B. Com.

COMPUTER APPLICATIONS
DEGREE PROGRAMME

Curriculum (2019 - 2022)



Department of Commerce Bishop Heber College

(Autonomous)

Tiruchirappalli - 620 017

	I SEMESTER	II SEMESTER				
Language I	Language I	Language II	Language II			
English II	English I	English II	English II			
Core I	Financial Accounting – I	Core II	Financial Accounting - II			
Allied I	Banking Theory Law and Practice	Allied III	Programming in C++			
Allied II	E - Commerce	Allied IV	Business Statistics			
VLO	Value Education (RI / MI)	Environmental Studies	Environmental Studies			
	III SEMESTER		IV SEMESTER			
Language III	Language III	Language	Language IV			
English III	English III	English IV	English IV			
Core III	Financial Accounting – III	Core V	Cost Accounting			
Core IV	Quantitative Techniques	Elective I	Business Law/ Retail Management			
Allied V	Internet and Web Designing	Allied VI	Programming in Java			
SBEC I	Office Automation	SBEC II	Programming in R			
NMEC I	Principles of Commerce	NMEC II	Principles of Management			
	V SEMESTER		VI SEMESTER			
Core VI	Income Tax Law and Practice	Core X	Business Mathematics			
Core VII	Business Management Practices	Core XI	Management Accounting			
Core VIII	Computers in Business	Core XII	Financial Services			
Core IX	Financial Management	Core XIII	RDBMS Lab			
Elective II	Enterprise Resource Planning / Human Resource Management	Elective III	Entrepreneurial Development/ Indirect Taxes			
SBEC III	Soft Skills		Extension Activities Gender Studies-			

SCHEME OF COURSES & SYLLABUS Programme: B.Com. CA (2019 onwards)

Sem.	Part Course	Course Title	Course	Hours	Credits	Marks	1
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				Code	/ week		CI A	ES E	Tota 1
	I	Tamil I /*	செய்யுள், உரைநடை, இலக்கிய வரலாறு, மொழிப்பயிற்சி மற்றும் படைப்பாக்கமும்	U18TM1L1	6	3	25	75	100
	II	English I	English Communication Skills - I	U16EGNL1	6	3	40	60	100
I		Core I	Financial Accounting - I	U18CC101	6	5	25	75	100
	III	Allied I	Banking Theory Law and Practice	U18CC1Y1	5	4	25	75	100
		Allied II	E - Commerce	U18CC1Y2	5	4	25	75	100
	IV	Val. Edu.	Value Education (RI/MI)	U15VL1:1/ U15VL1:2	2,	2,	25	75	100
	I	Tamil II /*	செய்யுள், இலக்கிய வரலாறு, சிறுகதைத் திரட்டு, மொழிப்பயிற்சி மற்றும் படைப்பாக்கமும்	U18TM2L2	6	3	25	75	100
	II	English II	English Communication Skills - II	U16EGNL2	6	3	40	60	100
II		Core II	Financial Accounting - II	U18CC202	6	5	25	75	100
	III	Allied III	Programming in C++	U18CCPY3	5	4	40	60	100
		Allied IV	Business Statistics	U18CC2Y4	5	4	25	75	100
	IV	Env. Studies	Environmental Studies	U16EST21	2,	2,	25	75	100
	I	Tamil III /*	காப்பியம், புராணம், சிற்நிலக்கியம், இலக்கிய வரலாறு, நாவல், மொழிப்பயிற்சி	U18TM3L3	6	3	25	75	100
	II	English III	Business Communication in English	U17EGCL3	6	3	40	60	100
III	III	Core III	Financial Accounting - III	U18CC303	5	4	25	75	100
		Core IV	Quantitative Techniques	U18CC304	5	4	25	75	100
		Allied V	Internet and Web Designing	U18CCPY5	4	3	40	60	100
	IV	SBEC I	Office Automation	U18CCPS1	2,	2,	40	60	100
	1 V	NMEC I	Principles of Commerce	U18CC3E1	2,	2,	25	75	100
	I	Tamil IV /*	செய்யுள்(மேற்கணக்கு,கீழ்கணக்கு) இலக்கிய வரலாறு, நாடகம், மொழிப்பயிற்சி	U18TM4L4	5	3	25	75	100
	II	English IV	English through Literature	U16EGNL4	5	3	40	60	100
		Core V	Cost Accounting	U18CC405	5	5	25	75	100
IV	III	Elective I	Business Law / Retail Management	U18CC4:1/ U18CC4:2	5	5	25	75	100
1 V		Allied VI	Programming in Java	U18CCPY6	4	3	40	60	100
	IV	SBEC II	Programming in R	U18CCPS2	2	2,	40	60	100
		NMEC II	Principles of Management	U18CC4E2	2,	2,	25	75	100
		Soft Skills	Life Skills	U16LFS41	2,	I	25	75	100
	V	Extension Activities	NSS,NCC,Rotract,Lioclub, etc	Uı6ETA4ı		I			

Sem.	Part	Course	Course Title	Course Code	Hours / week	Credits	Marks		
							CI A	ES E	Tota 1
V		Core VI	Income Tax Law and Practice	U18CC506	6	5	25	75	100
		III	Core VII	Business Management Practices	U18CC507	6	5	25	75

		Core VIII	Computers in Business	U18CCPo8	6	5	40	60	100
		Core IX	Financial Management	U18CC509	5	5	25	75	100
		Elective II	Enterprise Resource Planning / Human Resource Management	U18CC5:1/ U18CC5:2	5	5	25	75	100
	IV	SBEC III	Soft Skills	U18CCPS3	2	2,	40	60	100
		Core X	Business Mathematics	U18CC610	6	5	25	75	100
		Core XI	Management Accounting	U18CC611	6	5	25	75	100
	III	Core XII	Financial Services	U18CC612	6	5	25	75	100
VI		Core XIII	RDBMS Lab	U18CCP13	6	4	40	60	100
		Elective III	Entrepreneurial Development/ Indirect Taxes	U18CC6:1/ U18CC6:2	6	5	25	75	100
	V	Gender Studies	Gender Studies	U16GST61		I	1	1	100
SBEC	SBEC : Skill Based Elective Courses								
NME	C: N	Non Major El	ective Courses Total Credits:			140			
* Oth	* Other Languages: Hindi Sanskrit French Hindi Sanskrit French							nch	
Semes	ster I	: U14HD1L1	U14SK1L1 U14FR1L1 Semester III : U1	4HD3L3	U14SI	K3L3 U	14FR	3L3	
Semes	Semester II: U14HD2L2 U14SK2L2 U14FR2L2 Semester IV: U14HD4L4 U14SK4L4 U14FR4L4						-4		
Part I : 4 Core Theory : 13 Allied : 6 NMEC : 2 Env. Studies : 1 Value Education : 1						tal:			
Part II:4 Elective:3 SBEC:3 Soft Skills:1 Extension Activities:1 Gender Studies:1					4	40			
NME	NMEC offered by the Department: 1. Principles of Commerce - U18CC3E1								
	2. Principles of Management - U18CC4E2								

SEMESTER I

Course code: U18CC101

Hours: 6 FINANCIAL ACCOUNTING - I Credits: 5

COURSE OBJECTIVE

At the end of the course the students shall have an understanding of the basic concepts and shall have acquired skills in preparing final accounts of trading and non-trading organisations.

Unit I Introduction to Accounting

- I.I Basic concepts and conventions
- 1.2 Journal Entries including adjustments entries
- 1.3 Ledger
- 1.4 Trial balance
- 1.5 Preparation of Final Accounts
 - 1.5.1 Manufacturing accounts
 - 1.5.2 Trading accounts
 - 1.5.3 Profit and Loss account
 - 1.5.4 Balance sheet.

Unit II Depreciation

- 2.1 Concept of depreciation
- 2.2 Causes of depreciation
- 2.3 Factors affecting amount of depreciation
- 2.4 Methods of recording depreciation
 - 2.4.1 When provision for depreciation account is maintained
 - 2.4.2 When provision for depreciation account is not maintained
- 2.5 Methods of providing depreciation
 - 2.5.1 Straight Line Method
 - 2.5.2 Written Down Value Method

Unit III Final Accounts of Non profit organisations

- 3.1. Receipts and payment accounts
- 3.2 Income and Expenditure

- 3.3 Balance sheet
- 3.4 Preparation of Receipt and Payment account from Income and Expenditure account and Balance sheet
- Preparation of opening and closing balance sheet from given Income and Expenditure account and Receipt and Payment account.

Unit IV Bill of Exchange (Excluding Accommodation Bills)

- 4.1 Methods of Handling Bills of Exchange
 - 4.1.1 Retained till Maturity
 - 4.1.2 Discounting of Bills
 - 4.1.3 Endorsement of Bills
 - 4.1.4 Sent for Collection
- 4.2 Recording Transaction in books of Different Parties
 - 4.2.1 Retiring a bill under Rebate
 - 4.2.2 Dishonour of a bill
 - 4.2.3 Renewal of a bill
 - 4.2.4 Insolvency of the drawee
- 4.3 Bank Reconciliation Statement
 - 4.2.1 From Cash book to Pass book.
 - 4.2.2 From Pass book to Cash book.
 - **4.2.3** Preparation of Adjusted cash book

Unit V Single Entry System

- 5.1 Difference between Single Entry and Double Entry System
- 5.2 Ascertainment of Profit
- 5.3 Methods of Preparation
 - 5.3.1 Statement of Affair Method
 - 5.3.2 Conversion Method.

TEXT

T.S. Reddy and A. Murthy -Financial Accounting - Margam Publications, Chennai

REFERENCE

R.L.Gupta and V.K. Gupta-Principles and practice of Accountancy, Eleventh edition-2005, Sultan Chand Sons, New Delhi

N. Vinayagam& B. Charumathi - Financial Accounting Second revised edition-2008, S.Chand& Company Ltd, New Delhi

Theory 20% (Section A), Problems 80% (Section B & C)

SEMESTER I

Allied - I BANKING THEORY LAW AND Course Code : U18CC1Y1
PRACTICE

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course the students shall have an exposure to various concepts in Indian Banking System, and shall have an understanding of the provisions of the Banking Regulations Act, 1949 and be familiar with the latest developments in the field of Banking and Financial system.

Unit I Banking

- I.o. An overview of Origin and development of banks
- I.I. Banking Regulations Act 1949- Definition of Banking and Licensing of Banks
- 1.2. Kinds of Banks
 - 1.2.1 Commercial banks
 - 1.2.2 Industrial or Investment banks
 - 1.2.3 Cooperative banks-
 - 1.2.4 Agricultural development banks
 - 1.2.5 EXIM bank
 - 1.2.6 Foreign banks or foreign exchange banks
- 1.3. Commercial Banks- Functions of Modern Commercial banks and Universal banking
- 1.4. Opening of Bank branches Importance and Inspection
- 1.5. Non Banking Financial Companies (NBFCs)

Unit II Central bank

- 2.0. Reserve bank of India Objectives- Departments- Functions
- 2.1. Monetary policy Types of credit control measures

- 2.1.1 Objectives of Credit Control-Quantitative Credit Control
- 2.1.2 Bank Rate-Working-Open market operation-Effectiveness
- 2.1.3 Cash Reserve Ratio-Variable Cash Reserve ratio (VCRR)
- 2.1.4 Selective Credit control measures-Regulation of Consumer Credit
- 2.2. Management of Deposits Types of deposits
- 2.3. Advances and Lending -principles of sound banklending

Unit III Banker, Customer and Negotiable instruments

- 3.0. Relationship between banker and customer
- 3.1. Special types of bank customers
- 3.2. Negotiable instruments Definition Features
 - 3.2.1. Promissory note-Bill of exchange-Holder and Holder in due course
 - 3.2.2. Cheques- Crossing of cheque Types of crossing Dishonour of Cheques
 - 3.2.3. Endorsement Types of Endorsements

- 3.3 Collection banker and paying banker
 - 3.3.1. Meaning of collecting banker-Capacity-Conversion-Statutory protection
 - 3.3.2. Meaning of paying banker- payment in due course
 - 3.3.3. Duties and responsibilities of paying banker in honouring cheques
 - 3.3.4. Dishonour and Consequences of wrongful dishonour by paying banker
 - **3.3.5.** Statutory protection to paying banker

Unit IV Electronic banking

- 4.0. E-Banking Meaning Benefits
- 4.1. Internet Banking Services Drawbacks
- 4.2. Mobile Banking Features Drawbacks
- 4.3. Automated Teller Machine (ATM) -Features Benefits Challenges
- 4.4. Credit Cards Benefits Constraints
- 4.5. Cash deposit machine CDM- Coin vending machine- MICR Cheques Benefits

Unit V Recent Trends

- 5.0. RBI Guidelines Benefits of Electronic Clearing Systems
- 5.1. E-Cheques E-Money Real Time Gross Settlement (RTGS) Benefits to Banker and Customer
- 5.2. Core Banking Solutions (CBS) Benefits Single Window Concepts Features
- **5.3.** Demat account -Application supported by blocked amount (ASBA)

TEXT

KPM Sundharam and PN Varhney(2010)- "Banking Theory Law And Practice", Sultan Chand & Sons, New Delhi

REFERENCE

B.Santhanam - Banking Theory Law and Practice, Margham Publications, 5th edition (2012)

SEMESTER I

Allied- II Course Code : U18CC1Y2
E-COMMERCE

Hours:5 Credits: 4

COURSE OBJECTIVE

At the end of the course students shall have an exposure about concepts of E-Commerce and security in E-commerce

Unit I Introduction to Electronic Commerce

- 1.1 Features and Framework
- 1.2 Traditional vs. Electronic commerce
 - 1.2.1 Applications
 - 1.2.2 Anatomy of E-Commerce
- I.3 Business To Business E-Commerce
 - 1.3.1 Implementation
 - 1.3.2 Steps
- I.4 Customer to customer E-Commerce
- 1.5 Advantage and disadvantage of E Commerce

Unit II Basic network infrastructure of E-Commerce

- 2.1 An overview of network infrastructure
 - 2.1.1Applications and limitations
- 2.2 Satellite Systems
- 2.3 components of the I- Way.
 - 2.3.1 Market forces beyond I-Way
 - 2.3.2 Public policy issues shaping the I Way
- 2.4 Internet as a network infrastructure
 - 2.4.1 Intranet
 - 2.4.2 Extranet
 - 2.4.3 Application and Limitation
- 2.5 Business of internet
 - 2.5.1 Commercialization

Unit III E-Commerce Security

Network Security 3.I. Computer security 3.2 3.2.1 Threat 3.2.2 Hacker 3.2.3 Cookie Types of Security 3.3 3.3.1 Physical security 3.3.2 Logical security Online Security Services 3.4 3.4.1 Computer security classifications 3.4.2 Security policy and integrated security 3.4.3 Managing Risk Security for server Computers. 3.5 Unit IV E-Commerce and WWW Architectural framework of E Commerce **4.**I Publishing in E commerce 4.2 4.2.1 Hyper text 4.2.2 Hyper media Technology beyond the web in e commerce practices 4.3 Uniform resource locater 4.2.I HTML4.2.2 HTTP 4.2.3 Categories of internet data 4.4 Public data 4.4.I Copyright data 4.4.2 Confidential data 4.4.3

Secret Data

Electronic data interchange-EDI

4.4.4

4.5

- 4.5.1 Implementation
- 4.5.2 Security schemes
- 4.5.3 Encryption ethics

Unit V Organisational E-Commerce and cyber law

- 5.1 Organisational E Commerce
 - 5.1.1. Inter and intra organisational e commerce
 - 5.1.2 Cross functional management
 - 5.1.3 Macro forces and internal commerce
- 5.2 Ecommerce catalogues
 - 5.2.1 Document management
 - 5.2.2 Digital libraries
- 5.3 Cyber law
 - 5.3.1 Concepts
 - 5.3.2 Cyber law and e commerce contracts
- 5.4 Information Technology Act 2000
- 5.5 Authentication of E- Records
 - 5.5.1 Electronic Governance
 - 5.5.2 Digital Signature Certificates

TEXT

R. Kalakota and A. B. Whinston-Frontiers of Electronic Commerce - Addison Wesley

REFERENCE

Nidhi Dhawan - Introduction to E Commerce - International Book House

Suresh T Viswanathan, The Indian Cyber Law, 2nd Edition, Bharat Law House, 2015

SEMESTER II

Core- II Course Code :U18CC202
FINANCIAL ACCOUNTING II

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course the students shall have acquired skills to prepare consignment, joint venture, Branch, Hire purchase and Departmental accounts.

Unit I Consignment

- 1.1 Concept of Consignment
- 1.2 Ordinary Commission and Delcredere Commission
- 1.3 Valuation of unsold stock in the hands of consignee
- 1.4 Preparation of account sales
- 1.5 Treatment of abnormal loss
- 1.6 Treatment of normal loss
- 1.7 Accounting treatment in the books of consignor
- 1.8 Accounting treatment in the books of consignee.

Unit II Joint Venture

- 2.1 Concept of joint venture
- 2.2 Difference between consignment and Joint venture
- 2.3 Methods of recording Joint Venture transactions
 - 2.3.1 Recording the transactions in a separate set of books
 - 2.3.2 Recording the transactions in the books of only one co-venturer
 - 2.3.3 Recording the transaction in the books of all the co-venturers.

Unit III Branch Accounts

- 3.1 Types of Branch Accounts
 - 3.1.1 Dependent branch
 - 3.1.1.1 Debtors Method

- 3.1.1.2 Stock and Debtors Method
- 3.1.1.3 Final accounts Method
- 3.1.1.4 Wholesale branch Method
- 3.1.2 Independent branch.
 - 3.1.2.1 Separate Final Accounts Methods

Unit IV Hire Purchase

- 4.1 Recording in the books hire vendor & hire purchaser (including Default and Repossession).
- 4.2 Methods of Recording
 - 4.2.1 Full cash price Method
 - 4.2.2 Actual price Method
 - 4.2.3 Interest suspense Method
 - 4.2.4 Debtors Method
 - 4.2.5 Stock & Debtors Method

Unit V Departmental Accounts

- 5.1 Treatment and Apportionment of Joint expenses
- 5.2 Treatment of Inter departmental transfers
- 5.3 Preparation of Departmental Trading and Profit and Loss Account
- 5.4 General Profit and Loss Account

TEXT

T.S.Reddy and A.Murthy-Financial Accounting -Margam publications, Chennai

REFERENCE

R.L.Gupta and V.K.Gupta-Principles and Practice of Accountancy, Eleventh edition-2005, Sultan Chand Sons, New Delhi

N Vinayagam and B. Charumathi - Financial Accounting, Second revised edition-2008, S.Chand& Company Ltd,New Delhi

Theory 20% (Section A), Problems 80% (Section B & C)

SEMESTER II

Allied- III Course Code :U18CCPY3
PROGRAMMING IN C++

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course the students shall be able to write programmes under C++.

Unit-1 Object Oriented Programming

- 1.1 Introduction to OOP
- 1.2 Meaning of Object
- 1.3 Meaning of Class
- 1.4 LOOP statements
- 1.5 LOOP characteristics: Creation of new Data Types
- 1.6 Class, Objects, Inheritance, Encapsulation, Abstraction, Polymorphism
- 1.7 Operator Overloading, Function Overloading, Function Defining
- 1.8 Software Reusability.

Unit-2: C Versus C++

- 2.1 Comparison between C and C++
- 2.2 Data Types: Integer Data Types Char. Unsigned Char
- 2.3 Int, Unsigned Int, Long, Unsigned Long Short, Unsigned Short, Int
- 2.4 Floating Data Types
- 2.5 Input Statement (or) Input Function Cin>>, Output Statement (or) Output Function Cout>>
- 2.6 Operators Arithmetic Operator, Logical Operators, Relational Operators.

Unit-3: Arrays

- 3.1 Introduction to Arrays
- 3.2 Declaration of Arrays
- 3.3 Different Types of Arrays: One Dimensional Array, Two Dimensional Array
- 3.4 Array Examples on Variables
- 3.5 Array Examples on Constants.

Unit-4: Programming Constructs

- 4.1 Unary Operators Increment Operator (++), Decrement Operator (--).
- 4.2 Prefix Notation, Postfix Notation
- 4.3 Conditional Constructs Switch . Case Construct,
- 4.4 Break Statement, Default Keyword, Conditional Operator
- 4.5 Loop Construct While Loop, Do while Loop, For loop.
- 4.6 Examples on Programming Constructs.

Unit -5: Important Features of C++

- 5.1 Classes and Objects
- 5.2 Structure Pointers
- 5.3 Enumerated Data Types Constructors Destructors.

TEXT

E.Balagurusamy - Object Oriented Programming with C++ -Mcgraw Hill

REFERENCE

Yashavant Kanetkar - Introduction to Object Oriented Programming with C++ -BPB Publications

D.Ravichandran - Programming with C++ - Mcgraw Hill

Yashavant Kanetkar - Let Us C++ - BPB Publications

(Practicals)

SEMESTER II

Allied - IV Course Code:U18CC2Y4

BUSINESS STATISTICS

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course the students shall have acquired skills relating to the collection and analysis of data and to draw meaningful inference from the analysis using the appropriate statistical tools.

Unit I Introduction to the study of Statistics

- I.I. Statistics
 - 1.1.1. Meaning
 - 1.1.2. Definition
 - 1.1.3. Functions
 - 1.1.4. Scope
 - 1.1.5. Merits and Demerits
- 1.2. Sampling
 - 1.2.1. Meaning
 - 1.2.2. Definition
 - 1.2.3. Methods of sampling
- 1.3. Collection of data
- 1.4. Tabulation of data
- 1.5. Representation of data
 - 1.5.1. Diagrammatic Representation
 - **1.5.2.** Graphic representation

Unit II Measures of central Tendency

- 2.1. Mathematical averages
 - 2.1.1. Arithmetic Mean
 - 2.I.I.I. Direct method

- 2.1.1.2. Short-cut method2.1.1.3. Step Deviation method
- 2.1.2. Geometric Mean
- 2.1.3. Harmonic Mean
- 2.1.4. Corrected Mean
- 2.1.5. Combined Mean
- 2.2. Positional averages
 - 2.2.1. Median
 - 2.2.2. Quartiles
 - 2.2.3. Deciles
 - 2.2.4. Percentiles
- 2.3. Mode

Unit III Measures of Dispersion

- 3.1. Range
- 3.2. Quartile Deviation
- 3.3. Mean Deviation
- 3.4. Standard Deviation
 - 3.4.1. Actual Mean method
 - 3.4.2. Assumed Mean Method
 - 3.4.3. Combined Standard Deviation
 - 3.4.4. Corrected Standard Deviation
- 3.5. Coefficient of variation
- 3.6. Comparison of Measures of dispersion
- 3.7. Lorenz Curve

Unit IV Correlation and Regression:

- 4.1. Correlation
 - 4.1.1. Definition
 - 4.1.2. Karl Pearson's Correlation
 - 4.1.3. Spearman Rank Correlation

- 4.1.4. Concurrent Deviation
- 4.2. Regression
 - 4.2.1. Definition
 - 4.2.2. Regression Equation
 - 4.2.3. Linear Regression
 - 4.2.4. Difference between Regression and Correlation

Unit V Analysis of Time series and Index numbers:

- 5.1. Elements of Time Series
 - 5.1.1. Secular Trend
 - 5.1.1.1. Graphic Method
 - 5.1.1.2. Method of Semi-Averages
 - 5.1.1.3. Method of Moving Averages
 - 5.1.1.4. Method of Least Squares
 - 5.1.2. Seasonal Fluctuations
 - 5.1.2.1. Method of Simple Averages
 - 5.1.2.2. Method of Moving Averages
 - 5.1.2.3. Ratio to trend Method
 - 5.1.2.4. Method of link Relatives
 - 5.1.3. Cyclical Fluctuation
 - 5.1.4. Random Fluctuation
- 5.2. Index Numbers
 - 5.2.1 Definition
 - 5.2.2. Simple Index number
 - 5.2.3. Weighted Index Number
 - 5.2.3.1 Laspeyre's formula
 - 5.2.3.2 Paache's formula
 - 5.2.3.3 Fisher's formula
 - 5.2.3.4 Marshal Edge-worth

- 5.2.3.5 Bowley's foermula
- 5.2.3.6 Kelly's formula
- 5.2.4. Mathematical tests of consistency
 - 5.2.4.1 Time reversal test
 - 5.2.4.2 Factor reversal tes
 - 5.2.5. Fixed Index Number
 - 5.2.6. Chain Index Number
 - 5.2.7. Cost of Living Index

TEXT

R.S.N.Pillai and Bagavathy, Statistics : Theory and Practice, Sultan Chand & Sons, 2010, New Delhi

REFERENCE

PA. Navanitham, Business Statistics, Jai publishers, Trichy

Theory - 20% (Section A), Problems - 80% (Section B & C)

SEMESTER III

Core- III Course Code:U18CC303

FINANCIAL ACCOUNTING - III

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course the students shall have understanding of the nature of partnership, and will be able to prepare Revaluation account for recording changes in valuation of assets and liabilities at the time of retirement of a partner, follow the accounting procedure when two or more than two firms amalgamate, understand the purpose of royalty accounting and its treatment and recording and understand the meaning of insurance claims and its computation.

Unit I Partnership accounts

- I.I Essential characteristics of partnership
- 1.2 Preparation of Final accounts With adjustments
- 1.3 Fixed and Fluctuating capital Methods
- 1.4 Method of Calculating of Goodwill.
 - 1.4.1 Average Profit Method
 - 1.4.2 Super Profit Method
 - 1.4.3 Capitalisation Method

Unit II Treatment for Partnership Admission

- 2.1 Treatment for Partnership Retirement
- 2.2 Treatment for Death of a partner
- Treatment of Joint life policy for Retirement and Death of a Partner

Unit III Amalgamation, Dissolution of firms and Insolvency of Partners

- 3.1 Amalgamation of partnership firm
- 3.2 Dissolution of partnership firms
- 3.3 Insolvency of partners
 - 3.3.1 Insolvency of only one partners
 - 3.3.2 Insolvency of all partners
- 3.4 Sale of a firm to a company
- 3.5 Gradual realisation of assets or Piecemeal distribution.
 - 3.5.1 Maximum Loss Method
 - 3.5.2 Surplus Capital Method

Unit IV Royalty

- 4.1 Concept of Royalty
- 4.2 Treatment for Lease
 - 4.2.1 Recording in the books of lessor
 - 4.2.2 Recording in the books lessee.

- 4.3 Treatment for Sublease
 - 4.3.1 Recording in the books of lessor
 - 4.3.2 Recording in the books lessee.
 - 4.3.3 Recording in the books Sublessee

Unit V Insurance claims

- 5.1 Computation of Claim to be lodged Including Average Clause
 - 5.1.1 For Loss of Stock Policy
 - 5.1.2 For Loss of Profits Policy

TEXT

T.S.Reddy and A.Murthy-Financial Accounting -Margam publications, Chennai

REFERENCE

R.L.Gupta and V.K.Gupta-Principles and Practice of Accountancy, Eleventh edition-2005, Sultan Chand &Sons,New Delhi

N Vinayagam and B. Charumathi - Financial Accounting, Second revised edition-2008, S.Chand& Company Ltd, New Delhi

SEMESTER III

Core- IV Course Code:U18CC304

QUANTITATIVE TECHNIQUES

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course, the student shall have gained knowledge about the Linear Programming Problem and its methods, will be able to analyse and find an optimal solution to the transportation problem, shall have developed an understanding about the game theory and simulation, gained knowledge about the replacement theory and shall be able to analyse and find solution to problems in decision analysis and network analysis.

Unit I Introduction to Operations research and Linear Programming Problem

- 1.1 Operations research Origin and development
- 1.2 Role in decision making
- 1.3 Phases and approaches to OR
- 1.4 Linear programming problem Applications and limitations
- 1.5 Formulation of LPP
- 1.6. Optimal Solution to LPP
 - 1.6.1 Graphical method
 - 1.6.2 Simplex Method (excluding dual problem)

Unit II Transportation and Assignment problem

- 2.1 Transportation problem methods
 - 2.I.I North West corner method
 - 2.1.2 Least cost method
 - 2.1.3 Vogel's approximation method
 - 2.1.4 Moving towards optimality Stepping stone & MODI methods
- 2.2 Assignment problem

Unit III Game Theory and Simulation

- 3.1 Game Theory- different strategies followed by the players in agame.
 - 3.1.1 Optimal strategies of a game using maximin criterion.
- 3.1.2 Dominance property
- 3.1.3 Graphical method
- 3.2 Simulation

Unit IV Replacement Problem

- 4.1 Replacement decisions
- 4.2 Replacement policy without change in money value
- 4.3 Replacement of items that fail completely (group replacement)
- 4.4 Applications in finance and accounting

Unit V Decision Analysis and Network Analysis

- 5.1 Decision analysis EMV criterion EOL and EVPI
- 5.2 Decision tree analysis
- 5.3 Network Analysis
 - 5.3.1 PERT
 - 5.3.2 CPM
 - 5.3.3 Simple CPM calculations
- 5.4 Application in finance and accounting (Excluding crash)

TEXT

P.R.Vittal - Operation Research, Margham publications, 2nd edition, Chennai

REFERENCE

V.K.Kapoor, Operations Research, Sultan Chand & Sons, 5th edition

S.C.Kothari, Quantitative techniques, Vikas Publishing House Pvt.Ltd, Delhi

P.Mariappan, Operation Research, Pearson Education India

P.C.Tulsian& Vishal Pandey - Quantitative techniques, Pearson Education

Theory – 20 % (Section A) , Problems –80 % (Section B & C)

SEMESTER III

Allied V INTERNET AND Course Code:U18CCPY5

Hours: 4 WEB DESIGNING (LAB) Credits: 3

COURSE OBJECTIVE

At the end of the course students will have the knowledge about internet and students will be able to create web pages by using HTML.

Unit I Basics in Internet

- I.I Emergence of Internet
- 1.2 Internet basics protocols
- 1.3 Working of Internet
- 1.4 Internet Address-Domain names
- 1.5 Types of Browsers or search Engines
- 1.6 Connecting to the Internet Installing and configuring a modem
- 1.7 Creating a connection profile Changing the default connection

Unit II Basics in Web Design

- 2.1 Introduction to Web technology
- 2.2 What is World Wide Web?
- 2.3 How the website works?
- 2.4 Types of website
- 2.5 Client and server scripting languages
- 2.6 Elements of a webpage

Unit III HTML

- 3.1 Introduction to HTML
- 3.2 HTML document
- 3.3 Basic structure of HTML
- 3.2 Creating an HTML document

- 3.3 Web Server, Web client/Browser
- 3.4 HTML basic tags Title Footer Paragraph breaks Line breaks -
- 3.5 Heading style Text Style Spacing Cantering Font size and Colour.

Unit IV Elements of HTML

- 4.1 Adding graphics to HTML document Using width, head alternative attributes
- 4.2 List Types of List
- 4.3 Tables Header rows Data rows
- 4.4 Caption tags Cells spacing
- 4.5 BG colour
- 4.6 Rows span Cols pan attributes
- 4.7 Links Internal and external document reference Images as per hyper links.

Unit V DHTML

- 5.1 Introduction
- 5.2 Cascading style
- 5.3 Colour background
- 5.4 Text attributes
- 5.5 Border attributes
- 5.6 Marginal related attributes
- 5.7 List attributes Class: external style sheet

TEXT

Maureen Adams and Sherry Bonelli

- Internet Complete- BPB Publications

REFERENCE

Ivan Bayross -Web enabled commercial applicationdevelopment using HTML, DHTML, JAVA SCRIPT, Perl CGI- BPB Publications

(Practicals)

SEMESTER III

SBEC - I Course Code :U18CCPS1 OFFICE AUTOMATION Hours: 2 Credits: 2

COURSE OBJECTIVE

At the end of the course students shall have understanding of basic in MS Office.

Unit I Introduction to Office automation

- I.I Meaning and Information
- 1.2 Nature of Office work
- 1.3 Functions of an Office
- 1.4 Office Communications
- 1.5 Services of an Office
- 1.6 Need for office automation -
- 1.7 Summary of Office Automation.

Unit II MS WORD

- 2.1 MS-WORD file creation
- 2.2 Text Manipulations
- 2.3 Usage of Numbering, Bullets
- 2.4 Tools and Headers. Usage of Spell Check and Find and Replace
- 2.5 Text Formatting
- 2.6 Picture Insertion and Alignment
- 2.7 Creation of Documents Using Templates
- 2.8 Creation of Templates-Mail Merge Concept
- 2.9 Copying Text and Picture From Excel
- 2.10 Creation of Tables, Formatting Tables
- 2.11 Splitting the Screen-Opening Multiple Document

Unit III MS-EXCEL

- 3.1 Creation of Worksheet and Entering Information-
- 3.2 Aligning, Editing Data in Cell
- 3.3 Excel Function (Date, Time, Statistical, Mathematical, Financial Functions)
- 3.4 Changing of Column Width and Row Height (Column and Range of Column)
- 3.5 Moving, copying, Inserting and Deleting Rows and Columns
- 3.6 Formatting Numbers and Other Numeric Formats
- 3.7 Drawing Borders around Cells
- 3.8 Creation of Charts raising Moving
- 3.9 Changing Chart Type
- 3.10 Controlling the Appearance of a Chart

Unit IV MS - POWER POINT

- 4.1 Working with Slides
- 4.2 Creating, saving, closing presentation
- 4.3 Adding Headers and footers -Changing slide layout
- 4.4 Working fonts and bullets- Inserting
- 4.5 Clipart Working with Clipart
- 4.6 Applying Transition and animation effects
- 4.7 Run and Slide Show

Unit V MS Access

- 5.1 Introduction to Access
- 5.2 Creating a Simple Database and Tables
- 5.3 Entering and Editing Data Finding, Sorting and Displaying Data.

TEXT

Taxali, R.K-PC Software for WINDOWS Made Simple- Tata McGraw Hill

REFERENCE

Sanjay Saxena - A First Course in Computers- Vikas Publications

(Practicals)

SEMESTER III

NMEC - I Course Code :U18CC3E1

Hours: 2 PRINCIPLES OF COMMERCE Credits: 2

COURSE OBJECTIVE

On completion of this course the students shall have gained knowledge about Industry and Commerce and will be able to identify the different forms of organization, to appraise the contributions of Transportation and warehouses to businesses, and will have gained knowledge about Banking, Insurance, Marketing and Advertising and their role in business.

Unit I Introduction to Commerce

- I.I.I Economic activities Concept of Business-
- 1.1.2 Characteristics of business- Objectives of business.
- I.I.3 Classification of business activities: Industry and Commerce.
- 1.1.4 Industry-Types-Primary and Secondary.
- I.I.5 Commerce: Trade and Aids to trade- Types

Unit II Forms of Organisation

- 2.1.1 Forms of Organisation- Sole proprietorship-Partnership firm
- 2.1.2 Joint stock company- features, merits and demerits-
- 2.1.3 Formation of company
- 2.1.4 MOA-AOA-Prospectus
- 2.1.5 Public enterprises-Co-operative societies

Unit III Transportation and Warehouses

- 3.1.1 Transport-Functions
- 3.1.2 Modes of transport- Road, Railway, Water, Airway

- 3.1.3 Advantages and disadvantages of Transportation
- 3.1.4 Warehouse Types and functions

Unit IV Banking and Insurance

- 4.1.1 Banking- Functions of Banks
- 4.1.2 Types of Bank Accounts.
- 4.1.3 Insurance-Principles of insurance
- 4.1.4 Types of insurance, Advantages of insurance.

Unit V Marketing and Advertising

- 5.1.1. Marketing- Definition-Functions.
- 5.1..2 Marketing Mix
- 5.1..3 Market segmentation
- 5.1.4 Advertising- Types
- 5...1.5 Advertising media-Kinds of media.-Advantages and disadvantages

TEXT

Fundamentals of Business Organisation - Y.K. Bhushan (Sultan chand)

REFERENCE

Modern Marketing Principles and Practices- R.S.N. Pillai and Bhagavathi

SEMESTER IV

Core- V Course Code :U18CC405 COST ACCOUNTING

Hours: 5 Credits: 5

COURSE OBJECTIVE

On completion of this course the students will be familiar with the importance of cost ascertainment, reduction and control of Material, Labour and Overheads, will have developed the skills needed to apply costing technique for each element of cost and will have understood the procedures to calculate the cost of the products and services.

Unit I Introduction to Cost Accounting and Material Control

- I.I Cost Accounting
 - I.I.I Definition of Cost, costing, cost Accounting and cost Accountancy
 - 1.1.2 Scope of Cost Accounting
 - 1.1.3 Merit and Demerit
 - 1.1.4 Classification of cost
 - 1.1.5 Elements of cost
 - 1.1.6 Cost centre
 - 1.1.7 Cost unit
 - 1.1.8 Cost control
 - 1.1.9 Cost reduction
- 1.2 Material Control
 - 1.2.1 Introduction
 - 1.2.2 Meaning of material control
 - 1.2.3 Objectives of material control
 - 1.2.4 Essentials of material control
 - 1.2.5 Purchase control
 - 1.2.6 Store keeping and stock control and inventory control
 - 1.2.7 Levels of stock and Economic Ordering Quantity
 - 1.2.8 ABC Analysis
- 1.3 Pricing of material issues
 - 1.3.1 LIFO (Last In First out)

FIFO (First In First Out) 1.3.2 Simple Average Method 1.3.3 Weighted Average Method 1.3.4 Unit II Computation and Control of Labour Cost Labour cost **2.**I Introduction 2.I.I Types of Labour 2.1.2 Labour turnover 2.2 Methods and measurement of Labour turnover 2.3 Separation method 2.3.I Replacement method 2.3.2 Flux method 2.3.3 Idle time and Overtime 2.4 Methods of remuneration 2.5 Time rate system 2.5.1 Piece rate system 2.5.2 Straight piece rate system 2.5.3 Taylors differential piece rate system 2.5.4 Merrick's Multiple or differential piece rate system 2.5.5 Gantt's task and bonus plan 2.5.6 2.6 Premium Bonus plans 2.6.1 Halsey premium plan Halsey-weir scheme 2.6.2 2.6.3 Rowan plan

Barth's variable sharing plan

Bedeaux's point premium system

Emerson's Efficiency plan

Unit III Overheads

2.6.4

2.6.5

2.6.6

3.1.0	Meaning and Definition of overheads				
3.2.0	Import	ance of Overhead cost			
3.3.0	Allocation of Overheads				
3.4	Apport	Apportionment			
	3.4.1	Primary distribution			
	3.4.2	Secondary distribution			
		3.4.2.1 Repeated Distribution method			
		3.4.2.2 Simultaneous equation method			
3.5	Absorp	tion of overheads			
	3.5.1	Overhead Rate			
	3.5.2	Types of overhead rate			
3.6	Method	ds of absorption of overhead			
	3.6.1	Direct material cost method			
	3.6.2	Direct Labour cost method			
	3.6.3	Prime cost percentage method			
	3.6.4	Direct Labour hour method			
	3.6.5	Machine hour rate method			
	3.6.6	Computation of machine hour rate			
3.7	Under	and over absorption of overheads.			
Unit I	V Cost s	heet, Tenders and quotations & Methods of costing			
	(Job, B	atch and Contract)			
4. I	Cost sh	neet			
	4. I.I	Treatment of stock or incentives			
	4.1.2	Tender and quotations			
	4.1.3	Reconciliation of cost and financial accounts			
4.2	Job cos	ting			
	4.2. I	Definition of job costing			
	4.2.2	Job costing procedures			
	4.2.3	Forms used in job costing			

Batch Costing 4.3 Definition of Batch costing 4.3.I Determination of Economic Batch Quantity 4.3.2 Contract costing 4.4 Introduction 4.4.I Characteristic Features of contracts and contract costing 4.4.2 Recording of Costs of a Contract 4.4.3 Recording of Value and Profit on Contracts 4.4.4 Profit or Loss on Contracts 4.4.5 Escalation clause 4.4.6 Cost plus Contracts. 4.4.7 Unit V Methods of costing (operating Costing and process Costing) Operating and operation costing 5.1 Meaning and definition 5.I.I Operation and service costing 5.1.2 Transport Costing 5.1.3 Costing Procedures in Transport of Costs 5.1.4 Presentation of Costs 5.1.5 Computation of Cost Unit in Road Transport Business 5.1.6 Importance of Running Kilometers 5.1.7 5.1.8 Types of problems **Process Costing** 5.2 Meaning of Process Costing 5.2.1 Costing procedures 5.2.2 Important aspects of Process Costing - (Normal loss, Abnormal loss and gain) 5.2.3

TEXT

5.2.4

Reddy T.S. and Hari Prasad Reddy Y., (2012). Cost Accounting, Margham Publications: Chennai.

Work in progress (excluding equivalent production concepts)

REFERENCE

- I. Murthy & Gurusamy S, (2000). Cost Accounting, Tata McGrawHill Publications: New Delhi.
- 2. Jain S.P & Narang K. L., (2012). Cost Accounting, Kalyani Publications: New Delhi.

Theory 20 % (Section A), Problems 80 % (Section B & C)

Elective - I Course Code:U18CC4:1

BUSINESS LAW

Hours: 4 Credits: 3

COURSE OBJECTIVE

On completion of this course the students will have learnt the fundamentals of laws pertaining to general contracts and special contracts and laws relating to the Sale of Goods.

Unit I Introduction the object and nature of the law of contract

- 1.1 Introduction
 - I.I.I Nature and classification of Contracts
 - I.I.2 Essential elements of a valid contract
- 1.2 Void, Voidable and Valid agreement
- 1.3 Offer and Acceptance
 - 1.3.1 Legal rules as to offer
 - 1.3.2 Tenders
 - 1.3.3 Cross offers
 - 1.3.4 Legal rules as to acceptance.

Unit II Consideration and Legality of Object

- 2.1 Consideration
 - 2.1.1 Definition
 - 2.1.2 Legal rules as to consideration
 - 2.1.3 Stranger to contract
 - 2.1.4 Contract without consideration is void-exceptions
- 2.2 Capacity of Parties
 - 2.2.1 Law relating to competence of parties to a contact
 - 2.2.2 Minors
 - 2.2.3 Persons of unsound mind
 - 2.2.4 Other persons
- 2.3 Free Consent

Meaning of "consent" and "free consent" 2.3.I Coercion 2.3.2 Difference between coercion and undue influence 2.3.3 Define misrepresentation and fraud 2.3.4 Effects on the validity of an agreement 2.3.5 Legality of Object 2.4 Unlawful and illegal agreements 2.4.1 Effects of illegality 2.4.2 Doctrine of public policy 2.4.3 Void contracts. 2.5 Contingent Contract 2.6 Essential characteristics of a contingent contract 2.6.1 Rules regarding contingent contract 2.6.2 2.6.3 Difference between a wagering agreement and a contingent contract Unit III Performance and Discharge of Contracts Performance of contracts 3.I 3.I.I Requisites of a valid tender Reciprocal promises 3.1.2 Discharge of contracts - Modes of Discharge 3.2 Remedies for Breach of contract 3.3 Quasi contracts 3.4 Kinds of quasi-contracts. 3.4.I Unit IV Special contracts Special contracts 4.0 Indemnity and Guarantee 4.I Essential features of a contract of guarantee 4.I.I Distinction between a contract of indemnity and a contract of guarantee 4.I.2 Kinds of guarantee 4.1.3 Rights of surety 4.1.4

	4.1.5	Discharge of surety						
4.2	Bailment and pledge							
	4.2. I	Requisites of bailment, Classification of bailment						
	4.2.2	Duties and rights of bailor and bailee						
	4.2.3	Distinction between particular lien and general lien						
	4.2.4	Finder of goods						
	4.2.6	Termination of bailment						
	4.2.7	Rights and duties of pawnor and pawnee						
4.3	Agency	7						
	4.3.I	Essentials of relationship of agency						
	4.3.2	Creation of agency						
	4-3-3	Classification of agents						
	4.3.4	Termination of agency.						
Unit V Sale of Goods								
5 . I	Sale of Goods Act 1930							
5.2	Format	Formation of contract of sale						
	5.2.1	Essentials of a contract of sale						
	5.2.2	Distinction between sale and agreement to sell and a hire-purchase agreement						
	5.2.3	Classification of goods						
	5.2.4	Effect of destruction of goods						
	5.2.5	Document of title to goods						
5.3	Conditions and Warranties							
	5.3.I	Distinction between a condition and warranty - Implied Conditions and Warranties						
	5.3.2	Caveat Emptor						
5.4	Transfe	er of property in and title of goods						
	5.4.1	Passing of property						
	5.4.2	Sale by non-owners						
5.5	Rights of unpaid seller							
	5.5.1	Remedies for breach of contract of sale						

5.5.2 Auction sales.

TEXT

N.D.Kapoor - Elements of Mercantile Law, Sultan Chand& Sons

REFERENCE

K.R.Bulchandani -Business law for management - Vikas4/e, Himalaya Publishing House, 2006

 $Tulsian\ P.\ C \quad \text{-}\ Business\ Law\ for\ management, Sultan\ Chand\ Publications}$

Elective - I Course Code :U18CC4:2

RETAIL MANAGMENT

Hours: 4 Credits: 3

COURSE OBJECTIVE

After completing this course, the student will know various forms of retailing businesses, have developed knowledge on store location, practical analysis of site and trading, inventory management, analyse critical elements of retail stores operations and equip himself with skills critical for store keeping strategies.

Unit I Retailing

- 1.1 Meaning
- 1.2 Definition
- 1.3 Characteristics
- 1.4 Retailing principles
- 1.5 Retail sales objectives
- 1.6 Retailing in India
- 1.7 Across the globe
- 1.8 Emerging trends in retailing
- 1.9 Retail formats
 - 1.9.1 Store based
 - 1.9.2 Non-store based
 - 1.9.3. Traditional and non-traditional retailing
 - 1.9.4 Internet retailing
 - 1.9.5 Cyber retailing.

Unit II Store location

- 2.1 Importance
- 2.2 Selection of loyalty
- 2.3 Site analysis
- 2.4 Trading analysis
- 2.5 Demand and supply density
- 2.6 Site availability

- 2.7 Trends in store location
 2.8 Retail marketing segmentation
 2.9 Significance
- 2.11 Key retail segments.

Unit III Inventory

2.10

3.1 Reasons for holding inventory

Market segmentation process

- 3.2 Methods of inventory control
- 3.3 Selective inventory management
- 3.4 EOQ model
- 3.5 ABC analysis-VED analysis-FSN analysis HML analysis
- 3.6 Inventory costs
- 3.7 Material handling
- 3.8 Latest development in inventory management.

Unit IV Retail store operations

- 4.1 Elements of retail store operations
- 4.2 Management of retail store
- 4.3 The role of centralized retailer
- 4.4 An integrated retailing approach
- 4.5 Operations master schedule
- 4.6 Store maintenance
- 4.7 Energy management
- 4.8 Retailing success tips.

Unit V Distribution management

- 5.1 Distribution channel
- 5.2 Functions of a distribution channel
- 5.3 Channel levels
- 5.4 Elements of physical distribution

- 5.5 Wholesaling
 - 5.5.1 Classification and characteristics
- 5.6 Warehousing
 - 5.6.1 Need
 - 5.6.2 Benefits
 - 5.6.3 Functions
 - 5.6.4 Features
 - 5.6.5 Classifications

TEXT

Harjit Singh, (2014), Retail Management - A Global Perspective, Text and Cases, S.Chand& Company Ltd., New Delhi

REFERENCE

Gibson G Vedamani, (2011), Retail Management:- Functional Principles and Practices, Jaico Publishing House, New Delhi.

GouravGhosal, (2010), Retail Management, Maxford Books PublishingHouse, New Delhi.

Dr. L. Natarajan (2016), Retail Management, Margham Publications, Chennai.

Allied VI Course Code:U18CCPY6 PROGRAMMING IN JAVA

Hours: 5 Credits: 4

COURSE OBJECTIVE

At the end of the course, students shall be able to write programs under java and practice various applications of java.

Unit I Introduction to Java

- 1.0 Features of Java
- I.I Object Oriented Concepts
- 1.2 Data Types
- 1.3 Variables
- 1.4 Arrays
- 1.5 Operators
- 1.6 Control Statements
- 1.7 Input and output in Java

Unit II Classes and Objects

- 2.0 Definition
- 2.1 Constructor and Destructor
- 2.2 Overloading and Overriding methods
- 2.3 Access Control
- 2.4 Types of Classes
- 2.5 Static and fixed methods
- 2.6 Inheritance
- 2.7 Auto boxing and Auto Unboxing
- 2.8 Recursion

Unit III Packages

- 3.0 Introduction to Java API packages
- 3.1 Access Protection

- 3.2 Importing Packages
- 3.3 Interfaces
- 3.4 Multithreading
- 3.5 Exception Handling
- 3.6 Applets

Unit IV GUI components

- 4.0 Common GUI Event types
- 4.1 Listener Interfaces
- 4.1 Event Handling
- 4.2 Adapter Classes

Unit V Layout Managers

- 5.0 Definition
- 5.1 Types
- 5.2 Graphics
 - 5.2.1 Java 2D
 - 5.2.2 Graphics contexts
 - 5.2.3 Formatting Controls
 - 5.2.4 Drawing Shapes
- 5.4 JSlider
- 5.5 Using menus with Frames.

TEXT

C.Muthu - Programming in Java - Tata Mcgraw Hill

REFERENCE

Deitel & Deitel - Java How to Program - Prentice Hall

(Practicals)

SBEC II Course Code :U18CCPS2
PROGRAMMING IN R

Hours: 2 Credits: 2

COURSE OBJECTIVE

At the end of the course, students shall be able to apply the software R for statistical calculations.

Unit - I Basics in R

- 1.1 Introduction
- 1.2 How to run R
- 1.3 R Sessions and Functions
- 1.4 Basic Math

Unit II Measures of central Tendency

- 2.1. Mathematical averages
 - 2.1.1. Arithmetic Mean
 - 2.1.1.1. Direct method
 - 2.1.1.2. Short-cut method
 - 2.1.1.3. Step Deviation method
 - 2.1.2. Geometric Mean
 - 2.1.3. Harmonic Mean
 - 2.1.4. Corrected Mean
 - 2.1.5. Combined Mean
- 2.2. Positional averages
 - 2.2.1. Median
 - 2.2.2. Quartiles
 - 2.2.3. Deciles
 - 2.2.4. Percentiles
- 2.3. Mode

Unit III Measures of Dispersion

- 3.1. Range
- 3.2. Quartile Deviation

- 3.3. Mean Deviation
- 3.4. Standard Deviation
 - 3.4.1. Actual Mean method
 - 3.4.2. Assumed Mean Method
 - 3.4.3. Combined Standard Deviation
 - 3.4.4. Corrected Standard Deviation
- **3.5.** Coefficient of variation

Unit - IV Graph

- 4.1 Introduction to Graphs,
- 4.2 Creating Graphs
- 4.3 The Workhorse of R Base Graphs,
- 4.4 Customizing Graphs
- 4.5 Saving Graphs to Files.
- 4.6 Analyzing data using tables

Unit V Correlation and Regression:

- 5.1 Measures of skewness
- 5.2 Calculation of correlation coefficient
- 5.3 Rank Correlation
- 5.4 Finding Regression lines

TEXT

- 1. The Art of R Programming, Norman Matloff, Cengage Learning
- 2. R for Everyone, Lander, Pearson

REFERENCE

- I. R Cookbook, PaulTeetor, Oreilly.
- 2. R in Action, Rob Kabacoff, Manning

(Practicals)

NMEC - II

PRINCIPLES OF MANAGEMENT

Hours: 2

Course Code:U18CC4E2

PRINCIPLES OF MANAGEMENT

Credits: 2

COURSE OBJECTIVE

On Completion of this course, Students will have the knowledge of Business and will be able to start and manage a Business.

Unit I Business

- 1.1 Definition
- 1.2 Characteristics
- 1.3 Objectives of business
- 1.4 Forms of Business Organisation
 - 1.4.1 Sole Proprietorship
 - 1.4.2 Partnership firm
 - 1.4.3 Company-features

Unit II Management and Planning

- 2.1 Management
 - 2.1.1 Definitions
 - 2.1.2 Features of management
 - 2.1.3 Principles of management
 - 2.1.4 Functions of management
- 2.2 Planning
 - 2.2.1 Meaning
 - 2.2.2 Steps in Planning
 - 2.2.3 Planning Process
 - 2.2.4 Decision making
 - 2.2.5 Steps in Decision making

Unit III Organising and Staffing

- Organising **3.**I 3.1.1 Definition and meaning Features of Organising 3.I.2 Organisational Structure 3.1.3 Delegation -Process 3.1.4 Decentralization 3.1.5 Staffing 3.2 Meaning 3.2.I Objectives 3.2.2 Recruitment 3.2.3 3.2.3.1 Sources of Recruitment Training 3.2.4 **3.2.4.1** Methods of Training Unit IV Directing Motivation 4.I Definition 4.I.I Maslow's theory of Hierarchy of needs 4.1.2 Douglas McGregor's theory 4.1.3
- Leadership 4.2
 - 4.2.I Importance
 - Leadership Styles 4.2.2
 - Qualities of a good leader 4.2.3
- 4.3 Communication
 - Process 4.3.I
 - Types of Communication 4.3.2

Unit V Coordination and Control

Coordination 5.1

- 5.1.1 Concept
 5.1.2 Features
 5.1.3 Internal and External Coordination
 5.2 Control
 5.2.1 Concept
 5.2.2 Importance
 5.2.3 Process
- TEXT

5.2.4

Dr.C.B. Gupta, Business Organisation and Management, Sultan Chand & Co

Essentials of a Good Control System

Core- VI INCOME TAX LAW Course Code:U18CC506
AND PRACTICE

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course, students shall be able to learn the concepts of taxation in general and income tax in particular and shall be able to calculate tax on incomes under different heads.

Unit I Basic Concepts of Income Tax

I.I History of income tax	I.I	History	of	income	tax
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- 1.2 Cannons of taxation
- 1.3 Assessee
- 1.4 Various types of Assessees
- 1.5 Assessment year
- 1.6 Previous year
- 1.7 Agricultural income
- 1.8 Capital receipts and revenue receipts
- 1.9 Capital expenditure and revenue expenditure
- 1.10 Capital loss and revenue loss
- I.II Incomes exempted u/s 10
- 1.12 Ordinary resident, not ordinary resident and non-resident
- 1.13 Basic conditions and additional conditions to identifying the residential status of individual
- 1.14 Residential status
 - 1.14.1 Hindu Undivided Family (HUF)
 - 1.14.2 Company
 - 1.14.3 Firm
 - I.14.4 Association of Person (AOP)
 - 1.14.5 Body of Individual (BOI)
 - 1.14.6 Artificial Juridical person
- 1.15 Incidence of tax
- 1.16 Incomes are taxable for ordinary resident, not ordinary resident and non-resident
- Introduction to Income tax Portal: Practical Workshop on preparation of electronic return and e-filling of TDS returns

Unit II Computation of income under salary

- 2.1 The characteristics / features of salary
- 2.2 Incomes that are chargeable to tax under the head salaries as per section 15
- 2.3 Different forms of salary
 - 2.3.1 Advance salary

- 2.3.2 Arrear salary
- 2.3.3 Gratuity
- 2.3.4 Pension
 - 2.3.4.1 Government employee
 - 2.3.4.2 Non-government employee
- 2.3.5 Leave encashment
 - 2.3.5.1 Government employee
 - 2.3.5.2 Non-government employee
- 2.3.6 Provident fund and its calculation
- 2.3.7 Profit in lieu of salary
- 2.4 Allowance
 - 2.4.1 Taxable and non-taxable
- 2.5 Perquisites
 - 2.5.1 Specified employee and unspecified employee
 - 2.5.2 Taxable for all specified and unspecified
 - 2.5.3 Taxable for specified employee only
 - 2.5.4 Exempted for all (specified and unspecified with certain limits)
- 2.6 Deductions u/s 16
- 2.7 Deduction u/s 8oc

Unit III Computation of income under house property

- 3.1 Basic terms
 - 3.1.1 Expected rent
 - 3.1.2 Faire rental value
 - 3.1.3 Market value
 - 3.1.4 Actual rent
 - 3.1.5 Standard rent
 - 3.1.6 Unrealized rent
 - 3.1.7 Vacancy period
 - 3.1.8 Arrear rent
 - 3.1.9 Gross annual value
 - 3.1.10 Net annual value
 - 3.1.11 Standard deduction
 - 3.1.12 Sub letting
 - 3.1.13 Composite rent
 - 3.1.14 Municipal tax
 - 3.1.15 Municipal value ratio
 - 3.1.16 Notional value
 - 3.1.17 Self-occupied house
 - 3.1.18 Let out house
 - 3.1.19 Deemed to be let out house
- 3.2 Income that can be taxed under the head house property
- 3.3 Exempted house property income
- 3.4 Calculation of Gross Annual Value
- 3.5 Calculation of Net Annual Value
- 3.6 Treatment of party let out and partly self-occupied house
- 3.7 Treatment of part of the year let out and part of the year self-occupied

- 3.8 The rules should be followed while allowing interest on borrowed capital for selfoccupied house.
- 3.9 The treatment of the followings
 - 3.9.1 Pre-completion/ pre-construction interest
 - 3.9.2 Date of loan
 - 3.9.3 Date of completion
 - 3.9.4 Date of repayment
 - 3.9.5 Unrealized rent and arrear of rent recovered
- 3.10 Calculation of income from house property

Unit IV Computation of income under business or profession

- 4.1 Basic terms
 - 4.1.1 Business
 - 4.1.2 Profession
 - 4.1.3 Vocation
 - 4.1.4 Speculation business
 - 4.1.5 Illegal business
 - 4.1.6 Bad debt recovered allowed earlier
 - 4.1.7 Bad debt recovered disallowed earlier
 - 4.1.8 Under valuation of stock
 - 4.1.9 Over valuation of stock
- 4.2 Various incomes that are taxable under the head of income from business and profession
- 4.3 Various methods of accounting
- 4.4 The losses, which are incidental to business
- 4.5 Various expenses, which are expressly allowed and disallowed while calculating income from business
- 4.6 Calculation of undervaluation and over valuation of stock
- 4.7 Calculation of Income from business
- 4.8 Rules for calculating Income from profession
- 4.9 Calculation of Income from profession

Unit V Computation of income under capital gains and other sources

- 5.1. Basic terms Income From Capital Gains
 - 5.1.1 Capital assets
 - 5.1.2 Short term capital assets
 - 5.1.3 Long term capital asset
 - 5.1.4 Short term capital gain
 - 5.1.5 Long term capital gain
 - 5.1.6 Transfer
 - 5.1.7 Slump sale
 - 5.1.8 Cost of acquisition
 - 5.1.9 Cost of improvement
 - 5.1.10 Indexed cost
- 5.2 Treatment of depreciable asset while calculating capital gains
- 5.3 Various assets which are not included in capital assets
- 5.4 The capital gains exempted u/s 10
- 5.5 Various exemption u/s 54,54B,54D,54EC, 54ED,54F,54G and 54H

- 5.6 Calculation of the income under capital gains
- 5.1 Basic term Income From Other Source
 - 5.6.1 Cash system accounting
 - 5.6.2 Mercantile system of accounting
 - 5.6.3 Casual income
 - 5.6.4 Tax free Government securities
 - 5.6.5 Less tax Government securities
 - 5.6.6 Tax free Commercial securities
 - 5.6.7 Less tax Commercial securities
 - 5.6.8 Stake money
- 5.7 Residuary head of income
- 5.8 The general income u/s56(1) and specific income u/s56(2) that can be taxed under the head of other source
- 5.9 Various deductions
- 5.10 Various deductions that cannot be claimed as deductions
- 5.11 The treatment of casual incomes
- 5.12 Various kinds of securities and their tax treatment
- 5.13 Grossing up of income and its calculation
- 5.14 Calculation of income from other source

TEXT

N.Hariharan - Income tax, law and practice, Vijay Nicole Imprint Private Limited

REFERENCE

Gaur and Narang - Income tax, law and practice, Kalyani publishers

Dinkarpagare - Law and practice of income tax, Sultan Chand Sons

Theory - 25 % (Section A), Problems - 75 % (Section B & C)

Core- VII

BUSINESS MANAGEMENT PRACTICES

Course Code:U18CC507

Hours: 6 Credits: 5

COURSE OBJECTIVE

On Completion of this course, Students will have the knowledge of Business and will be able to start and manage a Business

Unit I Introduction to Management and Planning in management

- 1.1 Management
- 1.2 Meaning, Definition of Management
- 1.3 Features of management
- 1.4 Contribution of F.W.Taylor, Henri Fayol, Elton Mayo and PeterDrucker
- 1.5 Hawthorne Experiments
- 1.6 Functions of Management
- 1.7 Planning
 - 1.7.1 Meaning
 - 1.7.2 Steps
 - 1.7.3 Types of Planning
 - 1.7.4 Planning Process
- 1.8 Decision Making
 - 1.8.1 Techniques
 - 1.8.2 Steps
- 1.9 MBO
 - 1.9.1 Definition
 - 1.9.2 Features
 - 1.9.3 Steps in MBO
 - 1.9.4 Merits
- **1.10** Roles of a manager Mintzberg's

UNIT II Organising

2.1 Meaning

- 2.2 Nature and Importance of Organisation
- 2.3 Organisation Theory
- 2.4 Types of Organisation
- 2.5 Delegation
 - 2.5.1 Definition
 - 2.5.2 Process of Delegation
 - 2.5.3 Types of Delegation
 - 2.5.4 Barriers to Delegation

UNIT III Staffing - HRM

- 3.1 Meaning
- 3.2 Objectives, Policies and Procedures
- 3.3 Functions of HRM
 - 3.3.1 Recruitment
 - 3.3.1.1 Definition
 - 3.3.1.2 Sources of Recruitment.
 - 3.3.2 Selection
 - 3.3.2.1 Definition
 - 3.3.2.2 Process of Selection
 - 3.3.3 Recruitment Vs Selection
 - 3.3.4 Training
 - 3.3.4.1 Definition
 - 3.3.4.2 Steps in Training
 - 3.3.4.3 Methods of Training.
- 3.4 Performance Appraisal
 - 3.4.1 Definition,
 - 3.4.2 Objectives of performance Appraisal
 - 3.4.3 Methods of Performance Appraisal
 - 3.4.4 Job Analysis- Definition

Techniques of Job Analysis 3.4.5 Job Description and Job Specification - Concept 3.4.6 Job Evaluation - Objectives 3.4.7 Methods of Job evaluation 3.4.8

UNIT IV Directing

- Motivation **4.**I
 - Definition and Types of Motivation 4.I.I
 - Theories of Motivation 4.1.2
 - Maslow's theory of Hierarch of needs
 - 4.1.2.2 Douglas McGregor's theory
 - Herzberg's Theory 4.1.2.3
- Leadership 4.2
 - Leadership Styles 4.2.I
 - Qualities of leadership 4.2.2
 - Functions of a Leader 4.2.3
- Communication 4.3
 - Meaning and importance of communication 4.3.I
 - Elements of communication Process 4.3.2
 - Types of communication 4.3.3
 - Problems or Barriers in communication 4.3.4

UNIT V Co-ordination control and Recent Trends in management

- Coordination 5.1
 - 5.1.1 Meaning
 - Determinants of coordination needs 5.1.2
 - Coordination mechanism 5.1.3
 - Techniques of Coordination 5.1.4
- Control 5.2
 - Meaning and Nature of control 5.2.1

- 5.2.2 Characteristics of an Ideal Control System
- 5.2.3 Control Devices
 - 5.2.3.1 Traditional devices
 - 5.2.3.2 Modern devices
- 5.3 Recent trends in Business Management
 - 5.3.1 Introduction- Virtual organization and Global organization
 - 5.3.2 Finance
 - 5.3.2.1 Block chain
 - 5.3.2.2 Data Analytics
 - 5.3.3 Human Resource Management
 - 5.3.3.1 HR Analytics
 - 5.3.3.2 Gig economy
 - 5.3.4 Marketing
 - 5.3.4.1 Big Data in Marketing Analytics
 - 5.3.4.2 Search engine optimization
 - 5.3.4.3 CRM
 - 5.3.5 Production Management
 - 5.3.5.1 TQM
 - 5.3.5.2 Lean management
 - 5.3.5.3 Six Sigma

TEXT

- S. A. Sherlekar Modern Business Organization and Management, Himalaya Publishing House Pvt. Ltd. - India (2014)
- 2. Dr. C. B. Gupta Industrial Organization and Management, Sultan Chand & Co, India (2004)
- 3. Biswanath Ghosh —Human Resource Development and Management, Vikas Publishing House Pvt., Ltd., New Delhi.(2000)

Core- VIII Course Code:U18CCP08

COMPUTERS IN BUSINESS

Hours: 5 Credits: 5

COURSE OBJECTIVE

On completion of the course student will be able to understand the basic concepts of Tally, and will be skilful in maintaining accounts of a business firm using Tally.

Unit I Introduction to Tally

- I.I Basic concept of Tally
- 1.2 Architecture and customization of Tally
- 1.3 F11 features of Tally
- 1.4 F12 configuration of Tally
- 1.5 Tally screen and menu

Unit II Ledger creation and Accounting Voucher Entries

- 2.1 Ledger creation
 - 2.1.1 Creation of company
 - 2.1.2 Group creation
 - 2.1.3 Ledger creation
 - 2.1.4 Altering and deleting company, group and ledger Accounts
- 2.2 Accounting voucher Entries
 - 2.2.1 Receipts voucher
 - 2.2.2 Payment voucher
 - 2.2.3 Purchase voucher
 - 2.2.4 Sales voucher
 - 2.2.5 Contra voucher
 - 2.2.6 Journal voucher
 - 2.2.7 Altering and Deleting voucher

Unit III Inventory and Voucher entries

- 3.1 Creation of Inventory
 - 3.1.1 Configuration and features of stock items
 - 3.1.2 Create stock item
 - 3.1.3 Create unit of measurement
 - 3.1.4 Create stock group
 - 3.1.5 Create stock category
 - 3.1.6 Create Godown
- 3.2 Creation of inventory vouchers (without tracking no)
 - 3.2.1 Create receipt note
 - 3.2.2 Create delivery note

- 3.2.3 Create Rejection in
- 3.2.4 Create Rejection out
- 3.2.5 Stock Journal
- 3.2.6 Physical stock

Unit IV Cost Centres and voucher entries and advanced invoicing

- 4.1 Cost centers and cost category
 - 4.1.1 Creation of cost centers
 - 4.1.2 Editing and deleting
 - 4.1.3 Cost centers in voucher entry
 - 4.1.4 Create Bill wise details
 - 4.1.5 Create Tracking Number
 - 4.1.6 Create Order Number
- 4.2 Advanced Invoicing
 - 4.2.1 Create receipt note
 - 4.2.2 Create delivery note
 - 4.2.3 Create Rejection in
 - 4.2.4 Create Rejection out
 - 4.2.5 Create purchase order
 - 4.2.6 Create sales order

Unit V VAT Application in TALLY

- 5.0 Computation of VAT
 - 5.1.1 Introduction to VAT
 - 5.1.2 Features of VAT
 - 5.1.3 Input and output VAT Ledger
 - 5.1.4 Creation of import purchase
 - 5.1.5 Creation of interstate purchase
 - 5.1.6 Creation of purchase of capital goods
 - 5.1.7 Creation of export sales
 - 5.1.8 Creation of interstate sales
 - 5.1.9 Creation of sales-exempt

TEXT

Business Computing, Published by Department of Commerce, Edition 2012.

REFERENCE

Tally Solution Materials

Genises Tally Academy

Core- IX FINANCIAL Course Code: U18CC509

MANAGEMENT

Hours: 6 Credits: 5

COURSE OBJECTIVE

On completion of this course the student shall have gained knowledge about financial management, the concepts of working capital, capital budgeting and leverages, Capital structure and dividend policies

Unit I Introduction

- I.I Meaning of Financial management
- I.2 Scope
- 1.3 Financial Environment
- 1.4 Time value of Money
 - 1.4.1. Present Value Techniques
 - 1.4.2 Future Value Techniques
- 1.5 Risk and Return
 - 1.5.1 Portfolio risk
 - 1.5.2 Capital Asset Pricing Model
- 1.6 Valuation of Securities
 - 1.6.1 Value of Equity Shares
 - 1.6.2 Value of Preference Shares
 - 1.6.3 Value of Debentures

Unit II Working capital management

- 2.1 Working capital management
 - 2.1.1 Working capital terminology
 - 2.1.2 Statement of working capital requirement
- 2.2 Cash management
 - 2.2.1 Cash cycle
 - 2.2.2 Cash budget
- 2.3 Credit management
 - 2.3.1 Debtors turnover ratio
 - 2.3.2 Creditors turnover ratio
 - 2.3.3 Credit standards

- 2.3.4 Credit policy
- 2.4 Inventory Management.
 - 2.4.1 Inventory turnover ratio
 - 2.4.2 Minimum consumption, maximum consumption, Reorder level, Economic

Order Quantity

Unit III Cost of Capital

- 3.1 Cost of capital
 - 3.1.1 Cost of equity Shares
 - 3.1.2 Cost of Preference shares
 - 3.1.3 Cost of Debentures
 - 3.1.4 Weighted average Cost of Capital
- 3.2 Capital Budgeting
 - 3.2.1 Pay back period
 - 3.2.2 Net Present Value
 - 3.2.3 Internal rate of return
 - 3.2.4 Accounting rate of return
 - 3.2.5 Profitability index

Unit IV Leverages

- 4.1 Leverages
 - 4.1.1 Operating leverages
 - 4.1.2 Financial leverages
 - 4.1.3 Operating leverages
- 4.2 Financial planning and Budgeting

Unit V Capital structure and dividend policies

- 5.1 Capital structure
 - 5.1.1 Optimal Capital structure
 - 5.1.2 Determining Earning Per share
 - 5.1.3 Value of the firm
 - 5.1.4 Modigliani-Miller Model
- 5.2 Dividend Policy
 - 5.2.1 Walter's model
 - 5.2.2 Gordon's model
- 5.3 Long Term Finance
 - 5.3.1 Sources of long term Finance
 - 5.3.2 Raising of long term Finance
- 5.4 Stock Market in India
- 5.5 Financial Institution in India

TEXT

Prasanna Chandra - Fundamentals of Financial Management, TMH, 5th edition, 2010

REFERENCE

- I.M.Pandey Fundamentals of Financial Management, Vikas Publishing House, 1999
- 2. M.Y.Khan and P.K.Jain Fundamentals of Financial Management, TMH, New Delhi
- 3. D. Joseph Anbarasu and N. Janakiraman Financial and Investment Management, S.Chand.
- 4. VyuptakeshSharu Fundamentals of Financial Management, Pearson Ed.
- 5. Van Horne and Wachawicz Jr. Fundamentals of Financial Management, Pearson Ed, 13th edition,2009.

Theory - 20 % (Section A), Problems - 80 % (Section B & C)

Elective - II ENTERPRISE RESOURCE PLANNING Course Code:U18CC5:1

Hours: 5 Credits: 5

COURSE OBJECTIVE

On completion of this course the student shall have gained knowledge in ERP

Unit I- ERP-INTRODUCTION

- 1.1 Relationship between Internet, Worldwide Web and ERP
- 1.2 Need and importance of the integration of ERP and other technologies.
- 1.3 Efficiencies associated with the use of Internet and worldwide web.
- 1.4 Online commerce solutions offered through ERP.
- 1.5 Fundamental concepts of ERP
- 1.6 Evolution and growth of ERP
- 1.7 Framework of ERP.
- 1.8 Creation of value in an organisation.
- 1.9 Uses and limitations of ERP

Unit II--- ERP AND RELATED TECHNOLOGIES

- 2.1 Technologies adopted in ERP
- 2.2 Classify the various technologies employed in ERP
- 2.3 Phases or stages of implementation in the various technologies
- 2.4 Success factors of implementation of various technologies
- 2.5 Integration of ERP, SCM and CRM

Unit III--- ERP MODULES

- 3.1 Modules of ERP
- 3.2 Features of the various modules of ERP
- 3.3 Sub-systems in the various modules

- 3.4 Integration between various modules
- 3.5 Cost and effect of ERP modules
- 3.6 Procedure for configuring the modules
- 3.7 Measure the contribution of the workforce to the working of the module
- 3.8 Integrated solution for supporting the operational needs of the ERP system

Unit IV--- ERP IMPLEMENTATION LIFE CYCLE

- 4.1 Fundamental concepts of ERP implementation
- 4.2 Important concepts for implementing ERP
- 4.3 Various approaches to the study of ERP implementation
- 4.4 Different perspectives in ERP implementation
- 4.5 Objectives of ERP implementation
- 4.6 Various transition strategies and their suitability.
- 4.7 Challenges faced in ERP implementation.
- 4.8 Guidelines to be followed for ERP implementation
- 4.9 Challenges faced while implementing ERP.
- 4.10. Reasons for the failure of ERP implementation.
- 4.11 Benefits realized in ERP implementation.
- 4.12 Different phases of ERP implementation
- 4.13 Pre-evaluation screening process.
- 4.14 Package evaluation by the organization
- 4.15 Construct a Gap analysis in the implementation process
- 4.16 To estimate the training needs of the employees while implementing ERP
- 4.17 To describe the various methodologies of testing the ERP system
- 4.18 To execute the going live process of implementation

Unit V--- ERP MARKET

- 5.1 ERP market place dynamics
- 5.2 Overview of the market place dynamics.
- 5.3 Characteristics of ERP market tiers.
- 5.4 ERP deployment methods.
- 5.5 ERP scenario in India.
- 5.6 ERP vendors and their products
- 5.7 Products offered by various ERP vendors.
- 5.8 Technologies used in the products offered by ERP vendors.
- 5.9 Select the most effective and efficient software suitable to the organisation's need.
- 5.10 International and Indian software for ERP

TEXT

REFERENCE

Alexis Leon - ERP demystified - Tata McGraw Hill

 $\label{eq:continuous} V\ \&\ N.K.\ .K.\ Garg\ Venkitakrishnan\ -ERP\ Ware:\ ERP\ Implementation\ Framework\ -Prentice\ Hall$

V & N.K. .K. Garg Venkitakrishnan -ERP Concepts and Planning - Prentice Hall

Elective - II HUMAN RESOURCES MANAGEMENT Course Code:U18CC5:2

Hours: 5 Credits: 5

COURSE OBJECTIVES

At the end of the course, students shall be able to appreciate the role of management in personnel functions and in maintenance of personnel of an organisation.

Unit I Introduction to HRM

- 1.1 Meaning
- 1.2 Definition
- 1.3 Personnel principles and policies.

Unit II Human Resource Planning

- 2.1 Characteristics
- 2.2 Need for Planning
- 2.3 HRP process
- 2.4 Job Analysis
- 2.5 Job Design
- 2.6 Job description
- 2.7 Job specification.

Unit III Recruitment and Training

- 3.1 Selection Process
- 3.2 Placement and Induction
- 3.3 Training and Development
- 3.4 Promotion -
- 3.5 Demotions
- 3.6 Transfers

3.7 Separations.

Unit IV Wage and Salary

- 4.1 Wage and Salary administration
- 4.2 Fringe benefits
- 4.3 Job evaluation systems.

Unit V Employee maintenance

- 5.1 Employee maintenance and integration
- 5.2 Welfare and Safety
- 5.3 Accident Prevention
- 5.4 Employee motivation
- 5.5 Morale
- 5.6 Need and Measures industrial social work.

TEXT

Edwin Flippo, Personnel Management, McGraw Hill, 1984, New Delhi.

REFERENCES

- 1. Biswanath Ghosh, Human Resource Development and Management, Vikas Publication, 2000, New Delhi.
- 2. Dale Yoder and Paul Standohar, Personnel Management and Industrial Relations, Prentice hall, 1982, New Delhi.

SBEC - III CourseCode: U18CC5S3

Hours: 2 SOFT SKILLS Credits: 2

COURSE OBJECTIVES

At the end of the course, the students shall be able to present themselves in an acceptable way and perform effectively in facing Interviews and participation in Group Discussions.

Unit I Introduction

- 1.1 Definition
- 1.2 Need for Soft Skills
- 1.3 Skills for Success

Unit II Presentation Skills - Motivation.

- 2.1 Presentation Skills
- 2.2 Motivation.

Unit III Resume Writing and Interview

- 3.1 Resume Writing
- 3.2 Facing Interview
 - 3.2.1 Handling Stress in Interviews
 - 3.2.2 Preparation
 - 3.2.3 Performance in Interviews
 - 3.2.4 Mock Interview.

Unit IV Group Discussion

- 4.1 Group Discussion
 - 4.1.1 Dynamics of Group Discussion
 - 4.1.2 Need
 - 4.1.3 Content and Process of Group Discussion

$Unit\ V\ Interpersonal\ Skills$

- 5.1 Interpersonal Skills
 - 5.1.1 Acquiring skills for understanding people for enriched relationship.

REFERENCE

Teaching Material to be given by the faculty.

Core- X Course Code:U18CC610
BUSINESS MATHEMATICS

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course, students shall be able to get adequate knowledge of basic mathematics, will have developed mathematical aptitude and apply the concepts in making business decisions.

Unit I Indices, Surds, Logarithm, Simultaneous and Quadratic Equation and Arithmetic, Geometric and Harmonic Progression

- I.I The concept of number system
 - 1.1.1 Natural number
 - 1.1.2 Whole number
 - 1.1.3 Real number
 - 1.1.4 Imaginary number
 - 1.1.5 Rational number
 - 1.1.6 Irrational number
 - 1.1.7 Integer
 - 1.1.8 Fractions
 - 1.1.9 Prime number
 - 1.1.10 Complex number
 - 1.1.11 Odd number
 - 1.1.12 Even number
- 1.2 The concept and problem in indices
 - 1.2.1 Meaning
 - 1.2.2 Laws of indices
 - 1.2.3 Meaning of a° & problems
 - 1.2.4 Meaning of a^{-m} & problems
 - 1.2.5 Meaning of $a^{p/q}$ & problems
- 1.3 The concept and problem in surds
 - 1.3.1 Meaning
 - 1.3.2 Order of a surd& problems
 - 1.3.3 Square root of a binomial surd a+vb& problems
- 1.4 The concept and problem in logarithm
 - 1.4.1 Meaning
 - 1.4.2 Laws of logarithm
 - 1.4.2.1 Product rule & problems
 - 1.4.2.2 Quotient rule & problems
 - 1.4.2.3 Power rule & problems
 - 1.4.2.4 Rule for change of base & problems
 - 1.4.3 Common logarithm

- The concept and problem in simultaneous and quadratic equations 1.5 Simultaneous equations Method of elimination Quadratic equations 1.5.2 1.6
- The concept and problem in arithmetic, geometric and harmonic progression
- Arithmetic progression **I.7**
 - Meaning I.7.I
 - Formula for nth term & problems I.7.2
 - Formula for the sum to n terms & problems 1.7.3
 - Properties of an arithmetic progression & problems I.7.4
- Geometric progression 1.8
 - Meaning 1.8.1
 - Formula for nth term & problems 1.8.2
 - Formula for the sum to n term & problems 1.8.3
- Harmonic progression 1.9
 - Meaning 1.9.1
 - Formula for nth term & problems 1.9.2

Unit II Set Theory and Application Probability

- **2.**I Set theory
 - Meaning 2.I.I
 - Finite and infinite sets 2.1.2
 - Description of set 2.1.3
 - Singleton set 2.1.4
 - Null set 2.1.5
 - Sub set 2.1.6
 - Equality of set 2.1.7
 - Number of sub-sets of a set 2.1.8
 - Disjoint set 2.1.9
 - Universal set 2.I.IO
 - Set operations 2.I.II
 - Union of sets **2.I.II.I**
 - Intersection of sets 2.I.II.2
 - Difference of sets 2.I.II.3
 - Complement of sets 2.1.11.4
 - Venn diagram 2.1.12
 - Laws of sets 2.1.13
 - Commutative law **2.I.I3.**I
 - Associative law 2.1.13.2
 - 2.1.13.3 Distributive law
 - De Morgan's law 2.1.13.4
 - 2.1.14 Numbers of elements in set
- Application probability 2.2
 - Meaning 2.2.I
 - Addition 2.2.2
 - Multiplication 2.2.3
 - Conditional probability 2.2.4
 - Permutation and combination 2.2.4.I

Unit III Differential Calculus

Limits **3.**I Limit of a function 3.I.I Properties of limits & problems 3.1.2 Continuity 3.2 Properties of continuous functions & problems 3.2.I Differentiation 3.3 Derivative of xn 3.3.I Derivative of ex 3.3.2 Derivative of a constant 3.3.3 Derivative of sum of two functions 3.3.4 Product rule 3.3.5 Quotient rule 3.3.6 Functions of a function rule 3.3.7 Logarithm differentiation 3.3.8 Differentiation of implicit function 3.3.9 Parametric form 3.3.10 Higher order derivative 3.3.II Application of derivative 3.3.12 3.3.12.1 Marginal cost 3.3.12.2 Marginal revenue

3.3.12.3 Relation between marginal revenue and elasticity of demand

Unit IV Differential Calculus and Integral Calculus

- 4.1 Maxima and minima
 - 4.1.1 Meaning
 - 4.1.2 Problems in maxima and minima
- 4.2 Integral Calculus
 - 4.2.1 Meaning
 - 4.2.2 General rules
 - 4.2.3 Method of partial fraction
 - 4.2.4 Method of when factorization is not possible
 - 4.2.5 Integration by substitution I
 - 4.2.6 Integration by parts
 - 4.2.7 Definite integral

Unit V Matrix Algebra

- 5.1 Meaning
- 5.2 Types of matrix
 - 5.2.1 Equal matrix
 - 5.2.2 Diagonal matrix
 - 5.2.3 Scalar matrix
 - 5.2.4 Unit matrix
 - 5.2.5 Null matrix
 - 5.2.6 Row matrix
 - 5.2.7 Column matrix
 - 5.2.8 Symmetric matrix
 - 5.2.9 Skew-symmetric matrix
- 5.3 Matrix operation
 - 5.3.1 Scalar multiplication

- 5.4 Addition and subtraction of matrices
- 5.5 Multiplication of two matrices
- 5.6 Transpose of matrix
- 5.7 Determinant of matrix
- 5.8 Singular and non-singular matrices
- 5.9 Input and output matrix
- 5.10 Adjoint of square matrix
- 5.11 Reciprocal matrix and inverse of matrix
- 5.12 Orthogonal matrix
- 5.13 Simultaneous linear equations

TEXT

P.R.Vittal - Business Mathematics, Margham Publications, 2010, Chennai

REFERENCE

D. Joseph Anbarasu- Business Mathematics, Learntech Press, 2010, Chennai

Theory - 20% (Section A), Problems - 80% (Section B & C)

Core- XI Code: U18CC611

MANAGEMENT ACCOUNTING

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course, students shall have acquired knowledge and understanding of the concepts of Management Accounting and shall be able to apply the techniques to develop skills for decision making to a given accounting situation in business.

Unit I Fundamentals Of Management Accounting

- 1.0 Management Accounting
- 1.1 Meaning and Definitions
- 1.2 Objectives
- 1.3 Scope and functions
- 1.4 Advantages and limitations
- 1.5 Management accounting principles
- 1.6 Installation of management accounting systems
- 1.7 Distinction between management accounting and financial accounting.
- 1.8 Management accounting vs Cost accounting

Unit II Financial Statement Analysis

- 2.0 Financial Statements
- 2.1 Meaning and types
- 2.2 Analysis and interpretation
- 2.3 Techniques of financial analysis
- 2.4 Limitations of financial analysis
- 2.5 Ratio Analysis- Meaning
- 2.6 Classification of ratios
- 2.7 Advantages and limitations of ratio analysis
- 2.8 Computation of ratios (excluding preparation of financial statements from ratios)

Liquidity Ratios 2.8.1 2.8.2 Solvency Ratios **Profitability Ratios** 2.8.3 2.8.4 Activity or Turnover Ratios Capital Gearing ratios 2.8.5

Unit III Preparation Of Fund Flow Statement

- Fund Flow Statement 3.I.
 - Meaning 3.I.I
 - Uses 3.I.2
 - Distinction between fund flow statement and income statement 3.1.3
 - Parties interested in fund flow statement 3.1.4
 - Advantages and Limitations 3.1.5
 - Preparation of fund flow statement. 3.1.6

Cash Flow Statement

- Cash Flow Statement 3.2
 - Meaning 3.2.I
 - Preparation of cash flow statement 3.2.2
 - Difference between cash flow analysis and fund flow analysis 3.2.3
 - Utility and limitations of cash flow analysis. 3.2.4

Unit IV Marginal Costing And Break Even Analysis

- Marginal Costing 4.I
 - **Definitions** 4.I.I
 - **Features** 4.1.2
 - Merits and demerits 4.1.3
- CVP analysis 4.2

- 4.2.1. Meaning
- 4.2.2 Merits and demerits
- 4.2.3 Construction of break even chart
- 4.2.4 Assumptions underlying CVP analysis and break even chart
- 4.2.5 Managerial uses of BEP analysis.
- 4.2.6 Problems in Marginal costing and Break even analysis (decision making problems)

Unit V Budgetary Control

5.1 Budgetary Control

- 5.1.1 Definition and Meaning
- 5.1.2 Advantages and disadvantages
- 5.1.3 Installation of budgetary control system
- 5.1.4 Requirements of a good budgetary control system
- 5.1.2 Classification of budgets
- 5.1.3 Preparation of budgets
 - 5.1.3.1 Production Budget
 - 5.1.3.2 Raw material Budget
 - 5.1.3.3 Purchase Budget
 - 5.1.3.4 Sales Budget
 - 5.1.3.5 Flexible Budget
 - 5.1.3.6 Master Budget

5.2 Standard Costing

- 5.2.1 Standard costing
- 5.2.1 Definition
- 5.2.2 Advantages and limitations
- 5.2.3 Distinction between budgetary control and standard costing
- 5.2.4 Estimated cost vs standard cost
- 5.2.5 Preliminary steps for establishing a system of standard costing

- 5.2.6 Distinction between cost reduction and cost control
- 5.2.7 Variance in standard costing meaning and types of variance (material and labour)

TEXT

M.Y.Khan & P.K.Jain, Management Accounting, Tata McGraw Hill Education Pvt. Ltd, 2006

A. Murthy and S. Gurusamy, ManagementAccounting, TataMcgraw Hill.

REFERENCE

R. Ramachandran and R. Srinivasan, ManagementAccounting, Sriram publication

Theory - 20 % (Section A), Problems - 80 % (Section B & C)

Core XII Course Code:U18CC612

Hours: 6 FINANCIAL SERVICES Credits: 5

COURSE OBJECTIVE

At the end of the course, students shall be aware of various financial services, and financial markets in India and the various financial products available for businesses.

Unit I Financial Services And Financial Markets

- I.I Financial system in markets.
- 1.2 Objectives of financial system
- 1.3 Types of financial services
- 1.4 Regulation of financial services.
- 1.5 Problems and prospects of financial service sector.
- 1.6 Management of NIM
- 1.7 Difference between secondary market and NIM
- 1.8 Functions of stock exchanges
- 1.9 National stock exchanges, OTCEI and non-banking financial institutions.
- 1.10 SEBI functions and workings.
- Listing of securities.
- 1.12 Self regulations of the markets.

Unit II Credit Rating Agencies

- 2.1 Definition, features, advantages of credit rating system.
- 2.2 Global credit rating agencies.
- 2.3 Credit rating agencies in India -CRISIL, ICRA, CARE
- 2.4 Credit rating symbols.
- 2.5 Credit rating process and its limitations
- 2.6 SEBI guidelines regarding credit rating.
- 2.7 Future credit rating in India.

Unit III Mutual Funds And Merchant Banking

- 3.1 Meaning, classification, functions, importance and risk involved in mutual funds.
- 3.2 Commercial banks and mutual funds including UTI,LIC.
- 3.3 General guidelines of mutual funds.
- 3.4 Future of mutual fund industry
- 3.5 Concept of merchant banking
- 3.6 Services rendered by merchant bankers.
- 3.7 Role played by merchant bankers in the market making process.
- 3.8 Arrangement of inter corporate loans.
- 3.9 Scope of merchant banking in India.

Unit IV Leasing And Hire Purchase

- 4.1 Concept of leasing
- 4.2 Types of lease
- 4.3 Structure of leasing industry.
- 4.4 Legal aspects of leasing.
- 4.5 Problems and prospects of leasing
- 4.6 Meaning of hire purchase.
- 4.7 Leasing vs hire purchase.
- 4.8 Problems and prospects of hire purchase in India

Unit V Dematerialisation, Rematerialisation, Factoring And Forfaiting

- 5.1 Meaning of dematerialization and rematerialization.
- 5.2 Objectives, functions, merits and demerits of dematerialization and rematerialization.
- 5.3 Progress of demat in India.
- 5.4 Growth and functioning of NSDL and CDSL.
- 5.5 Concepts of factoring.
- 5.6 Significance and types of factoring.
- 5.7 Factoring mechanism.
- 5.8 Factoring services in India.
- 5.9 Define forfaiting.
- 5.10 Factoring vs forfaiting.
- 5.11 Problems and prospects of forfaiting.

TEXT

Joseph Anbarasu et al, Financial Services 3rd Ed, Sultan Chand & Sons.

Gordon Natarajan Financial Markets and Services - Himalaya publishing House

REFERENCE

S.C.Kuchal, Financial Management, Vikas Publishing House

C.R.Kothari, Investment Banking and Customer service, Arihant.

Verma & J C Merchant, Organisation and Management, TMH, New Delhi

Dr.S.Gurusamy, Essentials of Financial services - Tata Mc Graw Hill.

Core- XIII RELATIONAL DATABASE MANAGEMENT Course Code:U16CCP13 SYSTEMS LAB

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course student shall be able to develop various data base depending upon necessity particularly in Business activities.

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Unit I Introduction to DBMS

- 1.0 Definition
- 1.1 Application and advantages of DBMS
- 1.2 Schemas
- 1.3 Architecture
- 1.4 DBMS languages
- 1.5 Data Dictionary
- 1.6 Database Users
- 1.7 Data Administrators

Unit II RDBMS

- 2.0 Definition
- 2.1 Entity Relationship Model
- 2.2 Attributes and its types
- 2.3 E-R Diagram
- 2.4 Keys

Unit III Relational Algebra

- 3.0 Selection
- 3.1 Projection
- 3.2 Union

- Intersection 3.3 Joins 3.4 Unit IV Data Manipulation Introduction to SQL, DDL, DML, and DCL statements 4.0 Creating Tables **4.**I Adding Constraints 4.I Select statement using operators 4.2 Unit V PL/SQL Introduction 5.0 Control Structure 5.1 Developing simple queries 5.2 Text Books: Elmasri & Navathe, Fundamentals of Database systems, Addison & Weisely, New Delhi. ı. References:
- 1. H. F. Korth & A. Silverschatz, Database Concepts, Tata McGraw Hill, New Delhi
- 2. C. J. Date, Database Systems, Prentice Hall of India, New Delhi.
- 3. Ivan Bayross, SQL,PL/SQL, The programming language of Oracle.

(Practicals)

Lab Work:

Objective : To Impart Practical Training in SQL

_	te a table and perform the following basic sql operations
Crea	the a table and perform the following basic sqroperations
a)	Set the primary key
b)	Alter the structure of the table
c)	Insert values
d)	Delete values based on constraints
e)	Display values using various forms of select clause
f)	Drop the table
Deve	elop sql queries to implement the following set operations
a)	Union
b)	Union all
c)	Intersect
d)	Intersect all
Deve	elop sql queries to implement the following aggregate function
	elop sql queries to implement the following aggregate function
a)	
a) b)	Sum
a) b) c)	Sum Count
Deve a) b) c) d)	Sum Count Average
a) b) c) d)	Sum Count Average Maximum
a) b) c) d) e)	Sum Count Average Maximum Minimum
a) b) c) d) e)	Sum Count Average Maximum Minimum Group by & having clause
a) b) c) d) e) f)	Sum Count Average Maximum Minimum Group by & having clause
a) b) c) d) e) f)	Count Average Maximum Minimum Group by & having clause elop sql queries to implement following join operations Natural join

- 5. Develop sql queries to implement nested subqueries
 - a) Set membership (int, not int)
 - b) Set comparison (some, all)
 - c) Empty relation (exists, not exists)
 - d) Check for existence of Duplicate tuples (unique, not unique)
- 6. Develop sql queries to create a views and expand it.
- 7. Develop mysql queries to implement
 - a) String operations using %
 - b) String operations using '_'
 - c) Sort the element using asc,desc [*create necessary reletions with requires attribute]
- 8. Consider the following database for a banking enterprise

BRANCH(branch-name:string, branch-city:string, assets:real)

ACCOUNT(accno:int, branch-name:string, balance:real)

DEPOSITOR(customer-name:string, accno:int)

CUSTOMER(customer-name:string, customer-street:string, customercity:string)

LOAN(loan-number:int, branch-name:string, amount:real)

BORROWER(customer-name:string, loan-number:int)

- a. Create the above tables by properly specifying the primary keys and the foreign keys
- b. Enter at least five tuples for each relation
- c. Find all the customers who have at least two accounts at the Main branch.
- d. Find all the customers who have an account at all the branches located in a specific city.
- e. Demonstrate how you delete all account tuples at every branch located in a specific city.
- f. Generate suitable reports.
- g. Create suitable front end for querying and display

Elective III ENTREPRENEURIAL DEVELOPMENT Course Code:U18CC6:1

Hours: 6 Credits: 5

COURSE OBJECTIVE

At the end of the course, students shall be able to know more about contemporary issues and shifts in Entrepreneurship developments in India and develop the skills to become an entrepreneur.

Unit I Introduction

- 1.1 Definition
- 1.2 Concept
- 1.3 Characteristics
- 1.4 Theories
- 1.5 Entrepreneurs and enterprise
- 1.6 Entrepreneur and manager
- 1.7 Types of Entrepreneurs
- 1.8 Functions
- 1.9 Behavioural patterns of Entrepreneurs.

Unit II Project Identification, Formulation And Project Network

- 2.1 Project identification
- 2.2 Classification of projects
- 2.3 Project formulation
- 2.4 Project design and Network
 - 2.4.1 PERT and CPM

Unit III Project Appraisal

- 3.1 Project Appraisal
 - 3.1.1 Concept
 - 3.1.2 Methods
 - 3.1.3 Sources of finance
- 3.2 Social cost benefit analysis

- 3.2.1 Meaning
- 3.2.2 Distinction between social cost benefit analysis and financial analysis.

Unit IV Small Scale Industries

- 4.1 Steps for Starting Small Industry
- 4.2 Incentives and Subsidies from State and Central Government
- 4.3 Consultancy Services
- 4.4 Machinery on Hire purchase
- 4.5 Transport subsidy and Seed Capital assistance.

Unit V Institutions Assisting Entrepreneurs

- 5.1 Institutions Assisting Entrepreneurs
 - 5.1.1 DIC
 - 5.1.2 SIDCO
 - 5.1.3 NSIC
 - 5.1.4 SISI
 - 5.1.5 SIPCOT
 - 5.1.6 TIIC
 - 5.1.7 KVIC
 - 5.1.8 TCO
 - 5.1.9 ITCOT
 - 5.1.10 MSME
 - 5.1.11 Commercial banks and New Entrepreneurial Development Agency.

TEXT

Entrepreneurial Development in India - Dr. C.B. Gupta and Dr.N.P.Srinivasan, Sultan Chand & sons

REFERENCE

Entrepreneurial Development - S.S.Khanka, S,Chand& Sons, 2013

Elective - III Course Code:U18CC6:2

Hours: 6 INDIRECT TAXES Credits: 5

Course Objectives

At the end of the course, the students shall gain knowledge on the practical applicability of the GST Act.

UNIT I Goods and Services Tax Act & Rules

Functions of the GST Council

1.18

1.0	Introduction
I . I	What is GST
I.2	Need for GST in India
1.3	Cascading effect of tax
1.4	Non-integration of VAT and Service Tax causes double taxation
1.5	No CENVAT Credit after manufacturing stage to a dealer
1.6	Cascading of taxes on account of levy of CST Inter-State purchases
1.7	One Nation-One Tax
1.8	Dual GST Model
1.9	Central Goods and Services Tax Act, 2017 (CGST)
1.10	State Goods and Services Tax Act, 2017 (SGST)
1.11	Union Territory Goods and Services Tax Act, 2017 (UTGST)
1.12	Integrated Goods and Services Tax Act, 2017 (IGST)
1.13	Goods and Services Tax Network (GSTN)
1.14	Functions of GSTN (i.e. Role assigned to GSTN)
1.15	Constitution (101st Amendment) Act, 2016
1.16	GST Council
1.17	Guiding principle of the GST Council

Unit II Levy and Collection of Tax

- 2.1 Scope of supply (Section 7 of CGST Act, 2017)
- 2.2 Section 7(1)(a) all forms of supply of goods or services or both such as sale, transfer, barter, exchange, license, rental, lease or disposal made or agreed to be made for a consideration by a personin the courseor furtherance of business;
- Section 7(1)(b) of CGST Act, 2017, import of services for a consideration whether or not in the course or furtherance of business
- Section 7(1)(c) of the CGST Act, 2017 the activities specified in Schedule I, made or agreed to be made without consideration
 - 2.4.1 Permanent transfer/disposal of business assets
 - 2.4.2 Supply between related persons or distinct persons
 - 2.4.3 Supply to agents or by agents
 - 2.4.4 Importation of Services
- Section 7(1)(d) the activities to be treated as supply of goods or supply of services as referred to in Schedule II
 - 2.5.1 Renting of Immovable Property
 - 2.5.2 Information Technology software
 - 2.5.3 Transfer of the right to use any goods for any purpose
 - 2.5.4 Composite supply
- 2.6 Non-taxable Supplies under CGST Act, 2017
 - 2.6.1 Section 7(2) (a) activities or transactions specified in Schedule III
 - 2.6.2 Section 7(2)(b) such activities or transactions undertaken by the Central Government, a State Government or any local authority in which they are engaged as public authorities, as may be notified by the Government on the recommendations of the Council,
 - 2.6.3 Section 7(3)the transactions that are to be treated as—
 - (a) a supply of goods and not as a supply of services; or
 - (b) a supply of services and not as a supply of goods.
- 2.7 Composite and Mixed Supplies (Section 8 of CGST Act, 2017)
 - 2.7.1 Meaning of Composite and Mixed Supplies
 - 2.7.2 Composite Supply

Mixed supply 2.7.3 Levy and Collection 2.8 Composition Levy 2.9 Exemption from tax 2.10 Person liable to pay tax **2.**II Forward Charge 2.11.1 Reverse Charge 2.11.2 Person who are required to pay tax under section 9(5) of CGST (i.e. ECommerce 2.11.3 Operator) Unit III Time and Value of Supply

- Time of supply **3.**I
- Place of supply 3.2
- Value of supply 3.3
- Change in rate of tax in respect of supply of goods or services 3.4

Unit IV Input Tax Credit

- Eligibility for taking Input Tax Credit (ITC) 4.I
- Input Tax credit in special circumstances 4.2
- Input Tax Credit in respect of goods sent for Job-Work 4.3
- Distribution of credit by Input Service Distributor (ISD) 4.4
- Recovery of Input Tax Credit 4.5

Unit V Registration under GST Law

- Persons not liable for registration 5.1
- 5.2 Compulsory registration
- Procedure for registration 5.3
- Deemed registration 5.4
- Casual taxable person 5.5

- 5.6 Non-resident taxable person
- 5.7 Cancellation Vs Revocation of registration

Text book Reference

Study materials of The Institute of Cost and Management Accountants of India on Indirect Taxation