M.Com CA
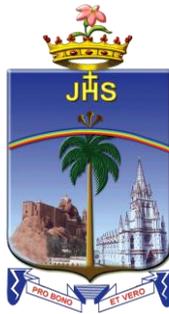
LOCF SYLLABUS – 2021

SCHOOLS OF EXCELLENCE

WITH CHOICE BASED CREDIT SYSTEM (CBCS)

DEPARTMENT OF COMMERCE COMPUTER APPLICATIONS
SCHOOL OF MANAGEMENT STUDIES
ST.JOSEPH'S COLLEGE (AUTONOMOUS)
Special Heritage Status Awarded by UGC
Accredited at A^{++} Grade (IV Cycle) by NAAC
College with Potential for Excellence by UGC
DBT-STAR & DST-FIST Sponsored College
Tiruchirappalli - 620 002, Tamil Nadu, India

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

St. Joseph's College (Autonomous), a pioneer in higher education in India, strives to maintain and uphold the academic excellence. In this regard, it has initiated the implementation of five "Schools of Excellence" from the academic year 2014 – 15, to meet and excel the challenges of the 21st century.

Each School integrates related disciplines under one roof. The school system enhances the optimal utilization of both human and infrastructural resources. It also enhances academic mobility and enriches employability. The School system preserves the identity, autonomy and uniqueness of every department and reinforces Student centric curriculum designing and skill imparting. These five schools adhere to achieve and accomplish the following objectives.

Optimal utilization of resources both human and material for the academic flexibility leading to excellence.

Students experience or enjoy their choice of courses and credits for their horizontal mobility.

The existing curricular structure as specified by TANSCHE and other higher educational institutions facilitate the Credit-Transfer Across the Disciplines (CTAD) - a uniqueness of the choice based credit system.

Human excellence in specialized areas

Thrust in internship and / or projects as a lead towards research and

The multi-discipline nature of the School System caters to the needs of stake-holders, especially the employers.

Credit system:

Weightage to a course is given in relation to the hours assigned for the course. Generally one hour per week has one credit. For viability and conformity to the guidelines credits are awarded irrespective of the teaching hours. The credits and hours of each course of a programme is given in the table of Programme Pattern. However, there could be some flexibility because of practical, field visits, tutorials and nature of project work.

For PG courses, a student must earn a minimum of 110 credits as mentioned in the programme pattern table. The total number of minimum courses offered by the Department is given in the Programme Structure.

OUTCOME-BASED EDUCATION (OBE)
LEARNING OUTCOME-BASED CURRICULUM FRAMEWORK (LOCF)

OBE is an educational theory that bases each part of an educational system around goals (outcomes). By the end of the educational experience, each student should have achieved the goal. There is no single specified style of teaching or assessment in OBE; instead, classes, opportunities and assessments should all help the students achieve the specific outcomes

Outcome Based Education, as the name suggests depends on Outcomes and not Inputs. The outcomes in OBE are expected to be measurable. In fact each Educational Institute can state its own outcomes. The ultimate goal is to ensure that there is a correlation between education and employability

Outcome –Based Education (OBE): is a student-centric teaching and learning methodology in which the course delivery, assessment are planned to achieve, stated objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels.

Some important aspects of the Outcome Based Education

Course: is defined as a theory, practical or theory cum practical subject studied in a semester.

Course Outcomes (COs): are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course. Generally three or more course outcomes may be specified for each course based on its weightage.

Programme: is defined as the specialization or discipline of a Degree.

Programme Outcomes (POs): Programme outcomes are narrower statements that describe what students are expected to be able to do by the time of graduation. POs are expected to be aligned closely with Graduate Attributes.

Programme Specific Outcomes (PSOs):

PSOs are what the students should be able to do at the time of graduation with reference to a specific discipline.

Programme Educational Objectives (PEOs): The PEOs of a programme are the statements that describe the expected achievement of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the first few years after Graduation.

Some important terminologies repeatedly used in LOCF.

Core Courses (CC)

A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course. These are the courses which provide basic understanding of their main discipline. In order to maintain a requisite standard certain core courses must be included in an academic program. This helps in providing a universal recognition to the said academic program.

Discipline Specific Elective Courses (DSE)

Elective course may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective (DSE). These courses offer the flexibility of selection of options from a pool of courses. These are considered specialized or advanced to that particular programme and provide extensive exposure in the area chosen; these are also more applied in nature.

DSE: Four courses are offered, one course in each semester.

Note: To offer **one DSE**, a minimum of two courses of equal importance / weightage is a must.

One DSE Course in semester two is offered as interdisciplinary/common course among the departments in a School (Common Core Course) at the PG level.

Generic Elective Courses

An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Generic Elective.

Generic Elective courses are designed for the students of **other disciplines**. Thus, as per the CBCS policy, the students pursuing particular disciplines would have to opt Generic Elective courses offered by other disciplines, as per the basket of courses offered by the college. The scope of the Generic Elective (GE) Courses is positively related to the diversity of disciplines in which programmes are being offered by the college.

Two GE Courses are offered, one each in semesters II and III. The GE course offered in semester II is within the school level and the GE in semester III is Between Schools level

The Ability Enhancement Courses (AEC)

One Main discipline related Ability Enhancement Course for 3 credits is offered for a PG programme by the Department.

Skill Enhancement Courses (SECs)

These courses focus on developing skills or proficiencies in the student, and aim at providing hands-on training. Skill enhancement courses can be opted by the students of any other discipline, but are highly suitable for students pursuing their academic programme.

One SEC is offered in semester II as a compulsory course on Soft Skills, offered by the Department of Human Excellence, common to all the students of PG programme.

Self–paced Learning: It is a course for two credits. It is offered to promote the habit of independent/self learning of Students. Since it is a two credit course, syllabus is framed to complete within 45 hours. It is not taught in the regular working hours.

Comprehensive Examinations: A detailed syllabus consisting of five units to be chosen from the courses offered over the five semesters which are of immense importance and those portions which could not be accommodated in the regular syllabus.

Extra Credit Courses: In order to facilitate the students, gaining knowledge/skills by attending online courses MOOC, credits are awarded as extra credits, the extra credit are at three semesters after verifying the course completion certificates. According to the guidelines of UGC, the students are encouraged to avail this option of enriching their knowledge by enrolling themselves in the Massive Open Online Courses (MOOC) provided by various portals such as SWAYAM, NPTEL and etc.

Course Coding:

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

21	PXX	N	XX	NN/NNX
Year of Revision	PG Department Code	Semester number.	Part Category	running number/with choice

N:- Numerals   X :- Alphabet

Part   Category
CC - Core Theory
CP- Core Practical
IS- Internship
SP- Self Paced Learning
CE- Comprehensive Examination
PW- Project Work & viva-voce
Electives Courses
ES – Department Specific Electives
EG- Generic Electives
EC - Additional core Courses for Extra Credits (If any)*
Ability Enhancement Courses
AE – Ability Enhancement Course
SE – Skill Enhancement Course – Soft skills
CW - SHEPHERD & Gender Studies (Outreach)

CIA AND SEMESTER EXAMINATION
Continuous Internal Assessment (CIA):

Distribution of CIA Marks	
Passing Minimum: 50 Marks	
Library Referencing	5
3 Components	35
Mid-Semester Test	30
End-Semester Test	30
CIA	100

MID-SEM & END-SEM TEST

Centralised – Conducted by the office of COE

1. Mid-Sem Test & End-Sem Test: (2 Hours each); will have Objective and Descriptive elements; with the existing question pattern PART-A; PART-B; PART-C and PART D.

2. One of the CIA Component II/III for UG & PG will be of 15 marks and compulsorily a online objective multiple choice question type.

3. The online CIA Component must be conducted by the Department / faculty concerned at a suitable computer centre.

4. The one marks of PART-A of Mid-Sem and End-Sem Tests will comprise only: OBJECTIVE MULTIPLE CHOICE QUESTIONS.

5. The number of hours for the 5 marks allotted for Library Referencing/ work would be 30 hours per semester. The marks scored out of 5 will be given to all the courses (Courses) of the Semester.

Duration of Examination must be rational; proportional to teaching hours 90 minute-examination / 50 Marks for courses of 2/3 hours/week (all Part IV UG Courses) 3-hours examination for courses of 4-6 hours/week.

Knowledge levels for assessment of Outcomes based on Blooms Taxonomy

S. No.	Level	Parameter	Description
1	K1	Knowledge/Remembering	It is the ability to remember the previously learned
2	K2	Comprehension/Understanding	The learner explains ideas or concepts
3	K3	Application/Applying	The learner uses information in a new way
4	K4	Analysis/Analysing	The learner distinguishes among different parts
5	K5	Evaluation/Evaluating	The learner justifies a stand or decision
6	K6	Synthesis /Creating	The learner creates a new product or point of view

WEIGHTAGE of K – LEVELS IN QUESTION PAPER

(Cognitive Level) K- LEVELS	Lower Order Thinking			Higher Order Thinking			Total %
	K1	K2	K3	K4	K5	K6	
SEMESTER EXAMINATIONS	15	20	35	30			100
MID / END Semester TESTS	12	20	35	33			100

QUESTION PATTERN FOR SEMESTER EXAMINATION	MARKS
SECTION–A (No choice ,One Mark) **THREE** questions from each unit (15x1 =15)	15
SECTION-B (No choice ,2-Marks) **TWO** questions from each unit (10x2 =20)	20
SECTION-C (Either/or type) (7- Marks) **ONE** question from each unit (5x7 =35)	35
SECTION-D (3 out of 5) (10 Marks) **ONE** question from each unit (3x10 =30)	30
Total	100

BLUE PRINT OF QUESTION PAPER FOR SEMESTER EXAMINATION							
DURATION: 3. 00 Hours.						**Max Mark : 100**	
K- LEVELS **SECTIONS**	**K1**	**K2**	**K3**	**K4**	**K5**	**K6**	**Total Marks**
SECTION–A (One Mark, No choice) (15x1 =15)	15						**15**
SECTION-B (2-Marks, No choice) (10x2=20)		10					**20**
SECTION-C (7- Marks) (Either/or type) (5x7=35)			5				**35**
SECTION-D (10 Marks) (3 out of 5) (3x10=30) Courses having only **K4** levels				3			
Courses having **K4** and **K5** levels **One K5 level question is compulsory**				2	1		**30**
(Courses having **all the 6** cognitive levels **One K5 and K6 level questions can be compulsory**				1	1	1	
Total	**15**	**20**	**35**	**30**			**100**

QUESTION PATTERN FOR MID/END TEST		
SECTION		**MARKS**
SECTION–A (No choice, One Mark)	(7x1 =7)	**7**
SECTION-B (No choice , 2-Marks)	(6x2 =12)	**12**
SECTION-C (Either/or type) (7- Marks)	(3x7 =21)	**21**
SECTION-D (2 out of 3) (10 Marks)	(2x10=20)	**20**
	Total	**60**

BLUE PRINT OF QUESTION PAPER FOR MID/END TEST							
DURATION: 2. 00 Hours.						**Max Mark: 60.**	
K- LEVELS **SECTIONS**	**K1**	**K2**	**K3**	**K4**	**K5**	**K6**	**Total Marks**
SECTION –A (One Mark, No choice) (7 x 1 = 7)	7						**07**
SECTION-B (2-Marks, No choice) (6 x 2 = 12)		6					**12**
SECTION-C (Either/or type) (7-Marks) (3 x 7 =21)			3				**21**
SECTION-D (2 out of 3) (10 Marks) (2x10=20) Courses having only **K4** levels				2			
Courses having **K4** and **K5** levels **One K5 level question is compulsory**				1	1		**20**
Courses having **all the 6** cognitive levels **One K6 level question is compulsory**					1	1	
Total Marks	**07**	**12**	**21**	**20**			**60**
Weightage for 100 %	**12**	**20**	**35**	**33**			**100**

Assessment pattern for two credit courses.

S. No.	Course Title	CIA	Semester Examination	Total Marks
1	Self Paced Learning Course	25 + 25 = 50	50 Marks MCQ (COE)	100
2	Comprehensive Examinations	25 +25 = 50	50 Marks (MCQ) (COE)	100
3	Internship	100	--	100
4	Field Visit	100	--	100
5	Ability Enhancement Course (AEC) for PG (3 credits)	50 (Three Components)	50 (COE) Specific Question Pattern	100
Assessment Pattern for Courses in Part - IV				
6	Value Education Courses and Environmental Studies	50	50 Marks (For 2.00 hours) (COE)	100
7	Skill Enhancement Courses(SECs)	50 marks (by Course in-charge) 50 Marks (by an External member from the Department)		100
8	SEC: SOFT SKILLS (For UG and PG)	100	(Fully Internal)	100

EVALUATION
GRADING SYSTEM

Once the marks of the CIA and the end-semester examination for each of the courses are available, they will be added and converted as final mark. The marks thus obtained will then 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 (GPA) and Cumulative Grade Point Average (CGPA) respectively. These two are calculated by the following formulae:

$$GPA = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i} \qquad WAM\,(Weighted\,Average\,Marks) = \frac{\sum_{i=1}^{n} C_i M_i}{\sum_{i=1}^{n} C_i}$$

Where,

C_i is the Credit earned for the Course i

G_i is the Grade Point obtained by the student for the Course i

M_i is the marks obtained for the course i and

n is the number of Courses **Passed** in that semester.

CGPA: Average GPA of all the Courses starting from the first semester to the current semester.

CLASSIFICATION OF FINAL RESULTS:

i) The classification of final results shall be based on the CGPA, as indicated in Table-2.

ii) For the purpose of Classification of Final Results, the candidates who earn the CGPA 9.00 and above shall be declared to have qualified for the Degree as 'Outstanding'. Similarly the candidates who earn the CGPA between 8.00 and 8.99, 7.00 and 7.99, 6.00 and 6.99 and 5.00 and 5.99 shall be declared to have qualified for their Degree in the respective programmes as 'Excellent', 'Very Good', 'Good', and 'Above Average' respectively.

iii) A Pass in SHEPHERD will continue to be mandatory although the marks will not count for the calculation of the CGPA.

iv) Absence from an examination shall not be taken an attempt.

Table-1: Grading of the Courses

Marks 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: Final Result

CGPA	Corresponding Grade	Classification of Final Result
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**
5.0 0 to 5.99	**B**	**Above Average**
Below 5.00	**RA**	**Re-appearance**

Credit based weighted Mark System is adopted for the individual semesters and cumulative semesters in the column 'Marks secured' (for 100)

Declaration of Result

Mr./ MS. _____ has successfully completed the Post Graduate in _____ programme. The candidate's Cumulative Grade Point Average (CGPA) is _____ and the class secured is _____ by completing the minimum of 110 credits.

The candidate has also acquired _____ (if any) extra by attending MOOC courses.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

The Programme Outcomes(POs)/Programme Specific Outcomes(PSOs) are the qualities that must be imbibed in the graduates by the time of completion of their programme. At the end of each programme the PO/PSO assessment in done from the CO attainment of all curriculum components. The POs/PSOs are framed based on the guidelines of LOCF. There are five POs UG programme and five POs for PG programme framed by the college. PSOs are framed by the departments and they are five in numbers.

For each Course, there are five Course Outcomes to be achieved at the end of the course. These Course outcomes are framed to achieve the POs/PSOs. All course outcomes shall have linkage to POs/PSOs in such a way that the strongest relation has the weight 3 and the weakest is 1. This relation is defined by using the following table.

Mapping	<40%	$\geq 40\%$ and $< 70\%$	$\geq 70\%$
Relation	Low Level	Medium Level	High Level
Scale	1	2	3

Mean Scores of COs = $\dfrac{\text{Sum of values}}{\text{Total No.of POs \& PSOs}}$		Mean Overall Score $= \dfrac{\text{Sum of Mean Scores}}{\text{Total No.of COs}}$	
Result	**Mean Overall Score**	< 1.2	# Low
		$\geq$ 1.2 and < 2.2	# Medium
		$\geq$ 2.2	# High

If the mean overall score is low then the course in charge has to redesign the particular course content so as to achieve high level mean overall score.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

The Programme Outcomes (POs)/Programme Specific Outcomes(PSOs) are the qualities that must be imbibed in the graduates by the time of completion of their programme. At the end of each programme the PO/PSO assessment in done from the CO attainment of all curriculum components. The POs/PSOs are framed based on the guidelines of LOCF. There are five POs UG programme and five POs for PG programme framed by the college. PSOs are framed by the departments and they are five in numbers.

For each Course, there are five Course Outcomes to be achieved at the end of the course. These Course outcomes are framed to achieve the POs/PSOs. All course outcomes shall have linkage to POs/PSOs in such a way that the strongest relation has the weight 3 and the weakest is 1. This relation is defined by using the following table.

Mapping	<40%	$\geq 40\%$ and $< 70\%$	$\geq 70\%$
Relation	Low Level	Medium Level	High Level
Scale	1	2	3

Mean Scores of COs $= \dfrac{\text{Sum of values}}{\text{Total No.of POs \& PSOs}}$	**Mean Overall Score** $= \dfrac{\text{Sum of Mean Scores}}{\text{Total No.of COs}}$	
Result	**Mean Overall Score**	< 1.2 — # Low
		≥ 1.2 and < 2.2 — # Medium
		≥ 2.2 — # High

 If the mean overall score is low then the course in charge has to redesign the particular course content so as to achieve high level mean overall score.

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 (PEO)

- Graduates will be able to accomplish professional standards in the global environment.

- Graduates will be able to uphold integrity and human values.

- Graduates will be able to appreciate and promote pluralism and multiculturalism in working environment.

PROGRAMME OUTCOMES (POs) - PG

1. Graduates will be able to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management and information Technology

2. Graduates will develop communication skills and build confidence to face the challenges of the corporate world.

3. Graduates will enhance the capability of decision making at personal and professional levels.

4. Graduateswill develop various managerial and accounting skills for better professional opportunities.

5. Graduates will acquire entrepreneurial skills and able to start entrepreneurship

PROGRAMME SPECIFIC OUTCOMES (PSOs) -PG

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

	M.COM. COMPUTER APPLICATION				
	PROGRAMME STRUCTURE				
Sem.	**Specification**	**No. of Courses**	**No. of Hours**	**Credits**	**Total Credits**
I –IV	**Corecourse :Theory**	**12**	**62**	**54**	
I –IV	**Corecourse : Practical**	**5**	**16**	**15**	
I	**AEC**	**1**	4	**3**	
II	**SEC Soft skill**	**1**	4	3	
I-IV	**Discipline Specific Elective**	4	20	16	
II-III	**Generic Elective**	2	**8**	**6**	
II	**Self-paced learning**	1	**--**	**2**	**106**
IV	**Project Work**	**1**	6	**5**	
IV	**Comprehensive Exam**	**1**	**--**	**2**	
II,III ,IV	**Extra Credit courses (MOOC)**	**(3)**	**--**	**(6)**	**(6)**
IV	**Outreach Programme**	**-**	**-**	**-**	4
	Total		**120**	**110**	**110(6)**

		M.COM. COMPUTER APPLICATION					
		PROGRAMME PATTERN					
		Course Details			**Scheme of Exams**		
Sem	**Course Code**	**Course Title**	**Hrs**	**Cr**	**CIA**	**SE**	**Final**
I	21PCC1CC01	Operations Research	7	6	100	100	100
	21PCC1CC02	Financial Management	7	6	100	100	100
	21PCC1CC03	Data base systems	4	3	100	100	100
	21PCC1CP01	Software Lab 1: RDBMS	3	2	100	100	100
	21PCC1ES01A	**DSE-1:** Entrepreneurship Development	5	4	100	100	100
	21PCC1ES01B	**DSE-1:** Corporate Social Responsibility					
	21PCC1AE01	**AEC:** Digital Marketing	4	3	50	50	50
		Total	**30**	**24**			
II	21PCC2CC04	Managerial Skills	5	4	100	100	100
	21PCC2CC05	Cost Accounting Techniques	5	5	100	100	100
	21PCC2CC06	Python Programming	4	3	100	100	100
	21PCC2CP02	Software Lab 2: Python programming	3	3	100	100	100
	21PCC2SP01A	**Self Paced Learning:** Disaster Management	-	2	50	50	50
	21PCC2SP01B	**Self Paced Learning:** Fundamentals of insurance					
	21PCC2SP01C	**Self Paced Learning:** Cloud Computing					
	21PCC2ES02A	**DSE-2:** Labour Legislations	5	4	100	100	100
	21PCC2ES02B	**DSE -2:** Customers' Rights and Education					
	21PSS2SE01	**SEC:** Soft Skills	4	3	100	-	100
	21PCC2EG01	**GE-1(WS):** Stress Management	4	3	100	100	100
		Extra Credit courses (MOOC)-1	-	(2)			
		Total	**30**	**27(2)**			
III	21PCC3CC07	Methodology for Social Science Research	5	5	100	100	100
	21PCC3CP03	Software Lab 3: Computer Application in Business Statistics	3	3	100	100	100
	21PCC3CC08	Organisational Behaviour	5	4	100	100	100
	21PCC3CC09	Big Data Analysis	5	4	100	100	100
	21PCC3CP04	Software Lab 4: Data Analytics using R	3	3	100	100	100
	21PCC3ES03A	**DSE-3:** Logistics and supply chain management	5	4	100	100	100
	21PCC3ES03B	**DSE-3:** Change Management					
	21PCC3EG02	**GE-2 (BS):** Dynamics of Human Behaviour In Business	4	3	100	100	100
		Extra Credit courses (MOOC)-2		(2)			
		Total	**30**	**26(2)**			
IV	21PCC4CC10	Business Taxation	7	6	100	100	100
	21PCC4ES04A	**DSE-4:** International Business	5	4	100	100	100
	21PCC4ES04B	**DSE-4:** Knowledge Management					
	21PCC4CC11	Financial Accounting Package – Tally Prime	3	3	100	100	100
	21PCC4CP05	Software Lab 5: Financial Accounting Package – Tally Prime	4	4	100	100	100
	21PCC4CC12	Software Engineering	5	5	100	100	100
	21PCC4PW01	Project work & Viva Voce	6	5	100	100	100
	21PCC4CE01	Comprehensive Examination	-	2	50	50	50
		Extra Credit courses (MOOC)-3	-	(2)			
		Total	**30**	**29(2)**			
I-IV	21PCW4OR01	Outreach programme (SHEPHERD)		4			
		Total (Four Semesters)	**120**	**110(6)**			

*The courses with a scheme of Exam 50 in CIA and SE will be converted to 100 for grading.

GENERIC ELECTIVE -1: 2nd Semester Within school (WS)- Offered to students belong to other Departments in the School							
Course Details					**Scheme of Exams**		
School	**Course Code**	**Course Title**	**Hrs**	**Cr**	**CIA**	**SE**	**Final**
SBS	21PBI2EG01	Herbal Technology	4	3	100	100	100
	21PBT2EG01	Medical Biotechnology	4	3	100	100	100
	21PBO2EG01	Medicinal Botany	4	3	100	100	100
SCS	21PCA2EG01	Applied Statistics using R	4	3	100	100	100
	21PMA2EG01	Mathematical Foundation	4	3	100	100	100
	21PCS2EG01	Mobile Adhoc Networks (MANET)	4	3	100	100	100
SLAC	21PEN2EG01A	Indian Literature in Translation	4	3	100	100	100
	21PEN2EG01B	English Literature For Competitive Examinations					
SMS	21PCO2EG01	Supply Chain Management	4	3	100	100	100
	21PEC2EG01	Labour Economics	4	3	100	100	100
	21PHR2EG01	Organizational Behaviour	4	3	100	100	100
	21PCC2EG01	Stress Management	4	3	100	100	100
SPS	21PCH2EG01	Industrial Products	4	3	100	100	100
	21PPH2EG01A	Solar Energy and Utilization	4	3	100	100	100
	21PPH2EG01B	Renewable Energy Resources	4	3	100	100	100

GENERIC ELECTIVE -2: 3rd Semester Between schools (BS)- Offered to students in the Departments belong to other Schools (Except the school offering the course)							
Course Details					**Scheme of Exams**		
School	**Course Code**	**Course Title**	**Hrs**	**Cr**	**CIA**	**SE**	**Final**
SBS	21PBI3EG02	First Aid Management	4	3	100	100	100
	21PBT3EG02	Food Technology	4	3	100	100	100
	21PBO3EG02	Horticulture and Landscaping	4	3	100	100	100
SCS	21PCA3EG02	Web Design	4	3	100	100	100
	21PMA3EG02	Operations Research	4	3	100	100	100
	21PCS3EG02	Advances in Computer Science	4	3	100	100	100
	21PDS3EG02	Deep Learning	4	3	100	100	100
SLAC	21PEN3EG02	English for Effective Communication	4	3	100	100	100
SMS	21PCO3EG02	Basics of Taxation	4	3	100	100	100
	21PEC3EG02	Managerial Economics	4	3	100	100	100
	21PHR3EG02	Counselling and Guidance	4	3	100	100	100
	21PCC3EG02	Dynamics of Human Behaviour in Business	4	3	100	100	100
SPS	21PCH3EG02	Health Science	4	3	100	100	100
	21PPH3EG02A	Physics for Competitive Exam	4	3	100	100	100
	21PPH3EG02B	Nano Science	4	3	100	100	100

Semester	Course Code	Title of the Course	Hours	Credits
I	**21PCC1CC01**	**CORE – 01 :** **OPERATIONS RESEARCH**	**7**	**6**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand the concepts of operations research	**K1**
CO–2	acquire knowledge on Queuing methods and Game theory	**K2**
CO–3	Analyse the solution for the Decision problems	**K3, K4**
CO–4	evaluate the problems of Assignment and Transportation	**K5**
CO–5	frame the networks based on CPM and PERT	**K6**

Unit – I (21 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; simplex method - merits and demerits; application in business

Unit – II (21 Hours)

Assignment and Transportation: 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. Optimality test: the stepping stone method and MODI method

Unit – III (21 Hours)

Decision theory: 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 (21 Hours)

Network analysis: 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 (21 Hours)

Queuing theory and Game theory: Basic concepts; application of waiting line models; 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.

Book for Study

Kapoor V.K and Sumant Kapoor: (2008*) "OR Techniques for Management*"- 1st edition, published by Sultan Chand & Sons- New Delhi.

Book for Reference

1. S.D Sharma S.D., (2016) - *"Operations Research*"- 1st edition, published by Kedar Nath Ram Nath and Co.Meerut - 120092.
2. Hira. D.S. & Prem Kumar Gupta, (2012), *Introduction to Operations Research*, published by S.Chand publishers, Chennai.
3. Taha- Hamdy A. 2009: *Operations Research - An Introduction* Prentice Hall - Delhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours		Credits
I	21PCC1CC01		CORE – 01: OPERATIONS RESEARCH				7		6

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	2	3	3	3	3	2	2.7
CO–2	3	3	3	3	2	3	3	2	2	3	2.7
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	3	3	3	3	2	2	3	2	2	3	2.6
CO–5	3	3	3	2	3	2	3	2	2	3	2.6
Mean overall Score											2.6 (High)

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1CC02	CORE – 02 : FINANCIAL MANAGEMENT	7	6

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	enlighten the basic concepts of financial management and application of time value money techniques in various types of investment	K1, K3
CO–2	understand and apply the appraisal methods of capital budgeting and analyze the cost of capital of in investment	K2, K4
CO–3	understand and evaluate the financing and dividend decisions	K2, K5
CO–4	analyze the working capital requirements and cash management of business enterprises	K4
CO–5	evaluate and crate a solution for various investment proposal relate to the respective industries	K5, K6

Unit – I (21 Hours)

Financial Management - Goals and Objectives - Functions of a finance manager – Financial decision-making; Concept and relevance of Time Value of Money - Compounding technique - Discounting technique (Simple applications of the time value of money).

Unit – II (21 Hours)

Nature of Investment decision - Features and significance of Capital budgeting - Types of Capital budgeting decisions - Capital budgeting process - Methods/Techniques of Evaluation - Payback period method - Accounting Rate of Return (ARR) method - Discounted Cash Flows (DCF) - Net Present Value (NPV) method - Internal Rate of Return (IRR) method - Profitability Index - Capital rationing (including problems).

Unit – III (21 Hours)

Risk: meaning and nature - Risk adjusted discount rate - Certainty Equivalent (including Problems) - Statistical Techniques to handle risk - Probability Assignments - Standard Deviation and Coefficient of Variation - Probability Distribution approaches - Decision Tree Analysis (theory only) Cost of Capital: Concepts - Importance - Specific cost of capital for various sources of finance - Cost of Debt - Cost of Preference Capital - Cost of Equity Capital - Cost of External Equity - Cost of Retained Earnings - Weighted Average Cost of Capital - Book Value and Market Value Weights and Marginal Cost of Capital (including problems)

Unit – IV (21 Hours)

Leverage: Concepts - Operating Leverage - Financial leverage - Degree of Financial and Operating Leverages - Combined Leverage- EBIT- EPS Analysis with different financing patterns - Capital structure - Determinants of Capital Structure - Capital Structure Theories - Net Income Approach. Net Operating Income approach - Traditional Approach -

M.M.Approach- Dividend decisions: Concept and significance - Types - Dividend policy and value of the firm - Determinants of dividend decision - Walter's Model - Gordon's Model.

Unit – V   **(21 Hours)**
Concepts of Working Capital - Determinants of Working Capital - Risk Return Trade off - Estimating Working Capital needs .Objectives and importance of Cash Management, Receivables Management and Inventory Management.

Book for Study
Chandra Prasanna (2019) *Financial management*, *Theroy and Practice* Mcgraw Hill Education Publishing, Chennai

Books for Reference
1. Van Horn, James C*: Financial Management*, Prentice Hall of India (P) Ltd ;
2. Khan M.Y. & Jain PK: *Financial management*, Tata Mcgraw Hill Publishing;
3. Pandey I.M.: *Financial Management* ,Vikas Publishing House (P) Ltd;
4. Kulkarni P.V.: *Financial Management*, Himalaya Publishing House;

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course						Hours	Credits
I	21PCC1CC02		CORE- 02 : FINANCIAL MANAGEMENT						7	6

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	2	2	1	3	3	2	2	3	2.2
CO–2	2	3	2	1	2	3	3	2	2	3	2.3
CO–3	1	2	3	2	3	2	3	2	3	2	2.3
CO–4	1	2	2	3	1	2	3	2	2	3	2.1
CO–5	1	2	2	2	3	1	3	2	2	3	2.1
Mean overall Score											2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1CC03	CORE – 03 : DATA BASE SYSTEMS	4	3

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	know the basic concepts and Definitions of Database Management System	K1
CO–2	understand the Database Languages	K2
CO–3	formulate and execute SQL	K3
CO–4	apply the normalization procedure	K3
CO–5	identify, Analyze and evaluate the issues connected with transaction processing and concurrency control	K4, K5, K6

Unit – I (12 Hours)

Basic Concepts and Definitions – Data Dictionary - DBA - database languages - Database System Architecture - Schemas, Sub Schemas and Instances - Mapping - Data Models - Types of Database Systems - Relational model: Keys - Relational Algebra.

Unit – II (12 Hours)

Introduction to Data Definition Language, Data Manipulation Language, Transaction control Language, Data control Language- Views - Embedded SQL- Query by Example.

Unit – III (12 Hours)

Introduction to database design – functional dependency and decomposition - 1NF- functional dependency - 2NF - transitive dependency- 3NF- BCNF

Unit – IV (12 Hours)

Transaction state - concurrent execution - serializability - recoverability - Concurrency control: Lock based protocols - time - stamped based protocols - validation based protocols.

Unit – V (12 Hours)

Introduction to Parallel databases – Architecture - Key Elements of parallel database processing - query parallelism – distributed database systems - distributed databases - distributed query processing - concurrency control in distributed databases - recovery control in distributed databases.

Book for Study

Singh S K, (2009), *"Database Systems Concepts, Design and Applications"*, 1st edition, Pearson Education, India

Book for Reference

1. Abraham Silberschatz, Henry F. Korth, S. Sudharshan (2011) *Database System Concepts*, 6th Edition, McGraw Hill, Delhi.
2. C.J.Date, A.Kannan, S.Swamynathan (2006), *An Introduction to Database Systems*, 8th Edition, Published by Pearson Education.
3. G.K.Gupta (2011), "*Database Management Systems*", Tata McGraw Hill, Delhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours		Credits
I	21PCC1CC03		CORE – 03 : DATA BASE SYSTEMS					4		3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	2	1	2	3	3	2	1	2	2.2
CO–2	3	3	3	2	1	3	3	3	2	2	2.5
CO–3	2	3	3	2	2	2	3	3	2	2	2.4
CO–4	3	3	3	1	2	3	3	3	1	2	2.4
CO–5	2	3	3	1	2	2	3	3	2	1	2.3
Mean overall Score											2.36 (High)

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1CP01	**SOFTWARE LAB – I : RDBMS**	3	2

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	know the Various Database Languages	**K1**
CO–2	understand the Syntax and Semantics of SQL	**K2**
CO–3	applying Normalization techniques to the database	**K3**
CO–4	analyze the Queries and Evaluate the solutionto Retrieve records	**K4, K5**
CO–5	creating PL/SQL procedure and Applying Function for database processing	**K6**

Exercises:

SQL

1. Table creation and manipulation using following statements
   i) DDL (DATA DEFINITION LANGUAGE)
   ii) DML (DATA MANIPULATION LANGUAGE)
   iii) DCL (DATA CONTROL LANGUAGE)
   iv) TCS (TRANSACTION CONTROL STATEMENTS)
2. Simple Queries (selection, Filtering, Sorting)
3. Built in Functions
   i) Numeric Function
   ii) Date and Time Function
   iii) String Function
   iv) Aggregate Function
4. Operators
   i) Arithmetic Operators
   ii) Relational Operators
   iii) Logical Operators
   iv) Miscellaneous Operators
   v) Set Operators
5. Nested Queries

PL/SQL

6. Program using cursors to join two tables and to split a table intotwo.
7. Creation and retrieval of information without usingcursors.
8. Program using Procedures andfunctions.
9. Program usingTriggers

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours	Credits
I	21PCC1CP01		SOFTWARE LAB – I : RDBMS				3	2

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	3	2	1	2	3	3	2	1	2	2.1
CO–2	3	2	3	2	1	3	3	3	2	2	2.4
CO–3	2	3	3	2	2	2	3	3	2	2	2.4
CO–4	3	3	3	1	2	3	3	3	1	2	2.4
CO–5	2	3	3	1	2	2	3	3	2	1	2.3
Mean overall Score											2.32 (High)

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1ES01A	DSE-1: ENTREPRENEURSHIP DEVELOPMENT	5	4

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	identify key concepts of entrepreneurship	K1
CO–2	understand the various opportunities in area of entrepreneurship development	K2
CO–3	approach various institutions for consultation	K3
CO–4	obtain various entrepreneurial skills	K4
CO–5	get motivated to take up entrepreneurship	K5, K6

Unit – I **(15 Hours)**

Entrepreneurship – Key elements – Traits – Characteristics – Types – Entrepreneur vs Manager – Intrapreneurship – creativity and Innovation : Principles – Environment scanning : Strength, Weakness, Opportunities and Threats (SWOT), Political, Economic, Sociological, Technological, Legal and Environment (PESTLE), Ponter's approach to industry analysis – Process – Types.

Unit – II **(15 Hours)**

Business Opportunities - Market Assessment - Developing effective business plans – Entrepreneurial motivation – Nature of Planning – Formal and systematic business planning – niche markets - Types - Entrepreneurial Opportunities – Financing Entrepreneurial Business. Growth and Challenges: Effecting Change – Modernization – Expansion – Diversification.

Unit – III **(15 Hours)**

Small Business -Types – Role of Small Business in India – Rural business – problems – Ministry of Micro, Small & Medium Enterprises (MSME) – Udyam. Government assistance and Schemes : Pradhan Mantri Kaushal Vikas Yojana 3.0 (PMKVY), PMEGP, PMMY, Dairy EDS - National Bank for Agriculture and Rural development (NABARD), National Small Industries Corporation (NSIC), Rural and Women Entrepreneurship Development (RWED), Scheme of Fund for Regeneration of Traditional Industries (SFURTI), District Industries Centers (DICs).

Unit – IV **(15 Hours)**

Entrepreneurial Skill Development Programme (ESDP) Startup India Scheme – Intellectual Property Rights (IPR) – Copy Right – Trademark – Geographical Indication (GI) – Patent – design

Unit – V   **(15 Hours)**

Ministry of MSDE - Support Organisations: DGT, DJSS, NSDC, NSDF, RDSDE, NSTI, NIESBUD, IIE, NIMI, CSTARI, SSC – Guidelines – Policies – Udyam.

Field Visit: District Industries Center (DIC), Tamil Nadu Industrial Development Corporation (TIIC), Small Industries Service Sector (SISI), Trading & Non-Trading organizations / factories / companies under MSME

Book for Study

1. The Institute of Company Secretaries of India (ICSI), Study Material *"Business Environment & Entrepreneurship Development"* 2014.

Book for Reference

1. Desai Vasant: "*Management of Small Scale Industries*" - Himalaya Publishing House
2. Taneja Satish and Gupta: "*Entrepreneurship Development-New Venture Creation*" – GalgotiaPublishing Company, New Delhi
3. Jain P.C: *Handbook For New Entrepreneurs Entrepreneurship Development Institute of India*
4. Sangle B. R.: *Business Environment & Entrepreneurship*, Success Publications, Pune
5. Gupta C.B. & Srinivas: "*Entrepreneurial Development*"- Sultan D, Chand & Sons, New Delhi

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course				Hours	Credits
I	**21PCC1ES01A**			**DSE-1: ENTREPRENEURSHIP DEVELOPMENT**				**5**	**4**
Course Outcomes (COs)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of Cos**
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	3	2	2	2	2	3	3	2	2	3	2.4
CO–2	2	3	2	2	2	3	3	2	2	3	2.4
CO–3	2	2	3	2	3	2	3	2	3	3	2.5
CO–4	2	2	2	3	2	2	3	2	2	3	2.3
CO–5	2	2	2	2	3	2	3	2	2	3	2.3
Mean overall Score											**2.38 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1ES01B	DSE-1 : CORPORATE SOCIAL RESPONSIBILITY	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand the significance and importance ofcorporate social responsibility and its principles and practice in Indian context	K1
CO–2	acquire knowledge on implementation of CSR policy under the Companies Act 2013	K2
CO–3	learn as to how to monitor CSR activities	K3,K4
CO–4	gain knowledge on governance of CSR activities	K5
CO–5	practice CSR standards and audit	K6

Unit – I **(15 Hours)**

Corporate Social Responsibility(CSR): Meaning and Definition of CSR - Evolution of CSR - CSR in Indian Legislation from global perspective - Principles of CSR - Theories of CSR - CSR and Sustainable Development goals. CSR and Corporate Governance - Drivers of CSR - Concept of Charity - Corporate Citizenship - Corporate Philanthropy

Unit – II **(15 Hours)**

Implementation of CSR Policy under Sec. 135 of the Companies Act 2013: CSR Policy - Constitution of CSR committee and its composition - CSR Design - CSR Budget - Implementation of CSR - CSR Process - CSR Activities - Provision of CSR in CompaniesAct, 2013 - CSR Committee; CSR Policy - CSR Expenditure; CSR Activities – BoardsResponsibilities towards CSR Regulatory requirement of CSR Compliance in India - guidelines and notifications issued by the Ministry from time to time - Penalty for noncomplianceof section 135

Unit – III **(15 Hours)**

Governance of CSR Activities: Meeting of the CSR Committee - Preparation of CSR Report - Placing CSR Report in Board meeting - Board's responsibility towards CSR - CSR project management approach - Evaluation of CSR projects - CSR stakeholder communication, dialogue and engagement - CSR and risk Management - CSR as Organizational Brand Building.

Unit – IV **(15 Hours)**

Monitoring of CSR Activities: CSR process monitoring; Situation monitoring - beneficiary monitoring; organizational monitoring - financial monitoring; compliance monitoring; result monitoring- Internal Monitoring and Evaluation of CSR Activities - External Monitoring and

Evaluation of CSR Activities; - CSR Committee and Board level review of CSR performance - CSR Reporting

Unit – V   **(15 Hours)**
CSR Audit and Standards: CSR Audit; various issues relating to CSR Audit - Preparing and filing of annual CSR report - Sustainability of CSR Audit -Developing a CSR Audit programme - CSR audit checklist; benefits of CSR audit - Review of successful corporate initiatives and challenges of CSR - CSR Ratings, CSR awards. Social Accountability 8000(SA8000) - Indian Standard Organization (ISO-26000-2010) – GST component in CSR

Book for Study
Christopher (2014), *Sustainable Value: How the world's leading companies doing well by doing good,* Stanford University Press, USA

Book for Reference
1. Ilangovan D and Durgadoss R, (2016), *Corporate Governance – An Insight*, The United Publishers, Mangalore, Karnataka
2. Nancy Lee and Philip Kotler (2011), *Corporate social Responsibility: doing the most good for your company and your cause*, John Wley& Sons, Delhi
3. Sanjay K.Agarwal (2010), *Corporate Social Responsibility in India*, Sage Publications, Delhi
4. Wayne Visser (2017), *CSR 2.0 Transforming Corporate Sustainability and Responsibility*, Kaleidoscope Futures, London

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course						Hours	Credits
I	**21PCC1ES01B**		DSE-1: CORPORATE SOCIAL RESPONSIBILITY						**5**	**4**

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	2	3	3	3	3	2	2.7
CO–2	3	3	3	3	2	3	3	2	2	3	2.7
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	3	3	3	3	2	2	3	2	2	3	2.6
CO–5	3	3	3	2	3	2	3	2	2	3	2.6
Mean overall Score											**2.6 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
I	21PCC1AE01	AEC: DIGITAL MARKETING	4	3

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	understand the importance of digital marketing in a rapidly changing business landscape	K1
CO–2	discuss the key elements of a digital marketing strategy	K2
CO–3	illustrate how the effectiveness of a digital marketing campaign can be measured	K3
CO–4	demonstrate advanced practical skills in common digital marketing tools such as SEO, SEM, Social media and Blogs	K4
CO–5	deal with target groups digitally	K5, K6

Unit – I (12 Hours)

Digital Marketing: Introduction, Meaning, Definitions, Basics of Marketing, Comparison of Traditional and Digital Marketing, Benefits of Digital marketing, e-commerce Models, Latest Digital marketing trends, Digital marketing platforms, Digital Marketing strategy for websites, Career opportunities in digital marketing

Unit – II (12 Hours)

Social Media Marketing: Introduction, Face book marketing, Face book advertising, YouTube marketing, Twitter marketing, Google+ marketing, LinkedIn marketing, Pinterest marketing.

Unit – III (12 Hours)

Email Marketing: Meaning, Benefits, Basic terminology in email marketing, Email Marketing Software, building email marketing strategy, building subscriber lists, Designing Newsletters, Types of Campaigns, Reports and analysis.

Unit – IV (12 Hours)

Mobile operating systems: Platforms (IOS, Android, Windows, etc), HTML5, Adobe Flash, Multitasking, sync and software/app integration, SMS, MMS, App Marketing, App Monetization.

Unit – V (12 Hours)

Target Group Management: The Internet Audience and Consumer Behaviour, Getting to Know Your Customer, Delighting Your Customer, Engaging with Your Customer, Search Engine Optimization.

Book for Study

1. Ian Dodson, *The Art of Digital Marketing: The Definitive Guide to Creating Strategic, Targeted, and Measurable Online Campaigns*, John Wiley & Sons, Inc., New Jersey, 2016
   Unit I, II and III
2. Puneet Singh Bhatia, *Fundamentals of Digital Marketing*, Pearson, 2017.
   Unit IV and V

Book for Reference

1. Philip Kotler, *Marketing 4.0: Moving from Traditional to Digital*, John Wiley & Sons, Inc., New Jersey, 2017
2. Debra Zahay, *Digital Marketing Management: A Handbook for the Current (or Future) CEO*, Business Expert Press, New York, 2015

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours		Credits
I	21PCC1AE01		AEC: DIGITAL MARKETING					4		3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	2	3	2	2	3	2	3	3	2	2.4
CO–2	3	3	2	3	2	3	2	2	2	2	2.4
CO–3	2	3	3	2	3	2	3	2	3	2	2.5
CO–4	3	2	3	3	3	2	2	2	2	3	2.5
CO–5	3	3	3	2	2	2	3	2	2	2	2.5
Mean overall Score											2.46 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2CC04	CORE- 04 : MANAGERIAL SKILLS	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand the concepts of managerial personnel	K1
CO–2	analyse the managerial problems in an organisation	K2,
CO–3	develop the various skills required for the managerial personnel	K3
CO–4	negotiate the socio and psychological problems in an organisation	K4, K5
CO–5	live a balanced life between work and life	K6

Unit – I   **(15 Hours)**

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

Unit – II   **(15 Hours)**

Conflict Resolution – 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   **(15 Hours)**

Change - 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   **(15 Hours)**

Risk taking - 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   **(15 Hours)**

Motivation and staying motivated – 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.

Books for Study
1. Stephen covey, *'The Seven Habits of Highly Effective people'* 2009.
   Unit I and II
2. Dr.K.Alex, *'Managerial skills'*, Person Publication, New Delhi.2013
   Unit III, IV and V

Books for Reference
1. Daniel Goleman, '*Emotional Quotient*' –.2009
2. Norman Vincent Peale, '*Power of the Plus factor*'

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours	Credits
II	**21PCC2CC04**		**CORE- 04 : MANAGERIAL SKILLS**				**5**	**4**

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	3	2	2	2	2	3	3	2	2	3	2.4
CO–2	2	3	2	2	2	3	3	2	2	3	2.4
CO–3	2	2	3	2	3	2	3	2	3	3	2.5
CO–4	2	2	2	3	2	2	3	2	2	3	2.3
CO–5	2	2	2	2	3	2	3	2	2	3	2.3
Mean overall Score											**2.38 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2CC05	CORE – 05 : COST ACCOUNTING TECHNIQUES	5	5

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	gain and understand familiarity with the various cost concepts, and elements of cost and prepare cost sheets	K1, K2
CO–2	apply different methods and techniques of material control in various types of industries	K3
CO–3	compute different methods of payment of wages and incentives and evaluate the performance of employees in the different organization	K3
CO–4	allocate the overheads to various departments , apply the contract costing and job costing and process costing in respective industries	K4, K5
CO–5	get acquaintance with the application of Marginal costing for Business decisionmaking	K6

Unit – I (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 (18 Hours)

Labour Costing: 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 (18 Hours)

Overhead Costing: Classifications of overheads - Primary distribution of overhead – overhead - over absorption and under absorption - Job costing - Contract costing.

Unit – IV (18 Hours)

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

Marginal Costing 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

Book for Study

S.P. Jain & K.L. Narang: *Cost accounting* - Kalyani Publication- NewDelhi, 2015

Books for Reference

1. K. Alex, *Cost Accounting*, Pearson Publication, New Delhi, 2015
2. A Moorthy and S.Gurusamy- *Cost accounting*- Vijay Nicole Imprints , 2018 Private Limited Publication,- Chennai- 2016

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course				Hours	Credits
II	**21PCC2CC05**			**CORE – 05 : COST ACCOUNTING TECHNIQUES**				**5**	**5**

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	2	2	1	3	3	2	2	3	2.2
CO–2	2	3	2	1	2	3	3	2	2	3	2.3
CO–3	1	2	3	2	3	2	3	2	3	2	2.3
CO–4	1	2	2	3	1	2	3	2	2	3	2.1
CO–5	1	2	2	2	3	1	3	2	2	3	2.1
Mean overall Score											2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2CC06	CORE – 06 : PYTHON PROGRAMMING	4	3

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	know and Interpret the Fundamentals of Python syntax and semantics	K1, K2
CO–2	understand the Functions and Operators	K2
CO–3	understand andsummarize different File handling operations	K2
CO–4	analyze different Decision Making statements and Functions	K4
CO–5	design and Implement a Program to solve a Real World Problem	K5, K6

Unit – I   **(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   **(9 Hours)**
Input, Output and Import Functions – Operators – Data Types and Operations: Numbers – Strings – List – Tuple – Set – Dictionary – Data type conversion.

Unit – III   **(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   **(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   **(9 Hours)**
File Handling: 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.

Book for Study

Jeeva Jose and P. Sojan Lal (2016), *"Introduction to Computing and Problem Solving with PYTHON*", Khanna Book Publishing Co. (P) Ltd., New Delhi

Book for Reference
1. Wesley J. Chun (2006). *Core Python Programming*, II edition, Prentice Hall, US.
2. Magnus Lie Hetland (2008). *Beginning Python*, II edition, ApressPublication, Berkely.
3. Kenneth A. Lambert (2011), *The Fundamentals of Python: First Programs*, Cengage Learning, India.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours	Credits
II	21PCC2CC06		CORE – 06 : PYTHON PROGRAMMING					4	3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	2	1	2	3	3	2	1	2	2.2
CO–2	2	3	3	2	1	3	3	3	2	2	2.4
CO–3	2	3	3	2	2	2	3	3	2	2	2.4
CO–4	3	3	3	1	2	3	3	3	2	3	2.6
CO–5	2	3	3	1	2	2	3	3	2	1	2.3
Mean overall Score											2.38 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2CP02	SOFTWARE LAB – 2: PYTHON PROGRAMMING	3	3

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	know the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python	K1
CO–2	understand and Apply different File handling operations	K2, K3
CO–3	implement Decision Making Statements and Functions	K3
CO–4	inculcate and Apply various skills in Problem Solving	K4, K5, K6
CO–5	write, Test and Debug Python Programs	K5, K6

Exercises

1. Python applications using variables, data types
2. Python application using strings and functions.
3. Python applications using Control Structures
4. Python applications using Loops
5. Python applications using Dictionaries, Lists and Tuples.
6. Python applications using matrices.
7. Python applications using Scripts.
8. Python applications using operators and I/O operations.
9. Python applications using modules.
10. Python applications using packages.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course			Hours	Credits
II	21PCC2CP02		SOFTWARE LAB – 2: PYTHON PROGRAMMING			3	3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	3	2	1	2	3	3	2	2	2	2.2
CO–2	3	2	3	2	3	3	3	3	2	2	2.6
CO–3	2	3	3	2	2	2	3	3	2	2	2.4
CO–4	3	3	3	1	2	3	3	3	1	2	2.4
CO–5	2	3	3	1	2	1	3	3	2	1	2.2
Mean overall Score											2.36 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	**21PCC2SP01A**	**SELF-PACED LEARNING: DISASTER MANAGEMENT**	**-**	**2**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	gain a practical orientation to speed recovery	**K1**
CO–2	understand the importance to reduce damages and deaths	**K2**
CO–3	understand the concepts in reduce personal suffering	**K3**
CO–4	study the legal and ethical issues in disaster management	**K4, K5**
CO–5	understand disaster resources and their utility in disaster	**K6**

Unit – I

Concept of disaster - Different approaches - Concept of Risk - Levels of disasters - Disaster phenomena and events (Global, national and regional) - Natural and man - made hazards; response time, frequency and forewarning levels of different hazard - Characteristics and damage potential of natural hazards; hazard assessment - Dimensions of vulnerability factors; vulnerability assessment - Vulnerability and disaster risk - Vulnerabilities to flood and earthquake hazards

Unit – II

Concepts of risk management and crisis management - Disaster management cycle - Response and Recovery - Development, Prevention, Mitigation and Preparedness - Planning for relief

Unit – III

Capacity building: Concept - Structural and nonstructural measure - Capacity assessment - strengthening capacity for reducing risk – Counter - disaster resources and their utility in disaster management - Legislative support at the state and national levels

Unit – IV

Coping strategies; alternative adjustment processes - Changing concepts of disaster management - Industrial safety plan; safety norms and survival kits - Mass media and disaster management

Unit – V

Strategies for disaster management planning - Steps for formulating a disaster risk reduction plan - Disaster management Act and Policy in India - Organisational structure for disaster management in India - Preparation of state and district disaster management plans

Book for Study

Chakrabarty, U. K, (2007), *Industrial Disaster Management and Emergency Response*, 1st edition, published by Asian Books Pvt. Ltd.,New Delhi.

Book for Reference

1. Abarquez I. & Murshed Z, (2004), *Community Based Disaster Risk Management*,1st edition, published by Field Practitioner's Handbook,ADPC, Bangkok.
2. Goswami, S. C, (1997), *Remote Sensing Application in North East India*,1st edition, published by Purbanchal Prakesh, Guwahat

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course				Hours		Credits
II	21PCC2SP01A			SELF-PACED LEARNING: DISASTER MANAGEMENT				-		2
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	1	3	1	2	3	2	3	3	2	2.3
CO–2	2	3	2	3	3	3	3	3	1	2	2.5
CO–3	2	1	2	3	3	3	2	2	2	1	2.1
CO–4	3	1	2	1	3	3	2	3	3	1	2.2
CO–5	2	3	3	2	3	2	1	3	3	3	2.5
Mean overall Score											2.3 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2SP01B	**SELF-PACED LEARNING: FUNDAMENTALS OF INSURANCE**	-	02

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand andGain knowledge on the concept of insurance and the risk involved	K1, K2
CO–2	assess the various principles of insurance market	K3
CO–3	analyze the terms plans offered by life insurance	K4
CO–4	evaluate the constituents of insurance market in the society	K5
CO–5	synthesis the constituents of insurance to the society	K6

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 ofinsurance in economic development and social security - contribution ofinsurance 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 insurancecompanies - 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 ofinsurance - significance of the principle of insurable interest - the principle ofindemnity - the principle of subrogation - the principle of contributiondisclosure of all relevant information - principle of utmost good faith.

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 InsuranceProducts: Risks faced by the owner of assets - exposure to perils - Features ofproducts covering fire and allied perils.

Book for Study

M.N. Srinivasan, *Principles of Insurance Law,* Tenth Edition*,* Wadhwa & Co., India, 2017.

Books for Reference

1. P.K. Gupta, *Insurance and Risk Management,* First Edition*,* Himalaya Years of Publishing, India, 2016.
2. R.N. Chaudhary, *General Principles of Law of Insurance,* Third Edition*,* Central Law Publications, India, 2018.
3. M.N. Mishra, Dr.S.B.Mishra, Insurance *Principles and Practice,* First Edition*,* S.Chand& Company, India, 2016.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course				Hours		Credits
II	**21PCC2SP01B**			**SELF-PACED LEARNING: FUNDAMENTALS OF INSURANCE**				**-**		**02**
Course Outcomes (COs)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of Cos**
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	3	3	2	2	1	3	3	2	1	2	2.2
CO–2	2	2	3	1	3	2	3	2	2	2	2.2
CO–3	2	2	3	2	3	2	3	2	3	2	2.4
CO–4	1	2	3	2	1	2	3	2	2	2	2.0
CO–5	3	3	2	2	1	2	3	3	1	2	2.2
Mean overall Score											**2.2 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
II	**21PCC2SP01C**	**SELF-PACED LEARNING: CLOUD COMPUTING**	-	**2**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	know the Cloud Computing Fundamentals	**K1**
CO–2	understand the meaning of Cloud Computingand its Architecture	**K2**
CO–3	understand the Cloud Types and its Service Models	**K2**
CO–4	analyze the Security issues	**K3, K4**
CO–5	identify problems, analyze, and evaluate various cloud computing solutions	**K4, K5, K6**

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 - Homo Sapiens and Digital Information - Data Security Risk – Identity - Content Level Security.

Book for Study

1. Chandrasekaran (2015). *Essentials of Cloud Computing*, Taylor & Francis Group, U.S.
    Unit -1 *Chapter 2 (2.1-2.7)*, **Unit -2** *Chapter 3(3.1-3.7)*
    Unit- 3 *Chapter 4(4.1-4.5)*, **Unit -4** *Chapter 5(5.1-5.5)*
2. Rajkumar Buyya, James Broberg and Andrzej Goscinski (2011). *Cloud Computing Principles and Paradigms*, John Wiley & Sons, New Jersey.
    Unit -5 *Chapter 23(23.1-23.7)*

Book for Reference

1. Miller Michael (2008). *Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online*, Que Publishing.
2. Beard Haley (2008). *Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLAs*, Emereopvt. Ltd.
3. Anthony T.Velte, Toby J. Velte Robert Elsenpeter (2010), *Cloud computing a practical approach*, TATA McGraw Hill, New Delhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course					Hours	Credits
II	**21PCC2SP01C**			**SELF-PACED LEARNING: CLOUD COMPUTING**					**-**	**2**

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	2	1	2	3	3	2	1	2	2.1
CO–2	3	3	2	2	1	3	3	3	2	2	2.4
CO–3	2	3	3	2	2	2	3	3	2	2	2.4
CO–4	3	3	3	1	2	3	3	3	2	2	2.5
CO–5	2	3	3	2	2	2	3	3	2	1	2.4
Mean overall Score											2.36 (High)

Semester	Course Code	Title of the Course	Hours	Credits
II	**21PCC2ES02A**	**DSE-2 :** **LABOUR LEGISLATIONS**	**5**	**4**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand the concepts of labour laws	**K1**
CO–2	know the acts supporting the workers	**K2, K3**
CO–3	understand the importance of bonus act	**K4**
CO–4	evaluate the compensation provided to workers	**K5**
CO–5	create the methods to form the trade unions as per the act	**K6**

Unit – I (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 (15 Hours)

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

Payment of Bonus Act: 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 (15 Hours)

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

Payment of Wages Act, 1936: 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

Kapoor N.D, (2018), revised edition, *Mercantile Law*, Sultan Chand Publications, New Delhi.

Book for Reference

1. Malik P.L.,18thEdition , (2018), *Handbook of Labour and Industrial Law* by Editorial Staff of SCC
2. Padhi P.K. (2012), second edition, *Labour and Industrial Laws***,** published by Prentice Hall India, Maharastra

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course					Hours	Credits
II	**21PCC2ES02A**			**DSE-2 :** **LABOUR LEGISLATIONS**					**5**	**4**
Course Outcomes (COs)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of Cos**
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	3	3	3	2	2	3	3	3	3	2	2.7
CO–2	3	3	3	3	2	3	3	2	2	3	2.7
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	3	3	3	3	2	2	3	2	2	3	2.6
CO–5	3	3	3	2	3	2	3	2	2	3	2.6
Mean overall Score											**2.6 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2ES02B	DSE-2 : CUSTOMERS' RIGHTS AND EDUCATION	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understanding of the terms Consumers, Consumerism, Consumer movement	K1
CO–2	acquire knowledge on provisions of the Consumer Protection Act	K2
CO–3	familiarize students on various aspects of consumer related Legislations and organizations	K3, K4
CO–4	aware about the rights and responsibilities of consumers	K5
CO–5	proactively engage inconsumer movement	K6

Unit – I (15 Hours)

Consumer Movement in India- Definition of Consumer - Types of Consumer – Problems ofConsumer – Consumerism - Emerging concepts in consumerism: Green Consumerism, Cyber Consumerism - effects of consumerism.

Unit – II (15 Hours)

Right of Consumers - Responsibilities of Consumers – unfair trade practices - Caveat Emptor and Caveat Venditor - Enforcement of Consumer rights through Public Interest Litigation

Unit – III (15 Hours)

Consumer Protection Act - Main Provisions – Redressal forums – District Level – State Level and National Level – Powers and Functions – Filing of Complaints Procedure Regulatory Authorities and OMBUDSMAN

Unit – IV (15 Hours)

Consumer related Legislations and Organizations: Prevention of Food Adulteration Act, 1954 - Standards of Weights and Measures Act, 1976 - The Drugs and Magic Remedies (Objectionable Advertisement) Act 1954 - Consumer pressure groups voluntary consumer organizations - Consumer Protection Councils - Remedy and Redressal of Grievances

Unit – V (15 Hours)

Consumer awareness and Education in India: Lack of awareness - Lack of access to information - Methods of creating awareness and promotion of Consumer rights and duties – E Commerce and Consumer Rights - Role of media in consumer education

Book for Study

Singh Avtar, (2010*), Law of consumer protection (Principles and Practice)* Eastern
Book Company, Luck now.

Book for Reference

1. Aggarwal V.K, *Consumer Protection Law and practice*, Bharat Law House Pvt Ltd.
   New Delhi
2. Majaumdar P K (2009), *Law of Consumer Protection in India*, Orient Publishing
   Company, New Delhi
3. Balakrishna Eradi(2009), *Consumer protection–Jurisprudence*, Lexis Nexis Butter worth
   publishing

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course					Hours/ week	Credits
II	**21PCC2ES02B**			**DSE-2 : CUSTOMERS RIGHTS AND EDUCATION**					**5**	**4**
Course Outcomes (COs)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of Cos**
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	2	3	3	2	2	3	3	3	2	2	2.5
CO–2	3	3	2	3	2	3	3	2	2	3	2.6
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	2	3	2	3	2	2	3	2	2	3	2.4
CO–5	2	3	3	2	3	2	3	2	2	2	2.4
Mean overall Score											**2.5 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
II	21PSS2SE01	SEC: SOFT SKILLS	4	3

Programme outcome (Pos)
- To identify the skill gap of the college students and provide a focused training on soft skills and empower the students with employability skills that make them industry fit
- To encourage small group learning that promotes individual attention and rigorous evaluations as hallmarks of the course
- To adapt a teaching and learning methodology that is purely dependent on activity based learning, participation, assignments, interactions, assessments and evaluations that take way boredom of participants
- To create an interface between industries and educational institutions that matches the expectations of employers and abilities of the employees
- To respond and reach out to other institutions the impact of Soft Skills on faculty and students that effectively serves as a corollary to technical education

Programme Specific outcomes (PSOs)
After the successful completion of the course, students will learn:
- the dynamics of effective and professional communication skills and put them into daily use
- to write a Professional resume using creative methods of online platforms
- the dynamics of interview skills and GD preparations and presentations in public platforms and present the best of themselves as job seekers
- to understand, analyze and express their personality styles and personal effectiveness in various environments
- to learn and update themselves with the required knowledge in Numerical ability and Test of Reasoning for competitive examinations

Course outcomes (COS)
Upon completion of this course, students will:

- be exposed and trained in various nuances of Soft Skills in a Professional manner responding to the requirements of national and international market
- be able to synthesize the knowledge and practical skills learnt to be personal effective in any managerial positions
- be equipped to construct plans and strategies to work for better human society
- be able to illustrate the problems at work and home and design solutions and maintain a balance of work and home

- be able to connect on a continuum and maintain growth and sustainability and creativity in employment that increases in productivity, profit for individuals and the society.

Module I: Effective Communication & Professional communication

Effective communication: Definition of communication, Process of Communication, Barriers of Communication, Non-verbal Communication. JOHARI Window as a tool of effective communication.

Professional Communication: The Art of Listening, The passage, Kinesthetic, Production of Speech, Speech writing , Organization of Speech, Modes of delivery, Conversation Techniques, Good manners and Etiquettes, Different kinds of Etiquettes, Politeness markers.

Module II: Resume Writing & Interview Skills

Resume Writing: Meaning and Purpose. Resume Formats. Types of s Resume. Functional and Mixed Resume, Steps in preparation of Resume, Model resumes for an IT professional Chronological, Types of interviews, Creative resumes using online platforms

Interview Skills: Common interview questions, Dos and Don'ts for an interview, Attitude, Emotions, Measurement, Body Language, Facial expressions, Different types of interviews, Telephonic interviews, Behavioral interviews and Mock interviews (Centralized).

Module III: Group Discussion & Team Building

Group Discussion: Group Discussion Basics, GD as the first criterion for selecting software testers, Essentials of GD, Factors that matter in GD, GD parameters for evaluation, Points for GD Topics, GD Topics for Practice, and Tips for GD participation. Video shooting of GD presentation & Evaluation (Centralized)

Team Building: Characteristics of a team, Guidelines for effective team membership, Pedagogy of team building, Team building skills. Team Vs Group – synergy, Types of synergy, Synergy relates to leadership ,Stages of Team Formation, Broken Square-Exercise, Leadership, Leadership styles, Conflict styles, Conflict management strategies & Exercises

Module IV: Personal Effectiveness

Personal Effectiveness: Self Discovery: Personality, Characteristics of personality, kinds of self, Personality inventory table, measuring personality, intelligence and Exercises

Self Esteem: Types -High & Low self esteem, Ways of proving self esteem, Hypersensitive to criticism, activities. Goal setting: Goal setting process, Decision making process & Exercises.

Stress Management: Identifying stress, Symptoms of stress, responding to Stress, Sources of stress, coping with stress and managing stress.

Module V: Numerical Ability

Average, Percentage, Profit and Loss**,** Problems of ages, Simple Interest, Compound Interest, , Area, Volume and Surface Area, Illustration, Time and Work, Pipes and Cisterns, Time and Distance**,** Problems on Trains**,** Illustrations, Boats and Streams, Calendars and Clocks.

Module VI: Test of Reasoning

Verbal Reasoning: Number series, letter series, coding and decoding, logical sequence of words, Assertion and Reasoning, Data Sufficiency, Analogy, Kinds of relationships.

Non-Verbal Reasoning: Completion of Series**,** Classification, analogical, Pattern comparison, Deduction of figures out of series, Mirror Reflection Pattern, Hidden figures, Rotation pattern, Pattern completion and comparison, Sense of direction, Blood relations.

Text cum Exercise book

Melchias G, Balaiah John, John Love Joy (Eds), 2018. Winners in the Making: A primer on soft skills. SJC, Trichy.

References
* Aggarwal, R.S. *Quantitative Aptitude, S.Chand & Sons*
*Aggarwal, R.S. (2010). *A Modern Approach to Verbal and Non Verbal Reasoning* S.Chand & C0, Revised Edition
* Covey, Stephen. (2004). *7 Habits of Highly effective people,* Free Press

* Egan, Gerard. (1994). *The Skilled Helper* (5th Ed). Pacific Grove, Brooks/Cole
* Khera, Shiv (2003). *You Can Win.* Macmillan Books Revised Edition.

Other Text Books

* Murphy, Raymond. (1998). *Essential English Grammar* 2nd ed., Cambridge University Press
* Prasad, L. M. (*2000). Organizational Behaviour, S.Chand & Sons*

* Sankaran, K., & Kumar, M. *Group Discussion and Public Speaking*. M.I. Pub, Agra*,* 5th ed., Adams Media.

* Schuller, Robert. (2010) *Positive Attitudes* Jaico Books
* Trishna's (2006). *How to do well in GDs & Interviews*, Trishna Knowledge Systems
** Yate, Martin. (2005). H*iring the Best: A Manager's Guide to Effective Interviewing and Recruiting*

Semester	Course Code	Title of the Course	Hours	Credits
II	21PCC2EG01	GE-2(WS) : STRESS MANAGEMENT	4	3

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	gain and Understanding of human stress	K1,K2
CO–2	focus on presenting a broad background of stress research	K3
CO–3	identify the crisis management	K4
CO–4	developing a sense of humour in work place	K5
CO–5	improve their personality in self development	K6

Unit – I (12 Hours)

Stress meaning – Symptoms – Works Related Stress – Individual Stress – Reducing Stress – Burnout – Setting to Stress- Stress: Meaning – Approaches to stress, Good Stress Vs Bad Stress, The individual and work

Unit – II (12 Hours)

Time Management – Techniques – Importance of planning the day – Time management schedule –Developing concentration – Organizing the Work Area – Prioritizing – Beginning at the start – Techniques for conquering procrastination – Sensible delegation – Taking the right breaks – Learning to say 'No'.

Unit – III (12 Hours)

Stress Implications – People issues – Environmental issues – Psychological fall outs – Learning to keep calm – Preventing interruptions – Controlling crisis – Importance of good communication – Taking advantage of crisis – Pushing new ideas – Empowerment. General sources of Stress - Stress and Health - Physiological and psychological illness

Unit – IV (12 Hours)

Developing a sense of Humour – Learning to laugh – Role of group cohesion and team spirit – Using humour at work – Reducing conflicts with humour

Unit –V (12 Hours)

Personality – improving personality– Leading with Integrity – Enhancing Creativity – Effective decision making – Sensible Communication – The Listening Game – Managing

Self – Meditation for peace – Yoga for Life. Organization and Stress Management – Recognize the signs, Approaches to the problem, Providers Assistance.

Book for Study
Robert M Sapolsky, (2004), *Why Zebras Don't Get Ulcers*, 3rd edition Published by Stanford University, California.

Book for Reference
1. Waltschafer, (2009), *Stress Management*, 4th Edition, Published by Cengage Learning Califomia.
2. Jeff Davidson, (2012), *Managing Stress*, 2nd edition, published by Prentice Hall of India, New Delhi.
3. Susan Cartwright & Cary L. Cooper, (2012), *Managing Workplace Stress*, 4th edition, published by SAGE, New Delhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course					Hours	Credits
II	21PCC2EG01			GE -2(WS) : STRESS MANAGEMENT					4	3
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	1	3	1	2	3	2	3	3	2	2.3
CO–2	2	3	2	3	3	3	3	3	1	2	2.5
CO–3	2	1	2	3	3	3	2	2	2	1	2.1
CO–4	3	1	2	1	3	3	2	3	3	1	2.2
CO–5	2	3	3	2	3	2	1	3	3	3	2.5
Mean overall Score											2.3 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3CC07	**CORE-07 :** **METHODOLOGY FOR** **SOCIAL SCIENCE RESEARCH**	5	5

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand the concept of research	**K1**
CO–2	frame the title for the research	**K2**
CO–3	identify the national and international problems	**K3, K4**
CO–4	contribute to the social development	**K3, K4**
CO–5	analyse the social issues and find out solutions	**K5, K6**

Unit – I (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 (15 Hours)

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

Unit – III (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 (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 (15 Hours)

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

Book for Study

Kothari- C.R. - (2010) - *Research Methodology Methods and Techniques* Wishwa Prakashan-New Delhi

Books for Reference
1. Wilkinson and Bhandarkar- (2008) - *Methodology and Techniques of Social Research* - Himalaya Publishing House- Mumbai.
2. Krishnaswami- O.R. (2003) - *Methodology of Research in Social Sciences* Himalaya Publishing House - Mumbai.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours	Credits
III	21PCC3CC07		CORE-07 : METHODOLOGY FOR SOCIAL SCIENCE RESEARCH				5	5

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	2	2	3	3	3	2	3	3	2.2
CO–2	2	3	2	2	2	3	3	2	2	3	2.3
CO–3	2	2	3	2	3	2	3	2	3	2	2.3
CO–4	2	2	2	3	3	3	3	2	2	3	2.4
CO–5	2	3	2	3	3	3	3	2	2	3	2.4
Mean overall Score											2.3 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	**21PCC3CP03**	**SOFTWARE LAB:III COMPUTER APPLICATION IN BUSINESS STATISTICS**	**3**	**3**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	gain and Get fluency in research based applications	**K1**
CO–2	understand and Analyze the research problems statistically	**K2**
CO–3	design data collection, sampling methods and formulate tools for Analysis	**K3,**
CO–4	test the validity and reliability of data	**K4,K5**
CO–5	construct reports using parametric and non-parametric tests	**K6**

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

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code	Title of the Course					Hours	Credits
III	21PCC3CP03	SOFTWARE LAB:III COMPUTER APPLICATION IN BUSINESS STATISTICS					3	3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	1	3	3	1	2	3	2	3	2	2.2
CO–2	3	1	2	3	2	3	3	3	3	3	2.5
CO–3	2	3	2	3	2	2	3	3	2	1	2.3
CO–4	3	3	3	3	3	3	2	3	2	1	2.5
CO–5	2	3	3	2	3	2	3	1	3	2	2.3
Mean overall Score											2.3 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3CC08	**CORE-08: ORGANIZATIONAL BEHAVIOUR**	5	4

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	know the concept of organizational behavior and understand the role of managers	**K1, K2**
CO–2	apply group dynamics and leadership qualities in an organization	**K3**
CO–3	analyze the best management practices across the world	**K4**
CO–4	evaluate the emerging trends in corporate structure, strategy and culture	**K5**
CO–5	create perception and motivation for employees in an organization	**K6**

Unit – I (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 (15 Hours)

Organization Structure and Design - 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 (15 Hours)

Perception - 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 (15 Hours)

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

Unit – V (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

Book for Study

L.M. Prasad, (2019), *Organizational Behaviour*, Fifth Edition, Sultan Chand &Sons, India.

Book for Reference

1. K. Aswathappa, *Organizational Behaviour*, Twelth Edition, Himalaya Publishing House, India, 2016
2. J.S. Chandran, *Organizational Behaviour*, Second Edition, Vikas Publishing House,India, 2018
3. Stephen P. Robbins, Timothy A. Judge, *Organizational Behaviour*, Eighteenth Edition, Pearson Publications, India, 2019.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours		Credits
III	21PCC3CC08		CORE-08 : ORGANIZATIONAL BEHAVIOUR					5		4
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	1	3	3	2	1	3	2.4
CO–2	2	3	2	2	1	3	3	2	2	3	2.3
CO–3	1	2	3	2	2	2	2	2	2	2	2.0
CO–4	2	2	2	2	1	2	3	3	2	2	2.1
CO–5	1	2	2	3	2	2	2	3	2	3	2.2
Mean overall Score											2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3CC09	CORE – 09 : BIG DATA ANALYSIS	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understanding the Key factors of Big Data , Data analysis and Data Analytics	K1, K2
CO–2	exploring the Analytical methods and R environment	K3, K4
CO–3	experimenting the Association, Apriori and Regression methods	K4
CO–4	comparing various Analytical Algorithms and proposing a model	K5
CO–5	developing the Model using Decision tree	K6

Unit – I (15 Hours)

Big Data Overview - Data Structures - Analyst Perspective on Data Repositories - State of the Practice in Analytics - BI Versus Data Science - Current Analytical Architecture - Drivers of Big Data - Emerging Big Data Ecosystem and a New Approach to Analytics - Key Roles for the New Big Data Ecosystem - Examples of Big Data Analytics - Data Analytics Life Cycle: Data Analytics Life Cycle Overview – Discovery - Data preparation - Model planning - Model building - Communicate Results – Operationalize - Case Study: Global Innovation Network and Analysis (GINA).

Unit – II (15 Hours)

Introduction to R - Exploratory data analysis - Statistical methods for evaluation - Advanced analytical theory and methods: Clustering – Overview – K – means - Additional algorithm

Unit – III (15 Hours)

Overview - Apriori algorithm - evaluation of candidate rules - Applications of association rules - An Example: Transactions in a Grocery Store - The Groceries Dataset - Frequent Item set Generation - Rule Generation and Visualization - Validation and Testing – Diagnostics - Linear Regression: Use Cases - Model Description – Diagnostics - Logistic Regression - Use Cases - Model Description – Diagnostics - Reasons to Choose and Cautions - Additional Regression Models.

Unit – IV (15 Hours)

Decision Trees - Overview of a Decision Tree - The General Algorithm - Decision Tree Algorithms - Evaluating a Decision Tree - Decision Trees in R - Naïve Bayes - Bayes' Theorem - Naïve Bayes Classifier – Smoothing – Diagnostics - Naïve Bayes in R - Diagnostics of Classifiers - Additional Classification Methods

Unit – V   **(15 Hours)**
Box - Jenkins Methodology - ARIMA Model - Autocorrelation Function (ACF) - Moving Average Models - ARMA and ARIMA Models - Building and Evaluating an ARIMA Mode - Reasons to Choose and Cautions - Additional Methods - Text Analysis Steps - A Text Analysis Example - Collecting Raw Text - Representing Text -Term Frequency - Inverse Document Frequency (TFIDF) - Categorizing Documents by Topics - Determining Sentiments - Gaining Insights.

Book for Study
David Dietrich, Barry Heller, Beibei Yang (2015), *Data Science and Big Data Analytics-discovering, Analyzing ,Visualizing and presenting Data* , 1st Edition John willey & sons, Inc., India.

Book for Reference
1. Frank Ohlhorst (2013). *Big Data Analytics-Turning Big Data in to Big Money*, 1st Edition John Wiley & Sons, Inc., Hoboken, New Jersey.
2. Jared Dean (2014). *Big data, Data Mining and Machine Learning*, 2nd Edition, John Wiley & Sons, Inc., Hoboken, New Jersey.
3. Jared P.Lander (2014), *R for Everyone*, Addison-Wesley, San Francisco.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours		Credits
III	**21PCC3CC09**		**CORE – 09 :** **BIG DATA ANALYSIS**					**5**		**4**
Course Outcomes (COs)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**				**Mean Score of Cos**
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	3	3	3	1	1	3	3	2	3	1	2.3
CO–2	3	3	3	1	1	3	3	2	3	1	2.3
CO–3	3	3	3	1	1	3	3	2	3	1	2.3
CO–4	3	2	3	1	1	3	3	2	3	1	2.2
CO–5	3	3	2	1	1	3	3	2	3	1	2.2
Mean overall Score											**2.26 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
III	**21PCC3CP04**	**SOFTWARE LAB IV: DATA ANALYTICS USING R**	**3**	**3**

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	experimenting the various Data Analytics Methods	**K1, K2**
CO–2	visualizing the Dataset Attributes	**K3, K4**
CO–3	implementing various analytical algorithms	**K5**
CO–4	establishing the connectivity between data set and working environment	**K6**
CO–5	developing a Model for real time problem	**K6**

Exercises
I. Simple Exercise
1. Installing R and various packages in R.
2. Create a sequence vector and manipulate.
3. Creation of Data Frame and perform various operation.
4. Creation of list and perform various Operations
5. Create a simple vector and plot them as bar plot.
6. Load IRIS data set and perform the following
    i)   names()
    ii) summary()
    iii) str()
    iv) head()
    v)   tail()
    vi) Dim()

II. DATA SET LOADING AND MANIPULATION
7. Identify the various standard data set used in R and list them with their name, total attributes, total records and usage.
8. Load mtcars data set and perform descriptive statistics using summary(), str(), quartile(),aggregate()
9. Load cars data set and perform descriptive statistics using summary(), str(), quartile(),aggregate()
10. Identify the various finance related datasets available in Kaggle data repository and List them with data set name.

i) Apply Descriptive Statistical Measure

ii) summary(), str(), quartile(),aggregate()

11. Identify the various Health care datasets available in Kaggle data repository and List them.
    i) Apply Descriptive Statistical Measure
    ii) summary(), str(), quartile(),aggregate()
12. Identify the various Health care datasets available in UCI data repository and List them.
    i) Apply Descriptive Statistical Measure
    ii) summary(), str(), quartile(),aggregate()
13. Reading different types of data sets (.xlsx, .csv) fromWeb / disk and writing in file in specific disk location.
    i) Reading Excel data sheet in R.
    ii) Reading CSV dataset in R.
14. Load IRIS data set and perform the following
    i) Draw box and scatter plot.
    ii) Find the outliers using plot.
    iii) Plot the histogram, bar chart and pie chart on sample data.
15. Load the Relevant dataset from kaggle data repository and perform Clustering
16. Perform the Association rule using the Kaggle data set.
17. Apply the Classification algorithm on suitable dataset.
18. Load a data set and Perform the Regression
19. Load a suitable data set from Kaggle / UCI and analyze decision tree.
20. Load a suitable Data set from Kaggle / UCI and perform Bayes algorithm.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course						Hours	Credits
III	21PCC3CP04		SOFTWARE LAB IV: DATA ANALYTICS USING R						3	3
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	1	3	3	2	3	1	2.4
CO–2	3	3	3	1	1	3	2	2	3	1	2.2
CO–3	3	3	2	1	1	3	3	2	3	1	2.2
CO–4	3	2	3	1	1	3	3	2	3	1	2.2
CO–5	3	3	2	1	1	3	3	2	3	1	2.2
Mean overall Score											2.24 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3ES03A	**DSE-3:** **LOGISTICS AND SUPPLY** **CHAIN MANAGEMENT**	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	gain understanding on logistics and logistics management	**K1**
CO–2	understand the importance of logistics outsourcing	**K2, K3**
CO–3	apply the logistics methods in supply chain management	**K4**
CO–4	analyze the importance of supply chain management	**K5**
CO–5	create knowledge on outsourcing supply chain management	**K6**

Unit – I (15 Hours)

Logistics and Logistics management: Definition - History and Evolution - Objectives – Elements - significance - Logistics interface with marketing - Retails logistics-functions – Emerging concept in logistics. Role of Logistics management - Integrated Logistics

Unit – II (15 Hours)

Logistics outsourcing - Logistics customer service & integrated logistics: logistics outsourcing - need – Reasons - Third party logistics provider - Fourth party Logistics providers (4 Pl) – Stages - Role of logistics providers - Customer service - importance elements - the order cycle system - distribution channels - Functions performed - Types designing - Logistical packaging.

Unit – III (15 Hours)

Logistics and Supply chain management: Concepts - inventory planning – transportation – packaging - inbound and outbound logistics - transport logistics - third party logistics [3PL] - fourth party logistics [4PL] - supply chain network - information sharing - supply chain coordination - supply chain relationship - distribution strategies

Unit – IV (15 Hours)

Supply chain management - Definition – Objectives – Evolution – Importance - Issues involved in developing SCM Framework - components - impact of globalization - impact of electronic data interchange on supply chain - Supply chain Integration – Stages - Barriers to internal integration - Achieving Excellence in SCM

Unit – V   **(15 Hours)**

Outsourcing in Supply Chain Management (SCM) Need for our sourcing - Outsourcing risks – benefits - outsourcing process - New opportunities in SCM outsourcing - Myths of SCM outsourcing – Dimensions of Supply Chain Excellence - Forces influencing SCE Emotions, Physical and Financial Supply Chains - Check list for Excellence

Book for Study

Martin Christopher, (2016), *Logistics & Supply Chain Management*, kindle, 1st edition Published by FT Publishing International

Book for Reference

1. Vinod V. Sople (2009) *Logistic Management* (2nd Edn.) Pearson Limited.Andhrapradesh
2. Donald J. Bowersox & David J. Closs: (2004), *Logistical Management*, Tata McGraw Hill Publishing Co. Ltd, New Delhi.
3. Satish C. Ailawadi & Rakesh Singh, (2005), *Logistics Management*, Prentice-Hall of India Pvt Ltd., New Delhi,
4. Donald Waters (2004), *Logistics*, 1st edition Published by Palgrave Macmillan, New York,

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours		Credits
III	21PCC3ES03A		DSE-3 : LOGISTICS AND SUPPLY CHAIN MANAGEMENT					5		4

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	2	3	3	3	2	2	2.6
CO–2	3	2	3	2	2	3	3	2	2	3	2.5
CO–3	3	3	2	2	3	2	3	2	3	2	2.6
CO–4	2	3	2	3	2	2	3	2	2	3	2.4
CO–5	3	3	3	2	3	2	3	2	2	2	2.5
Mean overall Score											2.5 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3ES03B	DSE-3 : CHANGE MANAGEMENT	5	4

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	understand the significance and importance ofcorporate social responsibility and its principles and practice in Indian context	K1
CO–2	acquire practical and applicable change management skills	K2
CO–3	gain self-confidence to use change management tools and models to design appropriate change plans for their workplace	K3, K4
CO–4	Apply various techniques and plan for implementing of change	K5
CO–5	to proactively engage with change processes in the workplace	K6

Unit – I (15 Hours)

Introduction to change: change evolution of an organization - inhibit change - Classification of Change - Mode of Change - Organizational Change: Introduction, forces of change - Images of managing change - Diagnosis for change - Organizational Transformation - Transformation Strategies- Nature of Organizational Change - Perspectives of Organizational Change - Communicating Change - Methods and Techniques for Communicating Change

Unit – II (15 Hours)

Process of change management and resistance to change: Phases of the Change Management Process - Change Management Process Control - Resistance to Change: Concept of Resistance to Change - Forms of Resistance - Reactions to Change - Resistance to Organizational Change Initiatives - Overcoming the Resistance to Change - Techniques to Overcome Resistance

Unit – III (15 Hours)

Strategies for implementing change: Implementation of Change - the DeltaTechnique - Developing an Implementation Plan - Gaining Support and Involvement of Key People - Developing Enabling Organizational Structures - Types of Change Management Strategies - Factors Affecting the Choice of a Change Strategy - Formulating and Facilitating Change - Facilitating Change - Implementing Change

Unit – IV (15 Hours)

Evaluating organizational change, change agent and culture: Concept of Monitoring and Evaluation of change - Measurement and Methods of Evaluation - Feedback Process - Continuous Incremental Change - Change Agents - Types ofChange Agents - Role and

Competencies of a Change Agent - Change Agent Styles - Concept of Organizational Culture - Dimensions of Culture - Type of Culture - Assessing Organizational Culture - Role of Culture in Managing Change

Unit – V   **(15 Hours)**
Organizational Development interventions: Organizational Development: Characteristics, assumptions of OD - Model of OD Action Research - OD Interventions - Selecting an OD intervention - classification of OD interventions - OD interpersonal interventions - OD team development interventions - OD intergroup development interventions

Book for Study
Ian Palmer, (2010), *Managing Organizational Change: A Multiple Perspectives Approach*, McGraw Hill, New Delhi

Books for Reference
1. Jerald M. Jellison, (2011), *Managing the Dynamics of Change*, McGraw Hill, New Delhi
2. Kirpatrick, D. L., (2015), "*Managing Change Effectively*", Butterworth, New Delhi
3. Nilakant and Ramanarayan, (2012), "*Change Management*", Response Books, New Delhi,

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course							Hours	Credits
III	21PCC3ES03B		DSE-3 : CHANGE MANAGEMENT							5	4
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	3	3	2	2	3	3	3	2	2	2.6
CO–2	3	3	2	3	2	3	3	2	2	3	2.6
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	3	3	2	3	2	2	3	2	2	3	2.5
CO–5	2	3	3	2	3	2	3	2	2	3	2.5
Mean overall Score											2.56 (High)

Semester	Course Code	Title of the Course	Hours	Credits
III	21PCC3EG02	GE 2 : (BS) DYNAMICS OF HUMAN BEHAVIOUR IN BUSINESS	4	3

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	understand themselves	K1
CO–2	analyse their strength and weakness	K2
CO–3	evaluate others' mind	K3, K4
CO–4	plan their career	K5
CO–5	Learn to move with others	K6

Unit – I (12 Hours)
Understanding self - self concepts - individual behaviour as social animal - individual behaviour with others – Social behavior - society concepts - business behavior

Unit – II (12 Hours)
Perception – attitude - attitude formation - personality, determinants of personality, fear, anxiety, stress, depression, conflict

Unit – III (12 Hours)
Individual values vs social values, beliefs, customs, Norms, morality, discipline – ethical behaviour

Unit – IV (12 Hours)
Inter, intra personal development, rationality, role of communication in inter personal development, media influenced behaviour, behavior moulding

Unit – V (12 Hours)
Work - Nature of work, work environment and culture, current scenario (domestic and international), corporate behaviour and culture, cross culture management, understanding and meeting challenges of competitive business with human behaviour

Book for Study
Joseph CS , (2014), *Dynamics of Human Behaviour and abnormal Psychology*, 1st edition, published by Anmol Publication Pvt Ltd, New Delhi.

Books for Reference

1. Pooja Sharma, (2015*), Dynamics of Behaviour*, 2nd edition, published by books rivers, New Delhi.
2. Umashankar K and Chgrita Hg, (2019), *Behavioural Dynamics at the workplace*, published by Anmol Publication Pvt Ltd, Newdelhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course					Hours	Credits
III	21PCC3EG02		GE 2 (BS) : DYNAMICS OF HUMAN BEHAVIOUR IN BUSINESS					4	3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	2	2	1	3	3	2	2	3	2.2
CO–2	2	3	2	1	2	3	3	2	2	3	2.3
CO–3	1	2	3	2	3	2	3	2	3	2	2.3
CO–4	1	2	2	3	1	2	3	2	2	3	2.1
CO–5	1	2	2	2	3	1	3	2	2	3	2.1
Mean overall Score											2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4CC10	**CORE – 10:** **BUSINESS TAXATION**	7	6

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	get a better understanding of the Indirect Taxation and Recent developments in Indirect taxes	K1, K2
CO–2	identify the reasons forthe levy GST and Identify the Structure of GST	K2
CO–3	apply the concept oftaxable supply, input tax credit and registration procedures and filing of returns as per GST Rules	K3
CO–4	through knowledge on the practical application of Tax Assessment under GST	K4, K5
CO–5	synthesis the taxableevent of the levy of Customs duty in India and its Structure	K6

Unit – I (21 Hours)
Indirect Tax: 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 (21 Hours)
Goods and Service Tax: Introduction – Features – Advantages – Disadvantages – importantDefinitions - Taxable persons – Time of supply - of goods and services – Administrative set up – Classes of officers under Central and Stategoods and services Tax Act - Appointment of Officers – Powers of officers – Levy andcollection of GST – Powers to grant exemption from tax.

Unit – III (21 Hours)
Registration: Procedure for registration under Schedule III – Special provisionsrelating to casual taxable person and non-resident taxable person – Amendment ofregistration – Cancellation of registration – Revocation of cancellation of registration.

Unit – IV (21 Hours)
Assessment of GST: Self - assessment – Provisional assessment – Scrutiny ofreturns – 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 (21 Hours)

Customs Act 1962: Important Definitions – Basics – Importance of Customs Duty – Constitutional authority for levy of Customs Duty – Types of Customs Duty – Prohibitionof 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

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

Books for Reference

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

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours		Credits	
IV	21PCC4CC10		CORE – 10 : BUSINESS TAXATION				7		6	
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	2	2	1	3	3	2	2	3	2.2
CO–2	2	3	2	1	2	3	3	2	2	3	2.3
CO–3	1	2	3	2	3	2	3	2	3	2	2.3
CO–4	1	2	2	3	1	2	3	2	2	3	2.1
CO–5	1	2	2	2	3	1	3	2	2	3	2.1
Mean overall Score											2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4ES04A	DSE- 4: INTERNATIONAL BUSINESS	5	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	know the concepts of Domestic and International business	K1
CO–2	understand the modes of international business	K2
CO–3	apply the knowledge on cultural, social and ethical responsibilities of MNCs	K3, K4
CO–4	analyze the agreements based on the various laws for their businesses	K5
CO–5	create knowledge on foreign exchange management	K6

Unit – I   **(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   **(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   **(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 (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 (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

Francis Cherunilam, (2019), *International Trade & Export Management*, 21st edition, published by Himalaya Publishing House,

Books for Reference

1. Francis Cherunilam, (2017), *International marketing*, 15th Revised edition, Himalaya Publishing House, Chennai
2. Ricky Griffin, Michael Pustay, (2014), *International Business: A managerial Perspective*, Eighth edition published by Pearson, New York.
3. John Wild and Kenneth L.Wild (2002), *International Business* published by Pearson, New York.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours	Credits
IV	21PCC4ES04A		DSE – 4 : INTERNATIONAL BUSINESS				5	4

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	3	3	2	3	3	3	2	2	2.6
CO–2	3	2	2	3	2	2	3	2	2	2	2.3
CO–3	3	2	2	2	3	2	3	3	3	3	2.6
CO–4	3	2	3	2	2	2	3	2	2	2	2.3
CO–5	3	3	3	2	3	3	2	2	2	3	2.6
Mean overall Score											2.48 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4ES04B	DSE – 4 : KNOWLEDGE MANAGEMENT	5	4

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	understandthe terms of knowledge and concepts of knowledge	K1
CO–2	acquire exposure on the knowledge management tools	K2
CO–3	realize the importance of capturing knowledge elements and itsstructures	K3, K4
CO–4	apply as a competitive advantage to business and society	K5
CO–5	apply KM Strategy, GAP Analysis, Road Map and KM Metrics	K6

Unit – I (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 (15 Hours)

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

Unit – III (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 (15 Hours)

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

Unit – V (15 Hours)

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

Book for Study

Awad Elias M, *"Knowledge Management"*, Prentice Hall India Learning Private Limited, 2ⁿᵈ edition 2011

Books for Reference

1. Sudhir Warier, *Knowledge Management*, Vikas Publishing House Private Limited 2003

2. Kai Mertins, Peter Heisig , Jens Vorbeck, "*Knowledge Management: Concepts and Best Practices*", 2nd edition , Springer Nature Publications, 2008

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course				Hours	Credits
IV	21PCC4ES04B		DSE – 4 : KNOWLEDGE MANAGEMENT				5	4

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	3	3	2	2	3	3	3	2	2	2.5
CO–2	3	3	2	3	2	3	3	2	2	3	2.6
CO–3	3	3	3	2	3	2	3	2	3	2	2.6
CO–4	2	3	2	3	2	2	3	2	2	3	2.4
CO–5	2	3	3	2	3	2	3	2	2	2	2.4
Mean overall Score											2.5 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4CC11	CORE – 11: FINANCIAL ACCOUNTING PACKAGE – TALLYPRIME	3	3

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	gain and Understand the basic principles and concepts of accounting	K1, K2
CO–2	provide knowledge of Tally Prime application and Accounting Package	K3
CO–3	apply and practice the various Accounting and Inventory vouchers	K3
CO–4	learn the knowledge on TDS-TCS and VAT Calculations	K4
CO–5	create an GST and maintenance of various reports	K5, K6

Unit – I **(9 Hours)**

Computerized Accounting - Tally – 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 **(9 Hours)**

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

Inventory Information: 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 **(9 Hours)**

Technological advantages in ERP 9 – 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   **(9 Hours)**

Tally Prime 1.0 - Introduction - Features – Process for setting up TallyPrime - Configuration Setup – Application Path Install - Startup – Basics – Billwise accounts – TallyPrime with Banking and Reports.

Book for Study

Asok K. Nadhani (2018), *Tally ERP 9 Training Guide*, 4th Revised & Updated Edition Paperback

Book for Reference

GST Using Tally ERP 9, 2019, Tally Education Pvt. Ltd, Published by Sahaj Enterprises

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code			Title of the Course				Hours	Credits
IV	21PCC4CC11			CORE – 11 : FINANCIAL ACCOUNTING PACKAGE – TALLYPRIME				3	3

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	3	2	3	3	2	3	3	3	2	2	2.6
CO–2	3	2	2	3	2	2	3	2	2	2	2.3
CO–3	3	2	2	2	3	2	3	3	3	3	2.6
CO–4	3	2	3	2	2	2	3	2	2	2	2.3
CO–5	3	3	3	2	3	3	2	2	2	3	2.6
Mean overall Score											2.48 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4CP05	SOFTWARE LAB – 5: FINANCIAL ACCOUNTING PACKAGE – TALLYPRIME	4	4

CO No.	CO–Statements	Cognitive Levels (K –Levels)
	On successful completion of this course, students will be able to	
CO–1	extract profit and loss account and balance sheet through ledger account balances and adjustment entries	K1
CO–2	pass entries for transactions in accounting vouchers with or without stock items	K2
CO–3	pass entries for transactions requiring special features such as TDS, VAT, CST,GST Cost centers and Payrolls	K3, K5
CO–4	carry out order processing and maintain accounting records along with inventory records and generate reports	K4
CO–5	work as an accountant or a storekeeper in the computerized environment of business organizations	K5, K6

Exercise

1. F11: Company Features (Accounting, Inventory, Statutory & Taxation)

2. F12: Configuration setup

3. Tally Prime Screen - Company creation, Alter, delete, Shut

4. Ledger Creation – Single, Multiple (Create, Display, Alter)

5. Group Creation - Single, Multiple (Create, Display, Alter)

6. Final A/Cs with adjustments (Trading, Profit and Loss A/c, Balance Sheet)

7. Income & Expenditure (Non-Trading)

8. Accounting Vouchers

9. Cost / Profit Centre Management : Cost centre, Cost Category

10. Payroll preparation : Salary, Employee benefits, reports

11. Budget & Scenario Management – Maintain Budget and control – Journal Vouchers

12. Inventory Management : Stock Group, Stock Categories,Stock Items and Godown

13. Order processing : Purchase order, Sales order

14. Inventory vouchers

15. Invoicing, Purchase Management, Sales Management

16. Bills Payable and receivable

17. Accounting books and reports

18. Generation of inventory books, Import of Data, reports and Ratio analysis

19. TDS, TCS, FBT, VAT, CST, Service Tax and Excise

20. GST (Goods, Services and Tax) – Exercises

21. Income Tax filling & returns – Exercises & overview

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course			Hours	Credits
IV	**21PCC4CP05**		**SOFTWARE LAB – 5 : FINANCIAL ACCOUNTING PACKAGE – TALLYPRIME**			**4**	**4**

Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	**PO–2**	**PO–3**	**PO–4**	**PO–5**	**PSO–1**	**PSO–2**	**PSO–3**	**PSO–4**	**PSO–5**	
CO–1	2	3	3	3	2	2	2	3	3	2	2.5
CO–2	3	2	3	2	3	2	2	3	3	2	2.5
CO–3	1	3	2	1	3	2	1	2	2	3	2.0
CO–4	3	1	3	3	1	3	2	3	3	1	2.3
CO–5	1	3	2	1	3	2	3	2	3	2	2.2
Mean overall Score											2.3 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4CC12	**CORE – 12 :** **SOFTWARE ENGINEERING**	5	5

CO No.	**CO–Statements** On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	Acquire knowledge in various software development models	**K1**
CO–2	understand and analyze software requirements specifications for differentprojects	**K2, K4**
CO–3	explain the design concepts, analyze and apply the concepts to design architectural, component level & User interface models, list the golden rules	**K3, K4**
CO–4	apply Different Testing and Debugging Techniques to Evaluate the Software	**K3, K5**
CO–5	develop the Software	**K6**

Unit – I **(15 Hours)**

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

Unit – II **(15 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 **(15 Hours)**

Design Engineering: 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 **(15 Hours)**

Testing Strategies: 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 (15 Hours)

Project Management: 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 – Scheduling - Quality Management: Quality Concepts - Software Quality
Assurance - Formal Technical Reviews

Book for Study

Roger S. Pressman (2015). *"Software Engineering"*, McGraw Hill, Education, 8th Edition,
New York

Books for Reference

1. Richard E.Fairley (2014), *Software Engineering Concepts*, Tata McGraw-Hill
   Publishing Company Limited, New Delhi.
2. Ali Behfrooz and Frederick J.Hudson (2003), *"Software Engineering Fundamentals"*,
   Oxford University Press, NewYork.
3. Carlo Ghezzi, Mehdi Jazayeri, Dino Mandride (2002), *"Fundamentals of Software
   Engineering"*, Prentice Hall of India, New Delhi.

Relationship matrix for Course outcomes, Programme outcomes /Programme Specific Outcomes

Semester	Course code		Title of the Course						Hours		Credits
IV	21PCC4CC12		CORE – 12 : SOFTWARE ENGINEERING						5		5
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of Cos
	PO–1	PO–2	PO–3	PO–4	PO–5	PSO–1	PSO–2	PSO–3	PSO–4	PSO–5	
CO–1	2	3	2	1	2	3	3	2	1	2	2.1
CO–2	3	2	3	2	1	3	2	3	2	2	2.3
CO–3	2	2	3	2	2	2	3	2	2	2	2.2
CO–4	3	3	3	1	2	3	3	3	1	2	2.4
CO–5	2	3	3	1	2	2	3	3	2	1	2.2
Mean overall Score											2.24 (High)

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4PW01	**PROJECT WORK & VIVA VOCE**	6	5

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	analyse the concepts of social issues and problems and personality, perception and learning in Organizations	**K1, K2**
CO–2	determine the individual and group behaviour in the workplace	**K3**
CO–3	design motivational techniques for job design, employee involvement, incentives, rewards & recognitions	**K3**
CO–4	manage effective groups and teams in organizations	**K4, K5**
CO–5	analyze various job-related attitudes and get employment opportunities	**K6**

1. Vision, mission and objectives of business organization
2. Organizational structure in business organizations
3. Business functions in a business firm
4. Organization type the business under study fits in
5. SWOT analysis for a business organization
6. Key Result Areas of a business organization
7. Business growth over years with appreciation of enablers and barriers

Course Delivery
1. The organization should be sufficiently large with all departments such as human resources (HR), production, marketing and finance.
2. Students are required to be in touch with their mentor while choosing the organization and till the completion of the study. They need to appraise the faculty-mentor about the progress of theOST on a weekly basis.
3. Students will be provided with an introduction letter by Associate Dean to enable them toapproach companies for undertaking the Project.
4. Students have to do a self-study on the types of business organizations clearly identifying theadvantages and disadvantages of every type. Further they need to map and relate their organization of study to its type.
5. Students need to keep a soft copy of draft of the report. Some of the broad chapters of report canbe as follow.
   a) Introduction to Organization
   b) Organization Structure
   c) Functional Departments
   d) SWOT Analysis

e) Functional Highlights across Key Result Areas (financial performance, marketing performance etc., over the years)
f) Findings, Recommendations and Conclusions

Project work should cover the following topics.

a) Organization's history

b) Profile of the product

c) Mission, objectives and strategies of the organization

d) Organization chart - Design & Structure

e) Policies and procedures followed

f) Functions of various departments and their managers

g) SWOT analysis of the organization

h) Key Result Areas (KRAs) of the organization

i) Significant factors for success

j) System of accounting followed

k) Product promotional measures

l) Career planning and promotion policy of employees

m) Training measures

n) System followed for purchase of materials

o) HRD measures (including welfare measures)

p) Manpower planning

q) Performance appraisal system

r) Financial highlights during the last three years

s) Future plans for growth of the organization

t) Views of managers at various levels and non-managerial staff by detailed interaction.

u) Advantages and drawbacks of the organization structure

v) Recommendations to overcome the drawbacks.

w) Modifications, if any, to the organization structure.

Semester	Course Code	Title of the Course	Hours	Credits
IV	21PCC4CE01	COMPREHENSIVE EXAMINATION	-	2

CO No.	CO–Statements On successful completion of this course, students will be able to	Cognitive Levels (K –Levels)
CO–1	understand different types of logical and physical components of a data base, Tally ,Components of Storage System Environment	K1
CO–2	assess the concepts of personality, perception and learning in Organizations	K2, K3
CO–3	analyze various job-related attitudes	K4
CO–4	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	K5
CO–5	manage effective supply chain in the organizations for outsourcing	K6

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 – TimeManagement - Improving Personality - problems encountered by researchers in India – research report - Environment 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 and Sumant Kapoor: (2008) *"OR Techniques for Management"*- 1st edition, published by Sultan Chand & Sons - New Delhi
   (Unit I and unit II)
2. Chandra Prasanna (2019*) Financial management,Theory and Practice* McGraw Hill Education Publishing, Chennai
   (Unit III)
3. S K Singh, "*Database Systems Concepts, Design and Applications*", 1st Edition, Pearson Education, 2009
   (Unit IV)
4. Martin Christopher, (2016), *Logistics & Supply Chain Management*, kindle , 1st edition Published byFT Publishing International
   (Unit V)

Books for Study

1. Kapoor N.D., (2006) *Industrial Law*, 1st edition Published by Sultan Chand Publications, New Delhi
2. Dr. K. Alex, '*Managerial skills*', Person Publication, New Delhi.2013 **(Unit II)**
3. S.P. Jain & K.L. Narang: *Cost accounting* - Kalyani Publication- New Delhi ,2015
4. Kapoor N.D., (2006) *Industrial Law*, 1st edition Published by Sultan Chand Publications, New Delhi**.(Unit III)**
5. Asok K. Nadhani (2018), *Tally ERP 9 Training Guide*,4th Revised & Updated Edition Paperback **(Unit IV)**
6. Sharma RC & Krishan Mohan, (2017), *Business Correspondence & Report Writing*, Tata McGraw Hill Publishing Co. Ltd. New Delhi. **(Unit I)**
7. Balachandran, (2019), *Indirect Taxation*, Sultan Chand & Sons and Kalyani Publishers **(Unit V)**
8. Martin Christopher, (2016), Logistics & Supply Chain Management, kindle , 1st edition Published by FT Publishing International **(Unit V)**

<p align="center">************************</p>