23 (High)**

Semester	Course code	Title of the Course	Hours/Week	Credits
3	23SMS3CC01	**Common Core:** Human Resource Management	5	4

Course Objectives
To be competent with knowledge and skill of human resource management.
To nurture with the recent strategic HRM practices entitled to succeed competitive examinations
To be Potential enough to carry research activities in the areas of human resource management as per the need of the hour
To be Sensitized in the changing scenario of HR practices and being competent to start new ventures (Entrepreneurs)
To be Efficient to train subordinate by sharing the equipped and enriched knowledge in various fields of HR

UNIT I: Introduction to Human Resource Management **(15 Hours)**

HRM - Meaning, Nature, Objectives, Scope and Functions. Line and Staff views of HRM, HRM as a profession, Future role of HRM, Department structure of HRM.

UNIT II: Human Resource Planning & Recruitment **(15 Hours)**

HR planning: Job Analysis - Job Specification and Job description. Recruitment - Sources, characteristics and types. Selection process. Types of tests and interviews. Induction Programme. Promotion and Transfers, Demotions, Separations.

UNIT III: Strategic HRM & Performance Appraisal **(15 Hours)**

Role of HRM in Corporate Goal Setting, Levels and Models of Strategic HRM, Applications of Strategic HRM. Performance Appraisal - Purpose, Methods, Factors, Problems. Distinguish between Performance Appraisal and Potential Appraisal. Performance Management Systems.

UNIT IV: Training & Development **(15 Hours)**

Training-Need, Importance, Steps, Methods. Training needs assessment. Management Development Programme-Significance and methods. Stages of Career Planning and Development, Career counseling and Employee counselling.

UNIT V: Compensation Administration **(15 Hours)**

Compensation plan-Incentives-individual and group. Benefits - Bonus and Fringe benefits. Developing a sound compensation plan, wage policy, types of wage and Emoluments, Executive compensation - Factors and issues.

Teaching Methodology	Power Point Presentation and Case Study

Books for Study

1. Durai, P. (2010). *Human Resource Management*. Pearson Education Books.
   Unit 1 & Unit-3 - Chapter 16,19,23)
2. Prasad, L.M. (2017). *Human Resource Management*. Sultan Chand and Sons.
   (**Unit 2** - Chapter 5 and 7) (**Unit 4** - Chapter 8,9 and 10) (**Unit 5** - Chapter 11,15 and 25)

Books for Reference

1. Rao, VSP. (2002). *Human Resource Management: Text & Cases*. Excel Books.
2. Flippo, E. (1984). *Personnel Management*. Tata McGraw Hill.
3. Dessler, G. (2016). *Human Resources Management*, (15th Ed.). Pearson Publisher.
4. Mamoria, C. B., & Gankar, S. V. (2008). *Human Resource management*. Himalaya Publishing House.
5. Monappa, A., & Saiyadain, M. (2001). *Personnel Management*. Mc-Graw Hill Education.
6. DeCenzo, D. A., & Robbins, S. P. (2001). *Fundamentals of Human Resource Management*. John Wiley and Sons.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	describe the principles of Human resource management.	**K1**
CO2	explain the features of Job evaluation techniques, compensation policies and procedures.	**K2**
CO3	illustrate various methods of recruitment, training and development.	**K3**
CO4	analyze and interpret the factors influencing employee relations and grievance handling mechanisms.	**K4**
CO5	recognize the Employees' empowerment in Indian and Global Scenario.	**K5**
CO6	integrate the managerial functions with operative functions	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**23SMS3CC01**			**Common Core:** Human Resource Management					**5**		**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	3	3	2	3	3	2	**2.7**
CO2	3	3	3	2	2	3	3	3	2	2	**2.6**
CO3	3	3	3	3	2	3	3	2	3	3	**2.8**
CO4	3	3	2	3	2	3	3	2	3	2	**2.6**
CO5	3	3	3	2	2	3	3	3	2	3	**2.7**
CO6	3	3	3	3	3	3	3	2	3	2	**2.8**
										Mean Overall Score	**2.7 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4CC10	**Core Course - 10:** Business Taxation	7	6

Course Objectives
To Get a better understanding of the Indirect Taxation and Recent developments in Indirect taxes
To Identify the reasons for the levy GST and Identify the Structure of GST.
To Apply the concept of taxable supply, input tax credit and registration procedures and filing of returns as per GST Rules
To Through knowledge on the practical application of Tax Assessment under GST
To Synthesis the taxable event of the levy of Customs duty in India and its Structure.

UNIT I: Indirect Tax **(21 Hours)**

Introduction - Features - Objectives of Taxation- Types of taxes-Direct and Indirect taxes - Indirect Tax structure -Merits and Demerits of Indirect Taxes-Recent Developments in Indirect Taxes- Goods and Services Tax Act 2016 - Introduction -Features - Benefits of GST Act.

UNIT II: Goods and Service Tax **(21 Hours)**

Introduction - Features - Advantages - Disadvantages -important Definitions - Taxable persons - Time of supply - of goods and services - Administrative set up - Classes of officers under Central and State goods and services Tax Act - Appointment of Officers - Powers of officers - Levy and collection of GST - Powers to grant exemption from tax.

UNIT III: Registration **(21 Hours)**

Procedure for registration under Schedule III - Special provisions relating to casual taxable person and non-resident taxable person - Amendment of registration - Cancellation of registration - Revocation of cancellation of registration.

UNIT IV: Assessment of GST **(21 Hours)**

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- Tax Deducted at Source - Electronic Commerce - Definitions - Collection of Tax at source - E-filling.

UNIT V: Customs Act 1962 **(21 Hours)**

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.

Book for Study

1. Balachandran. (2019). *Indirect Taxation*. Sultan Chand & Sons and Kalyani Publishers India.

Books for Reference

1. Mohapatra, S.P., & Sahoo, P.C. (2020). *Business Taxation*. Himalaya Publishing House.
2. Mehrotra., & Goyal. (2015). *Indirect Taxes*. Sahitya Bhavan Publications.
3. Parameswaran., & Viswanatha. (2018). *Indirect Taxes - GST and Customs Law*. Kavin Publications.
4. Radhakrishnan. (2013). *Indirect Taxation*. Kalyani Publishers.
5. Background Material for Goods and Service Tax. (2016). National Academy of Customs Excise and Narcotics.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	gain better knowledge on Indirect Taxation and Recent developments in Indirect taxes	**K1**
CO2	understand process of GST registration, filing and the taxable event of the levy of Customs duty in India and its Structure.	**K2**
CO3	apply the practical application of Tax Assessment under GST	**K3**
CO4	analyse the concept of taxable supply, input tax credit and registration procedures and filing of returns as per GST Rules	**K4**
CO5	evaluate the reasons for the levy GST and Identify the Structure of GST.	**K5**
CO6	create and file the GST returns	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4CC10**			**Core Course - 10:** Business Taxation					**7**		**6**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	3	3	2	3	3	2	**2.7**
CO2	3	3	3	2	2	3	3	3	2	2	**2.6**
CO3	3	3	3	3	2	3	3	2	3	3	**2.8**
CO4	3	3	2	3	2	3	3	2	3	2	**2.6**
CO5	3	3	3	2	2	3	3	3	2	3	**2.7**
CO6	3	3	3	3	3	3	3	2	3	2	**2.8**
										Mean Overall Score	**2.7 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4CC11	**Core Course - 11:** Financial Accounting Package - TallyPrime	3	3

Course Objectives
To Gain and Understand the basic principles and concepts of accounting.
To Provide knowledge of Tally Prime application and Accounting Package
To Apply and practice the various Accounting and Inventory vouchers
To Learn the knowledge on TDS-TCS and VAT Calculations
To Create an GST and maintenance of various reports

UNIT 1: Computerized Accounting - Tally **(9 Hours)**

Introduction - Importance - Features - Company Data: Creating And Maintaining a Company- Loading a company-Maintain a Group Summary - Configuration - Company Features Accounting Features - Inventory Features - Statutory Features- TSS Features - Audit Features - Add-On Features - Accounting Information: - Groups - Ledgers - Financial Problems - Trail Balance - Day book.

UNIT II: Voucher Entries (Accounting Vouchers) **(9 Hours)**

Contra Vouchers - Payment Vouchers - Receipt Vouchers - Journal Vouchers - Purchase Vouchers - Sales Vouchers - Debit Note Voucher - Credit Note Voucher - Post Dated Cheque Entry - Inventory Vouchers - Optional & Non- Accounting Vouchers - Order Processing Vouchers - Advance Vouchers.

UNIT III: Inventory Information **(9 Hours)**

Inventory Configuration & Features - Stocks Groups - Stock Category - Stock Items - Unit of Measures - Godowns - Inventory Vouchers - Advanced Accounting & Inventory Features:- Cost Category - Cost Center - Budget - Creation - Alteration - Cheque printing - Scenario Management - Job Costing - VAT, CST, Point Of Sale (POS) - Item Cost Tracking - Reorder Level And Reorder Quantity - Multi Address - Reports.

UNIT IV: Technological Advantages in ERP 9 **(9 Hours)**

Export - Import data - ODBC connectivity - connecting tally data into MS word document and excel worksheet - Backup - Restore. TDS -TCS.GST (Goods and Service Tax):- Creating GST classifications - Updating - Setting - Providing - Recording GST details - Other Scenarios - Payroll Preparations - Features.

UNIT V: Tally Prime 1.0 **(9 Hours)**

Introduction - Features - Process for setting up Tally Prime - Configuration Setup - Application Path Install - Startup - Basics - Billwise accounts - Tally Prime with Banking and Reports.

Book for Study

1. Asok, K. N. (2018). *Tally ERP 9 Training Guide.* 4th Revised. BPB Publications.

Books for Reference

1. (2019). *GST Using Tally*. ERP 9. Tally Education Pvt. Ltd. Sahaj Enterprises.
2. Chheda, R. (2020). *Tally Prime: with All New Features*. Ane Books Pvt. Ltd.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	understand the importance of computerized accounting and the role of Tally in modern business environments	**K1**
CO2	demonstrate the ability to work with accounting information, including the creation and management of groups, ledgers, and financial statements.	**K2**
CO3	apply VAT, CST, Point of Sale (POS), Reorder Level, Reorder Quantity, Multi-Address features, and generate relevant reports.	**K3**
CO4	examine the concepts of TDS, TCS, and GST.	**K4**
CO5	implement payroll preparations in Tally, including understanding and utilizing payroll features.	**K5**
CO6	Explore the application path install, startup basics, and the integration of Tally Prime with banking and reporting	**K6**

Relationship Matrix											
Semester	**Course Code**	**Title of the Course**								**Hours**	**Credits**
4	**23PCC4CC11**	**Core Course - 11:** Financial Accounting Package - TallyPrime								**3**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	3	**2.6**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	3	2	2	2	3	**2.6**
CO6	3	2	3	2	3	3	2	2	3	2	**2.5**
										Mean Overall Score	**2.48 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4CC12	**Core Course - 12:** Software Engineering	4	4

Course Objectives
To Acquire knowledge in various software development models
To Understand and analyze software requirements specifications for different projects
To Explain the design concepts, analyze and apply the concepts to design architectural, component level & User interface models, list the golden rules
To Apply Different Testing and Debugging Techniques to Evaluate the Software
To Develop and maintain the Software efficiently.

UNIT I: INTRODUCTION TO SOFTWARE ENGINEERING (12 Hours)

The Evolving Role of Software-Software-The changing nature of software-Software Myths. A generic View of Process: A Layered technology-process models: The Waterfall Model-Evolutionary Process Models.

UNIT II: SYSTEM ANALYSIS AND MODELING (12 Hours)

System Engineering: Computer-Based Systems-The System Engineering Hierarchy. Requirement Engineering: Requirements Engineering Tasks-Initiating the Requirement Engineering Process-Eliciting Requirements-Building the Analysis Model-Requirement Analysis-Data Modeling Concepts-Flow Oriented Modeling-Class based Modeling-Creating Behavior Model.

UNIT III: DESIGN ENGINEERING (12 Hours)

Design process and Design Quality-Design Concepts-The Design Model. Creating the Architectural Design: Software Architecture-Data Design-Architectural Design-Mapping Data Flow into Software Architecture. Modeling component level design: Designing class based components-Performing User Interface Design: The Golden Rules-User Interface Analysis and Design-Interface Analysis-Interface Design Steps-Design Evaluation.

UNIT IV: TESTING STRATEGIES (12 Hours)

A Strategic Approach of Software Testing-Test strategies for Conventional Software and Object Oriented Software-Validation Testing-System Testing-The art of Debugging. Testing Tactics: Software Testing Fundamentals-White Box Testing-Basis Path Testing-Control Structure Testing-Block Box Testing-Object Oriented Testing Methods.

UNIT V: PROJECT MANAGEMENT (12 Hours)

The Management Spectrum-The People-The Product-The Process-The Project. Estimation: The Project Planning Process-Resources-Software Project Estimation-Decomposition Techniques-Empirical Estimation Models - Project Scheduling: Project Scheduling- Quality Management: Quality Concepts-Software Quality Assurance-Formal Technical Reviews.

Teaching Methodology	PPT, VIDEOS and group discussion

Book for Study

1. Roger, S. P. (2015). *Software Engineering,* (8th Ed.). McGraw Hill. Education.

Books for Reference

1. David Farley. (2022). *Modern Software Engineering*. Addison Wesley Professional Publishers.
2. Aggarwal, K. K., & Singh, Y. (2019). *Software Engineering*. New Age International Publishers Pvt Ltd.
3. Sommerville, I. (2018). *Software Engineering,* (10th Ed.). Pearson India.

Websites and eLearning Sources

1. https://www.tutorialspoint.com/videot...
2. https://nptel.ac.in/translation

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	get the knowledge on various software, models, design methods, testing and maintenance.	**K1**
CO2	understand the process models, requirements and specifications of software, the golden rules, testing strategies and project planning process.	**K2**
CO3	apply the suitable model, design methods, Scenarios, testing methods for business process reengineering	**K3**
CO4	analyze the given problem with the applied models, design specifications, testing techniques and maintenance procedures	**K4**
CO5	create a Software and perform testing, documentation for its maintenance.	**K5**
CO6	evaluate the created software using empirical estimation models	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4CC12**			**Core Course - 12:** Software Engineering					**4**		**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	3	2	1	2	3	3	2	1	2	**2.4**
CO2	3	2	3	2	1	3	2	3	2	3	**2.1**
CO3	2	2	3	2	2	2	3	2	2	2	**2.2**
CO4	3	3	3	1	2	3	3	3	2	2	**2.5**
CO5	2	3	3	2	3	2	3	3	2	1	**2.4**
CO6	2	2	3	3	2	2	3	2	3	1	**2.3**
										Mean Overall Score	**2.3 (High)**

Semester	Course code	Title of the Course	Hours/Week	Credits
4	23PCC4CP05	**Core Practical - 5:** Financial Accounting Package - TallyPrime	5	4

Course Objectives
To Extract profit and loss account and balance sheet through ledger account balances and adjustment entries.
To Pass entries for transactions in accounting vouchers with or without stock items.
To Pass entries for transactions requiring special features such as TDS, VAT, CST, GST Cost centers and Payrolls.
To Carry out order processing and maintain accounting records along with inventory records and generate reports.
To Work as an accountant or a storekeeper in the computerized environment of business organizations.

Exercises:

1. Tally Prime Screen - Company creation, Alter, delete, Shut
2. F11: Company Features, F12: Configuration setup
3. Ledger Creation - Single, Multiple (Create, Display, Alter) Group Creation - Single, Multiple (Create, Display, Alter)
4. Final A/Cs with adjustments (Trading, Profit and Loss A/c, Balance Sheet)
5. Income & Expenditure (Non-Trading)
6. Accounting Vouchers
7. Cost / Profit Centre Management: Cost centre, Cost Category
8. Payroll preparation: Salary, Employee benefits, reports
9. Budget & Scenario Management - Maintain Budget and control - Journal Vouchers
10. Inventory Management: Stock Group, Stock Categories, Stock Items and Godown
11. Order processing: Purchase order, Sales order
12. Inventory vouchers, Invoicing, Purchase Management, Sales Management
13. Bills Payable and receivable
14. Accounting books and reports
15. GST (Goods, Services and Tax) - Exercises
16. Income Tax filling & returns - Exercises & overview

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	understand the importance of computerized accounting and the role of Tally in modern business environments	**K1**
CO2	demonstrate the ability to work with accounting information, including the creation and management of groups, ledgers, and financial statements.	**K2**
CO3	apply VAT, CST, Point of Sale (POS), Reorder Level, Reorder Quantity, Multi-Address features, and generate relevant reports.	**K3**
CO4	examine the concepts of TDS, TCS, and GST.	**K4**
CO5	implement payroll preparations in Tally, including understanding and utilizing payroll features.	**K5**
CO6	explore the application path install, start-up basics, and the integration of Tally Prime with banking and reporting	**K6**

Relationship Matrix											
Semester	**Course Code**		**Title of the Course**							**Hours**	**Credits**
4	**23PCC4CP05**		**Core Practical - 5:** Financial Accounting Package - TallyPrime							**5**	**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	3	**2.6**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	3	2	2	2	3	**2.6**
CO6	3	2	3	2	3	3	2	2	3	2	**2.5**
										Mean Overall Score	**2.48 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4ES04A	**Elective - 4:** Labour Legislations	5	4

Course Objectives
To understand the concepts of labour laws
To know the acts supporting the workers
To understand the importance of bonus act
To evaluate the compensation provided to workers
To create the methods to form the trade unions as per the act

UNIT I: Factory's Act **(15 Hours)**

Labour - definition -Factories Act, 1948**:** Provision's relating to health, safety, welfare, working hours, leave etc., of workers Approval-Licensing and registration of factories, manager and occupier-Their obligations under the Act, powers of the authorities under the Act, Conflicts and settlement- Penalty provisions.

UNIT II: Workmen's Compensation Act, 1923 **(15 Hours)**

Employer's liability for compensation- amount of compensation method of calculating wages-Review-distribution of compensation-conflict settlement-Remedies of employer against stranger-Returns as to compensation-Commission for workmen's compensation.

UNIT III: Payment of Bonus Act 1965 **(15 Hours)**

Computation of available surplus- calculation of direct tax payable- surplus calculation of direct tax payable by the employer, eligibility for bonus and payment of bonus-deduction from bonus payable-adjustment of customary of interim bonus payable, adjustment of customary or interim bonus linked with production or productivity-set on and set off allocable surplus, presumption about accuracy of balance sheet and profit and loss account.

UNIT IV: Payment of Gratuity Act, 1972 and Child Labour Act 1986 **(15 Hours)**

Payment of Gratuity-exemption-nomination-determination and recovery of the amount of gratuity-The child Labour Act - regulation of condition of work for children.

UNIT V: Payment of Wages Act, 1936 **(15 Hours)**

Objects, Provisions relating to responsibility for payment of wages-fixation of wage periods, time of payment, deduction and fines-maintenance of records and registers, inspectors appointment of authorities and adjudication of claims.

Book for Study

1. Tripathi, P.C., Gupta, C.B., & Kapoor, N.D. (2020). *Industrial Relations & Labour Laws.* Sultan Chand Publications.

Books for Reference

1. Malik, P. L. (2018*). Handbook of Labour and Industrial Law,* (18th Ed.). Editorial Staff of SCC.
2. Padhi, P. K. (2012). *Labour and Industrial Laws,* (2nd Ed.). Prentice Hall India.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	understand the concepts of labour laws	**K1**
CO2	identify the importance of different labour Acts	**K2**
CO3	know the acts supporting the workers	**K3**
CO4	understand the importance of bonus act	**K4**
CO5	evaluate the compensation provided to workers	**K5**
CO6	create the methods to form the trade unions as per the act	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4ES04A**			**Elective - 4:** Labour Legislations					**5**		**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
Mean Overall Score											**2.4 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4ES04B	**Elective - 4:** International Business	5	4

Course Objectives
Know the concepts of Domestic and International business
Understand the modes of international business
Apply the knowledge on cultural, social and ethical responsibilities of MNCs
Analyse the agreements based on the various laws for their businesses
Create knowledge on foreign exchange management

UNIT I: Environment and Challenges **(15 Hours)**

Environment and challenges**:** Meaning, Significance, Process of evolution of international business and its development, Effect of Globalization on international -Difference between international business and domestic business, Factors, Reasons for growth in International business. Types of international organizations. Collaborative arrangements - licensing, franchising, management contracts, turnkey operations, joint ventures, equality alliance, strategic alliance, multinational enterprise: impact of each type on domestic firms.

UNIT II: Modes of International Business **(15 Hours)**

Modes of international business - Factors influencing the choice of a particular mode of International business- Various forms of contractual entry modes and challenges. Economic Environments - Importance of economic environments-Elements and its impact: Inflation, Unemployment, Income distribution, Gross Domestic Product, Gross National Income, Balance of Payments and Balance of Trade.

UNIT III: Laws, Regulation and Institutional Framework **(15 Hours)**

Laws, regulation and institutional framework: Global trading environment, Trade In commodities, Commodity agreements, Trade blocs, Bilateral and Multilateral Trade laws, General Agreement on Tariffs and Trade (GATT) and World Trade Organisation (WTO), United Nations Conference on Trade and Development. (UNCTAD), Regional Trading Agreements and North American Free Trade Agreement (NAFTA), Association of Southeast Asian Nations (ASEAN), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Agreement on Trade-Related Investment Measures (TRIMs) National Regulation of International Business: Free Trade versus Trade protection, Forms of trade regulation, Regulation of foreign direct investment (FDI) in India, Problems and prospects for Indian business.

UNIT IV: Foreign Exchange Exposure **(15 Hours)**

Foreign exchange exposure -Foreign exchange, Foreign exchange market, Exchange rate, Traditional Foreign exchange Instruments: Spot transactions, Forward transactions; Derivatives Options, Currency swaps, Futures contracts. Export and Import - Meaning, Merits and demerits, characteristics, types, strategic advantages to an economy - Export Documentation: Objectives, Letter of Credit, Draft, Bill of Lading, Additional Documents

UNIT V: Cultural Environments Faced by Businesses **(15 Hours)**

Cultural environments faced by businesses, ethical and social responsibilities of MNCs Nature of assumptions, Major causes of cultural difference and change, Behavioral factors influencing countries' business practices, Impact of cultural differences on Communication, Negotiation & Decision Making, Management of Cultural Diversity and General cultural guidelines for companies that operate internationally. Concepts, Principles, Ethical issues: Sustainability, Global warming and Kyoto Protocol, Labour Issues

Book for Study

1. Cherunilam, F. (2019). *International Trade & Export Management,* (21st Ed.). published by Himalaya Publishing House.

Books for Reference

1. Griffin, R., & Pustay, M. (2014*). International Business: A managerial Perspective,* (8th Ed.). published by Pearson.
2. Wild, J., & Wild, K.L. (2002). *International Business published by Pearson*.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	identify the diversity at world market place.	**K1**
CO2	understand the growing portion of the world's business.	**K2**
CO3	interpret the range of International financial transactions.	**K3**
CO4	correlate the strategic advantages to an economy.	**K4**
CO5	appraise the external environment in regulating the foreign business.	**K5**
CO6	develop company's performance by increasing profit and reducing costs.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4ES04B**			**Elective - 4:** International Business					**5**		**4**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	3	**2.6**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	3	2	2	2	3	**2.6**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.46 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4PW01	Project Work and Viva Voce	6	5

Course objectives
To understand the concepts of social issues and problems and personality, perception and learning in Organizations.
To update the individual and group behaviour in the workplace.
To Design motivational techniques for job design, employee involvement, incentives, rewards & recognitions.
To improve the individual confidence level in facing the problems
To Analyse various job-related attitudes and get employment opportunities.

UNIT I: Introduction: **(18 Hours)**

chapter selection and relevance problem, historical background of the problem, definition/s of related aspects, characteristics, different concepts pertainingto the problem etc can be covered by the candidate.

UNIT II: Research Methodology **(18 Hours)**

Objectives of research, Hypothesis, Scope of the study, Selection of theproblem, Sample size, Data collection, Tabulation of data, Techniques and tools to beused, limitations of the study, significance of the study etc.

UNIT III: Literature Review **(18 Hours)**

Collection of related concepts and review- research gap - future studies

UNIT IV: Data Presentation and Data Analysis **(18 Hours)**

Tabulation -Analysis pertaining to collected data - application of selected tools or techniques- information, presentation of graph etc

UNIT V: presentation **(18 Hours)**

Report writing- submission -presentation -viva preparation and publication procedures

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	recognise concepts of social issues and problems and personality, perception and learning in Organizations.	**K1**
CO2	determine the individual and group behaviour in the workplace.	**K2**
CO3	design motivational techniques for job design, employee involvement, incentives, rewards & recognitions.	**K3**
CO4	develop the intra personal skills	**K4**
CO5	analyze various job-related attitudes and get employment opportunities.	**K5**
CO6	create new ideas regarding projects	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4PW01**			Project Work and Viva Voce					**6**		**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	2	**2.5**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	2	2	2	2	3	**2.5**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.43 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	23PCC4CE01	Comprehensive Examination	--	2

Course Objectives
To Understand different types of logical and physical components of a data base, Tally, Components of Storage System Environment
To Assess the concepts of personality, perception and learning in Organizations.
To Analyze various job-related attitudes.
To Design motivational techniques Understand different types of logical and physical components of a storage infrastructure for job, Laws protecting employees, incentives, rewards & recognitions for motivation.
To Manage effective supply chain in the organizations for outsourcing.

UNIT I

Decision Theory-Basic concepts: quantitative approach to managerial decision-Making-Linear programming -Financial decision-making- Features and significance of Capital budgeting -Concepts of Working Capital- - Importance of communication - Effective Communication Trends

UNIT II

Motivation- Work Life Balancing - Methods and elements of costing- process and marginal costing - Time Management -Improving Personality- problems encountered by researchers in India - research report -**E**nvironment and challenges international business-Cultural environments facing business, ethical and social responsibilities of MNCs

UNIT III

Provision's relating to health, safety, welfare, working hours, leave etc., of workers- Employer's liability for compensation - payment of bonus-set on and set off allocable surplus- regulation of condition of work for children.

UNIT IV

Data base systems- distributed databases- Features of Python -File Handling- Data Structures-Exploratory data analysis-Decision Trees-Technological advantages in ERP 9 -Configuration Setup - Components of Storage System Environment

UNIT V

Role of Logistics management - Importance -Issues involved in developing SCM Framework-components -New opportunities in SCM outsourcing - Individual values vs social values -Inter, intra personal development- Objectives of Taxation- Types of taxes

Books for Study

1. Kapoor, V. K., & Kapoor, S. (2008). *OR Techniques for Management,* (1st Ed.). Sultan Chand & Sons. (Unit 1 and unit II).
2. Prasanna, C. (2019). *Financial management.* Theory and Practice McGraw Hill Education Publishing. (Unit III).
3. Singh, S.K. (2009). *Database Systems Concepts, Design and Applications,* (1st Ed.). Pearson Education. (Unit IV).
4. Christopher, M. (2016). *Logistics & Supply Chain Management, kindle,* (1st Ed.). FT Publishing International. (Unit V).

Books for Reference

1. Kapoor, N. D. (2006). *Industrial Law,* (1st Ed.). Sultan Chand Publications.
2. Alex, K. (2013). *Managerial skills.* Person Publication. (Unit 2).
3. Jain, S.P. (2015). *Narang: Cost accounting*. Kalyani Publication.
4. Kapoor, N. D. (2006). *Industrial Law,* (1st Ed.). Sultan Chand Publications. (Unit 3).
5. Asok, K. N. (2018). *Tally ERP 9 Training Guide,* (4th Ed.). Paperback (Unit 4).
6. Sharma, R.C., & Mohan, K. (2017). *Business Correspondence & Report Writing*. Tata McGraw Hill Publishing Co. Ltd. (unit 1).

7. Balachandran. (2019). *Indirect Taxation*. Sultan Chand & Sons and Kalyani Publishers. (unit 5).
8. Christopher, M. (2016). *Logistics & Supply Chain Management, kindle,* (1st Ed.). FT Publishing International. (unit 5).

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	understand different types of logical and physical components of a data base, Tally, Components of Storage System Environment	**K1**
CO2	assess the concepts of personality, perception and learning in Organizations.	**K2**
CO3	analyze various job-related attitudes.	**K3**
CO4	design motivational techniques Understand different types of logical and physical components of a storage infrastructure for job, Laws protecting employees, incentives, rewards & recognitions for motivation.	**K4**
CO5	manage effective supply chain in the organizations for outsourcing.	**K5**
CO6	create new format of learning	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
4	**23PCC4CE01**			Comprehensive Examination					**--**		**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	2	3	2	3	2	3	2	2	**2.4**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	2	2	3	**2.4**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	2	3	2	3	2	2	2	2	3	**2.4**
CO6	3	2	3	2	3	3	2	2	3	2	**2.5**
										Mean Overall Score	**2.38 (High)**