

MOTHER TERESA WOMEN'S UNIVERSITY
KODAIKANAL-624102

B.COM WITH COMPUTER APPLICATION
(CHOICE BASED CREDIT SYSTEM)
(Full-time)



SYLLABUS, REGULATION AND SCHEME OF EVALUATION

(From 2021-2022 onwards)

Mother Teresa Women's University, Kodaikanal

**Department of Commerce
Choice Based Credit System (CBCS)
(2021-2022 onwards)**

Bachelor of Commerce with Computer Application

1. About the Programme

The Revised syllabus for B.Com with Application Programme is recommended from the academic year 2021– 2022 onwards. Regulations scheme of examinations and syllabus for B.Com Programme with Computer Application is based on UGC/TANSCHE guidelines under Choice Based Credit System (CBCS). The Bachelor's Degree in B. Com with Computer Application is awarded to the student on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes, and values) and academic criteria expected of graduates at the end of the program. Therefore, the learning outcomes of this particular program are aimed at facilitating the students to acquire these attributes, keeping in view changes in the current socio-economic environment. The Learning Outcomes-based Curriculum Framework (LOCF) of B. Com with Computer Application has been designed keeping in view the graduate attributes, qualification descriptors, program learning outcomes, and course learning outcomes.

2. Programme Educational Objectives:

The B.Com (Computer Applications) Programme describes accomplishments that graduates are expected to attain within five to seven years after graduation. The Programme has been designed with following objectives:	
PEO1	To provide students with specific knowledge and skills relevant to their disciplines and career.
PEO2	To make the students acquainted with technical and practical concepts for understanding the real business problems using different programming languages.
PEO3	To train the students on practical business applications using high level programming languages in real world.
PEO4	To create awareness about the useful applications of different computer languages that solve real world problems.
PEO5	To train the students to enhance the knowledge on visual based programming language and object-oriented language in different business applications using various design principles portraying the concepts of computer applications in business activities.

3. Eligibility :

Candidate should have passed the Higher Secondary Examination or CBSE Examination from school with Commerce, Accountancy and Computer.

4. General Guidelines for UG Programme

- i. **Duration:** The programme shall extend through a period of 6 consecutive semesters and the duration of a semester shall normally be 90 days or 450 hours. Examinations shall be conducted at the end of each semester for the respective subjects.
- ii. **Medium of Instruction:** English
- iii. **Evaluation:** Evaluation of the candidates shall be through Internal Assessment and External Examination.

- **Evaluation Pattern**

Evaluation Pattern	Theory		Practical	
	Min	Max	Min	Max
Internal	10	25	10	25
External	30	75	30	75

- **Internal (Theory):** Test (15) + Assignment (5) + Seminar/Quiz(5) = 25
- **External Theory:** 75

- **Question Paper Pattern for External examination for all course papers.**

Max. Marks: 75

Time: 3 Hrs.

S.No.	Part	Type	Marks
1	A	10*1 Marks=10 Multiple Choice Questions(MCQs): 2 questions from each Unit	10
2	B	5*4=20 Two questions from each Unit with Internal Choice (either / or)	20
3	C	3*15=45 Open Choice: Any three questions out of 5 : one question from each unit	45
Total Marks			75

* **Minimum credits required to pass: 156**

- **Project Report**

A student should select a topic for the Project Work at the end of the third semester itself and submit the Project Report at the end of the fourth semester. The Project Report shall not exceed 75 typed pages in Times New Roman font with 1.5 line space.

- **Project Evaluation**

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

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

Range of Marks	Grade Points	Letter Grade	Description
90 – 100	9.0 – 10.0	O	Outstanding
80-89	8.0 – 8.9	D+	Excellent
75-79	7.5 – 7.9	D	Distinction
70-74	7.0 – 7.4	A+	Very Good
60-69	6.0 – 6.9	A	Good
50-59	5.0 – 5.9	B	Average
40-49	4.0 – 4.9	C	Satisfactory
00-39	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

6. Attendance

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

7. Maternity Leave

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

8. Any Other Information

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

8. Programme Outcomes (POs)

After the successful completion of B.Com (Computer Applications) Program, the students are expected to	
PO1	develop the accounting, finance, banking, Insurance, marketing as well as the computer application knowledge to the students.
PO2	create awareness on Business law, Tax Law and legislations related to business and computer applications
PO3	get the training to develop successful computer programs to solve the business problems for increasing the productivity of the e-business.
PO4	Obtain the practical application exposure on MS-office and oracle software.
PO5	Apply object oriented or non-object oriented techniques to solve business computing problems which make students a good programmer.

9. Programme Specific Outcomes(PSO)

After the successful completion of B.Com(ComputerApplications) Program, the students are expected to	
PSO1	know and apply the various business management and computer application concepts to solve the real-world problems.
PSO2	acquire the knowledge on object-based computer applications in various business fields.
PSO3	solve the business applications related issues of using oracle and object oriented programming languages.
PSO4	analyze the real e-business problems by using the different applications of procedure-oriented language Programs.
PSO5	enrich the practical knowledge on applications of accounting and programming languages in business ventures.

B.COM (CA) CURRICULUM

Course Code	Title of the Course	Credits	Hours		Maximum Marks		
			T	P	CIA	ESE	Total
FIRST SEMESTER							
U21LTA11	Part I-TAMIL I	3	6	-	25	75	100
U21LEN11	Part II-ENGLISH I	3	6	-	25	75	100
U21CCT11	CORE I – Financial Accounting –I	4	6	-	25	75	100
U21CCP11	CORE II – Computerized Accounting	4	-	5	25	75	100
U21CCA11	ALLIED I –Business Economics	4	5	-	25	75	100
U21EVS11	Environmental Studies	2	2	-	25	75	100
U21PECM11	PROFESSIONAL ENGLISH I	4	6	-	25	75	100
Total		24	31	5	-	-	700
SECOND SEMESTER							
U21LTA22	Part I-TAMIL II	3	6	-	25	75	100
U21LEN22	Part II-ENGLISH II	3	6	-	25	75	100
U21CCT21	CORE III –Financial Accounting-II	4	5	-	25	75	100
U21CCP22	CORE IV – Programming in C- Lab (Practical)	4	-	5	25	75	100
U21CCA22	ALLIED II -Business Communication	4	5	-	25	75	100
U21VAE22	Value Education	3	3	-	25	75	100
U21PECM22	PROFESSIONAL ENGLISH II	4	6	-	25	75	100
Total		25	31	5	-	-	700
THIRD SEMESTER							
U21LTA33	Part I-TAMIL III	3	6	-	25	75	100
U21LEN33	Part II-ENGLISH III	3	6	-	25	75	100
U21CCT31	CORE V- Business statistics	4	5	-	25	75	100
U21CCA33	ALLIED III- Visual Basic Programming – Lab	4	-	5	25	75	100
U21CCE311 U21CCE312 U21CCE313	ELECTIVE –I 1.Computer Networks 2.Training and development 3.Business Intelligence Strategies And Process	3	4	-	25	75	100
U21CSS31	SBE-1 -Computer Skills for Office Management	2	-	2	25	75	100
Non- Major Elective-I		2	-	2	25	75	100
Total		21	21	9	-	-	600
FOURTH SEMESTER							
U21LTA44	Part I-TAMIL IV	3	6	-	25	75	100
U21LEN44	Part II-ENGLISH IV	3	6	-	25	75	100
U21CCT41	CORE VI- Cost Accounting	4	4	-	25	75	100

U21CCP43	CORE- VII- Relational Database Management System – Lab	4	-	4	25	75	100
U21CCA44	ALLIED IV -Business Mathematics	4	4	-	25	75	100
	ELECTIVE-II-	3	3		25	75	100
U21CCE421	1.Elements of E-Commerce						
U21CCE422	2.Digital marketing						
U21CCE423	3.International Logistics Management						
U21MSS42	SBE-II- Managerial Skills	2	-	2	40	60	100
	Non -Major Elective II	2	-	2	25	75	100
	Total	25	23	8	-	-	800
FIFTH SEMESTER							
U21CCT51	CORE VIII- Management Accounting	4	5	-	25	75	100
U21CCT52	CORE IX-Auditing	4	5	-	25	75	100
U21CCT53	CORE X-Income Tax Law and Practice	4	5	-	25	75	100
U21CCP54	CORE XI -Mobile Application Lab	4	-	5	25	75	100
U21CCP55	CORE XII- Programming in C++ - Lab	4	-	5	25	75	100
	ELECTIVE-III	3	3		25	75	100
U21CCE531	1.Fundamentals of Investment						
U21CCE532	2.Artificial intelligence in business						
U21CCE533	3.E-Customer Relationship Management						
U21CCS53	SKILL BASED ELECTIVE – IIIDTP Lab.	2	-	2	25	75	100
	Total	25	18	12	-	-	700
SIXTH SEMESTER							
U21CCT61	CORE XIII- Corporate Accounting	4	4	-	25	75	100
U21CCT62	CORE XIV- Business Taxation	4	5	-	25	75	100
U21CCT63	CORE XV – Operating System	4	5		25	75	100
U21CCT64	CORE-XVI - Financial Management	4	4		25	75	100
U21CCP66	CORE-XVII- Web Technology Lab	4	-	5	25	75	100
	ELECTIVE –IV	3	3	-	25	75	100
U21CCE641/	1. Business Law						
U21CCE642/	2. Corporate governance						
U21CCE643	3. International Financial Reporting Standards						
U21CCS64	SKILL BASED ELECTIVE–IV –Personal Selling and Salesmanship	2	2		25	75	100
U21EAS61	Extension Activities	3	2	-	-	-	100
	Total	28	25	5	-	-	800
	Grand Total	148	193				4400

Non Major Elective (NME)

NME –I- U21CCN31-Personal Finance and Planning (Practical)

NME –II-U21CCN42-Commerce (Practical)

Additional Credit Courses

U21CCO31 - Online Course – III Semester,

U21CCI41 - Internship – IV Semester,

U21CCV51 - Value added course – V Semester

SEMESTER I

COURSE CODE	U21CCT11	FINANCIAL ACCOUNTING-I	L	T	P	C
CORE I			6	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To enable the student to learn basic Financial Accounting.
2. To make the students skillfully to prepare and present the final accounts of sole trader.
3. To learn about various types of errors and calculation of depreciation in accounts.
4. To understand about Bill of Exchange and accounting for professionals.
5. To understand about the various accounts in Non Trading Concern.

Unit 1 :Introduction to Accountancy

Accounting-Introduction-Meaning and definition-Meaning and Scope of Accounting-Types of Accounting-Accounting concepts and Conventions- Functions of Accounting -Objectives of accounting-Book-keeping and accounting-Double entry system- Accounting Rules- Journal-ledger-Subsidiary Books- Preparation of Trial Balance -Advantages and disadvantages of Accounting.

Unit 2 :Errors rectification and Final Accounts

Average Due date – Account Current. Classification of errors – Rectification of errors – Preparation of Suspense Account. Bank Reconciliation Statement. Final accounts with adjustments – closing stock, outstanding expenses, unexpired or prepaid expense, accrued income, income received in advance, depreciation, additional bad debts, provision for doubtful debts, provide for a discount on debtors, interest on capital, interest in drawing, discount on creditors and creation of various reserves

Unit 3:Methods of Depreciation

Accounting for depreciation – Need for and significance of depreciation, Depreciation, Reserves and Provisions - Depreciation, Depletion and Amortization - Objectives of providing depreciation - causes of depreciation - methods of recording depreciation - straight line method - Diminishing Balance Method - Changes in method of depreciation - Machine Hour Rate Method - Depletion Method - Revaluation Method.

Unit 4 :Bills of Exchange

Bill of exchange – Types of Bill of Exchange-Promissory Note-Importance of Promissory note in Bill of Exchange- Accounting Treatment of Bill of Exchange-Bill Is Discounted With the Bank-Accommodation bills – Average due date – Account current.

Unit 5:Receipts and Payments

Receipt and Payment Account -Features of Receipt and Payment Accounts-Concept. Accounts of Non – Profitable Concerns- Receipts and Payments - Income and Expenditure Account and Balance Sheet.

Note: Question Paper shall cover 40% Theory and 60% Problem

Text books:

- 1.S.P. Jain & K.L. Narang, “ Advanced Accounting”, Kalyani publishers New Delhi, Delhi, Volume – I, 18th Revised Edition, 2014.
2. T.S.Reddy and A.Murthy, “ Financial Accounting”, Margam publications, Chennai – 600 017, 7th revised edition 2015.
3. R.L. Gupta and Radhasamy, “Advanced accounting” S.Chand & company ltd., New Delhi, edition 2013.

Reference books:

1. Dr. M.A. Arulanandam & Dr. K.S. Raman, “Advanced Accountancy” Himalaya publications, New Delhi, 1st edition 2015.
2. M.C. Shukla, T.S. Grewal & S.C. Gupta, “Advanced accounts”, Sultan & chand publications, New Delhi 2013.
3. P.L. Nagarajan N.Vinayagam, Mani.P.L “Principles of Accountancy”, S.Chand & company Ltd, New Delhi – 2013.
4. T.S. Grewal,” Introduction to Accountancy”, S.Chand & company ltd, New Delhi – 2014.
5. P.L. Tulsian – Advanced Accountancy – Tata MC Grow Hill companies.

Course outcomes: At the end of the course, students would be able to:

1	recall Accounting Concepts and Conventions and use Accounting rules to record business transactions in the form of Journal, Ledger, subsidiary books and preparation of Trial Balance.	K1
2	understand the steps involved in locating errors and prepare them to understand the preparation of final accounts for sole traders.	K2
3	outline the concepts of Bills of exchange, Averaged date and Account Current	K2
4	examine the concepts of consignment and joint venture.	K4
5	analyze the bank reconciliation statement, Receipts and payments, Income and expenditure and Balance sheet and accounting for professionals to enhance the knowledge.	K4
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5-Evaluate;K6-Create		

Mapping Outcomes- POs and PSOs

	PO					PSO								Means Score of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	4	3	4	3	4	43/13=3.30
CO-2	4	3	4	3	3	3	3	4	4	3	3	3	4	44/13=3.38
CO-3	3	3	4	3	3	4	4	4	4	3	4	3	3	46/13=3.53
CO-4	4	3	4	3	4	4	3	4	3	4	3	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	3	3	4	3	4	45/13=3.46 17.28/5=3.456

COURSE CODE	U21CCP11	COMPUTERIZED ACCOUNTING	L	T	P	C
CORE -II			-	-	5	4

Learning Objectives:

The objectives of the course are

- 1.To make the students to learn about the application of computers in accounting
- 2.To give practical experience in inculcating accounting information with computer based skills.

Unit-I: Accounting Package

Accounting packages: computerized accounting – meaning and features – advantages and disadvantages – computerized vs manual accounting – creating of company– grouping of accounts – creation accounts and inventory –entering transactions: Vouchers– types –numbering –deleting and editing vouchers– opening and closing balances – stock valuation.

Unit-II: Computerized Accounting

Computerized Accounting: computers and financial application, accountings software packages. An overview of computerized accountings system– salient features and significance, concept of grouping of accounts. Codification of accounts, maintaining the hierarchy of ledger, generating accounting reports.

Unit-III: Introduction to Tally ERP 9.1

Tally ERP 9.1: Introduction to tally–starting tally–gateway totally and exit from tally–Items in Tally Screen-Menu Options- company creation in tally, saving the Company profile. Alteration/deletion of company- Basic Currency Information –selection of company; account groups and ledgers- Company Features and Inventory Features

Unit-IV: Working In Tally

Creation of Company–journal entry Ledger–**writing** vouchers. Different types of Vouchers- correcting Sundry Debtors and Sundry Creditors Accounts- Trial Balance- Accounting Books, cash book, Bank Book, Ledger Accounts, Group Summary, Sales Register and Purchase Register, Statement of Accounts & Balance sheet

Unit- V: Reports in Tally

Tally–Preparation of Final Accounts- Output report - basic features of displaying reports- Printing reports- other options- Display of account bookstand statement, viewing cash/bank books, Configure balance sheet, integrating accounts with inventory, GST Calculations - Preparation of Profit and Loss accounts and other reports

Practical work:

1. Program for Creation of company, creation of groups and ledgers.
2. Program for purchase voucher and sales voucher creation
3. Program for payment voucher and Receipt voucher creation
4. Program for Contra voucher creation
5. Program for journal voucher creation
6. Program for preparation of Debit note and credit note
7. Program for working for a calculator
8. Program for preparation of Trial balance
9. Program for preparation of final accounts of a sole-trader
10. Program for preparation of final accounts of a partnership firm
11. Program for preparation of final accounts of a company
12. Program for single stock and multiple stock creation

Text Books(Latest revised edition):

1. Krishnan,N., Windows and MS Office 2000 with database concepts, Scitech publications
2. Dr.S.V.Srinivasa Vallabhan, Computer Application in business- Sultan chand sons.

Reference Books(Latest revised edition):

1. Computer Application in Accounting software – by P. Kasivairavan – Friends publication.
2. List of Practical: Pay roll preparation in MS. Excel, Income Tax preparation in MS. Excel, Accounting package: Tally.
3. Computer Applications in Business – Mohankumar K & Rajkumar S – Vijay Nicole Imprints (P) Ltd

Note: 100% Practical

Course outcomes: At the end of the course, students would be able to:

1	possess knowledge on Accounting packages	K1, K2,K3
2	create a Company under Tally	K1, K2,K3
3	create various ledgers and editing	K1, K2,K3
4	work on different vouchers, entries and preparation of ledgers	K1, K2,K3
5	create various reports for decision making and display of ledgers and balance sheet in Tally	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping: POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	3	3	4	4	3	4	3	4	4	4	48/13=3.69
CO-2	4	4	3	4	4	3	3	3	3	3	3	3	4	44/13=3.38
CO-3	4	4	4	4	4	3	4	4	3	3	4	3	4	48/13=3.69
CO-4	4	4	4	4	4	3	4	3	3	3	3	3	3	45/13=3.46
CO-5	4	3	4	4	4	4	3	4	3	4	3	4	3	47/13=3.62
														17.84/5=3.57

COURSE CODE	U21CCA11	BUSINESS ECONOMICS	L	T	P	C
ALLIED- I			5	-	-	4

Learning Objectives:

The main objectives of the course are

1. To make an economic analysis, with particular application to decision-making in business, and the effects of policy on the broader economic environment in which business decisions must be made.
2. To learn and understand these concepts and principles and to apply them to a variety of economic situations.
3. To understand the Demand and Supply functions and its Law
4. To analyse the cost and production function.
5. To understand the perfect and imperfect completion in an Business Environment.

Unit 1: Introduction of Economics

Introduction to Managerial Economics Business Economics : Definitions, scope, role in Business decisions- Economics systems – theories of economics -Interdependence of Micro and Macro Economics – theory of firm - Production Possibility Curve - Opportunity Cost – consumer preference- utility analysis and Types of Utility -Introduction to Cardinal and Ordinal Approaches- indifference curve analysis - roles of business economist.

Unit 2:Law of Function

Production Laws and Functions Production Concept - Importance and Factors of Production- Theory Production Function: Meaning, Concept of productivity and technology – production laws- Short Run and long run production function - Introduction to Iso-quants.

Unit 3:Demand and Supply

Demand and Supply laws Demand and its Determination: Demand function - Determinants of demand - Demand elasticity, degrees and methods – Price, Income and cross elasticity - Use of elasticity for analyzing demand - Demand forecasting: Introduction and techniques – supply law – elasticity of supply.

Unit 4:Cost Output Relationship in Short and Long Run

Cost Output Relationship Cost analysis: Cost concepts and classification, cost-output relationship Determinants of cost - short run and long run cost theory - Modern Theory of Cost - Relationship between cost and production function - cost control and cost reduction - Concept of Revenue - Different Types of Revenues- scale of economies.

Unit 5:Market and Competition

Market Structure Market structure - Perfect competition: features, Assumptions -Equilibrium of

the firm and the industry in the short and the long runs - imperfect competitions: Monopoly: features -Short-run and long-run equilibrium of monopoly firm -Price discrimination - Monopolistic Competition: features Assumption; Short – run and Long run Equilibriums - Oligopoly: features Causes for the existence of oligopolistic firms in the market rather than perfect Competition - difference between perfect and Imperfect competitions.

Note: Question Paper shall cover 100% Theory

Text Books:

1. S.Shankaran, Business Economics - Margham Publications - Ch -17
2. P.L. Mehta, Managerial Economics - Analysis, Problems & Cases ,Sultan Chand & Sons. New Delhi– 02.
3. C.M.Chaudhary, Business Economics - RBSA Publishers - Jaipur - 03.

Reference Books:

1. Francis Cherunilam, Business Environment - Himalaya Publishing House Mumbai – 04.
2. Peter Mitchelson and Andrew Mann, Economics for Business - Thomas Nelson Australia
3. H.L. Ahuja, Business Economics – Micro & Macro - Sultan Chand & Sons – New Delhi – 55.
4. Yogesh Maheswari, Managerial Economics, PHI Learning, Newdelhi, 2005 Gupta G.S.,
5. Managerial Economics, Tata Mcgraw-Hill, New Delhi Moyer &Harris,
6. Geetika, Ghosh & Choudhury, Managerial Economics, Cengage Learning, New Delhi, 2005.
7. Managerial Economics, Tata Mcgraw Hill, New Delhi, 2011.

Course outcomes: At the end of the course, students would be able to:

1	understand the Business systems,the reason for existence of Firms, consumer preference and application of utility analysis and knowing role of business economist.	K1, K2,K3
2	understand and estimate production function, stages of production and forms of production function and laws	K1, K2,K3
3	understand basic concepts of demand and supply and its determinants, the determinants of elasticity and applications of different forecasting techniques.	K1, K2,K3
4	understand cost function, Analysis cost and concepts of relevant costs and revenues.	K1, K2,K3
5	compare and contrast four basic market types,concepts of monopolistic and oligopoly competition and its effect of non-price factors on products and services.	K1, K2,K3
	K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 -Create	

Mapping Outcomes - POs and PSOs

	PO					PSO								Means Score of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	3	3	4	3	4	44/13=3.38
CO-2	4	3	4	3	3	3	3	4	3	3	3	3	4	42/13=3.23
CO-3	3	3	4	3	3	3	4	3	4	3	4	3	3	43/13=3.30
CO-4	4	3	4	3	3	4	3	3	3	4	3	4	4	45/13=3.46
CO-5	3	4	3	4	3	4	4	3	4	3	4	3	4	46/13=3.53 16.90/5=3.38

SEMESTER-II

COURSE CODE	U21CCT21	FINANCIAL ACCOUNTING-II	L	T	P	C
CORE-III			5	-	-	4

Learning objectives:

The main objectives of this course are:

1. To explore various types of partnership accounts
2. To understand the basic concepts of Partnership accounts
3. To offer an idea about insolvency of partnership accounts
4. To promote knowledge about department and branch accounting
5. To facilitate knowledge about hire purchase and installment system of accounting

Unit 1: Hire Purchase System

Hire-purchase and installment purchase system; Meaning of hire-purchase contract; Legal provision regarding hire-purchase contract; Accounting records for goods of substantial sale values, and accounting records for goods of small values; Installment purchase system; After sales service-Accounting procedure – Calculation of interest - Default and Repossession – Installment Purchase System:

Unit 2: Branch and Departmental accounts

Introduction – Meaning – Objectives – Types of Branches - Dependent Branches – Features – Supply of Goods at Cost Price - Invoice Price – Branch Account in the books of Head Office (Debtors System Only)-Goods and cash-in-transit – Inter branch transactions. Departmental accounts – Allocation of expenses – Inter departmental branches.

Unit 3: Partnership firms

Partnership Accounts: Essential characteristics of partnership; Partnership deed; Final accounts; Adjustments after closing the accounts; Fixed and fluctuating capital; Goodwill; Joint Life Policy; Change in Profit Sharing Ratio. Reconstitution of a partnership firm -Amalgamation of partnership firms; Dissolution of a partnership firm -Modes of dissolution of a firm; Accounting entries;

Unit 4: Revaluation of assets and liabilities

Retirement of partner – Calculation of New ratio and gaining ratio – Revaluation of assets and liabilities – Treatment of goodwill – Adjustment of goodwill through capital A/c only – Settlements of accounts-Admission of new partner-Accounting treatment-Adjustment entries. Death of a partner; Accounting treatment-Adjustment entries.

Unit5: Dissolution and Insolvency of partner

Partnership Accounts - Dissolution of firm - Settlement of accounts - accounting treatment for goodwill and unrecorded assets and liabilities - Insolvency of a partner - Garner vs Murray - Fixed and Fluctuating -Capital - all partners insolvency - Gradual realization and Piecemeal distribution - proportionate Capital Method - Maximum loss Method.

Note: Question Paper shall cover 20% Theory and 80% Problem

Text books:

1. S.P. Jain & K.L. Narang, “ Advanced Accounting”, Kalyani publishers New Delhi, Delhi, Volume – I, 18th Revised Edition, 2014.
2. T.S.Reddy and A.Murthy, “ Financial Accounting”, Margam publications, Chennai – 600 017, 7th revised edition 2015.
3. S.P. Jain & K.L. Narang, “ Patnership Accounting”, Kalyani publishers New Delhi

Reference books:

1. Dr. M.A. Arulanandam & Dr. K.S. Raman, “Advanced Accountancy”Himalaya publications, New Delhi, 1st edition 2015.
2. M.C. Shukla, T.S. Grewal & S.C. Gupta, “Advanced accounts”, Sultan & chand publications, New Delhi 2013.
3. R.L. Gupta and Radhasamy, “Advanced accounting” S.Chand & company ltd.,New Delhi, edition 2013.
4. T.S. Grewal,” Introduction to Accountancy”, S.Chand & company Ltd, New Delhi – 2014.
5. P.L. Tulsian – Advanced Accountancy – Tata MC Grow Hill companies.

Course outcomes: At the end of the course, students would be able to:

1	describe the concepts based on depreciation and its methods in books of accounts.	K1
2	outline about the nature of Investment and Royal excluding Sublease.	K2
3	identify the essential characteristics of single entry system.	K3
4	apply the basic concepts of departmental and branch accounting.	K4
5	familiarize the procedure relating to hire purchase and installment in books of accounts	K2
K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 -Create		

Mapping- POs and PSOs

	POS					PSOS								Means Score of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	4	3	4	3	4	43/13=3.30
CO-2	4	3	4	3	3	3	3	4	4	3	3	3	4	44/13=3.38
CO-3	3	3	4	3	3	4	4	4	4	3	4	3	3	46/13=3.53
CO-4	4	3	4	3	4	4	3	4	3	4	3	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	3	3	4	3	4	45/13=3.46
														17.28/5=3.456

COURSE CODE	U21CCP22	PROGRAMMING IN C – LAB	L	T	P	C
CORE IV			-	-	5	4

Learning Objectives:

The objectives of the course are

1. To give an opportunity to learn the basic concepts in C language.
2. To gain working knowledge about C programming language.
3. To know the function of C programming.
4. To impart skills in C programming.

UNIT –I :Introduction to C Language

Introduction to C Language- Importance of C – Structure of C program – C Character set - Identifiers – keywords – Data type – Constants – variables – declarations – expressions – operation – arithmetic operators. Unary operator – Relational and Logical operators – assignment operators – The conditional operators.

UNIT – II: Working with C Language

Storage classes: Automatic, Register. Static and External classes, control structures decision control structure – Loop control structure – case control structure – data input; and output; get char, putchar, scanf, printf, get, puts. (Practical Classes with Steps to be followed)

UNIT –III: Introduction to Array and String

Arrays: Introduction- Meaning- definition- Types of Array – One dimensional array-Two dimensional arrays – multidimensional arrays, Strings- Meaning - strings and string functions, strcpy, strlen, strcat, strcmp. (Practical Classes with Steps to be followed)

UNIT –IV: Functions

Function Philosophy- Function Basics,-Function Prototypes, and Passing Parameters- Passing Parameter by value and Passing Parameter by reference-passing string to function-Passing array to function-Structures and Functions Recursion-Functions –User defined functions –structures and Union.

UNIT –V: Pointers

Basics of Pointers, Pointers and One-dimensional Arrays, Pointer Arithmetic, Pointer Subtraction and Comparison, Similarities between Pointers and One-dimensional Arrays. Pointer, file management in C – Defining and opening a file – closing file – I/O operation file – Error handling – command line argument.

List of Programs:

1. Write a C program to find the sum and average of two numbers.
2. Write a C program to find the sum of first 10 even numbers.
3. Write a C program to check whether the given number is a Perfect number or not.
4. Write a C program to check whether the given number is Armstrong or not.
5. Write a C program to check whether a number is Prime or not.
6. Write a C program to display the factorial of a given number using for loop.
7. Write a C program to calculate simple interest.
8. Write a C program for String Manipulation using Switch case.
9. Write a C program to find the largest element in a given array of elements.
10. Write a C program to demonstrate any 5 mathematical functions.
11. Write a C program to swap two numbers using call-by-reference method.
12. Write a C program to accept and display the details of an employee using structures.
13. Write a C program to display length of a string using pointers.
14. Write a C program to find the area and circumference of a circle
15. Write a program to accept Employee Name, Designation, Basic Salary compute and display Payslip in the following format.

Payslip

Name	:	XXX
Designation	:	XXX
Basic	:	XXX
HRA	:	XXX
DA	:	XXX
CA	:	XXX
Gross Salary	:	XXX
PF	:	XXX
ESI	:	XXX
Net Salary	:	XXX

Where HRA is 20% on Basic Salary, DA is 50% on Basic Salary, CA is 10% on Basic Salary, PF is 12% on Basic Salary and ESI is 5% on Basic Salary.

Text Book

1. E. Balagurusamy, "programming in ANSIC", Six Edition, Tata MC Hill Publishing Companion, 2002

Reference Books

1. Yashavanth kanetkar," Let us C", Edition 17 BPB Publications 2020.
2. M.G.Venkateshmoorthy, "Programming Techniques through C a Beginners" companion PersonEducation, New Delhi, 2002.
3. S.S. Khandare,"programming in C & C++", Chanda & Company & Ltd, New Delhi. 2002.

NOTE: 100% Practical.

Course outcomes: At the end of the course, students would be able to:

1	explain about C programming languages.	K1, K2,K3
2	design the solution for the given problem.	K1, K2,K3
3	write the code for the given problem.	K1, K2,K3
4	understand the use of arrays and pointers in C.	K1, K2,K3
5	write the C program for simple applications of real life problem using structures and unions.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- POs, and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS	
	1	2	3	4	5	1	2	3	4	5	6	7	8		
CO-1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	52/13=4
CO-2	4	4	3	3	4	4	4	4	4	4	3	4	4	4	49/13=3.77
CO-3	4	4	4	4	4	4	3	3	4	4	3	4	5	5	50/13=3.85
CO-4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	65/13=5
CO-5	4	4	4	4	4	4	4	4	4	3	4	4	4	4	51/13=3.92
															20.54/5=4.108

COURSE CODE	U21CCA22	BUSINESS COMMUNICATION	L	T	P	C
ALLIED – II			5	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To provide information on effective business communication and techniques to respond to business queries.
2. To provide knowledge about banking correspondence and company secretarial correspondence.

Unit 1: Business Communication Concepts

Business Communication: Meaning – Objectives – Media – Barriers - Importance of Effective Business Communication- Modern Communication Methods - Business Letters: Need - Functions - Kinds - Essentials of Effective Business Letters - Layout-Barriers to Communication, the Importance of Communication in the Workplace.

Unit 2: Business Correspondence

Business Correspondence : Enquiries - Replies - offers and quotations - Orders and their Execution - Credit and Status Enquiries - Meaning - Trade and bank references - Acknowledgment letters.-Sales letters.-Complaints and Adjustments - Collection Letters - How to write effective Collection letters - Sales Letters - Circular Letters.

Unit 3: Banking Correspondence

Banking Correspondence - Introduction - correspondence with customer, Head office – Insurance Correspondence –Life insurance- Fire insurance - Marine insurance - Agency Correspondence. Letters exchanged between two individual banks-Credit, Financial or Status Inquiries

Unit 4: Company Secretarial Correspondence

Company Secretarial Correspondence - With the Directors-With the Shareholders-With the Office Staff -With the Registrar of companies Agenda, Minutes and Report Writing- Types- Characteristics of good Report- Report of individuals.

Unit 5: Methods of Communication

Application for Jobs: Preparation of resume- Interviews- Meaning- types of Interview- Candidates preparing for an interview- guidelines to be observed during an interview- Business Report Presentations. Strategic Importance of E-Communication. Email, Text Messaging, Slide or Visual Presentation - Internet - Video conferencing - Group Discussion – Social Networking.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Rajendra Pal, J.S. Korahilli, Essentials of Business Communication, Sultan Chand & Sons, New Delhi.
2. N.S.Raghunathan & B.Santhanam, Business Communication, Margham Publications, Chennai.
3. R.S.N.Pillai and Bhagavathi.S, Commercial Correspondence, Chand Publications, New Delhi.

Reference Books:

1. M.S. Ramesh and R.Pattenshetty, Effective Business English and Correspondence, S.Chand & Co, Publishers, New Delhi-2.
2. V.R. Palanivelu & N. Subburaj, Business Communication, Himalaya Publishing Pvt. Ltd, Mumbai.
3. Sathya Swaroop Debasish, Bhagaban Das, Business Communication, PHI Learning Pvt. Ltd., New Delhi, 2010 Edition.
4. Communication conquer: Pushpalatha & Kumar, A Handbook of group discussion and Job Interview, PHI Learning Publisher.
5. Lesikar, R.V. & Flatley, M.E. Basic Business Communication Skills for Empowering Internet Generation, Tata Mc Graw Hill Publishing Company Ltd, New Delhi.

Course outcomes: At the end of the course, students would be able to:

1	outline the importance of effective business communication	K2
2	understand the intricacies of responding to business related queries	K2
3	categorize effective correspondence with banks, insurance and agencies	K3
4	examine effective responses to company secretarial correspondence	K4
5	analyze new innovative and effective ideas for business communication	K4
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5 -Evaluate; K6 -Create		

Mapping Outcomes –POs and PSOs

	POS					PSOS								Means Score of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	4	3	4	3	3	4	4	4	48/13=3.69
CO-2	4	3	4	3	3	3	3	4	3	3	3	3	4	42/13=3.29
CO-3	4	3	4	4	4	3	4	4	4	3	4	4	3	48/13=3.69
CO-4	4	3	4	4	3	4	3	3	3	4	4	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	4	3	4	3	4	46/13=3.53
														17.81/5=3.562

SEMESTER III

COURSE CODE	U21CCT31	BUSINESS STATISTICS	L	T	P	C
CORE -V			5	-	-	4

Learning Objectives:

The objectives of the course are

1. To promote the skill of applying statistical techniques in business by enabling the students to apply the statistical tools in analysis and interpretation of data.
2. To understand the various measures of dispersion as Range, Quartile deviation and skewness.
3. To understand the practical knowledge on Correlation and Regression.

Unit 1: Introduction and Measures of Central Tendency

Introduction and Measures of Central Tendency: Introduction – Collection and Tabulation of Statistical data – Frequency Distribution – Measure of Central Tendency – Mean, Median, Mode, Harmonic Mean and Geometric Mean, Combined Mean.

Unit 2: Measures of Dispersion

Measures of Dispersion: Measures of Dispersion – Range – Quartile Deviation – Mean Deviation – Standard Deviation and their Co-efficient. Measure of Skewness – Karl Pearson and Bowley's Co-efficient of skewness.

Unit 3: Correlation and Regression

Correlation and Regression: Correlation – Types of Correlation – Measures of Correlation - Karl Pearson's Co-efficient of Correlation – Spearman Rank Correlation Co-efficient. Simple regression analysis – Regression equation, Fitting of Regression lines – Relationship between Regression Co-efficient and Correlation Co-efficient.

Unit 4: Index Numbers

Index Numbers: Index Number, Definition of Index Numbers, Uses – Problems in the construction of index numbers, Simple and Weighted index numbers. Chain and Fixed base index – Cost of living index numbers.

Unit 5: Analysis of Time Series

Analysis of Time Series: Analysis of Time Series – Definition – Components of Time Series, Uses, Measures of Secular Trend, Measure of Seasonal Variation. Method of simple average only. Indian Statistics – Birth and Death rates – Crude, Correlated and Standardized – Methods of Economic survey, preparation of schedules and questionnaires.

Note: Question Paper shall cover 20% Theory and 80% Problem

Text Books:

1. P.A. Navaneethan, Business Statistics, Jai Publishers, Trichy-21.
2. Wilson. M, Business Statistics, Himalaya Publishing House Pvt Ltd., Mumbai.
3. Pillai, RSN and V. Bagavathi, Statistics, S. Chand & Company Ltd., New Delhi, 2010.

Reference Books:

1. S.P.Gupta, Statistical Methods, Sultan Chand & Sons, New Delhi.
2. S.P. Rajagopalan & Sattanathan, Business Statistics, Vijay Nicole Imprints Pvt. Ltd, Chennai-91.
3. D.C.Sanchati and V.K.Kapoor, Statistics, Sultan Chand & Sons, New Delhi.
4. S.C. Gupta & V.K.Kapoor, Fundamentals of Mathematical Statistics, S.Chand & Sons, New Delhi, 2009.
5. S.P.Gupta & M.P.Gupta, Business Statistics, Sultan Chand & Sons, New Delhi.

Course outcomes: At the end of the course, students would be able to:

1	acquire knowledge about averages to be used in Business Research	K1, K2,K3
2	gain knowledge about Standard Deviation, Skewness.	K1, K2,K3
3	gain knowledge about the application of Correlation and Regression	K1, K2,K3
4	get an in depth knowledge about Index Numbers	K1, K2,K3
5	acquire knowledge in Measures of Trend and its application in Business Research.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- POs and PSOs

	POS					PSOS								Means Score of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	3	4	3	3	3	4	4	3	3	4	4	46/13=3.53
CO-2	4	3	4	4	3	3	4	4	3	3	3	3	4	48/13=3.69
CO-3	4	3	4	4	4	4	4	4	4	3	4	4	3	49/13=3.76
CO-4	4	3	4	4	4	4	3	3	4	4	4	4	4	49/13=3.76
CO-5	4	4	3	3	4	4	4	3	3	4	3	4	3	46/13=3.53
														18.27/5=3.654

COURSE CODE	U21CCA33	VISUAL BASIC PROGRAMMING LAB	L	T	P	C
ALLIED III			-	-	5	4

Learning objectives:

The learning objectives of the course are

1. To know about the Visual Programming and its applications
2. To have practical knowledge on Visual Programming
3. To understand the tools available in Visual Programming

Unit I: Introduction to Visual basic Programming

Introduction to Visual Basic- Meaning- Definitions- Concepts of Visual Basic- Requirement of Visual Basics- Characteristics of Visual Basics - 6.0-Advantages of Visual Basics –starting Visual Basics- Working procedure with Visual Basics

Unit II: Integrated Development Environment

Introduction to Integrated Development Environment- Meaning- Definitions- Menu bar Concepts- Toolbar- Concepts- Toolbox-Properties . Working with Tool Bar window-Project Explorer window-Coding Environment-Compiling the Program.

Unit III: Control and their Properties

Controls-textbox-label button-frames-image box-picture box-difference between option button & check box-list box-combo box-timer control. VB components-Rich Text box-Common Dialog control-calendar control-slider-progress bar-status bar.

Unit IV: Designing User Interface

Introduction to Designing user Interfaces- Meaning- Characteristics - Menus- Options- Usages of Menu Bar- Navigation -Options - Working with Navigation from one file to another Toolbars & Tab strips usages .Practical classes.

Unit V: Connecting to Database

Introduction to Connecting to Databases Meaning of -Data Access Object, Remote Data Object, Active X Data Object Working with DAO, RDO, ADO -generating Reports. Software usage and support .Comparison of ADO and ADO NET

List of Programs

1. Simple Arithmetic Operator (+, -, *, /) Using text command boxes.
2. Manipulation of string and data functions
3. Designing calculator
4. Design a Form to display the list of products by using list box control
5. Design a form for a Food Menu that is available in hotel using option buttons (Radio/Check Box).
6. Using file, directory and drive list boxes to load a text file into a rich text box.
7. Display a pop up menu in the form when you click the right mouse button

8. Design a Form to compare the yearly sales of two Departmental Stores using Line and Chart Controls by declaring variables.
9. Use graphical function to draw a picture and save it
10. Design a form to display the stock monitoring system using VB with any end
11. Design a form to create a database for 10 Customers using DAO control
12. Design a form to display the Inventory control, record using any data objects.
13. Design an Employee Payroll using ADO Control
14. Design a form to Create a E-Billing System using ODBC
15. Design a form to create a database for 10 customers and generating Report.

Text Book

1. Neol Jereke ,”The Complete reference Visual Basic 6”, Tata MC-Hill Publications new Delhi,2001

Reference Book

1. GaGawSahoo,”Visual Basic Projects”, 2nd edition-2013.

Note: 100% Practical

Course outcomes: At the end of the course, students would be able to:

1	demonstrate proficiency in program design.	K1, K2,K3
2	design, create, build, and debug Visual Basic applications.	K1, K2,K3
3	explore Visual Basic,,s Integrated Development Environment (IDE).	K1, K2,K3
4	write and apply loop structures to perform repetitive tasks.	K1, K2,K3
5	write and apply procedures, sub-procedures, and functions to create manageable code.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping: POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	5	3	5	5	4	4	5	55/13=4.23
CO-2	4	4	4	4	4	5	4	5	4	5	5	4	4	56/13=4.31
CO-3	4	4	4	4	4	4	4	4	4	5	4	5	4	54/13=4.15
CO-4	4	4	4	4	4	4	4	3	4	4	3	4	5	51/13=3.92
CO-5	4	3	4	4	4	4	4	4	5	4	5	4	5	54/13=4.15

COURSE CODE	U21CCE311	CHOICE - I	L	T	P	C
ELECTIVE –I		COMPUTER NETWORKS	4	-	-	3

Learning Objectives:

The objectives of the course are

1. To understand the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model.
2. To gain core knowledge of Application layer, Presentation layer, Session layer, Transport layer, Network layer, data link layer and Physical layer.

UNIT – I : Introduction to Computer Networks

Introduction: Uses of Computer Networks - Introduction - Meaning- objectives Network Hardware – Local Area Network (LAN), Metropolitan Area Network (MAN) and Wide Area Network (WAN)Network Software - Reference Models- Example Networks.

UNIT – II : Physical Layer

Physical Layer: Introduction- Meaning - The Theoretical Basis For Data Communication - Guided Transmission media - Wireless Transmission - Communication Satellites- Public Switched Telephone Network- The Mobile Telephone System

UNIT – III:Data Link Layer

Data Link Layer: Introduction- Meaning - Data Link Layer Design Issues - Error Detection and Correction – Elementary data link protocols - Sliding Window Protocols – Example of Data Link Protocols, Practical Application.

UNIT – IV: Network Layer

Network Layer:Introduction- Meaning Network Layer Design Issues- Routing Algorithms- Congestion Control Algorithms- Quality of Service –Internetworking. Transport Layer: Transport Services – Elements of transport protocols – Performance issues.

UNIT – V: Application Layers and Network Security

Application layers: Introduction - Meaning- Domain name system – Electric mail – The World Wide Web. and HTTPS. Network security: Introduction -Meaning - Cryptography- Symmetric-Key algorithms- Public-Key algorithms – Digital signature.

Text Book:

1. Andrew S.Tanenbaum, David J.Wetherall, "Computer Networks", Fifth edition, Pearson Education, 2011

Reference Book:

1. Behrouz A. Forouzan, Firouz Mosharraf,"Computer Networks", 1st Edition, 2011.

NOTE: Question paper shall cover 100% Theory.

Course outcomes: At the end of the course, students would be able to:

1	describe the functions of each layer in OSI and TCP/IP model.	K1, K2,K3
2	explain the functions of Application layer and Presentation layer paradigms and Protocols	K1, K2,K3
3	describe the Session layer design issues and Transport layer services.	K1, K2,K3
4	classify the routing protocols and analyze how to assign the IP addresses for the given network.	K1, K2,K3
5	describe the functions of data link layer and explain the protocols.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	3	5	4	4	4	4	4	3	4	4	3	50/13=3.85
CO-2	4	4	3	4	3	4	5	3	3	4	4	3	4	48/13=3.69
CO-3	3	4	3	3	4	3	3	3	3	4	3	3	4	43/13=3.31
CO-4	4	4	3	4	3	4	4	3	3	4	4	4	4	48/13=3.69
CO-5	4	4	3	4	3	4	4	4	3	4	4	3	3	47/13=3.61
														18.15/5=3.63

COURSE CODE	U21CCE312	CHOICE - II	L	T	P	C
ELECTIVE –I		TRAINING AND DEVELOPMENT	4	-	-	3

Learning Objectives:

The main objectives are

1. To equip the learners with the concept and practice of Training and Development in the modern organizational setting through the pedagogy of case discussions and recent experiences.
2. To understand the concepts and various types of analysis in Training
3. To understand the various evaluation techniques in Training and Development

Unit 1:Introduction to Training and Development

Introduction Concepts and Rationale of Training and Development; overview of training and development systems; organizing training department; training and development policies; linking training and development to company's strategy; Requisites of Effective Training; Role of External agencies in Training and Development.

Unit 2:Training Need Analysis

Training Need Analysis (TNA) Meaning and purpose of TNA, TNA at different levels, Approaches for TNA, output of TNA, methods used in TNA.

Unit 3: Training and Development Methodologies

Training and Development Methodologies Overview of Training Methodologies- Skills of an Effective Trainer; Use of Audio-Visual Aids in training; Computer Aided Instructions- Distance Learning, Open Learning, E- Learning; Technologies Convergence and Multimedia Environment. Development Techniques for enhancing decision-making and interpersonal skills, Demonstration and Practice Monitoring; Coaching; Self Diagnostic Skills, Experience Learning, Discovery Learning, Brainstorming, Counseling, Position Rotation, Team Building, and Sensitivity Training.

Unit 4:Designing Training & Development Programme

Designing Training & Development Programme Organization of Training and Development programmes, Training design, kinds of training and development programmes- competence based and role-based training; orientation and socialization; diversity training, choice of training and development methods, Preparation of trainers; developing training materials; E-learning environment; Flexible learning modules; Self development; Training process outsourcing.

Unit 5:Evaluation of Training and Development

Evaluation of Training and Development Reasons for evaluating Training and development programmes, Problems in evaluation; Evaluation planning and data collection, different

evaluation frameworks, Problems of Measurement and Evaluation; Costing of training, measuring costs and benefits of training programmes, obtaining feedback of trainees; Methods of evaluating effectiveness of Training Efforts; Kirkpatrick Model of Training Effectiveness; Training issues resulting from the external environment and internal needs of the company.

Note: Question Paper shall cover 100% Theory

Text Book:

1. Sharma, D., & Kaushik, S. (2019). Training & Development. New Delhi: JSR Publishing House.

Reference Books:

2. Blanchard, N. P., & Thacker, J. W. (2012). Effective Training: Systems, Strategies and Practices, 4 th Edition. New York: Pearson Education.
3. Noe, R. A., & Kodwani, A. D. (2018). Employee Training and Development, 7th Edition. New York: McGraw Hill Education.
4. Lynton, R. P., & Pareek, U. (2011). Training for Development. New Delhi: SAGE India.
5. Phillips, J. J., & Phillips, P. P. (2016). Handbook of Training Evaluation and Measurement Methods. Houston: Gulf Publishing Co.
6. Prior, J. (1991). Handbook of Training and Development. Mumbai: Jaico Publishing House.

Course outcomes: At the end of the course, students would be able to:

1	analyse the training strategies adopted by companies in real situations	K1, K2,K3
2	identify training needs of an individual by conducting Training Need Analysis	K1, K2,K3
3	differentiate between the applicability of various training strategies and select a strategy based upon the result of TNA	K1, K2,K3
4	develop a training and development module	K1, K2,K3
5	evaluate and assess the cost and benefits of a training and development programme.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- POs and PSOs

	POS					PSOS								
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	3	3	4	3	4	$44/13=3.38$
CO-2	4	3	4	3	3	3	3	4	3	3	3	3	4	$42/13=3.23$
CO-3	3	3	4	3	3	3	4	3	4	3	4	3	3	$43/13=3.30$
CO-4	4	3	4	3	3	4	3	3	3	4	3	4	4	$45/13=3.46$
CO-5	3	4	3	4	3	4	4	3	4	3	4	3	4	$46/13=3.53$ $16.90/5=3.38$

COURSE CODE	U21CCE313	CHOICE - III	L	T	P	C
ELECTIVE –I		BUSINESS INTELLIGENCE STRATEGIES AND PROCESS	4	-	-	3

Learning Objectives:

The objectives of the course are

- To understand basic concepts of business intelligence and its frame work
- To formulate strategies in relation to business performance measurement
- To gain an insight into the text and web designing

Unit I: Introduction to Business Intelligence

Introduction - Meaning of Business Intelligence – Framework for Business Intelligence- Importance of Business Intelligence- Objectives of Business Intelligence - Creation- Transaction Processing Vs analytical Processing – Major Tools and Techniques of Business Intelligence.Process of Business Intelligence

Unit II :Business Performance Management

Introduction to Business Performance Management- Meaning- Definitions – Strategies – Plan – Monitor –Performance Measurement – Meaning - Techniques to Performance Measurement - Business Process Management Methodologies – Performance of Dashboards and Scorecards.

Unit III: Text and Web Mining

Introduction to Text and Web mining - Meaning- Definitions – Concepts and Definition – Language processing.- Text Mining applications- Text Mining Tools – text mining process – text mining techniques – web mining and web structure mining – web usage mining. Difference between Web Mining and Web Structure Mining

UnitIV :Business Intelligence and Implementation

Introduction to Business Intelligence Implementation – Importance of Busienss Intelligence Implementation - Procedure in BI Implementation- Implementation of Business Intelligence and Integration Implementation – Connecting Business Intelligence systems to Databases and other enterprise systems.

Unit V : Business Intelligence Issues

On Demand Business Intelligence – Issues of Legality, Privacy and Ethics-Emerging Topics in Business Intelligence- the Web 2.0 revolution- On line social networking-virtual worlds-social networks and Business Intelligence-collaborative decision making-RFID and new Business Intelligence application opportunities – reality mining.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Efraim Turban, Ramesh Sharda, Dursun Delen and David King 2017, Business Intelligence Prentice Hall, New Delhi
2. Stuart Russel and Peter Norvig 2017, Artificial Intelligence: A Modern Approach, Prentice Hall, New Delhi
3. Galit Shmueli, Nitin R. Patel and Peter C. Bruce 2017, Data Mining for Business Intelligence, Wiley- India Pvt Ltd, New Delhi.

Reference Books:

1. Cindi Howson, 2017, Successful Business Intelligence, McGraw Hill, New Delhi.
2. Grossmann, Wilfried, Rinderie-ma Stefanie 2017, Fundamentals of Business Intelligence For Dummies, London
3. Rausch, Peter Sheta Alaa Fayesh 2017, Business Intelligence and Performance management Berrett Koehler, London

Course Outcomes

Upon the completion of the course, the students will be able to

1	understand the conceptual frame work of business intelligence	K1, K2, K3
2	formulate strategies in relation to business performance measurement	K1, K2, K3
3	appreciate the importance of text and web mining data	K1, K2, K3
4	analyze and apply various business intelligence methods	K1, K2, K3
5	tackle the issues in business intelligence	K1, K2, K3

Mapping: POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	5	3	5	5	4	4	5	55/13=4.23
CO-2	4	4	4	4	4	5	4	5	4	5	5	4	4	56/13=4.31
CO-3	4	4	4	4	4	4	4	4	4	5	4	5	4	54/13=4.15
CO-4	4	4	4	4	4	4	4	3	4	4	3	4	5	51/13=3.92
CO-5	4	3	4	4	4	4	4	4	5	4	5	4	5	54/13=4.15

20.76/5=4.15

COURSE CODE	U21CSS31	SBE-I	L	T	P	C
SBE-1		COMPUTER SKILLS FOR OFFICE MANAGEMENT	2	-	-	2

Learning Objectives:

- To understand the basic computer knowledge
- To enable the students to appreciate the practical details of computer.
- To gain knowledge with multi tasking objectives
- To gain basic technical skills
- To plan a Database, Starting Access, Access Screen, Creating a New Database

Unit-1 Introduction to Operating System

Introduction to Operating System- Meaning- Definitions- Objectives Importance of Operating System-Functions of Operating System - Types of OS: Single user, Multi-User, multi-task, RTOS, Single-user, Multi-tasking – Windows Desk top -

Unit-2: Introduction to Office - Open Office – Writer

Word - Working with Documents--Open Office writer-formatting Documents-Creating Tables-Table settings, Borders, Alignments, Insertion, deletion, Merging, Splitting, Sorting, and Formula, Insertion of Objects: Equation Editor, Organizational Chart, Drawing - Inserting ClipArts, Pictures/Files etc., Tools – Word Completion, Spell Checks, Mail merge, Templates, – Shortcut keys

Unit-3: Introduction to Excel

Spread Sheet & its Applications, Opening Spreadsheet, Menus - main menu, Formula Editing, Formatting, Toolbars, Using Icons, Using help, Shortcuts, Spreadsheet types. Working with Spreadsheets- Formatting Spreadsheets-OpenOffice-Calc - Introduction – Introduction to Spreadsheets, Overview of a Worksheet, Creating Worksheet & Workbooks, Organizing files, Managing files & workbooks, Functions & Formulas, Working with Multiple sheets.

Unit-4 Introduction to Access and Power point

Access: Introduction, Planning a Database, Starting Access, Access Screen, Creating a New Database, Creating Tables, Working with Forms, Creating queries, Finding Information in Databases, Creating Reports, Types of Reports- Power point: Introduction to presentation – Opening new presentation, Different presentation templates, Setting backgrounds, Selecting presentation layouts. Creating a presentation - Setting Presentation style

Unit-5 Internet and advanced Communication

Internet and Web Browsers-internet browsing, searching - Search Engines - Portals - Social Networking sites- Blogs - viewing a webpage, downloading and uploading the website; Creating an email-ID, e-mail reading, saving, printing, forwarding and deleting the mails, checking the

mails, viewing and running file attachments, addressing with cc and bcc-Introduction to various devices & Applications: Other than the computers, (electronic gadgets), which are widely using by executives in the Offices.

Text Books:

1. Alex K., Managerial Skills, S. Chand, 2013
2. Stuart Russel and Peter Norvig 2017, Artificial Intelligence: A Modern Approach, Prentice Hall, New Delhi

Reference Books:

1. Sathish Jain, M.Geetha, Karthika, “MS-Office 2010 – Training Guide”, BPB Publications, 2010.
2. Bittu Kumar, “Mastering MS-Office: Computer Skill Development: be Future Ready”, BPB Publications, 2017.

Note: 100% Practical

Course outcome: At the end of the course, students would be able to:

Number	Course outcome	Knowledge Level (According to Bloom’s Taxonomy)
CO 1	Recall the Fundamentals of office automation and MS word preparation	K1, K2,K3
CO 2	Identify the components of Microsoft Word	K1, K2,K3
CO 3	Explain the procedure on Microsoft Excel short-cut keys	K1, K2,K3
CO 4	Explain the procedure on Microsoft Access short-cut keys	K1, K2,K3
CO 5	Identify the components of Microsoft Access	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- PEOS AND POS, PSO

Semester III	Code U21CSS31					SBE I - COMPUTER SKILLS FOR OFFICE MANAGEMENT								Hours	Credits
Course Outcomes (COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS	
	P O 1	P O 2	P O 3	P O 4	P O 5	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PS O8		
CO-1	4	4	3	3	4	4	4	4	4	4	3	4	4	49/13=3.77	
CO-2	4	4	4	4	4	4	3	3	4	4	3	4	5	50/13=3.85	
CO-3	4	4	4	4	4	4	4	4	4	4	4	4	4	52/13=4	
CO-4	4	4	4	4	4	4	4	4	4	3	4	4	4	51/13=3.92	
CO-5	5	5	5	5	5	5	5	5	5	5	5	5	5	65/13=5	

20.54/5=4.108

NON MAJOR ELECTIVE

COURSE CODE	U21CCN31	PERSONAL FINANCE AND PLANNING (PRACTICAL)	L	T	P	C
NME –I				-	-	2

Learning Objectives:

The course aims to familiarize learners with different aspects of financial planning like savings, investment, taxation, insurance, and retirement planning and to develop the necessary knowledge and skills for effective financial planning.

Unit 1: Introduction to Financial Planning

Financial goals, Time value of money, steps in financial planning, personal finance/loans, education loan, car loan & home loan schemes. Introduction to savings, benefits of savings, management of spending & financial discipline, Net banking and UPI, digital wallets, security and precautions against online frauds.

Unit 2: Investment planning

Process and objectives of investment, Concept and measurement of return & risk for various assets class, Measurement of portfolio risk and return, Diversification & Portfolio formation. Gold Bond; Real estate; Investment in Greenfield and brownfield Projects; Investment in fixed income instruments- financial derivatives & Commodity market in India. Mutual fund schemes.

Unit 3: Personal Tax Planning

Tax Structure in India for personal taxation, Scope of Personal tax planning, Exemptions and deductions available to individuals under different heads of income and gross total income. Comparison of benefits - Special provision u/s 115BAC vis-à-vis General provisions of the Income-tax Act, 1961, tax avoidance versus tax evasion.

Unit 4: Insurance Planning

Need for Protection planning. Risk of mortality, health, disability and property. Importance of Insurance: life and non-life insurance schemes. Deductions available under the Income-tax Act for premium paid for different policies.

Unit 5: Retirement Benefits Planning

Retirement Planning Goals, Process of retirement planning, Pension plans available in India, New Pension Scheme. Exemption available under the Income-tax Act, 1961 for retirement benefits.

Note: Question Paper shall cover 100% Practical

Practical Exercises: The learners are required to:

1. Prepare a family budget with sources of income and expected expenditures including savings
2. Perform electronic fund transfer through net-banking and UPI.
3. Identify certain investment patterns and prepare an Investment portfolio statement.
4. Prepare a tax statement for a salaried employee.
5. Prepare a statement showing the various schemes of insurance.

Text Books:

1. Indian Institute of Banking & Finance. Introduction to Financial Planning. New Delhi: Taxmann Publication. (2017).
2. Pandit, A. The Only Financial Planning Book that You Will Ever Need. Mumbai: Network 18 Publications Ltd. (2014).
3. Sinha, M. Financial Planning: A Ready Reckoner. New York: McGraw Hill Education. (2008).

Reference Books:

1. Halan, M. Let's Talk Money: You've Worked Hard for It, Now Make It Work for You. New York: HarperCollins Publishers. (2018).
2. Tripathi, V. Fundamentals of Investment. New Delhi: Taxmann Publication. (2017).

Course Outcomes

Upon the completion of the course, the students will be able to

1	prepare themselves for personal finance	K1, K2,K3
2	identify financial sources and better utilization of investment avenues.	K1, K2,K3
3	plan for taxation and reduction of tax	K1, K2,K3
4	have thorough Knowledge on Insurance planning	K1, K2,K3
5	understand Retirement benefits and planning - Practical knowledge	K1, K2,K3

Mapping: POs and PSOs

Course Outcomes (COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	3	4	3	3	3	3	3	4	3	3	3	43/13=3.31
CO-2	4	3	4	3	4	3	4	3	4	3	4	3	4	46/13=3.54
CO-3	4	4	4	4	3	3	4	3	3	3	4	3	3	45/13=3.46
CO-4	4	4	3	4	3	3	3	3	3	3	3	3	3	42/13=3.23
CO-5	4	4	3	4	3	3	4	3	3	3	3	4	3	44/13=3.38

16.92/5=3.38

SEMESTER IV

COURSE CODE	U21CCT41	COST ACCOUNTING	L	T	P	C
CORE-VI			4	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the concept and various components of costing
2. To assist preparation of accounts under process costing
3. To familiarize with the techniques of operating costing

Unit 1: Cost accounting Concept

Meaning, Objectives, Importance and Uses of Cost Accounting, Functions of Cost Accounting Department in an Organization, Difference between Cost Accounting and Financial Accounting; Various Elements of Cost and Classification of Cost; Cost object, Cost unit, Cost driver, Cost reduction and Cost control; Limitations of Cost Accounting; **Cost Sheet:** Meaning and Cost heads in a Cost Sheet, Presentation of Cost Information in Cost Sheet / Statement - Problems on Cost Sheet, Tenders and Quotations

Unit 2: Material Control

Procedure for procurement of materials and documentation involved in procurement of materials – (Bill of materials, Material requisition note, Purchase requisition note, Purchase order, Goods received note); Inventory Control: Inventory control techniques and determination of various stock levels – Problems on level setting and computation of EOQ; ABC Analysis, FSN Inventory, VED Inventory, HML Inventory, Physical Control- KANBAN, JIT Inventory Management Technique, Perpetual Inventory system (Concepts only)

Unit 3: Labour Costing

Labour: System of wage payment – Idle time – Control over idle time – Labour turnover. Overhead – classification of overhead – allocation and absorption of overhead. Labour Cost: Meaning, Components, Classification and Importance of Employee (Labour) Cost in Organization; Methods of Remuneration (Payment of Wages and Incentives) Labour Turnover – Meaning, Reasons and Effects of LTO/ETO.

Unit 4: Process costing

Process costing – Features of process costing – Distinction between job costing and process costing - process losses, wastage, scrap, normal process loss – abnormal loss, abnormal gain. (Excluding inter process profits and equivalent production).-Valuation of Work-in-progress

Unit 5: Operating Costing

Operating Costing – Contract costing – Reconciliation of Cost and Financial accounts-Contract Costing: Contract Costing - Definition, Features, Work Certified and Un certified - Incomplete Contract - Escalation Clause - Cost Plus Contract - Contract Account.

Note: Question Paper shall cover 20% Theory and 80% Problem

Text books:

1. S.P. Jain and K.L. Narang, “Cost Accounting”, Kalyani publications. New Delhi. Edn. 2011
2. R.S.N. Pillai and V. Bhagavathi, “Cost Accounting”, S chand and company ltd., New Delhi. Edn. 2004.
3. T.S. Reddy and Dr. Y. Hari prasad reddy, “Cost Accounting”, Margam publications, Chennai –600 017, 7th Revised Edition 2009.

Reference books:

1. S.P. Iyyengar, “Cost Accounting principles and practice”, Sultan chand, New Delhi. 2005
2. V.K. Saxena & C.D. Vashist, “Cost Accounting”, Sultan chand, New Delhi 2005
3. M.N. Arora, “Cost Accounting”, Sultan chand, New Delhi. 2005.
4. B.S. Kanna, I.M. Pandey, G.K. Ahuja, M.N. Arora, Practical costing, sultan chand & sons. Edition 2009.
5. Bhattacharya “Principles and practices of Cost Accounting” PHI Publications, Third Edition – 2010.

Course outcomes: At the end of the course, students would be able to:

1	recall various concepts of costing and costing methods	K1
2	analyze the various elements of costing	K4
3	explain the labour wage payment system	K2
4	outline the cost under process costing system	K2
5	examine about operational costing, contract costing and Reconciliation of Cost and Financial Statements.	K4
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5 -Evaluate; K6 -Create		

Mapping-POs and PSOs

	POS					PSOS								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	4	3	4	3	4	43/13=3.30
CO-2	4	3	4	3	3	3	3	4	4	3	3	3	4	44/13=3.38
CO-3	3	3	4	3	3	4	4	4	4	3	4	3	3	46/13=3.53
CO-4	4	3	4	3	4	4	3	4	3	4	3	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	3	3	4	3	4	45/13=3.46 17.28/5=3.45 6

COURSE CODE	U21CCP43	RELATIONAL DATABASE MANAGEMENT SYSTEM LAB	L	T	P	C
CORE VII			-	-	4	4

Learning Objectives:

The objectives of the course are to

1. Enable the students to learn about the basic data base operations and processes.
2. Understand the Architectural Concept, Structural Embedded QL, Hierarchical Approach and Network Concept.
3. Understand the relation approach and its key relation algebra.
4. Provide a detailed knowledge on hierarchical approach for knowing the detailed description of the data.
5. Make the students to understand embedded SQL

Unit 1: Data, Information And Information Processing

Introduction-Definition of information-Quality of information-Information Processing. Introduction To Data Base Management Systems (DBMS)-Introduction-Why a database?-Characteristics of data in a database-Database management system-Why DBMS?-Type of database management systems-Hierarchical model-Network model-Relational model

Unit 2: Data Structure

Introduction to Data Structure- Meaning of Data -Data definition-Basic structure of SQL Queries-SQL data types and data schemes-Built-in Data. SQL- Meaning types in SQL-User defined data types-Large object types-Integrity constraints.

Unit 3:Entity- Relationship (E-R) modeling

Entity- Relationship (E-R) modeling- Introduction-E-R model- components of an E-R model- E-R modeling symbols. RDBMS Terminology – The relational data integrity – Relational Data Manipulation- Codd,,s Rules- Tables, views – Indexes –Nulls, Tables, Views – Indexes – Nulls- Queries and Sub Queries – Aggregate Functions – Joins and Unions.

Unit 4:PL/SQL Blocks

PL/SQL Blocks – PL/SQL Architecture- PL/SQL variables – PL/SQL data types – Control Structures – Cursors – PL/SQL Exceptions – PL/SQL Triggers – Types of Triggers – Procedures and packages.

Unit 5:File Organization And File Structure

Introduction-Operations on file-File storage organization-Storage media-File structure-Record types. DATA NORMALISATION- Introduction- First normal form- Second normal form – Third normal form - Boyce - Codd normal form - Fourth normal form- Fifth normal form.

Lab List:

1. DDL COMMANDS

Create a library database/table with the following fields: SNO, ACCNO, TITLE, AUTHOR, PUBLISHER, PUBYEAR, EDITION, RATE, NOC, PUBADDR AND ISBN.

- ❖ Clear the screen
- ❖ Show the structure of the library database/table
- ❖ Add the new field PURDATE to the library table
- ❖ Modify the size of the field rate in the library database.
- ❖ Delete the library table.
- ❖ Check the existence of the table.

2. DML COMMANDS

- ❖ Insert 5 rows into the library table
- ❖ Display all the records of the library table
- ❖ Display only the book titles and authors for all the books.
- ❖ Display the name and author of all the books which published in the year 2005.
- ❖ Change the rate of the books from 200 to 500.
- ❖ Change the rate of the book to 350 whose ACCNO is 101.
- ❖ Delete the book whose ACCNO is 102.
- ❖ Delete all the records of the library table.

3. STRING FUNCTIONS

- ❖ Joining two strings.
- ❖ Convert lowercase of any string
- ❖ Convert uppercase of any string
- ❖ Replace one string to another
- ❖ Apply LPAD to any string
- ❖ Apply RPAD to any string
- ❖ Convert first letter is caps in any string
- ❖ Remove left side of any string
- ❖ Remove right side of any string
- ❖ Find the length of any string.
- ❖ Find the ASCII value of any string.

4. DATE FUNCTIONS

- ❖ Display the current date.
- ❖ Display the current day of the date.
- ❖ Display the current month of the date.
- ❖ Display the current year of the date.
- ❖ Display the current time.
- ❖ Find the next Monday from the current date

5. NUMERIC FUNCTIONS

- ❖ Find the absolute value of any number.
- ❖ Find the round value of any number
- ❖ Find the square root of any number

6. AGGREGATE FUNCTION

- ❖ Find the largest book rate among books of the library table.
- ❖ Display the book rate which is minimum among all the books.
- ❖ Find the total number of books available in the library.
- ❖ Find the total amount of all the books.
- ❖ Find the average value of all the book rates.

7. PL/SQL PROGRAMS

- ❖ Odd or Even Number
- ❖ Factorial Number
- ❖ Prime Number or Not
- ❖ Armstrong Number or Not
- ❖ Student Mark list Preparation

Text Books:

1. Alexis Leon & Mathews Leon, "Data base management systems", Leon vikas publishing, Chennai, 2002.
2. Abraham Silberschatz Hentry F.Korth, S.Sundarshan,"Database System Concepts", McGraw Hill Education, 2013.

NOTE: Question paper shall cover 100% practical

Course outcomes: At the end of the course, students would be able to:

1	understand the basic concepts of data system, operational data and storage structures of the data	K1, K2,K3
2	understand the relation approach and its key relation algebra.	K1, K2,K3
3	aware about embedded SQL.	K1, K2,K3
4	gain knowledge on hierarchical approach for knowing the detailed description of the data.	K1, K2,K3
5	aware about embedded SQL.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	3	3	3	3	3	3	3	3	3	4	3	3	3	40/13=3.07
CO-2	3	3	3	3	3	3	3	4	3	4	3	3	3	41/13=3.15
CO-3	3	3	3	3	4	3	3	3	3	4	4	3	3	42/13=3.23
CO-4	4	3	3	4	3	3	3	3	3	3	3	4	3	42/13=3.23
CO-5	3	3	3	4	3	3	3	3	4	3	3	3	3	41/13=3.15
														15.83/5=3.166

COURSE CODE	U21CCA44	BUSINESS MATHEMATICS	L	T	P	C
ALLIED – IV			4	-	-	4

Learning Objectives:

The main objective of the course is

1. To acquaint students with the familiarity of Business Mathematics and on particular emphasis is laid on the foundation aspects of business mathematics.
2. To understand the theory of sets, Indices and surds
3. To understand the various methods of Depreciation and annuities.

Unit 1:Development of number system

Operations on Numbers – Development of number system – Natural number – Integers – Rational and Irrational numbers – Imaginary numbers – Complex numbers – Greatest Common divisor – Least Common multiple.

Unit 2:Theory of Sets

Theory of Sets – Definition – Types – Union, Intersection, Difference and Complement of Sets – De Morgan's Law – Venn Diagram – Simple set applications – Numbers of elements in a finite set.

Unit 3: Indices and Surds

Indices and Surds – Positive indices – Laws of indices – Zero and Unity index – Fractional index – Miscellaneous illustrations – Surds – Definition – Types of Surds – Similar Surds – Conjugate Surds – Rationalizing factors – Properties of Bi-quadratic surds – Square root of a surds – Square root of trinomial quadratic surd.

Unit 4: Depreciation and Annuities

Interest, Depreciation and Annuities – Simple Interest – Compound Interest – Depreciation – Annuities – Types of Annuities – Definite integral – Simple applications – Finding total and average cost function – Producer surplus and consumer surplus.

Unit 5: Probability and Matrices

Probability and Matrices – Terminology – Probability measure – Classical or priori probability – Types of approach and Mathematical expectation – Matrices – definition – Types – Addition, Subtraction, Multiplication of Matrices – Inverse matrix – Solving a system of simultaneous linear equations using matrix inversion technique – rank of a matrix.

Note: Question Paper shall cover 20% Theory and 80% Problem

Text Books:

1. Business Mathematics – V.Sundaresan and S.D.Jeyaseelan.
2. Business Mathematics – M.Manoharan and C.Elango, Palani Paramount Publications.

Reference Books:

1. Business Mathematics – J.K.Singh, Himalaya Publishing House.
2. Business Mathematics – R.S.Soni, Arneet Kaur Soni, Himalaya Publishing House.
3. Business Mathematics – M.L.Bhargara, Dr.Ashok Saini, Dr.Dalip Singh, Jeevansons Publication.

Course outcomes: At the end of the course, students would be able to:

1	understand the number system	K1, K2,K3
2	understand the set theory	K1, K2,K3
3	know the calculations of indices and surds	K1, K2,K3
4	understand the calculations of interest , annuities and depreciation	K1, K2,K3
5	know the applications of probability distributions and matrices	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping Outcomes - POs and PSOs

COS	POS					PSOS								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	4	3	4	3	4	43/13=3.30
CO-2	4	3	4	3	3	3	3	4	4	3	3	3	4	44/13=3.38
CO-3	3	3	4	3	3	4	4	4	4	3	4	3	3	46/13=3.53
CO-4	4	3	4	3	4	4	3	4	3	4	3	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	3	3	4	3	4	45/13=3.46
														17.28/5=3.456

COURSE CODE	U21CCE421	CHOICE – I	L	T	P	C
ELECTIVE –II		ELEMENTS OF E-COMMERCE	3	-	-	3

Learning Objectives:

The objectives of the course are

1. To enable the students to gain basic knowledge of Electronic-Commerce in the area of Business and Financing decisions
2. To understand the components of E-Commerce
3. To understand the Client Server Network Security

Unit 1: E-Commerce an Introduction

Electronic Commerce Framework -Traditional vs. Electronic Business Applications - The Anatomy of E-Commerce Applications -Overview of developments in Information Technology and Defining E-Commerce: The scope of E commerce, Electronic Market, Electronic Data Interchange, Internet Commerce, Benefits and limitations of E-Commerce.

Unit 2: E-Commerce Components

Network Infrastructure for E-Commerce Components of the I-way-Global Information Distribution Networks – Public Policy Issues Shaping the I-way. The Internet as a Network Infrastructure. The Business of the Internet Commercialization.-E-Retailing: Traditional retailing and e retailing, Benefits of e retailing, Key success factors.

Unit 3: Client Server Network Security

Models of e retailing, Features of e retailing. E services: Categories of e-services, Web-enabled services, matchmaking services, Information-selling on the web, e entertainment, Auctions and other specialized services. Business to Business Electronic Commerce-Network Security and Firewalls – Client Server Network Security – Firewalls and Network Security – Data and Message Security – Encrypted Documents and Electronic -Mail.

Unit 4:Business to Business Communication

Electronic Commerce and World-Wide-Web, Consumer Oriented E-Commerce, Electronic Payment Systems, Electronic Data Interchange (EDI), EDI Applications in Business, EDI and E-Commerce – EDI Implementation. -Produce a generic framework for E-Commerce, Architectural framework of Electronic Commerce, Web based E Commerce Architecture.

Unit 5:Multimedia and Digital video

Multimedia and Digital video- key multimedia concepts, Digital Video and Electronic Commerce- Desktop Video processing – Desktop Video conferencing-Digital video compression/decompression-Types of desktop video conferencing.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Kalakota, R and Winston, AB 2002 Frontiers of Electronic Commerce, Addison Westey
2. David Kosiur, 2002 Understanding Electronic Commerce, Microsoft Press,
3. Saily Chan & John Wiley 2000 Electronic Commerce Management, Tata McGraw Hill, New Delhi.

Reference Books:

1. Parag Diwan & Sunil Sharma 2000 E-Commerce A Managerial guide to EBusiness Deep & Deep Pub., Delhi
2. Agarwal Kamallesh N & Agarwal Deeksha _2000 Business On the Net – Introduction to the Electronic Commerce, Mc Millan India Pub, New Delhi
3. Soka, From EDI to Electronic Commerce, 2002 Tata McGraw Hill, New Delhi.

Course outcomes: At the end of the course, students would be able to:

1	understand basic concepts on e-commerce	K1, K2, K3
2	understand various methods on Architectural aspect of e-Commerce.	K1, K2, K3
3	gain essential knowledge on security aspect of e-commerce	K1, K2, K3
4	gain application knowledge on ecommerce in business.	K1, K2, K3
5	gain conceptual knowledge on multimedia in e-commerce	K1, K2, K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping outcomes - POs and PSOs

COS	POS					PSOS								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	3	3	3	3	3	4	3	4	44/13=3.38
CO-2	4	3	4	3	3	3	3	4	3	3	3	3	4	42/13=3.23
CO-3	3	3	4	3	3	3	4	3	4	3	4	3	3	43/13=3.30
CO-4	4	3	4	3	3	4	3	3	3	4	3	4	4	45/13=3.46
CO-5	3	4	3	4	3	4	4	3	4	3	4	3	4	46/13=3.53 16.90/5=3.38

COURSE CODE	U21CCE422	CHOICE – II	L	T	P	C
ELECTIVE –II		DIGITAL MARKETING	3	-	-	3

Learning Objectives:

The objectives of the course are

1. To provide knowledge about the concepts, tools, techniques, and relevance of digital marketing in the present changing scenario.
2. To understand the various components of Digital Marketing Management
3. To understand the various basic concepts on online marketing, Interactive Marketing and Artificial Intelligence in Marketing.

Unit 1: Concept of Digital Marketing

Concept, scope, and importance of digital marketing. Traditional marketing versus digital marketing. Challenges and opportunities for digital marketing. Digital penetration in the Indian market. Benefits to the customer; Digital marketing landscape: an overview. Ethical issues and legal challenges in digital marketing. Regulatory framework for digital marketing in India.

Unit 2: Digital Marketing Management

Digital-marketing mix. Segmentation, Targeting, Differentiation, and Positioning: Concept, levels, and strategies in a digital environment; Digital technology and customer-relationship management. Digital consumers and their buying decision process.

Unit 3: Digital Marketing Presence

Concept and role of Internet in marketing. Online marketing domains. The P.O.E.M framework. Website design and Domain name branding. Search engine optimization: stages, types of traffic, tactics. Online advertising: types, formats, requisites of a good online advertisement. Buying models. Online public relation management. Direct marketing: scope and growth. Email marketing, Face book marketing, YouTube and Video marketing, Twitter Marketing, Instagram Marketing: types and strategies.

Unit 4: Interactive Marketing

Interactive marketing: concept and options. Social media marketing: concept and tools. Online communities and social networks. Blogging: types and role. Video marketing: tools and techniques. Mobile marketing tools. PPC marketing. Payment options.

Unit 5: Artificial Intelligence in Marketing

Introduction of Artificial Intelligence in Marketing, How does AI Work, Benefit of AI in Marketing Automation, Content creation with AI, AI Tools available for Digital marketing

Note: Question Paper shall cover 100% Theory

Text Book:

1. Gupta, S. (2018). Digital Marketing. Delhi: Tata McGraw Hill Education.

Reference Books:

1. Chaffey, D., Chadwick, F. E., Johnston, K., & Mayer, R. (2008). Internet Marketing: Strategy, Implementation, and Practice. New Jersey: Pearson Hall.
2. Frost, R. D., Fox, A., & Strauss, J. (2018). E- Marketing. Abingdon: Routledge.
3. Kapoor, N. (2018). Fundamentals of E-Marketing. Delhi: Pinnacle India.
4. Kotler, P., Kartajaya, H., & Setiawan, I. (2017). Digital Marketing: 4.0 Moving from Traditional to Digital.
5. New Jersey: John Wiley & Sons. Ryan, D., & Calvin, J. (2016). Understanding Digital Marketing: Marketing Strategies for engaging the Digital Generation.
6. London: Kogan page. Blanchard, O. A. (2011). Social Media ROI: Managing and Measuring Social Media Efforts in Your Organisation. Indianapolis: Que Publishing.
7. Charlesworth, A. (2018). Digital Marketing: A Practical Approach. Abingdon: Routledge.
8. Gay, R., Charlesworth, A., & Esen, R. (2007). Online Marketing: A Customer-led Approach. Oxford: Oxford University Press.
9. Tasner, M. (2015). Marketing in the Moment: The Digital Marketing Guide to generating more sales and reaching your customer first. London: Pearson.

Note: Learners are advised to use latest edition of text books.

Course outcomes: At the end of the course, students would be able to:

1	identify and assess the impact of digital technology in transforming the business environment and also the customer journey;	K1, K2,K3
2	explain the way marketers think, conceptualize, test continuously to optimize their product search on digital platforms;	K1, K2,K3
3	illustrate the measurement of effectiveness of a digital marketing campaign;	K1, K2,K3
4	demonstrate their skills in digital marketing tools such as SEO, Social media, and Blogging for engaging the digital generation;	K1, K2,K3
5	understand the concept of AI in Digital Marketing;	K1, K2,K3

K1- Remembering K2 – Understanding K3 – Applying

Mapping outcomes – Pos and PSOs

COS	POS					PSOS								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	3	4	3	4	3	3	4	4	4	48/13=3.69
CO-2	4	3	4	3	3	3	3	4	3	3	3	3	4	42/13=3.29
CO-3	4	3	4	4	4	3	4	4	4	3	4	4	3	48/13=3.69
CO-4	4	3	4	4	3	4	3	3	3	4	4	4	4	47/13=3.61
CO-5	3	4	3	4	3	4	4	3	4	3	4	3	4	46/13=3.53 17.81/5=3.562

COURSE CODE	U21CCE423	CHOICE – III	L	T	P	C
ELECTIVE –II		INTERNATIONAL LOGISTICS MANAGEMENT	3	-	-	3

Learning Objectives:

The objectives of the course are

- To acquaint the students with basic knowledge of business logistics
- To make the students to develop awareness about ocean transportation
- To enable the students to acquire knowledge on inventory management

Unit 1: Introduction to Business Logistics and Supply Chain

Introduction to Business logistics and Supply Chain-Meaning- Definitions -Importance-objectives and drivers Strategy-Planning selecting proper channel- Process of Supply Chain Management - Merits and Demerits of Supply Chain Management - Performance measurement-outsourcing-Make or Buy approach

Unit 2: Structure of shipping

Introduction to Structure of Shipping – Meaning- Importance -Types of ships-Operating systems- Characteristics of liner and tramp operators- Role of Line and tramp operators- code of conduct for liner conferences, freight structure and practices-chartering principles and techniques-Problems associated with Shipping

Unit 3: Developments in Ocean Transportation

Introduction to Containerization: Meaning- Characteristics of CFS and inland container depots, Multi-model transportation and CONCOR -Meaning - Role of intermediaries including freight Agents, shipping agents, Container Agents. Difference between Freight agent, container Agent and shipping Agent

Unit 4: Inventory and Warehousing

Introduction to Inventory- Meaning- Definitions - Types of Inventories -Objectives, Bullwhip effect, control-Probabilistic inventory models and Techniques- Risk pooling-Vendor managed inventory-Warehousing function - Problems related to Warehousing -Legal framework with Warehousing.

Unit 5: Transportation and Packaging

Introduction to Transportation-Meaning- Types -Drivers modes measures-Strategies for transportation, 3PL and 4PL., Vehicle routing and scheduling-Packaging-Design consideration material and cost-packing - Problems Associated with Transportation- International regulations associated with Transportation.

Note: Question Paper shall cover 100% Theory

Text Books :

1. Natarajan L 2017, Logistics Supply Chain Management, Margham Publications, Chennai.
2. Sunil Chopra and Petermeindi 2016, Supply Chain Management – Strategy Planning and Operation PHI Learning, New Delhi
3. Donald J Bowersox and Davis J. Closs 2016, Logistics Management: The Integrated Supply chain, Tata McGraw Hill., New Delhi.

Reference Books :

1. Rahul V. Altekar, 2016, Supply Chain Management, PHI Learning, New Delhi
2. Ailawadi and Rakesh Singh 2016, Logistics Management PHI Learning, New Delhi
3. Donald Waters and Palgrave 2016, Logistics: An Introduction to Supply Chain Management, Mac Millan, New Delhi
4. Sarika Kulkarni and Ashok Sharma 2018, Supply Chain Management, Tata McGraw Hill Publishing Company, New Delhi
5. Harold Dyckhoff and Springer 2017, Supply Chain Management and Reverse Logistics, International Edition, New Delhi

Course Outcomes:

At the end of the course, students would be able to:

1	understand the knowledge about the fundamentals and basic concepts of business logistics and supply chain	K1, K2, K3
2	enlighten with the knowledge freight structure and practices in shipping	K1, K2, K3
3	master over the procedure and principles of ocean transportation	K1, K2, K3
4	understand the applicability of inventory management and warehousing Functions	K1, K2, K3
5	apply the strategies for transportation and packaging	K1, K2, K3

Mapping: POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	4	3	5	3	4	4	4	50/13=3.84
CO-2	4	4	4	4	4	3	4	3	4	3	4	4	4	49/13=3.76
CO-3	4	4	4	4	4	4	4	4	4	5	4	5	4	54/13=4.15
CO-4	4	4	4	4	4	4	4	3	4	4	3	4	5	51/13=3.92
CO-5	4	3	4	4	4	4	4	4	3	4	5	4	5	52/13=4.00

19.69/5=3.94

COURSE CODE	U21MSS42		L	T	P	C
SBE-II		MANAGERIAL SKILLS	2	-	-	2

Learning Objectives:

- To provide a sound understanding on the concepts of Managerial Skills
- To provide a sound understanding on the basic principles of Managerial skills
- To enable the student to understand the principles of Skills required and its applications in the business and industry.
- To make understand the students about the importance of time management.
- To gain knowledge of every aspect in Managerial professional knowledge.

Unit - I: Introduction of Managerial Skills

Introduction- Meaning- Definitions- Managing Self and Others : Importance of Knowing Oneself - Process of Knowing Oneself - SWOT Analysis -Stages in Interpersonal Relationship - Importance of Inter personal relationships at work place - Relationship Building- Developing Interpersonal Skills- methods

Unit - II: Time Management

Introduction- Meaning- Time -Time Management- Principles of Time Management- Managing Time: The 80:20 rule - Time Management Matrix - Scheduling - Grouping of Activities - Overcoming Procrastination - Time Circle Planner

Unit - III: Decision Making

Introduction- Meaning- Objectives of Decision Making- Importance of Decision Making- Decision Making Process - Steps in Effective Decision Making - Effective Decision Making in Teams - Decision Making Styles- Obstacles in Decision making.

Unit - IV: Team Building and Leadership

Introduction - Meaning- Team Building and Leadership: Skills Needed for Teamwork - Objectives of Team work- Characteristics of an Effective Team - Leadership : Meaning- Importance of Leadership in Organisations- Traits - Qualities of Good leader- Leadership Styles- Leadership Approaches.

Unit - V: Conflict Resolution and Stress Management

Introduction -Conflict Resolution and Stress Management: Sources of Conflict - Functional vs Dysfunctional Conflict - Managing Conflicts - Importance of Work-Life Balance - Achieving Work-Life Balance. Stress Management- Meaning- Causes of Stress- How to Overcome Stress- Effective methods to manage stress.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Alex K., Managerial Skills, S. Chand, 2013
2. Sunil Chopra and Petermeindi 2018, Management Skills– Strategy PHI Learning, New Delhi

Reference Books:

1. McGrath E. H., Basic Managerial Skills for All, PHI, 2011
2. Harvard Business Review Manager's Handbook: The 17 Skills Leaders Need to Stand Out (HBR Handbooks), Harvard Business Review Press, 2017
3. Sharma, D., & Kaushik, S. "Training & Development", New Delhi: JSR Publishing House, (2019).

Course outcome: At the end of the course, students would be able to:

Number	Course outcome	Knowledge Level (According to Bloom's Taxonomy)
CO 1	analyse the training strategies in managerial skills	K1, K2,K3
CO 2	identify training needs on effective time management	K1, K2,K3
CO 3	hands on experience in decision making approaches and strategies.	K1, K2,K3
CO 4	develop a training on team building approach and leadership skills	K1, K2,K3
CO 5	evaluation of conflict management and remedies to relief on	K1, K2,K3

	stress management	
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K1- Remembering **K2** – Understanding **K3** – Applying

Mapping- PEOS AND POS, PSO

Semester IV	MANAGERIAL SKILLS													Hours	Credits
Course Outcomes (COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS	
	P1	P2	P3	P4	P5	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PS O8		
CO-1	4	4	4	4	3	4	3	4	3	4	5	4	4	50/13=3.85	
CO-2	3	3	3	3	3	3	3	4	3	3	3	3	3	40/13=3.08	
CO-3	4	4	4	4	4	4	4	3	4	4	4	3	4	50/13=3.85	
CO-4	3	3	3	3	3	3	3	4	4	3	3	3	3	41/13=3.15	
CO-5	4	4	4	3	4	3	4	4	4	3	4	4	4	49/13=3.77	

17.70/5=3.54

COURSE CODE	U21CCN42	COMMERCE PRACTICAL	L	T	P	C
NME-II			-	-	2	2

Learning Objectives:

The objectives of the course are

- To gain knowledge in e-banking transactions
- To learn the principles of Co-operation for conducting general body meetings
- To gain knowledge in computer billing and formation of MSME through SHGs
- To provide practical knowledge to fill forms like insurance, bank, loan application, membership form, income tax return forms etc.

Unit –1:Preparation of Invoice

Preparation of invoice, receipts, vouchers, delivery challan, entry pass, gate pass-debit and credit notes. Preparation of Application for shares and allotment - letter of shares Allotment - transfer forms.

Unit –2: Preparation ofCheque

Drawing, endorsing and crossing of cheques- filling up of pay in slips demand draft application and preparation of demand drafts . Making entries in the passbook and filling up of account opening forms for SB account, current account and FDR's. . Drawing and endorsing of bills of exchange and promissory notes.

Unit –3: Co operative Society

Filling up of application forms for admission in cooperative societies. .Filling up of loan application forms and deposit challan. .Filling up of Jewel loan application form, Procedure for releasing of jewelry in jewel loans and repayment.

Unit –4: Preparation of Agenda and Minutes of Meeting

Preparation of agenda and minutes of meetings-both general body and board of directors. (students are asked to write agenda and minutes of their own and should not use printed format) .Using Bin card and inventories. .Using Cost Sheets.

Unit –5:Application to LIC Policy

Filling up of an application form for LIC policy, filling up of the premium form- filling up the challan for remittance of premium. .Preparation of an advertisement copy, collection of advertisement in dailies and journals, critically evaluating the advertisement copy. .Filling up income -tax returns and application for permanent account number.

Note: Question Paper shall cover 100% Practical

Text Books:

1. Poonam Gandhi " Business Studies" V k Global Publication Pvt Limited
2. N D Kapoor " Company Law and Secretarial Practice" Sulthan Chand and Sons

Reference Books:

1. Dr. O P Gupta "Company Law" SPBD Publishing House
2. R N Chaoudhary " Banking Law"Central Law Publication
3. Hargovind Dayal "Fundamentals of Insurance" 1st Edition, Notion Press

Course Outcomes

Upon the completion of the course, the students will be able to

1	start up their own Business.	K1, K2,K3
2	get thorough knowledge of finance and commerce. and finance with the practical exposure helps the students to stand in organization in the field of finance and commerce	K1, K2,K3
3	acquire practical knowledge on writing cheques	K1, K2,K3
4	acquire the skills required for preparation of agenda and minutes of meeting	K1, K2,K3
5	demonstrate on taking LIC Policy	K1, K2,K3

Mapping: POs and PSOs

Course Outcomes (COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	5	3	5	5	4	5	5	56/13=4.31
CO-2	4	4	4	4	4	5	4	5	4	4	5	4	4	55/13=4.23
CO-3	4	4	4	4	4	4	5	4	4	5	4	5	5	56/13=4.31
CO-4	4	4	4	4	4	4	4	3	4	4	4	4	5	52/13=4.00
CO-5	4	4	4	4	4	4	4	4	4	4	4	5	4	53/13=4.07

20.92/5=4.26

SEMESTER V

COURSE CODE	U21CCT51	MANAGEMENT ACCOUNTING	L	T	P	C
CORE –VIII			5	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the various components of management accounting and related terms
2. To understand analysis using ratio, working capital management and marginal costing
3. To familiarize with budget preparation and budgetary control tools

Unit 1: Introduction To Management Accounting

Management accounting – Definition – Objectives – Nature – Scope – Merits and limitations – Differences between management accounting and financial accounting – Financial statement analysis – Comparative statement – Common size statement – Trend percentage – Ratio analysis – Meaning – Classification – Liquidity, solvency, turnover and profitability ratios.

Unit 2: Fund Flow Statement

Introduction-Fund flow statement – Meaning – Preparation – Schedule of changes in working capital – Funds from operation – Sources and applications – Cash flow statement – Meaning – Difference between fund flow statement and cash flow statement – Preparation of cash flow statement as per AS3.

Unit 3: Budget And Budgetary Control

Introduction to Budget and Budgetary control – Meaning – importance and its Advantages – Preparation of purchase, production, production cost, sales, overhead cost, cash and flexible budgets. Problems based on Budgetary control

Unit 4: Standard Costing

Introduction to Standard costing – Meaning, Advantages and its Limitations. Variance analysis – Significance - Computation of variances (Material and Labour variance only) - Marginal costing – CVP analysis – Break even analysis – BEP - Managerial applications – Margin of safety – Profit planning.

Unit 5: Capital Budgeting

Introduction- Capital Budgeting – Meaning – Importance – Appraisal methods – Payback period — Accounting rate of return - Discounted cash flow – Net present value – Profitability index – Internal rate of return. Problems on calculation of NPV, IRR, DCF and PI

Note: Question Paper shall cover 20% Theory and 80% Problem

Text Books (Latest revised edition only)

1. S.N.Maheswari ,”Management accounting”, Sultan Chand & sons publications, New Delhi
2. Sharma and Gupta “Management accounting”, Kalyani Publishers, Chennai, 2017.
3. R.Ramachandran and R.Srinivasan “Management accounting” Sriram publication, Trichy

Reference Books (Latest revised edition only)

1. R.S.N.Pillai&V.Baghavathi “Management Accounting” S.Chand& Co, Mumbai, 1996.
2. E.Gordon, P.Jeyaram, N.Sundaram & R. Jayachandran “Management Accounting”, Himalaya Publishing House, Mumbai, 2017.
3. Reddy.T.S & Hari Prasath.Y, “Management Accounting” Margham Publications, Chennai.
4. A. Murthi and S. Gurusamy, “Management accounting” Vijay Nicole Publications, Chennai.
5. Hingorani&Ramanthan “Management accounting” S.Chand& Co, New Delhi.

Course outcomes: At the end of the course, students would be able to:

1	outline the various concepts relating to management accounting	K2
2	analyze financial statements using ratio analysis	K4
3	evaluate the working capital management of companies	K5
4	compare various alternatives using marginal costing and decision making	K2
5	analyze new budget and budgetary control for organizations	K4
K1-Remember; K2-Understand; K3-Apply;K4-Analyze; K5-Evaluate;K6-Create		

Mapping- PEOS AND POS, PSO

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS	
	1	2	3	4	5	1	2	3	4	5	6	7	8		
CO-1	4	4	4	4	5	4	4	4	4	4	4	4	4	4	53/13=4.07
CO-2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	52/13=4
CO-3	4	4	4	5	4	4	4	4	4	4	4	4	4	3	52/13=4
CO-4	4	4	4	4	3	4	4	4	3	3	4	4	4	4	49/13=3.77
CO-5	4	4	4	4	4	4	4	4	4	4	4	4	4	3	51/13=3.92
															19.76/5=3.952

COURSE CODE	U21CCT52	AUDITING	L	T	P	C
CORE IX			5	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the various concepts of auditing and the procedure for the conduct of internal audit
2. To familiarize with the process of valuing assets and liabilities
3. To understand the process of auditing the joint stock companies and investigation mechanism

Unit 1: Introduction To Auditing

Introduction – Meaning – Features – Objectives – Advantages of Auditing – Materiality in Auditing – Classifications or various types of Audit – Techniques of Auditing – Audit Evidence – Criteria for Selection of Audit Evidence – Process of gathering Evidence. Auditor- Qualifications to become an Auditor- duties and Responsibilities of an Auditor.

Unit 2: Audit Work

Audit Programme – Audit Note Book – Working Paper – Audit Planning - Engagement of an Auditor for Audit Work – Internal Control – Objectives of Internal Control – Forms of Internal Control – Merits and drawback of Internal Control – Internal Audit – Features – Objectives – Advantages of Internal Audit – Distinction Between Internal Control and Internal audit.

Unit 3: Vouching

Meaning – Definition – Objective – Requisites of a Valid Voucher – Types of Vouching – Vouching of Cash Transaction – Vouching of Trade Transactions- Verification – Objects of Verification – Principles of Verification – Verification and Valuation of Assets – Verification of Liabilities.

Unit 4: Company Auditor

Auditors of a Company – Appointment – Removal – Remuneration – Qualification and Disqualification of Auditor – Rights, Duties and Powers of Auditor, Liabilities of Auditor – Audit Report – Types of Audit Report – Statutory Report – Matters to be included in the Audit Report.

Unit 5: Cost and Management Audit

Cost Audit - Management Audit – Process of Management Audit – Human Resource Audit – Environment Audit – Social Audit - Forensic Audit- Computerized Audit – Benefits – Deficiencies – Role of Auditor in Computerized Environment – Audit of Government Accounts – Features of Government Audit – Functions of Comptroller and Audit General of India – Duties of Accountant General- various authority role in Auditing.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Tandon B.N “ Practical Auditing”, S.Chand& Co, New Delhi 2015
2. Sundar K. and Paari, “Auditing”, Vijay Nicole, Imprints Private Ltd, Chennai, 2015
3. Saxena, R.G. “Principles of Auditing”, Himalaya Publishing House, New Delhi. 2016.

Reference Books:

1. Natarajan, L. “Auditing”, Chennai: Margham Publications.Chennai 2013.
2. Pagar, D.” Principles and Practice of Auditing “(14 ed.): Sultan Chand & Sons. 2016
3. Tandon, B.N & Sudharsanam, S. “ A Handbook of Practical Auditing”, S Chand & Company Pvt. Ltd. New Delhi 2016.
4. Kamal Gupta, “Contemporary Auditing”. Tata McGraw Hill, New Delhi. 2015.

Course outcomes: At the end of the course, students would be able to:

1	definetheimportantconceptandrulesrelatingtoauditing	K1
2	outlinethetechniquesandapplicabilityofinternalaudit	K2
3	analyzetheevaluation of assets andliabilities inbusiness	K4
4	analyzethe accounts andauditingthejointstockcompanies	K4
5	examineaboutinvestigationandauditingofcomputerizedaccounts	K4
K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 –Create		

Mapping- POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	5	5	4	4	5	5	4	4	4	4	3	4	4	55/13=4.23
CO-2	4	4	4	4	4	4	4	4	3	4	3	4	4	50/13=3.84
CO-3	3	3	3	3	4	3	3	3	4	3	4	3	4	43/13=3.31
CO-4	4	3	3	4	4	4	4	4	3	3	4	4	4	48/13=3.69
CO-5	3	3	3	3	3	4	3	3	3	3	3	3	4	41/13=3.15
														18.22/5=3.64

COURSE	U21CCT53	INCOME TAX LAW AND PRACTICE	L	T	P	C
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CODE					
CORE X			5	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the various concepts of income tax and related terminologies
2. To familiarize with calculation of income under different heads
3. To enable the students to know the provisions of the income tax law.
4. To understand the process of set off and carry forward of losses while computing total income

Unit 1: Introduction To Income Tax

Introduction- Meaning- Income tax- Basic concepts – Definition – Previous year – Assessment year – Person – Assesses – Income – Total Income – Casual income – Capital and Revenue – Residential status and incidence of tax incomes exempt under Section – 10

Unit 2: Income From Salary

Meaning- of Salary – Basis of charge – Different forms of salary- Legal Framework- Advance Salary- Arrears of Salary – allowances – gratuity – pension – perquisites and their valuation – deduction from salary – computation of taxable salary . Compensation for Voluntary retirement- Deduction Form salary U/S 16, Problems

Unit 3: Income From House Property

House property – basis of charge – Deemed Owners- Exempted Income from House Property- determination of GAV and NAV -Treatment of Unrealized rent- Loss due to vacancy – income from let – out property – deductions – computation of House property income.

Unit 4: Income From Business And Profession

Profits and gains of business and profession – basis of charge – methods of accounting – deductions – allowable expenses and disallowable expenses – computation of taxable income. Income from Capital Gains – Income from other sources.

Unit 5: Income From Other Sources

Income of other persons included in assesses total income – Aggregation of income; Set – off or carry forward and set off of losses – Deductions from gross total income – Computation of total income and tax payable; Rebates and relief’s – Provisions concerning advance tax and tax deducted at source – Provisions for filing of return of income.

Note: Question Paper shall cover 40% Theory and 60% Problem

Text Books:

1. Dr. Vinod K. Singhanian, Taxmen's "Direct Taxed Law & Practice". Taxman Publications, New Delhi. 64th, 2021.
2. Dr. A. Murthy, "Income Tax Law and Practice" - Vijay Nichole Publications, Chennai. 8 edition, 2020.
3. Dr. T.S. Reddy & Dr. Hariprasad, "Income tax law and practice", Margam publications, Chennai. 2020-2021.

Reference Books:

1. Gaur and Narang, "Income Tax Law and Practice" Kalyani Publishers, New Delhi. 2018-2019.
2. Dr. H. C. Mehrotra, "Income Tax Law and Accounts" Sahithya Bhavan publishers, Agra. 61st, 2020-21.
3. R. G. Shaha, "Income Tax Law and Practice (Direct Tax)" Himalaya Publications, Mumbai. 2021.
4. Dinkar Pagare, "Direct Tax" – Sultan Chand publishers, New Delhi.

Course outcomes: At the end of the course, students would be able to:

1	outline the various terminologies related to income tax	K1
2	understand the method of calculating and levying tax	K2
3	apply the various tax laws and available provisions in tax computations	K3
4	evaluate these two off and carry forward of losses while calculating personal income	K5
5	analyze self-assessment of income and tax computation	K4
K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5 -Evaluate; K6 –Create		

Mapping- POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	3	4	3	3	4	4	4	4	3	4	4	5	49/13=3.77
CO-2	4	4	4	4	4	3	3	4	4	3	4	3	4	48/13=3.69
CO-3	4	4	4	4	3	4	4	4	4	4	3	3	4	49/13=3.77
CO-4	4	3	3	3	3	3	4	3	3	3	3	3	3	41/13=3.15
CO-5	3	4	4	3	4	3	3	3	3	4	3	4	4	45/13=3.46

17.84/5=3.568

COURSE	U21CCP54	MOBILE APPLICATIONS – LAB	L	T	P	C
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CODE					
CORE –XI			-	-	5 4

Learning Objectives

The objectives of the course are to

1. Design and develop user Interfaces for the Android platform
2. Apply Java programming concepts to Android application development.

Unit 1: Introduction

Introduction - Mobile Applications – Characteristics of Mobile Application and Benefits – Application Model – Infrastructure and Managing Resources – Mobile Software Engineering – Frameworks and Tools – Mobile devices Profiles. Issues related to Mobile application Model.

Unit 2: User Interface

Introduction to User Interface - Generic UI Development – VUIs and Mobile Applications – Text to Speech techniques – Designing the right UI – Multimodal and Multichannel UI – Gesture based UIs – Screen Elements and Layouts – Voice XML – Java API. Uses of XML,

Unit 3: Application Design

Introduction - Meaning of Application Design- Memory Management – Design patterns for limited memory – Work flow for Application Development – Techniques for composing Applications – Dynamic Linking – Plug ins and rules of thumb for using DLLs – Concurrency and Resource Management – Look and feel.

Unit 4: Application Development

Introduction to Application Development- Intents and Services – Storing and Retrieving data – Communication via the Web – Notification and Alarms – Graphics and Multimedia – Telephony – Location based services – Packaging and Deployment – Security and Hacking.

Unit 5: Tools of Application Development

Introduction -Meaning- Usage and adoptability -- TOOLS- Google Android Platform – Eclipse Simulator – Android Application Architecture – Event based programming – Apple iPhone Platform – UI tool kit interfaces – Event handling and Graphics services – Layer Animation.

Lab Program:

1. Develop an application that uses GUI components, Font and Colors

2. Develop an application that uses Layout Managers and event listeners.
3. Develop a native calculator application.
4. Write an application that draws basic graphical primitives on the screen.
5. Develop an application that makes use of database.
6. Develop an application that makes use of RSS Feed.
7. Implement an application that implements Multi-threading
8. Develop a native application that uses GPS location information.
9. Implement an application that writes data to the SD card.
10. Implement an application that creates an alert upon receiving a message.
11. Write a mobile application that creates alarm clock

TEXT BOOKS:

1. Share Conder, Lauren Darcey, "Android Wireless Application Development" Pearson 3rd Edition. 2013.
2. ZigurdMednieks, Laird Dornin, G, Blake Meike and Masumi Nakamura, —Programming Android, O'Reilly, 2011.

NOTE: Question paper shall cover 100% practical

Course outcomes: At the end of the course, students would be able to:

1	demonstrate the android features and create, develop using android.	K1, K2,K3
2	demonstrate and Understanding anatomy of an Android application	K1, K2,K3
3	apply the android geo location based services	K1, K2,K3
4	apply the UI Tool kit interface.	K1, K2,K3
5	demonstrate the Linux security and implement ADL interface	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping

	Programme Outcomes	Programme Specific Outcomes (PSOS)	Mean
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(COS)	(POS)													Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	5	4	4	4	4	3	4	4	5	53/13=4.07
CO-2	4	4	4	4	4	4	3	4	3	4	3	4	4	49/13=3.77
CO-3	4	4	4	3	4	4	3	4	4	3	4	4	4	49/13=3.77
CO-4	4	3	4	4	4	4	4	4	4	4	3	4	4	50/13=3.85
CO-5	4	4	4	3	5	3	4	4	4	4	4	4	5	52/13=4
														19.46/5=3.89

COURSE CODE	U21CCP55	PROGRAMMING IN C++ - LAB	L	T	P	C
CORE – XII			-	-	5	4

Learning Objectives:

The objectives of the course are to

1. Understand the difference between structured and Object-Oriented Problem-solving methods.
2. Apply concepts of computer programming languages in various business fields based on the given problem.
3. Develop the program by applying the concept of OOPs.
4. Develop the reusability of C++ program by applying the concept of Inheritance and Polymorphism.
5. Apply the data files operation technique and solve the given problems in a practical manner.

Unit-1: Programming Paradigm

OOPs, A New Paradigm – Evaluation of Programming Paradigm – Objects – Classes – Multiple Viewing of the Same Object – Encapsulation and Data Abstraction – Inheritance – Delegation – Object Composition – Polymorphism – Message Communication – Popular OOPs Languages – Merits and Demerits of OOPs Methodology – Application of OOPs.

Unit-2: Application Of C++

Application of C++ - Structure of C++ Program – Tokens, Expression -Basic Data Types – Symbolic Constants – Declaring Data Types - Reference Variables – Operator in C++ - Scope Resolution Operator – Expressions and Implicit Conversions – Control Structures – Functions in C++ - Call by Reference – Call by Value – Inline Functions – Default Arguments – Constant Arguments – Classes and Objects – Defining Member Functions – Nesting Member Function – Private Member Function – Static Member Function.

Unit -3: Array

Array of Objects – Friend Function – Returning Objects – Constant Member Function – Pointer to Members – Constructors with Default Arguments – Copy Constructor – Dynamic Constructor – Destructor – Operator Overloading and Type Conversions – Rules for Operator Overloading – Function Overloading – Function Overloading with Arguments – Special Features of Function Overloading.

Unit -4: Inheritance

Inheritance – Single Inheritance – Types of Base Classes – Types of Derivation – Public – Private – Protected Inheritance – Multilevel Inheritance – Multiple Inheritance – Hierarchical Inheritance – Hybrid Inheritance – Polymorphism – Virtual Functions – Pure Virtual Function –

Pointer to Derived Classes.

Unit-5:Managing Console I/O Operations

Managing Console I/O Operations – C++ Streams – Stream Classes – istreams, ostream, ifstream, ofstream, filebuff, istrstream, ostrstream – Unformatted I/O Operation – Classes for File Stream Operations – Opening and Closing a file.

List of programs:

1. Write a C++ program to add two numbers using class.
2. Write a C++ program to check whether a given number is prime.
3. Write a C++ program to find string manipulation using switch case.
4. Write a C++ program to find the GCD of two numbers.
5. Write a C++ program to check whether a given number is even or odd.
6. Write a C++ program to demonstrate the usage of Inline function.
7. Write a C++ program to calculate the area of rectangle, square using function overloading.
8. Write a C++ program to sort an array in ascending order.
9. Write a C++ program to find the factorial of a given number using recursion.
10. Write a C++ program to overload + (plus) operator to perform concatenation of two strings.
11. Write a C++ program to demonstrate the usage of a constructor and destructor in a class.
12. Write a C++ program using class to implement basic operations on a stack using arrays.
13. Write a C++ program to demonstrate parameter passing mechanism using pass by value method.
14. Write a C++ program to display employee information using multiple inheritance.
15. Write a C++ program to demonstrate multilevel inheritance.

Text Book

1. Byrne Stroustrup , " The C++ Programming Language" Third Edition, Pearson Education India
2. E Balagurusamy, "Object- Oriented Programming with C++", Eighth Edition, McGraw Hill
3. Kunal Pimparkhede , " Computer Programming with C++" First Edition, Cambridge University Press

Books for Reference:

1. **E. Balagurusamy**, "Object Oriented Programming with C++ ", Tata McGraw-Hill Publishing Company Limited, New Delhi, 2011.
2. **D.Ravichandran**, "Programming with C++", Tata McGraw-Hill Publishing Company Limited, New Delhi, 2017.

NOTE: Question paper shall cover 100% practical

Course outcomes: At the end of the course, students would be able to:

1	compare the different types of languages and find the importance of object-oriented programming language	K1, K2,K3
2	know and understand the C++ statements and motivate the students to make use of the statements	K1, K2,K3
3	identify the class structure and develop the program.	K1, K2,K3
4	develop the program by applying the concept of OOPs	K1, K2,K3
5	apply the data file operation technique and evaluate the program in a practical manner.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
CO-1	5	4	4	4	5	4	4	4	4	4	4	4	5	55/13=4.23
CO-2	4	3	4	4	4	4	4	3	4	4	4	4	4	50/13=3.84
CO-3	5	4	4	4	4	4	4	4	4	3	4	4	5	53/13=4.08
CO-4	4	3	4	4	4	3	4	4	3	4	4	3	4	48/13=3.69
CO-5	4	4	3	3	5	4	4	3	4	3	3	4	4	48/13=3.69

19.53/5=3.906

COURSE CODE	U21CCE531	CHOICE - I	L	T	P	C
ELECTIVE –III		FUNDAMENTALS OF INVESTMENT	3	-	-	3

Learning Objectives:

The objectives of the course are

1. To familiarize the students with different investment alternatives introduce them to the framework of their analysis and valuation and highlight the role of investor protection.
2. To understand the various types of fixed income securities and various approaches of equity analysis
3. To understand the different types of portfolio analysis

Unit – 1: Introduction to Investments

The Investment Environment–The investment decision process, Types of Investments – Commodities, Real Estate and Financial Assets, the Indian securities market, the market participants and trading of securities, security market indices, sources of financial information, Concept of return and risk, Impact of Taxes and Inflation on return.

Unit – 2: Fixed Income Securities

Introduction to fixed income securities- Meaning- types characteristics –Bond - Meaning-features, types of bonds, estimating bond yields, Bond Valuation types of bond risks, default risk and credit rating. Trading in fixed income securities. Terms of trading and Risk associated with trading of fixed income securities. Major players in Fixed income securities

Unit –3: Approaches to Equity Analysis

Introductions to Fundamental Analysis, Types of Fundamental Analysis-Economic Analysis-Industry Analysis- Business Analysis. Techniques of Fundamental Analysis Technical Analysis - Tools of Technical Analysis. and Efficient Market Hypothesis, dividend capitalisation models, and price-earnings multiple approach to equity valuation.

Unit –4: Portfolio Analysis and Financial Derivatives

Introduction to Portfolio Analysis- Meaning- Portfolio- Portfolio Management- Construction of Portfolio–Portfolio and Diversification, Portfolio Risk and Return; Mutual Funds; Introduction to Financial Derivatives; Types of Derivatives- Participants at Derivative market- Financial Derivatives Markets in India

Unit – 5: Investor Protection

Introduction on Investor Protection - Risks associated with Investments- Investors Knowledge-Regulatory bodies governing the investments -Role of SEBI and stock exchanges in investor protection; Investor grievances and their redressal system, insider trading, investors’ awareness

and activism. Norms on Online Trading with Securities- Protocol's to be followed by every investor- International investments guidelines.

Text Books:

1. Prasanna Chandra," Investment Analysis and Portfolio Management", Fifth Edition, McGraw Hill Education.
2. Jay M Desai, Nisarg A Joshi ," Investment Management" Dreamtech Press
3. C.P. Jones, "Investments Analysis and Management",Wiley, 14th Edition.2019.

Reference Books:

1. C.P. Jones, "Investments Analysis and Management",Wiley, 14th Edition.2019.
2. Prasanna Chandra, "Investment Analysis and Portfolio Management", McGraw Hill Education 5th 2017.
3. R.P. Rustogi, "Fundamentals of Investment", Sultan Chand & Sons, New Delhi, 2013.
4. N.D. Vohra and B.R. Bagri, "Futures and Options", McGraw Hill Education, 2017.
5. Herbert Mayo Mayo, "An Introduction to Investment", Cengage Learning.2016.

Note: Question paper shall cover 100% theory

Course outcomes: At the end of the course, students would be able to:

1	list the role and function of the Investment Management	K1, K2,K3
2	demonstrate an awareness of the fundamental analysis	K1, K2,K3
3	evaluate and create strategies to understand technical analysis.	K1, K2,K3
4	develop and construct Portfolio	K1, K2,K3
5	describe the different components of investment management and its implication in real time business life	K1, K2,K3

Mapping

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	5	5	4	4	5	5	4	4	4	4	3	4	4	55/13=4.23
CO-2	4	4	4	4	4	4	4	4	3	4	3	4	4	50/13=3.84
CO-3	3	3	3	3	4	3	3	3	4	3	4	3	4	43/13=3.31
CO-4	4	3	3	4	4	4	4	4	3	3	4	4	4	48/13=3.69
CO-5	3	3	3	3	3	4	3	3	3	3	3	3	4	41/13=3.15
														18.22/5=3.64

COURSE CODE	U21CCE532	CHOICE - II	L	T	P	C
ELECTIVE –III		ARTIFICIAL INTELLIGENCE IN BUSINESS	3	-	-	3

Learning Objective:

This course aims to equip the learners with the basic ideas and techniques underlying the usage of Artificial Intelligence in Business.

Unit 1: Introduction To Artificial Intelligence

Introduction Artificial Intelligence: Concept, benefits, and scope. Differences between AI, Machine Learning (ML) and Deep Learning (DL) - AI applications, capabilities and competitive advantage; Industry drivers; AI strategy for the enterprise - Considerations for an AI strategy, AI & Startups. Internet of Things (IoT), Introduction to mobile computing and Cloud computing.

Unit 2: AI Algorithm

AI Led Strategic Interventions Algorithm: New member in the boardroom, Accelerated decision making with real time analytics, AI in operational models in an organisation, AI: future of AI in HR, Talent sciences, Algorithms & Talent Acquisitions (TA), AI & transformation in Finance & Accounting, CFO of tomorrow, Changing role of Chief Information Officer (CIO): Industry 4.0.

Unit 3: AI In Banking

Introduction - Meaning- AI in Banking & Insurance Redefined banking industry – adoption of Analytics, AI powered financial services, Fraud mitigation in banks with AI, Reorienting customer retention, Risk management with AI, AI driven transformation in Insurance, Digital based insurance model.

Unit 4: AI in Retail

AI in Retail -AI interventions in Retail Outlets. Emergence of smart customers, ad content predictions, Evolution of smart retailers, Omni channel experience, AI in consumer packaged goods, Fluid supply chain transformation with AI. AI-Led marketing transformations, Data to Clusters - Ad content prediction - AI based Ad buy and CPC optimization, AI driven campaign management. AI for Sales: Data to Classes - Insides Sales Rep workflow automation - Improved Lead, Opportunity Ranking and Reminder.

Unit 5: AI And Technology

Exponential Technologies Beating cyber-attacks with Analytics, AI in automotive industry: driverless cars and drones, IoT Analytics: extracting value and transforming business, Real time streaming analytics, Cryptocurrency Analytics, AI for customer service-data to scores, AI for

Portfolio Management, Chatbots, Call center rep automation.

Note: Question Paper shall cover 100% Theory

Text Book:

1. Dhanrajani, S. “AI & Analytics: Accelerating Business Decisions.” New Jersey: Wiley. (2018).

Reference Books:

1. Russell, S. J., & Norvig, P. “Artificial Intelligence: A Modern Approach”, 3rd Edition. New Jersey: Prentice Hall. (2019).
2. Akerkar, R. “Artificial Intelligence for Business”. Basingstoke: Springer Nature”(2018).
3. Altemeyer, B. Making the business case for AI in HR: two case studies. Strategic HR Review, 18(2), 66-70. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/SHR-12-2018-0101/full/html> (2019)

Note: * Learners are advised to use web sources too.

Course outcomes: At the end of the course, students would be able to:

1	identify how the AI is being leveraged by start-ups as a success tool	K1, K2,K3
2	analyse and interpret the applicability of AI in HR functions	K1, K2,K3
3	explain how algorithms is changing the board room landscape	K1, K2,K3
4	discuss the customer services provided by various banks using AI	K1, K2,K3
5	demonstrate the role of AI in transforming the retail sector	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	5	4	4	4	4	3	4	4	5	53/13=4.07
CO-2	4	4	4	4	4	4	3	4	3	4	3	4	4	49/13=3.77
CO-3	4	4	4	3	4	4	3	4	4	3	4	4	4	49/13=3.77
CO-4	4	3	4	4	4	4	4	4	4	4	3	4	4	50/13=3.85
CO-5	4	4	4	3	5	3	4	4	4	4	4	4	5	52/13=4

19.46/5=3.89

COURSE CODE	U21CCE533	CHOICE - III	L	T	P	C
ELECTIVE – III		E-CUSTOMER RELATIONSHIP MANAGEMENT	3	-	-	3

Learning Objectives:

The objectives of the course are

- To impart the students to understand on various concepts of customer relationship management practices
- To make the students to acquire expert knowledge on customer information data base
- To train the students to gain knowledge on customer relationship management process

Unit 1: Introduction to CRM

Introduction to CRM - Meaning - Definitions – Characteristics of CRM -Concepts and Context of relationship Management Evolution Process of CRM– Transactional Vs Relationship Approach – CRM as a strategic marketing tool – CRM significance to the stakeholders. Merits and Demerits of CRM.

Unit 2: Understanding Customers

Introduction to Customer information Database - Sources of Database- Customer Profile analysis - Customer perception, Expectations analysis – Customer behavior in relationship perspectives; individual and group customer segments and analysis.

Unit 3: CRM Structures

Introduction to CRM Structure- Meaning- Elements of CRM – CRM Process – Strategies for Customer acquisition – Customer Retention and Prevention of defection – Models of CRM – Techniques-CRM road map for business applications. Legal Framework of CRM

Unit 4 : CRM Planning And Implementation

Introduction to Planning and Implementation - Objectives of CRM Planning- Strategic CRM planning process – Implementation issues – CRM Tools – Analytical CRM – Operational CRM – Call center management – Role and Duties of CRM Managers

Unit 5: Trends in CRM

Introduction to e-CRM Solutions – Software used in E CRM- Data Warehousing –Data mining for CRM – Meaning of Data Mining- Data Handling under E CRM - Merits and Demerits of E CRM - Legal Frame Work Governing E CRM an introduction to CRM software Development and Installation.

Note: Question Paper shall cover 100% Theory

Text Books :

1. Shainesh, G and Jagdish, N Sheth,2018, Customer Relationship Management- Strategic Perspective, New Delhi: MacMillan, New Delhi
2. Alok Kumar et al.2018 Customer Relationship Management: Concepts and Applications, Biztantra.
3. ShanthiR. 2013, Customer RelationshipManagement: MJP Publishers, New Delhi

Reference Books:

1. Mohammed, H.P., and Sagadevan, A.2018 Customer RelationshipManagement – a step by step Approach New Delhi:Wiley India Pvt.Ltd.
2. JimCatheart. 2018. The Eight Competencies of Relationship Selling, New Delhi:Macmillan India.
3. Assel.2018 Consumer Behaviour – A Strategic Approach, Biztranza

Course Outcomes:

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

1	comprehend the concepts relating to Customer Relationship management practices	K1, K2,K3
2	analyze Customer Information Database to understand the customer behaviour	K1, K2,K3
3	grasp an idea of customer relationship management process	K1, K2,K3
4	appreciate the various Models of Customer Relationship Management	K1, K2,K3
5	understand the e-CRM solutions for better customer relationship management	K1, K2,K3

Mapping: POs and PSOs

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOs)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	3	3	4	4	3	4	3	4	4	4	48/13=3.69
CO-2	4	4	3	4	4	3	3	3	3	3	3	3	4	44/13=3.38
CO-3	4	4	4	4	4	3	4	4	3	3	4	3	4	48/13=3.69
CO-4	4	4	4	4	4	3	4	3	3	3	3	3	3	45/13=3.46
CO-5	4	3	4	4	4	4	3	4	3	4	3	4	3	47/13=3.62
														17.84/5=3.57

COURSE CODE	U21CCS53	DESK TOP PUBLISHING LAB (DTP)	L	T	P	C
Skill Based Elective-I			-	-	2	2

Learning Objectives:

The objectives of the course are

1. To gain basic knowledge about multimedia.
2. To know the operations of multimedia.
3. To give the opportunity to learn PageMaker, CorelDraw and Photoshop.

Unit 1: Basics on PageMaker

PageMaker Basics- Working With A Publication- Drawing Tools- The Text Tool - Importing Graphics- Transformations – Utilities- Master Pages - Working With Large Amount Of Texts - The Story Editor - PageMaker Style Sheets- Long Documents Features- Working With Frames- Working With Layers.

Unit 2: Corel Draw Basics

Corel Draw Basics : Getting Started with Corel Draw –Corel Draw Screen- Property Bar- Handling Files-Views-Drawing and selection- Getting Familiar with Tool Box- Getting Started With Project- Working with object and shapes- Adding effects to object- Working with text- text tool-Book Cover-Converting Text Type.

Unit 3: Formatting Text

Formatting Text –Text editor-Working with Images-Images-Importing Images-Resizing, Rotating, Skewing and cropping Images-Adding Special effects- Exporting Files- Publishing – Changing Page size-Page Layout and Background- Page Frame-Inserting, Deleting and renaming Pages-Rulers.

Unit 4: Photoshop Basics

Introduction about Photoshop -Getting started with Photoshop- Photoshop Program window – working with files- Working with images- Images-Image Size- Image Resolution-Editing Images-Color modes –Setting Fore and Background- Making selection –editing selection. Deleting the options, formatting and save

Unit 5:Painting Tools

Introduction- The Painting Tools- Drawing Tools-Reaching Tools-Layers-Layers palette-working with layers-Hiding, showing & deleting layers-Repositioning layers-Flattening Images-Filters. Formatting, Saving, Printing, Using 3 D effects in Painting, Advanced Features

Lab List:**Page Maker**

1. Visiting Card in English
2. Advertisement
3. Certificate
4. Wedding Invitation card in English
5. Prospectus

Corel Draw

6. India Map
7. Cartoon
8. Rangoli
9. Logos in Tamil
10. Greeting card

PhotoShop

11. Album Preparation
12. Prepare an Invitation Card
13. Prepare Visiting card.
14. Flex Designing
15. Photo Editing

Text Books:

1. Shashank Jain & Satish Jain, "ADOBE PAGEMAKER 6.5 "BPB Publications, 2nd Edition 2003,
2. AdobeCreative Team, Adobe Photoshop CS6 Classroom in a Book, Adobe Press, ebook, California, 2012.
3. Gary David Bouton, Coreldraw X7 , Corel Press , Mc Graw Hill, 11th Revised edition New Delhi, 2014.

NOTE: Question paper shall cover 100% practical

Course outcomes: At the end of the course, students would be able to:

1	identify the emerging technology in designing.	K1, K2,K3
2	understand of designing and development tool.	K1, K2,K3
3	adopt rapidly changing multimedia technology.	K1, K2,K3
4	apply effectively the techniques in Photoshop.	K1, K2,K3
5	master in digital design graphic tool for earnings.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

COS	POS					PSOS								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	5	4	4	4	5	4	4	4	4	4	4	4	5	55/13=4.23
CO-2	4	3	4	4	4	4	4	3	4	4	4	4	4	50/13=3.84
CO-3	5	4	4	4	4	4	4	4	4	3	4	4	5	53/13=4.08
CO-4	4	3	4	4	4	3	4	4	3	4	4	3	4	48/13=3.69
CO-5	4	4	3	3	5	4	4	3	4	3	3	4	4	48/13=3.69

19.53/5=3.906

SEMESTER VI

COURSE CODE	U21CCT61	CORPORATE ACCOUNTING	L	T	P	C
CORE –XIII			4	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To provide basic understanding about the accounts relating to shares and debentures
2. To analyze the final accounts of companies
3. To explore various methods for the valuation of goodwill
4. To assist preparation of books of Amalgamation and Absorption.

Unit 1: Introduction to valuation of Shares

Meaning Of valuation of shares- Types of Shares - Accounting Procedure for issues of shares at par, at discount and at premium call in advance – calls in arrear for feature of shares –Re-issue of shares at discount and premium. Journal Entries on valuation of shares- Preparation of Vertical Balance sheet

Unit 2: Underwriting of Shares

Introduction - Meaning of Underwriter- Types of Underwriting- Underwriters commission- Marked Application- Unmarked application- Firm Underwriting- Underwriting of shares, redemption of preference shares. Problems on calculation of underwriters commission. Net liability approach of Underwriting.

Unit 3: Valuation of Shares and Goodwill

Introduction - meaning of valuation of shares- methods of valuation of shares- Intrinsic value- Yield value method- Earning capacity Method-Fair value Method . Goodwill -Methods of Valuation- Average profits Methods- Super profit methods , capitalization method-Annuity Method- Problems under each method.

Unit 4: Acquisition of Business

Introduction - Meaning- Types of Acquisition- Acquisition of business- Profit prior to incorporation –preparation of financial accounts-requirements as per schedule IV part I and II.

Unit 5: Amalgamation

Amalgamation -Meaning- Types of Amalgamation- in the nature of purchase- Purchase consideration calculations Accounting of Amalgamation – Absorption –Internal and external reconstruction of joint stock companies. Entries in the books of Transferor and Transferee Company, Balance sheet preparation

Note: Question Paper shall cover 25% Theory and 75% Problem

Text Books:

1. R.L.Gupta&Radhaswamy “Advanced accountancy”, Sultan Chand &sons, Delhi. 13th Edition 2007
2. T.S.Reddy&A.Murthy “Corporate Accounting”Margham Publication, Chennai / 6th revised edition 2007, reprint 2010

Reference Books:

1. R.L.Gupta & Radhaswamy “Corporate accountancy” .Sultan Chand & sons, Delhi. 13th Edition 2007
2. S.P.Jain & Narang “Advanced accounting”,Kalyani Publishers 17th Edition 2011./reprint 2005.
3. S.N.Maheswari & S.K.Maheswari “Corporate Accounting”Sultan Publisher/4th edition

Course outcomes: At the end of the course, students would be able to:

1	develop the skill of preparing entries for issue of shares	K1, K2,K3
2	know the accounting entries for underwriting of shares and redemption of preference shares	K1, K2,K3
3	knowledge in calculation and valuation of shares and goodwill of companies	K1, K2,K3
4	know the provisions of acquisition of the business	K1, K2,K3
5	gain the knowledge in internal and external reconstruction in companies	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	3	3	3	3	3	4	3	3	3	3	3	3	4	41/13=3.15
CO-2	4	4	4	4	4	4	4	4	3	4	3	4	4	50/13=3.84
CO-3	3	3	3	3	4	3	3	3	4	3	4	3	4	43/13=3.31
CO-4	4	3	3	4	4	4	4	4	3	3	4	4	4	48/13=3.69
CO-5	5	5	4	4	5	5	4	4	4	4	3	4	4	55/13=4.23
														18.22/5=3.64

COURSE CODE	U21CCT62	BUSINESS TAXATION	L	T	P	C
CORE –XIV			5	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the applicability of indirect taxes in India
2. To familiarize with the calculation and execution of goods and service tax in India
3. To understand the working of custom law in India

Unit 1: Introduction to Indirect Taxation

Indirect taxes – Meaning and Nature - Special features of Indirect Taxes- Contribution to government revenues - Taxation under the Constitution - Advantages and Disadvantages of Indirect Taxes. Latest amendments in Indirect tax law- Constitutional changes, powers and Duties of Adjudicating authorities

Unit 2: Goods and Service Tax

Good and Service Tax Introduction – Meaning - Need for GST - Advantages of GST - Structure of GST in India – Dual concepts - SGST-CGST-IGST-UTGST- Types of Rates under GST – Taxes subsumed under State Goods and Services Tax Act 2017- Taxes subsumed under Central Goods and Services Tax Act 2017. Meaning of important terms: Goods, services, supplier, business, manufacture, casual taxable person, aggregate turnover, input tax and output tax.

Unit 3: Levy and Collection of SGST CGST Act

Levy and Collection under SGST/CGST Acts - Concept of supply - Composite and Mixed supplies - Composition Levy - Time of supply of goods and services - Value of Taxable supply. Input Tax credit - Eligibility and conditions for taking input credit- Reverse charge under the GST- Registration procedure under GST- Concept of e-way Bill - Filing of Returns.

Unit 4: Levy and Collection of IGST

Levy and Collection under The Integrated Goods and Services Tax Act 2017- Meaning of important terms: Integrated tax, intermediary, location of the recipient and supplier of services, output tax. Levy and Collection of Tax- Determination of nature of Supply- Inter-State supply and Intra-State supply Place of Supply of Goods or Services - zero-rated supply.

Unit 5: Customs Act

Introduction to Customs Laws in India – The Customs Act 1962 - The Customs Tariff Act 1975- Levy and Exemption from Custom duty - Taxable event - Charge of Custom duty- Exemptions from duty – Customs procedures for import and export - Meaning of Classification of goods - Methods of valuation of imported goods - Abatement of duty in damaged or deteriorated goods - Remission on duty on lost, destroyed or abandoned goods - Customs duty draw back.

Note: Question Paper shall cover 100% Theory

Text Books:

1. V.S.Datey.”Indirect Taxes” Taxmann Publication(p) Ltd.New Delhi 2020.
2. R.Parameswaran and P.Viswanathan “Indirect Taxes:GST and Customs Laws”,Kavin Publications-Coimbatore, 2018.
3. Sathpal Puliana ,”Glimpse of Goods and service tax”

Reference Books:

1. Gaurav Gupta” Handbook of GST -Law and practice”.
2. SS Gupta ,“GST Law and Practice”
3. V.Balachandran “Indirect Taxation “Sultan Chand & Co. New Delhi

Course outcomes: At the end of the course, students would be able to:

1	recall various concepts relating to Indirect tax regime in India	K1
2	analyze the concept and applicability of GST in businesses	K4
3	compare the GST regime with other indirect tax laws prior to it	K2
4	illustrate GST system in own business and other prototypes	K2
5	examine the custom law and related duties and taxes	K4
K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 -Create		

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	3	3	4	4	4	3	4	4	4	3	4	3	47/13=3.61
CO-2	4	4	4	4	4	3	4	4	4	3	4	4	4	50/13=3.84
CO-3	3	4	4	4	4	4	4	4	3	4	4	4	4	50/13=3.84
CO-4	5	4	4	4	4	4	4	4	4	4	4	4	3	52/13=4
CO-5	4	4	4	4	4	4	4	4	3	3	4	4	3	49/13=3.77

19.06/5=3.812

COURSE CODE	U21CCT63	OPERATING SYSTEM	L	T	P	C
CORE –XV			5	-	-	4

Learning Objectives:

The objectives of the course are

1. To understand the main components of an OS & their function.
2. To study the process management and scheduling, to understand various issues in Inter Process Communication (IPC) and the role of OS in IPC and implementation of Memory management policies and virtual memory.
3. To understand the working of an OS as a resource manager, file system manager, process manager, memory manager and I/O manager and methods used to implement the different parts of OS.
4. To study the need for special purpose operating system with the advent of new emerging technologies

Unit 1: Introduction To Operating System

Introduction: Definition-Operating System Objectives & functions- Operating System as a resource manager, operating system as a user/computer interface-evolution of OS-serial processing, Batch processing, Multiprogramming, Time sharing system.

Unit 2: Process Management

Introduction - Meaning of Process Management: Process & threads- process of concurrency-mutual exclusion-semaphores-message passing-deadlock-principles-prevention-avoidance-detection of Processing

Unit 3: Memory Management

Memory Management: Memory management requirements –relocation, protection, sharing, logical organization, physical memory-virtual memory, paging, segmentation, combined paging & segmentation-protection& sharing-OS s/w-fetch policy, placement & replacement policy.

Unit 4:I/O Management

Introduction - Meaning- I/O Management & disk scheduling: I/O devices-organization of the I/O functions operating system design issues-I/O buffering-disk scheduling.

Unit 5: File Management

Introduction- Meaning of File Management: Overview-File organization & access-file directories-file sharing-record blocking-secondary storage management

NOTE:100% Theory.

Text Book

1. William Stalling, "Operating System", Pearson 7th Edition, 2001

Reference Book:

1. Stuart E.Madnick, John J.Donovan, "Operating system", McGrawhill International Edition, 2017.

Course outcomes: At the end of the course, students would be able to:

1	describe the important computer system resources and the role of operating system in their management policies and algorithms.	K1, K2,K3
2	understand the process management policies and scheduling of processes by CPU	K1, K2,K3
3	evaluate the requirement for process synchronization and coordination handled by operating system	K1, K2,K3
4	describe and analyze the memory management and its allocation policies.	K1, K2,K3
5	identify use and evaluate the storage management policies with respect to different storage management technologies.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS	
	1	2	3	4	5	1	2	3	4	5	6	7	8		
CO-1	5	4	4	4	5	4	4	4	4	4	4	4	4	5	55/13=4.23
CO-2	4	3	4	4	4	4	4	3	4	4	4	4	4	4	50/13=3.84
CO-3	5	4	4	4	4	4	4	4	4	3	4	4	5	53/13=4.08	
CO-4	4	3	4	4	4	3	4	4	3	4	4	3	4	48/13=3.69	
CO-5	4	4	3	3	5	4	4	3	4	3	3	4	4	48/13=3.69	

19.53/5=3.906

COURSE CODE	U21CCT64	FINANCIAL MANAGEMENT	L	T	P	C
CORE XVI			4	-	-	4

Learning Objectives:

The main objectives of this course are:

1. To understand the various concepts relating to finance
2. To familiarize with the basics of financial planning
3. To analyze various sources and forms of finance
4. To understand the various dimensions of capital market and their components
5. To provide knowledge about capitalization and related theories

Unit 1: Introduction To Financial Management

Financial Management: Meaning and scope – Objectives: Profit maximization, Wealth maximization – Functions – Financial decisions – Time value of money: Present value and Compound value – Cost of capital – Cost of debt – Cost of preference share capital – Cost of Equity – Cost of retained earnings – Weighted average cost of capital.

Unit 2: Capital Structure

Introduction to Capital structure – Meaning and features – Factors determining capital structure – EBITEPS relationship – Indifference point of EBIT – Theories of capital structure: Net income approach, Net operating income approach, MM approach and Traditional approach. Calculation of EBIT

Unit 3: Leverages

Leverage – Meaning, significance and types – Operating leverage - Financial leverage – Combined leverage – Dividend policy – Determinants of dividend policy – Theories: relevance and irrelevance with value of firm – Forms of dividend – Stock dividend – Bonus issue – Stable dividend.

Unit 4: Working Capital Management

Working capital management – Determinants of working capital – Forecasting of working capital requirements – Cash management – Motives of holding cash – Stages in cash management: Cash planning, Collection and disbursement of cash, Optimum cash balance – Boumal model – Investment of surplus cash.

Unit 5: Receivables Management

Receivables management – Objectives – Factors influencing size of receivables – Credit policy – Credit standard – Credit term – Collection policy – Incremental analysis – Inventory management – Meaning – Types of inventory – Purpose of holding inventory – Excess or

inadequate inventory – EOQ – Levels of stock: reorder level, minimum level and maximum level
– Techniques – ABC, VED, FSN and HML analysis.

Note: Question Paper shall cover 25% Theory and 75% Problem

Text Books (Latest revised edition only):

1. S.N.Maheswari “Elements of financial management” Sultan Chand & Sons., New Delhi 2019.
2. R.K.Sharma “Financial Management” Kalyani publishers, New Delhi
3. R.Ramachandran & R.Srinivasan “Financial Management “Sriram publication, Trichy 2019.
4. P.Periyasamy, “Financial Management “,Vijay Nicole Publications, Chennai. 2013.

Reference Books (Latest revised edition only)

1. Khan & Jain, “Theory and Problems of Financial management”,McGraw Hill Publication, New Delhi
2. S.P.Guptha, “Financial Management”SahityaBhavan Publication, New Delhi 2019.
3. Prasanna Chandra “Financial Management” Tata McGraw-Hill Education, New Delhi 8th Ed.2011.
4. Dr. A. Murthy “Financial Management”, Margham Publications, Chennai
5. S. K. Sharma “Fundamentals of Financial Management”, Sultan Chand & sons, New Delhi 2018.

Course outcomes: At the end of the course, students would be able to:

1	outlinevariousconceptsrelatingtofinance	K2
2	list thevarioustechniquesoffinancial planning	K2
3	analyzevarioussourcesand formsoffinance	K4
4	examinethevariousdimensions ofcapitalmarketandtheircomponents	K4
5	listthecapitalizationconceptandrelatedtheoriesfordecision making	K4
K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 -Create		

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	3	3	3	3	3	4	3	3	3	3	3	3	4	41/13=3.15
CO-2	4	4	4	4	4	4	4	4	3	4	3	4	4	50/13=3.84
CO-3	3	3	3	3	4	3	3	3	4	3	4	3	4	43/13=3.31
CO-4	4	3	3	4	4	4	4	4	3	3	4	4	4	48/13=3.69
CO-5	5	5	4	4	5	5	4	4	4	4	3	4	4	55/13=4.23
														18.22/5=3.64

COURSE CODE	U21CCP66	WEB TECHNOLOGY –LAB–PRACTICAL	L	T	P	C
CORE XVII			-	-	5	4

Learning Objectives:

The objectives of the course are to

1. Understand best technologies for solving web client/server problems.
2. Analyze and design real time web applications
3. Analyze to use appropriate client-side or Server-side applications

Unit 1: Introduction to HTML

Introduction to HTML, the Structure of HTML Program. Popular HTML Comments: Text Formatting – Paragraph breaks-Line breaks-Heading styles-Drawing Lines-Bold-Italics-Underline-Centering text-Images. Types of lists-ordered list-Unordered list-tables-width and border attribute-cell padding-spell cell spacing attribute-col span and row span attribute

Unit 2: Linking Documents in HTML

Introduction- Meaning- Linking Documents-Links-External Document Reference-Internal Document Reference-Image as Hyperlink. Frames-Forms-Button. Retrieving the documents, savings of documents in internal storage dev ices

Unit 3: PHP

Introduction: Introduction- open source-PHP – history- features-variables- statements operators-conditional statements-if-switch-nesting conditions-merging forms with conditional statements-loops-while-do-for – loop iteration with break and continue. Arrays and Functions: Arrays: Creating an array- modifying array-processing array-grouping form with arrays- using array functions- creating user defined functions- using files- sessions- cookies- executing external programs- Creating sample applications using PHP.

Unit 4: My SQL

MySQL: Effectiveness of MySQL -MySQL Tools-Prerequisites for MySQL connection Databases and tables- MySQL data types-Creating and manipulating tables Insertion, updation and deletion of rows in tables -Retrieving data- Sorting and filtering retrieved data -Advanced data filtering-Data manipulation functions Aggregate functions -Grouping data- Sub queries-Joining Tables- Set operators Full text searching.

Unit 5: PHP with MySQL

PHP with MySQL: Working MySQL with PHP-database connectivity- usage of MYSQL commands in PHP, processing result sets of queries- handling errors-debugging and diagnostic functions- validating user input through Database layer and Application layer- formatting query output with Character, Numeric, Date and time –sample database applications.

LIST OF PROGRAMS:

1. Create a simple webpage.
2. Format the text with physical styles.
3. Create a greeting card including marquee tag.
4. Create a hyperlink using text and image in your webpage.
5. Program to list the items in ordered lists and unordered list.
6. Create and format the table
7. Create frames and communication between frames.
8. Write a PHP program to find the factorial of a number using forms.
9. Write a PHP program to design a login form using Conditional Statements.
10. Write a PHP program to design a visiting card.
11. Develop a PHP program for string function using switch case.
12. Write a PHP Program to create a time table for the current semester.
13. Creating simple Database and table in MySQL.
14. Insertion, Updation and Deletion of rows in MYSQL tables
15. Searching of data by different criteria
16. Demonstration of joining tables
17. Usage of aggregate functions
18. Working with string, numeric and date functions
19. Database connectivity in PHP with MySQL
20. Create Simple application using PHP and MySQL.

Reference Books:

1. HTML Complete 2nd Edition, BPB Publications New Delhi 10001,2002
2. Elizabeth Castro, "HTML for the World Wide Web", 5th Edition, Peachpit press 2006.
3. VIKRAM VASWANI, "PHP and MySQL", Tata McGraw-Hill, 2005.
4. BEN FORTA, "MySQL Crash course" SAMS, 2006.

NOTE: Question paper shall cover 100% practical

Course outcomes: At the end of the course, students would be able to:

1	write PHP scripts to handle HTML forms.	K1, K2,K3
2	write regular expressions including modifiers, operators, and metacharacters.	K1, K2,K3
3	create PHP programs that use various PHP library functions, and that manipulate files and directories.	K1, K2,K3
4	analyze and solve various database tasks using the PHP and MySQL language.	K1, K2,K3
5	analyze and solve common Web application tasks by writing PHP programs.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	3	3	4	4	3	4	5	50/13=3.85
CO-2	4	4	4	4	4	3	4	4	4	4	4	4	4	51/13=3.92
CO-3	4	4	4	4	4	3	4	3	4	3	4	3	4	48/13=3.69
CO-4	4	4	4	4	4	3	3	3	4	4	3	4	4	48/13=3.69
CO-5	4	4	4	4	4	3	4	4	3	3	3	4	3	47/13=3.62

18.77/5=3.75

COURSE CODE	U21CCE641	CHOICE - I	L	T	P	C
ELECTIVE – IV		BUSINESS LAW	3	-	-	3

Learning Objectives:

The main objectives of this course are:

1. To provide knowledge about basics of business contract
2. To create knowledge about the regulations of agency system
3. To understand the rules of indemnity and guarantee
4. To offer knowledge about the sale and transfer of goods and the applicable laws and regulations.

Unit1: Contract Act

Introduction - meaning- Indian Contract Act - Formation - Nature and Elements of Contract - Classification of Contracts - Contract Vs Agreement. Offer - Definition - Forms of Offer - Requirements of a Valid Offer. Acceptance – Meaning - Legal rules as to a Valid Acceptance. Essentials of Valid Contract.

Unit2: Consideration

Introduction - Meaning of Consideration - Definition - Types - Essentials. Capacity of Parties - Definition - Persons Competent to contract. Free consent – Coercion - Undue Influence - Fraud - Misrepresentation - Mistake. Legality of object - Void agreements - Unlawful Agreements

Unit3: Performance of contract

Introduction - Performance of Contracts - Actual Performance - Attempted Performance - Tender. Quasi Contract - Definition and Essentials. Discharge of Contract - Modes of Discharge - Breach of Contract - Remedies available for Breach of Contract, case studies related to contract

Unit 4:Negotiable Instrument Act 1881

Negotiable Instrument Act 1881; - Characteristics of negotiable instruments- Kinds of negotiable instruments- Promissory Note, Bill of Exchange and Cheque; Definition and Nature, Parties to a Negotiable instrument, material alterations- Meaning of Holder and Holder in Due Course, Rights and privileges of holder in due course- Transfer of Negotiable Instruments.

Unit5:Sale

Introduction - Meaning of Sale - Contract of Sale - Parties to sale, Sale Vs Agreement to Sell - Meaning of Goods - Conditions and Warranty - Caveat Emptor - Exceptions of Caveat Emptor - Buyer and Seller of Goods - Unpaid Seller - Definition - Rights of an Unpaid Seller.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Balachandran. V & Thothadri.S, Business Law, Vijay Nicole Imprints Pvt. Ltd. Chennai
2. Kapoor, N.D. “Business Laws”, Sultan Chand and Sons.

Reference Books:

1. Sreenivasan, M.R. “Business Laws”, Margam Publications. 2020.
2. Dhandapani, M.V. “Business Laws”, Sultan Chand and Sons.
3. Badre Alam, S. & Saravanavel, P. “Mercantile Law”
4. Pillai, R.S.N. & Chand, S, “Business Law”, S Chand & Co, Delhi 1999
5. Ramaswamy, K.N., Business Law, S Chand & Co, Delhi
6. Shukla, M.C, “Business Law”, S. Chand & Co.

E-Resources:

www.cramerz.com

www.digitalbusinesslawgroup.com

<http://swcu.libguides.com/buslaw>

<http://libguides.slu.edu/businesslaw>

Course outcomes: At the end of the course, students would be able to:

1	assess the various elements related business law and contract	K5
2	interpret different type of contract and its features	K2
3	explain about the agency system related to creation and termination of agency	K5
4	comparebetweenrightsandduties ofindemnity,guarantee	K5
5	examinedistinctbetweensaleandagreementtosellanditsfeatures	K4
K1-Remember; K2-Understand; K3-Apply;K4-Analyze;K5 -Evaluate; K6 –Create		

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	4	4	5	3	5	5	4	5	5	$56/13=4.31$
CO-2	4	4	4	4	4	5	4	5	4	4	5	4	4	$55/13=4.23$
CO-3	4	4	4	4	4	4	5	4	4	5	4	5	4	$55/13=4.23$
CO-4	4	4	4	4	4	4	4	3	4	4	4	4	5	$52/13=4.00$
CO-5	4	4	4	4	4	4	3	4	4	4	4	4	4	$51/13=3.92$
														$20.69/5=4.14$

COURSE CODE	U21CCE642	CHOICE - II	L	T	P	C
ELECTIVE – IV		CORPORATE GOVERNANCE	3	-	-	3

Learning Objectives

The objectives of the course are

1. To provide knowledge of corporate governance, procedures, and techniques in accordance with current legal requirements and professional standards.
2. To understand the powers and duties of Directors and Shareholders.
3. To understand the framework of Corporate Governance
4. To know the concept of Business Ethics and the Corporate Social Responsibility

Unit 1: Introduction Corporate Governance

Introduction Corporate Governance - Meaning, significance and principles, Management and corporate governance; Theories and Models of corporate governance; Agency theory and separation of ownership and contract; ownership structure and firm performance; Whistle blowing, Class Action; Role of Institutional investors. Codes and Standards on Corporate Governance- Sir Adrian Cadbury Committee 1992 (UK), OECD Principles of Corporate Governance, and Sarbanes Oxley (SOX) Act, 2002 (USA).

Unit 2: Directors and Shareholders Powers

Directors and Shareholders Powers of directors; Duties of directors; Non-executive directors and their duties; Relationship between board and shareholder; Board structure and Independent director, board committees and their functions. Shareholder expectations; Regulatory requirements for shareholder involvement shareholder activism and proxy advisory firms. Role of rating agencies.

Unit 3: Major Corporate Governance Failures

Major Corporate Governance Failures and International Codes BCCI (UK), Maxwell Communication (UK), Enron (USA), World.Com (USA), Andersen, Worldwide (USA), Vivendi (France), Satyam Computer Services Ltd, Lehman Brothers, Kingfisher Airlines, PNB Heist and IL&FS Group Crisis; Common Governance Problems noticed in various Corporate Failures.

Unit 4: Corporate Governance Framework in India

Corporate Governance Framework in India Initiatives and reforms- Confederation of Indian Industry (CII) (1997), Kumar Mangalam Birla (1999), NR Narayana Murthy Committee (2005) and Uday Kotak Committee (2017). Regulatory framework: Relevant provisions of the Companies Act, 2013, SEBI: Listing Obligations and Disclosure Requirements Regulations (LODR), 2015. Corporate Governance in the public sector, banking, non- banking financial institutions.

Unit 5: Business Ethics and Corporate Social Responsibility

Business Ethics and Corporate Social Responsibility (CSR) Business Ethics and Values; Importance of Ethics; Corporate Governance and Ethics; Ethical theories; Code of Ethics and ethics committee. Concept of Corporate Social Responsibility; CSR and Corporate Sustainability, CSR and Business Ethics, CSR and Corporate Governance, CSR and Corporate Philanthropy; Environmental Aspect of CSR, Models and benefits of CSR, Drivers of CSR; CSR in India.

Note: Question Paper shall cover 100% Theory

Text Books:

1. Gupta, K., & Arora, A. Fundamentals of Auditing. New Delhi: Tata Mc-Graw Hill Publishing Co. Ltd. (2015).
2. Kumar A., Gupta L., & Arora, R. J. (2016). Auditing and Corporate Governance. Delhi: Taxmann Pvt. Ltd. Mallin, C. A. (2018). Corporate Governance. New Delhi: Oxford University Press.
3. Rani, G. D., & Mishra, R. K. Corporate Governance-Theory and Practice. New Delhi: Excel Books. (2017).

Reference Books:

1. Sharma, J. P. Corporate Governance, Business Ethics, and CSR. New Delhi: Ane Books Pvt. Ltd. 2016.
2. Tricker, B. Corporate Governance-Principles, Policies, and Practice (Indian Edition). New Delhi: Oxford University Press. (2015).
3. Institute of Chartered Accountants of India, Auditing and Assurance Standards. New Delhi: ICAI. www.icai.org

Note: Latest edition of readings may be used.

Course outcomes: At the end of the course, students would be able to:

1	explain the concept and importance of corporate governance in a business setup;	K1, K2,K3
2	explain the concept of corporate governance in organisations and its essence for management.	K1, K2,K3
3	analyse the role of board of directors and shareholders in corporate management.	K1, K2,K3
4	assess the problems in corporate governance on the basis of major corporate governance failures.	K1, K2,K3
5	describe corporate governance framework in India.	K1, K2,K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	3	3	4	4	4	3	4	4	4	3	4	3	47/13=3.61
CO-2	4	4	4	4	4	3	4	4	4	3	4	4	4	50/13=3.84
CO-3	3	4	4	4	4	4	4	4	3	4	4	4	4	50/13=3.84
CO-4	5	4	4	4	4	4	4	4	4	4	4	4	3	52/13=4
CO-5	4	4	4	4	4	4	4	4	3	3	4	4	3	49/13=3.77
														19.06/5=3.812

COURSE CODE	U21CCE643	CHOICE - III	L	T	P	C
ELECTIVE – IV		INTERNATIONAL FINANCIAL REPORTING STANDARDS	3	-	-	3

Learning Objective:

The objective of the course is to enable the students to understand the need and method of presentation of financial statements in accordance with International Financial Reporting Standards.

Unit-1: International Financial Reporting Standards:

Meaning of IFRS - relevance of IFRS to India; merits and limitations of IFRS; process of setting IFRS- Practical challenges in implementing IFRS; a brief theoretical study of International financial reporting standards (IFRS) 1 – 15 - List of International accounting standards issued by IASB.

Unit – 2: Accounting for Assets and Liabilities

Recognition criteria's for Investment properties, Government grants, Borrowing costs, Construction contracts, share based payments, Provisions, Contingent liabilities and Contingent assets, Events occurring after the reporting period (Only Theory). Recognition and measurement for property plant and equipment, Intangible assets, Inventories, Leases and Impairment. Accounting for Income tax, Employee benefits. - Simple problems

Unit-3: Presentation of Financial Statements:

Outline for the preparation of financial statements - Statement of financial position; Comprehensive income statement; Statement of changes in equity (SOCE), IAS 18 – Revenue. Elements of financial statements as per IFRS – Non-current assets; current assets; equity; non-current liability; current liability; revenue; cost of sales; distribution costs; administrative expenses; financial costs – profits attributable to owners of controlling interest and non-controlling interest – Practical problems on each element.

Unit – 4: Accounts of Groups:

Concept of group – need for consolidated financial statements - Preparation of consolidated financial statements – Procedure for the preparation of consolidated financial position statement – treatment of pre-acquisition profit; goodwill arising on consolidation; on-controlling interests at fair value – Practical problems.

Unit – 5: Disclosure Standards

Related party disclosure, Earnings per share, Interim financial reporting, Insurance contracts, Operating segments. (Theory Only)

Note: Question Paper shall cover 100% Theory

Text Books:

1. IFRS – Student Study Guide - ISDC
2. IFRS for India, Dr.A.L.Saini, Snow white publications
3. Roadmap to IFRS and Indian Accounting Standards by CA Shibarama Tripathy

ReferenceBooks:

1. IFRS explained – a guide to IFRS by BPP learning Media
2. IFRS concepts and applications by Kamal Garg, Bharath law house private limited.
3. IFRS: A quick reference guide by Robert J Kirk, Elsevier Ltd. 37 5.3 INCOM

Course Outcomes

Upon the completion of the course, the students will be able to

1	explain the concept of Conversion of final accounts to IFRS	K1, K2,K3
2	make Practical Analysis of published financial statements for at-least 2 types of stakeholders	K1, K2,K3
3	make Presentation on recent developments/exposure draft in IFRS	K1, K2,K3
4	prepare notes to accounts for non-current assets and Assignment on social reporting	K1, K2,K3
5	prepare the Consolidated Financial Statement of any two existing companies. Disclosure of change in equity in the annual reports of any two select companies.	K1, K2,K3

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	4	4	4	4	5	4	4	4	4	3	4	4	5	53/13=4.07
CO-2	4	4	4	4	4	4	3	4	3	4	3	4	4	49/13=3.77
CO-3	4	4	4	3	4	4	3	4	4	3	4	4	4	49/13=3.77
CO-4	4	3	4	4	4	4	4	4	4	4	3	4	4	50/13=3.85
CO-5	4	4	4	3	5	3	4	4	4	4	4	4	5	52/13=4
														19.46/5=3.89

COURSE CODE	U21CCS64	PERSONAL SELLING AND SALESMANSHIP	L	T	P	C
Skill Based Elective -II			2	-	-	2

Learning Objective:

The purpose of the course is to familiarize the students with the fundamentals of personal selling and the selling process.

Unit 1: Introduction to Personal Selling :

Introduction - Meaning - Nature and importance of personal selling, Difference between Personal Selling, Salesmanship and Sales Management, Myths of selling, Relationship Marketing and Role of Personal Selling. Characteristics of a good salesman, Types of selling situations, Types of sales persons; Career opportunities in selling, Measures for making selling an attractive career.

Unit 2: Theories of Selling

Traditional and Modern: AIDA Model of Selling, Problem Solving Approach, Right Set of Circumstances Theory and Modern Sales Approaches.

Unit 3 : Buying Motives

Introduction - Meaning - Importance Of Motivation, Concept of motivation, Maslow's theory of need hierarchy, Application - relevance - Dynamic nature of motivation; Buying motives and their uses in personal selling.

Unit 4: Selling Process

Introduction - meaning- Prospecting and qualifying; Pre-approach; Approach; Presentation and demonstration; handling of objections and complaints; Closing the sale; techniques for closing the sale; Customer Relations, Followup and Dealing customer concerns and complaints.

Unit 5 : Sales Planning and Control

Introduction to Sales Forecasting- requirement of sales for casting- preparation of Sales Budget, Sales Territories, Sales quota, Ethical aspects of Selling. training to Salesmen , qualities of goods salesmen.

Text Books:

1. Spiro, Stanton and Rich, Management of the Sales force, McGraw Hill.
2. Rusell, F.A. Beach and Richard H. Buskirk, Selling: Principles and Practices, McGraw Hill
3. Futrell, Charles, Sales Management: Behaviour, Practices and Cases, The Dryden Press.

References Books

1. Still, Richard R., Edward W. Cundiff and Norman A. P. Govoni, Sales Management: Decision Strategies and Cases, Prentice Hall of India Ltd., New Delhi,
2. Johnson, Kurtz and Schueing, Sales Management, McGraw Hill
3. Pedesson, Charles A. Wright, Milburn d. And Weitz, Barton A Selling: Principles and Methods, Richard, Irvin.
4. Kapoor Neeru, Advertising and personal Selling, Pinnacle, New Delhi.

Note: Latest edition of textbooks

Note: Question Paper shall cover 100% Theory

Course Outcomes

Upon the completion of the course, the students will be able to

1	prepare themselves for personal selling	K1, K2, K3
2	identify and understand of theories of Selling	K1, K2, K3
3	understand and identify the motives of buying	K1, K2, K3
4	have thorough Knowledge on Selling Process	K1, K2, K3
5	understand the procedure in Sales planning and controlling	K1, K2, K3

K1- Remembering **K2** – Understanding **K3** – Applying

Mapping:

Course Outcomes (COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	PO 1	PO 2	PO 3	PO 4	PO 5	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PS O8	
CO-1	4	4	3	4	4	4	3	4	4	4	4	4	4	50/13=3.84
CO-2	3	4	4	4	5	5	5	4	4	3	4	4	4	49/13=3.77
CO-3	4	4	4	4	5	3	4	4	4	4	4	3	5	52/13=4
CO-4	4	4	4	4	4	3	4	4	4	4	4	3	4	50/13=3.84
CO-5	4	3	4	4	4	4	3	4	4	4	4	3	4	49/13=3.77

19.53/5=3.91

COURSE	U21CCV51	E-FILING	L	T	P	C
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CODE					
VALUE ADDED COURSE			2	-	2

Learning Objectives:

The objectives of the course are to,

- Learn the conceptual understanding about filing of returns and e-filing Acquire knowledge about Income Tax and filing of different tax Returns
- Understand GST and its mechanism, different GST Returns and due dates of filing the returns Course Outcomes After successful completion of the course
- Understand the e-filing system and its process Identify the different heads of income

Unit 1 :Introduction of E-Filing:

Conceptual Framework ,Evaluation of tax,Meaning of e-filing – ,Features of e-filing-Why filing needed,VAT,GST meaning, Difference between e-filing and regular filing -filing of different tax Returns, Benefits and Limitations of e-filing – Types of e-filing due dates of filing the returns,Skillfully understand e-filing registration.

Unit 2 :Types of Assessment:

Income Tax and E-filing Introduction to Income Tax – Basic terminology – Types of Assesses – Income Taxable under difference Heads – Basics of Computation of Total Income and Tax Liability – Deductions available from Gross Total Income – PAN — Introduction to Income Tax Portal

Unit 3:ITRs Income Tax e-filing registration :

Income Tax and e-filing of ITRs Income Tax e-filing registration – Registration Process – Individuals – Other than Individuals- Meaning of Income Tax Returns (ITRs) -Types of ITRs- Who should file which ITR: ITR-1; ITR-2; ITR-3; ITR-4;ITR-5; ITR-6 - Due date for filing of Income Tax Returns

Unit 4:Tax deductions:

TDS and E-filing of TDS Returns Introduction to the concept of TDS – Provisions regarding Returns of TDS – Types of Forms for filing TDS Returns ,TDS Understand GST and its mechanism, different GST Returns,process Identify the different heads of income.

Unit 5:GST Returns:

E-filing of GST Returns Introduction to GST – GSTN Portal – Input-Tax Credit – e-way bills- Benefits of GST – Online GST Registration– Types of GST Returns – Monthly, Quarterly Annual and Final. - Input Tax Credit-Invoices, Credit/Debit Notes - Payment of Tax - Types of e-filing Due Date for filing of GSTRs

Text Books:

1. Mehrotra and Goyal Sahitya 2020-21 Income Tax Law and Accounts, Bhavan, Publications New Delhi Sarangi G 2020-21
2. Goods and Services Tax, Centtax Publications Pvt. Limited ,New Delhi Srinivasan .T 2020-21 Income Tax Law and Practice, Vijay Nicloe Imprints Limited, Chennai.

Reference Books:

1. Ahuja G & Gupta R 2020-21 Simplified Approach to GST and Customs Law Flair Publications, New Delhi Gaur V.P. and D.B. Narang 2020-21, Income Tax Law and Practice Kalyani Publishers, Ludhiana Singhania V 2020-2
2. Students Guide to E>Returns with CD Tammann Publications, New Delhi Singhania V 2020-21 students Guide to GST and Customs Law, Taxmann Publications Pvt. Ltd, New Delhi
3. Vinod K. Singhania 2020-21 Students Guide to Income Tax – Taxmann Publications Pvt. Ltd, New Delhi.

Note: Question Paper shall cover 100% Theory

Course Outcomes:

Upon the completion of the course, the students will be able to

1	learn the conceptual understanding about filing of returns and e-filing	K1, K2,K3
2	understand the completion of the course, the students will toAcquire knowledge about Income Tax and filing of different tax Returns	K1, K2,K3
3	make Presentation on recent developments in E- filing	K1, K2,K3
4	understand GST and its mechanism, different GST Returns and due dates of filing the returns Course Outcomes After successful completion of the course	K1, K2,K3
5	become expert in GST and different GSTRs and their due dates.	K1, K2,K3

Mapping:

(COS)	Programme Outcomes (POS)					Programme Specific Outcomes (PSOS)								Mean Scores of COS
	1	2	3	4	5	1	2	3	4	5	6	7	8	
CO-1	3	3	3	3	3	4	3	3	3	3	3	4	4	42/13=3.23
CO-2	4	4	4	4	4	4	4	3	3	4	3	4	4	49/13=3.76
CO-3	3	3	4	4	4	3	3	3	4	3	4	3	4	45/13=3.46
CO-4	4	3	3	4	4	4	4	4	3	3	4	4	4	48/13=3.69
CO-5	5	5	4	4	5	5	4	4	4	4	3	4	4	55/13=4.23
														18.22/5=3.674
