



**PSG College of Arts & Science**  
*An Epitome of Quality Learning*

**B.Com**  
**(BUSINESS ANALYTICS)**

**2017 - 2020**

**B.COM BUSINESS ANALYTICS****SCHEME OF EXAMINATIONS**

(For Students admitted from the Academic year 2017 - 2018 and onwards)

CODE NO.	SUBJECT	Exam Duration (Hrs)	Max. Marks			Credit points
			CA	CE	Total	
<b>First Semester</b>						
<b>Part – I</b>						
14LAU01 12LAU01 14LAU01	Tamil - I Or Hindi - I Or French – I	3	25	75	100	3
<b>Part – II</b>						
14EU01	Communicative English – I Interpersonal Communication	3	25	75	100	3
<b>Part – III</b>						
17CBA01	Financial Accounting – I	3	25	75	100	3
17CBA02	Statistics for Business Analytics (Statistics Dept)	3	25	75	100	3
17CBA03	Mathematics - Allied (Mathematics Dept)	3	25	75	100	5
17CBA04	Computer Practical-I (Excel) (Computer Science Dept)	3	40	60	100	3
<b>Second Semester</b>						
<b>Part – I</b>						
14LAU02 12LAU02 14LAU02	Tamil – II Or Hindi – II Or French – II	3	25	75	100	3
<b>Part – II</b>						
14EU02	Communicative English – II Academic Communication	3	25	75	100	3
<b>Part- III</b>						
17CBA05	Financial Accounting – II	3	25	75	100	3
17CBA06	Applied Business Statistics I (Statistics Dept)	3	25	75	100	3
17CBA07	Business Economics –Allied (Commerce Department)	3	25	75	100	5
17CBA08	Computer Practical – II (SPSS) (Statistics Dept)	3	40	60	100	3
<b>Part- IV</b>						
14VEU01	Value Education	-	100	-	100	2

CODE NO.	SUBJECT	Exam Duration (Hrs)	Max. Marks			Credit points
			CA	CE	Total	
<b>Third Semester</b>						
<b>Part- III</b>						
17CBA09	Corporate Accounting	3	25	75	100	4
17CBA10	Business Organisation and Management	3	25	75	100	3
17CBA11	NoSQL-MongoDB ( <b>Computer Science Dept</b> )	3	25	75	100	3
17CBA12	Applied Business Statistics II ( <b>Statistics Dept</b> )	-	100	-	100	3
17CBA13	Econometrics- <b>Allied (Statistics Dept)</b>	3	25	75	100	5
17CBA14	Computer Practical-III ( <b>NoSQL-MongoDB (Computer Science Dept)</b> )	3	40	60	100	3
<b>Part-IV</b>						
14ESU01	Environmental Studies	-	100	-	100	2
<b>Fourth Semester</b>						
<b>Part – III</b>						
17CBA15	Cost and Management Accounting	3	25	75	100	4
17CBA16	Legal Aspects For Indian Business	3	25	75	100	3
17CBA17	Statistical Quality Control ( <b>Statistics Dept</b> )	3	25	75	100	3
17CBA18	R Programming ( <b>Computer Science Dept</b> )	3	25	75	100	4
17CBA19	Operations Research – <b>Allied (Mathematics Dept)</b>	3	25	75	100	5
17CBA20	Computer Practical-IV ( <b>R Programming (Computer Science Dept)</b> )	3	40	60	100	3
<b>Part – IV</b>						
14SBU01	Information Security	-	<b>100</b>	-	<b>100</b>	2

CODE NO.	SUBJECT	Exam Duration (Hrs)	Max. Marks			Credit points
			CA	CE	Total	
<b>Fifth Semester</b>						
<b>Part- III</b>						
17CBA21	*Institutional Training and Viva Voce	-	100	-	100	2
17CBA22	Income Tax	3	25	75	100	3
17CBA23	Marketing Management	3	25	75	100	3
17CBA24	Big Data Analytics (Computer Science Dept)	3	25	75	100	3
17CBA25	Actuarial Statistics(Statistics Dept)	3	25	75	100	3
17CBA26A 17CBA26B	<b>Core Elective - I</b> Financial Management (or) Working Capital Management	3	25	75	100	4
<b>Part – IV</b>						
14NME01	<b>Non - Major Elective - (1)</b> Extra Departmental Course	-	100	-	100	2
14NME02	<b>Non - Major Elective - (2)</b> General Awareness (Online Test)	1½	-	100	100	2
*Training to be undergone at the end of fourth semester						
<b>Sixth Semester</b>						
<b>Part – III</b>						
17CBA27	Banking and Insurance	3	25	75	100	3
17CBA28	Logistics and Supply Chain Management	3	25	75	100	3
17CBA29	Data Analytics Using SPSS (Statistics Dept)	3	25	75	100	3
17CBA30	Data Mining and Business Intelligence (Computer Science Dept)	3	25	75	100	3
17CBA31	Strategic Management	3	25	75	100	3
17CBA32	Computer Practical - V (Data Mining and Business Intelligence) (Computer Science Dept)	3	40	60	100	3
17CBA33	Project Work and Viva Voce	-	40	60	100	3
17CBA34A 17CBA34B	<b>Core Elective – II</b> Security Analysis and Portfolio Management (or) Primary Market And Secondary Market	3	25	75	100	4
<b>TOTAL CREDITS</b>						<b>136</b>

PART-V		Credits
<b>Extension Activity :</b> NSS / NCC / Sports / Department Extension Activity	I – VI semesters	2
<b>Competence Enhancement :</b> Add-on Course / Women’s Studies / Extra paper/ Certificate or Diploma in Yoga for Youth Empowerment (offered by World Community Service Centre)	I – VI semesters	2
<b>Total</b>		<b>140</b>
<b>Typewriting/Office Management</b>	I –VI Semesters	3
<b>Grand Total</b>		<b>143</b>



Since - 1947

**17CBA01**  
**Semester I**

**FINANCIAL ACCOUNTING-I**

**Learning Objective:** To enable the students to know the principles and practice of Financial Accounting.

**Hours**

**UNIT I Introduction and Final Accounts** **14**

Accounting – Meaning, Concepts & Conventions – Basics of Accounting Standards. Final Accounts of Sole Trading Concern – Trading and Profit and Loss Account Balance Sheet - Opening and Closing entries - Adjustment entries.

**UNIT II Rectification of Errors and Reconciliation Statement** **10**

Rectification of Errors –Types of Errors – Suspense Account - Bank Reconciliation Statement-Meaning - Need - Steps in Preparation of Bank Reconciliation Statement

**UNIT III Bill of Exchange and Royalty Accounts** **12**

Bill of Exchange – Accounting Entries in the Books of Drawer and Acceptor Discounting of Bills – Endorsement – Bills Sent to the Bank for Collection Dishonor of Bill - Renewal and Retiring of a Bill – Accommodation Bill. Royalty Accounts – Concepts - Royalty, Lessor, Lessee, Minimum Rent, Short Workings Accounting Treatment (With Minimum Rent and Without Minimum Rent) Excluding Sub Lease.

**UNIT IV Accounting for Consignment and Joint ventures** **12**

Accounting for Consignments – Stock Valuation – Normal and Abnormal Losses Invoicing Goods Higher than Cost. Joint Venture Accounts - Own Books – Separate Set of Books.

**UNIT V Depreciation Accounts** **12**

Depreciation – Causes for Depreciation – Methods of Charging Depreciation Straight Line Method - Diminishing Balance Method - Annuity Method Depreciation Fund Method – Insurance Policy Method – Accounting for Depreciation - Provision for Depreciation Account - Disposal of an Asset - Profit or Loss on Sale of Assets - Change of Method - Prospective and Retrospective - AS 6 (Depreciation Accounting) - AS 10 (Accounting for Fixed Assets)

**Distribution of Marks:** 80% Problems and 20% Theory

**Text Book**

Jain S.P. and Narang K.L., “Advanced Accountancy”, Volume I, Kalyani Publishers, New Delhi.

**Reference Books**

1. Gupta R.L. & Gupta V.K., “Financial Accounting”, Sultan Chand & Sons, New Delhi.
2. Gupta R.L. & Radhasamy., “Advanced Accountancy”, Sultan Chand & Sons, New Delhi.
3. Iyengar S.P., “Advanced Accountancy” Sultan Chand & Sons, New Delhi.
4. Reddy T.S and Murthy A., “Financial Accounting” Margham Publications, Chennai.

**Learning Objective:** To Promote the knowledge of applying Statistical Techniques in Business.

**Hours**

**UNIT I Statistics and Statistical Investigation** **12**

Statistics: Meaning, Definition, Uses and Limitations of Statistics – Statistical Investigation - Questionnaire: Meaning – Preparation of Questionnaire – Collection of Data - Primary and Secondary Data – Merits and Demerits.

**UNIT II Classification ,Tabulation of data** **12**

Classification of Data: Definition – Types of Classification. Tabulation: Definition Parts of a Table – Types of tables – Difference between Classification and Tabulation. Sampling - Methods of Sampling - SRS, Stratified, Systematic, Convenience, Judgment and Quota Sampling – Concepts only.

**UNIT III Frequency Distribution , Diagrams and Graphs** **12**

Frequency Distribution – Types of Frequency Distribution – Univariate and Bivariate Distributions only – Construction of Frequency Table - Diagrams and Graphs: Diagrammatic Representation of Statistical Data - Types of Diagrams Graphical Representation of Statistical Data - Histograms – Frequency Polygon Frequency Curve – Ogives – Simple Problems.

**UNIT IV Measures of Central Tendency& Measures of Dispersion** **12**

Measures of Central Tendency: Arithmetic Mean, Median and Mode for Ungrouped and Grouped Data – Merits and Demerits - Measures of Dispersion: Absolute and Relative Measures of Range,QD,MD and SD – Merits and Demerits - Simple Problems.

**UNIT V Skewness and Kurtosis** **12**

Skewness: Definition - Types of Measuring Skewness (Karl Pearson's and Bowley's Coefficient of Skewness) - Kurtosis (concept only)Simple Problems.

**Distribution of Marks:** 80% Problems and 20% Theory

**Text Book**

Veerarajan.,T, “Fundamentals of Mathematical Statistics”, Yes Dee Publishers Pvt Ltd,Chennai. 2017.

**Reference Books**

1. Gupta S.P., Gupta, P.K., and Man Mohan , “Elements of Business Statistics and Operations Research ” Sultan Chand & Sons, New Delhi, 4<sup>th</sup> Edition, 2007
2. Gupta S.P., “Statistical Methods” Sultan Chand & Son's, New Delhi. 2012
3. Navnitham P.A., “Business Mathematics and Statistics” Jai Publishers, Trichy.2008
4. Wonnacott. R.J&Wonnacott. “Introductory Statistics”, John Wiley &Sons, Mumbai 5<sup>th</sup> Edition, 1990.

**Learning Objective:** To make the students familiar with Applications of Mathematics in Business.

	<b>Hours</b>
<b>UNIT I Mathematics of Finance (Sections 2.1 to 2.10)</b> Simple and Compound Interest - Effective Rate & Nominal Rate of Interest Depreciation- Annuities - Sinking Fund- Discounting.	<b>12</b>
<b>UNIT II : Series (Sections 1.1 to 1.4)</b> Sequence & Series – Arithmetic Progression – Geometric Progression Harmonic Progression.	<b>10</b>
<b>UNIT III Matrices(Sections 4.1, 4.4 to 4.9, 4.13)</b> Basic Concepts- Addition and Multiplication of Matrices- Inverse of a Matrix- Solution of Simultaneous Equation (Cramer’s Rule and Matrix Inverse Method) Input – Output Analysis.	<b>10</b>
<b>UNIT IV Differentiation(Sections 6.1 to 6.8, 7.1, 7.2 and 7.4)</b> Derivatives of Standard Function – from First Principle Derivatives of $x^n$ - Certain Rules of Differentiation - Chain Rule - Differentiation of Implicit Function – Parametric Form - Successive Differentiation - Uses of the Derivatives.	<b>12</b>
<b>UNIT V Integration(Sections 8.1 to 8.8)</b> Indefinite Integrals – Standard Forms – Definite Integrals – Method of Substitution – Method of Partial Fractions – Method of Integration by Parts - Uses in Economics.	<b>11</b>

**Text Book**

Navanitham P.A., “Business Mathematics and Statistics”, Jai Publishers, Chennai, April 2013.

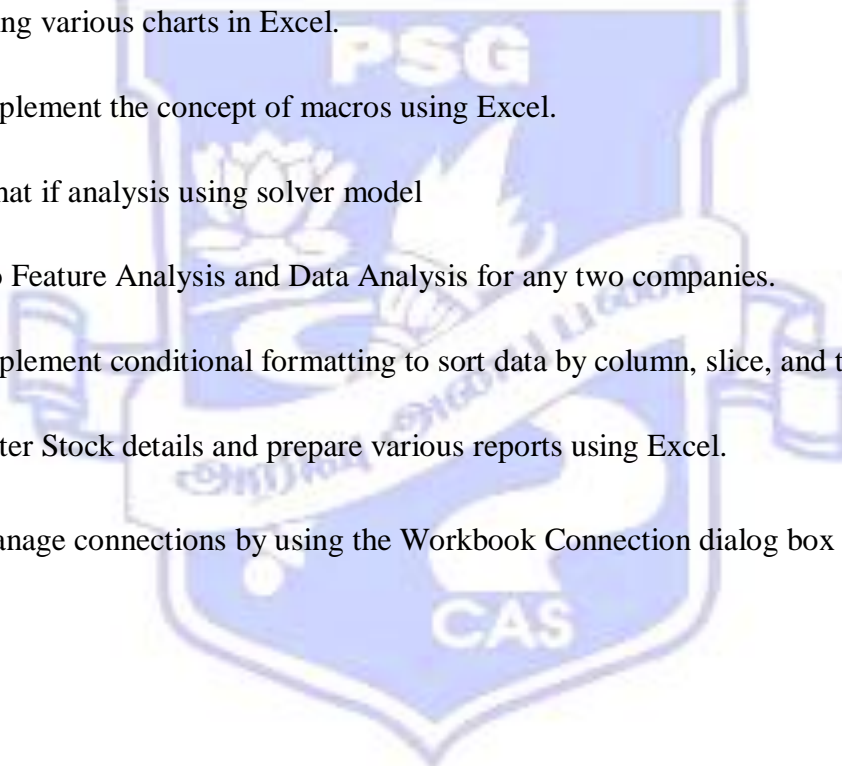
**Reference Book**

1. Om P. Chug, Parmanand Gupta, Dahiya R. S., “Topics in Mathematics Calculus and Ordinary Differential Equations”, Laxmi Publications, Chennai.
2. Joseph Breuer, “Introduction to the Theory of Sets”, Dover Publications, New York.
3. Shanti Narayan & Mittal, P.K. “A Textbook of Matrices” S Chand Publications, New Delhi.
4. Gupta R. “Golden Matrices”, Laxmi publications, New Delhi.

**Learning Objective :** To Provide Practical Knowledge in MS-EXCEL

**(Use relevant data set for analyzing)**

1. Find Mean, Median and Mode using Excel.
2. Analyze sample purchase detail using built-in functions in Excel.
3. Analyze sample sales information system using pivot table and pivot chart.
4. Create profit and loss details for any three companies and display the result using various charts in Excel.
5. Implement the concept of macros using Excel.
6. What if analysis using solver model
7. Do Feature Analysis and Data Analysis for any two companies.
8. Implement conditional formatting to sort data by column, slice, and table wise.
9. Enter Stock details and prepare various reports using Excel.
10. Manage connections by using the Workbook Connection dialog box in Excel



Since - 1947

**Learning Objective:** To enable the students to understand the Accounting System for Special Transactions.

**Hours**

**UNIT I Hire Purchase Accounts** **12**

Hire Purchase System – Definition – Features – Accounting Treatment - Calculation of Interest – Default and Repossession – Hire Purchase Trading Account- Stock and Debtor System – Installment Purchase System - Definition – Features – Distinction Between Hire Purchase System and Installment Purchase System - Accounting Treatment.

**UNIT II Branch and Departmental Accounts** **12**

Branch Accounts - Debtors System, Stock and Debtors System - Branch Office Selling only for Cash, Cash & Credit- Goods Invoiced to Branch at Selling Price-Independent Branch Accounts - Departmental Accounting - Basis of Allocation and Apportionment of Expenses - Inter Departmental Transfers at Cost and Selling Price Preparation of Departmental Trading and Profit and Loss Account - General Profit and Loss Account - Balance Sheet – Treatment of Unrealized Profits.

**UNIT III Investment Accounts and Insurance Claims** **12**

Investment Accounts (AS-13)- Cum Dividend and Ex Dividend - Balancing the Investment Account – Equity Shares Accounts- Books of the Broker -Insurance Claims - Loss of Stock - Average Clause - Loss of Profit Policy.

**UNIT IV Admission and Retirement of Partners** **12**

Admission of a Partner – Calculation of New Profit Sharing Ratio and Sacrificing Ratio – Revaluation of Assets and Liabilities - Treatment of Goodwill - Adjustment of Capital. Retirement of a Partner - Calculation of New Profit Sharing Ratio and Gaining Ratio - Revaluation of Assets and Liabilities Treatment of Goodwill - Settlement of Dues.

**UNIT V Issue and Redemption of Securities in a Company** **12**

Issue of Securities – Equity Shares - Preference Shares – Debentures - Accounting Entries - Over Subscription - Pro-Rata Allotment - Issue at Premium and at Discount - Redemption of Preference Shares and Debentures - Redemption at Par and Premium - Sources of Redemption - Capital Redemption Reserve – Issue of Bonus Shares

**Distribution of Marks:** 80% Problems and 20% Theory

**Text Book**

1. Jain SP & Narang KL, “Advanced Accountancy”, Volume I &II, Kalyani Publications, New Delhi.

**Reference Books**

1. Reddy.T.S and Murthy.A ., “Corporate Accounting”, Margham Publications, New Delhi.
2. Gupta R.L & Radhasamy., “Advanced Accountancy”, Sultan Chand & Sons, New Delhi.
3. Iyengar.S.P., “Advanced Accountancy”, Sultan Chand & Sons, New Delhi.
4. Ganeson.S & Kalavathi S.R., “Corporate Accounting”, Thirumalai Publications, Chennai

**Learning Objective:** To Promote the knowledge of Applied Statistics in the field of Business.

	<b>Hours</b>
<b>UNIT I Probability and Random Variables</b> Probability – Definitions – Basic Terminology in Probability – Addition and Multiplication Theorem – Baye’s Theorem – Simple problems. Random Variables - Concept of Random Variables – Discrete and Continuous Random Variables – Mathematical Expectations - Simple problems.	<b>12</b>
<b>UNIT II Probability Distributions</b> Probability Distributions – Binomial, Poisson and Normal distributions - Concept, Properties, Uses of the Distributions - Fitting of the distributions – Simple problems.	<b>12</b>
<b>UNIT III Sampling Distributions , Estimations</b> Sampling Distributions – Sample – Population – Standard Error –Concepts only. Estimation – Properties of a Good Estimator – Point Estimation and Interval Estimation - Single Mean and Difference of Means – Single Proportion and Difference of Proportion. Determination of Sample Size-Simple Problems.	<b>12</b>
<b>UNIT IV Testing of Hypothesis</b> Testing of Hypothesis – Definition of Null Hypothesis, Alternative Hypothesis, Level of Significance, Type I and Type II error, Acceptance Region and Critical Region - One Sample and Two Sample Tests for Means and Proportions of Large Sample (Z test) for Single and Two Means-Single and Two Proportions. Small sample t test – Single and Two Means, Paired t test – F-test – One way ANOVA Simple Problems	<b>12</b>
<b>UNIT V Non parametric Tests</b> Non parametric tests: Chi-square test (Independence of Attributes and Goodness of fit), Sign test, Rank test, Kolmogrov-Smirnov test, Mann Whitney U test, Run test, Kruskal Wallis test – Simple problems.	<b>12</b>

**Distribution of Marks:** 80% Problems and 20% Theory

**Text Book**

Veerarajan.,T, “Fundamentals of Mathematical Statistics”, Yes Dee Publishers Pvt Ltd,Chennai. 2017.

**Reference Books**

1. Gupta S.P., “Statistical Methods” Sultan Chand & Sons, New Delhi. 2012
2. Goon, Gupta & Das Gupta, “ Fundamentals of Statistics”, Siya Ram &Publishers, Vol.I & II, 1968.
3. Gupta.S.C &.Kapoor, V.K.,“Fundamentals of Mathematical Statistics”, Sultan Chand & Sons, New Delhi, Vol-3, 1994

**17CBA07**

**BUSINESS ECONOMICS**

**Semester II**

**Learning Objective:** To understand the Basic Economic Concepts relating to Business.

	<b>Hours</b>
<b>UNIT I Introduction to Economics</b>	<b>12</b>
Introduction to Economics - Definitions, Scope and Nature of Economics Problems of an Economy – Role of Economic Indicators - Disinvestment Globalization.	
<b>UNIT II Production and Cost</b>	<b>12</b>
Meaning and Factors of Production - Laws of Production - Law of Variable Proportions and Laws of Returns to Scale - Concepts of Cost - Short Run and Long Run Cost, Average and Marginal Cost - Total, Fixed and Variable Cost.	
<b>UNIT III Demand, Supply and Forms of Market</b>	<b>12</b>
Meaning and Determinants of Demand - Law of Demand and Elasticity of Demand - Price, Income and Cross Elasticity - Meaning and Determinants of Supply - Law of Supply and Elasticity of Supply - Forms of Market – Perfect Competition - Imperfect Competition – Monopoly, Duopoly, Oligopoly and Monopolistic Competition and Price Determination in these Markets.	
<b>UNIT IV Indian Economy &amp; National Income</b>	<b>12</b>
Nature of Indian Economy - Role of Different Sectors - Agriculture, Industry and Services in the Development of the Indian economy, Problems and Growth National Income of India - Concept of National Income - Different Methods of Measuring National Income and Gross Domestic Product.	
<b>UNIT V Select Aspects of Indian Economy</b>	<b>12</b>
Population - Size, Rate of Growth and Its Implication for Growth - Poverty Absolute and Relative Poverty - Main Programs for Poverty Alleviation and Employment - Types, Causes and Incidence of Unemployment - Infrastructure, Energy, Transportation and Communication - Health and Education - Inflation Budget and Fiscal Deficits.	

**Text Book**

Dr. Sankaran.S, “Business Economics”, Margham Publications, Chennai.

**Reference Books**

1. Sundaram K.P.M. & Sundaram, E.N. “Business Economics”, Sultan Chand & Sons Publications,  
New Delhi.
2. Varshney.R.L & Maheswari K.L,“Managerial Economics”,Sultan Chand & Sons Publications,  
New Delhi.
3. Metha. P.L., “Managerial Economics” Sultan Chand & Sons Publications, New Delhi.

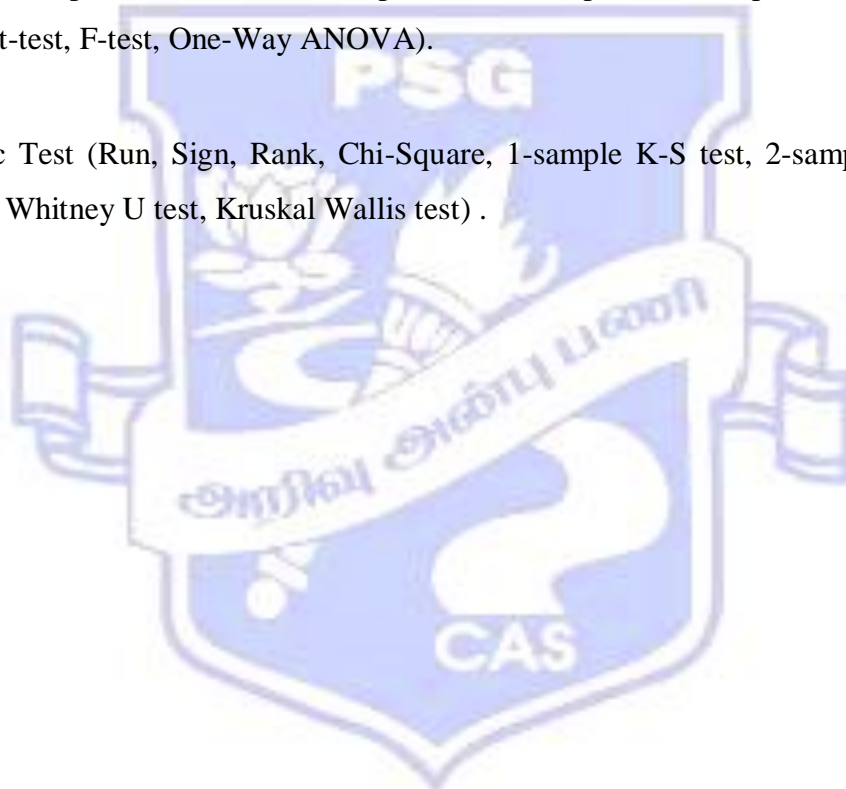
**17CBA08**

**COMPUTER PRACTICAL II (SPSS)**

**Semester: II**

**Learning Objective:** To Impart the Computational Skill in Using SPSS

	<b>Hours</b>
Introduction - Sample files – Opening a Data file – Running an Analysis – Viewing Results – Creating Charts – Multiple Response (define variable sets) – Transform (Recode into same variable, Recode into different variable).	<b>12</b>
Graph (Bar, Line, Dot, Pie Charts) - Descriptive Statistics (Frequency, Descriptive, Cross tabs) – Compare Means (One-Sample t-test, Independent-Sample t-test, Paired-Sample t-test, F-test, One-Way ANOVA).	<b>12</b>
Non-Parametric Test (Run, Sign, Rank, Chi-Square, 1-sample K-S test, 2-sample K-S test, Mann Whitney U test, Kruskal Wallis test) .	<b>12</b>



Since - 1947

**Learning objective:** To enable the students to understand the Principles and Practices of Corporate Accounting

**Hours****UNIT I Final Accounts of Companies (As per Companies Act 2013) 14**

Profit Prior to Incorporation – Statement of Profit and Loss – Balance Sheet  
Calculation of Managerial Remuneration.

**UNIT II Amalgamation, Absorption, External and Internal Reconstruction of Companies. 14**

Amalgamation and Absorption – Meaning – Purchase Consideration – Methods of Calculating Purchase Consideration – Accounting Treatment - External and Internal Reconstruction - Accounting Treatment.

**UNIT III Valuation of Shares and Goodwill, Liquidation of Companies 14**

Valuation of Shares and Goodwill – Different Methods of Valuation of Shares and Goodwill – Liquidation of Companies –Statement of Affairs – Deficiency Account  
Liquidator’s Final Statement of Account.

**UNIT IV Accounts of Holding Companies 15**

Accounts of Holding Companies - Minority Interest - Cost of Control/ Goodwill or Capital Reserve – Capital Profit, Revenue Profit (Excluding Chain Holding)  
Consolidated Balance Sheet.

**UNIT V Accounts of Banking and Insurance Companies 15**

Accounts of Banking Companies – Profit and Loss Account – Balance Sheet  
Accounts of Insurance Companies - Life Insurance Company Accounts - Revenue Account, Profit and Loss Account and Balance sheet

**Distribution of Marks:** Problem – 80 % and Theory – 20%

**Text Book**

Jain SP & Narang KL, “Advanced Accountancy”, Volume II, Kalyani Publications, New Delhi.

**Reference Books**

1. Reddy.T.S and Murthy.A ., “Corporate Accounting”, Margham Publications, New Delhi.
2. Gupta R.L & Radhasamy., “Advanced Accountancy”, Sultan Chand & Sons, New Delhi.
3. Iyengar.S.P., “Advanced Accountancy”, Sultan Chand & Sons, New Delhi.
4. Ganeson.S & Kalavathi S.R., “Corporate Accounting”, Thirumalai Publications.

**17CBA10 BUSINESS ORGANISATION AND MANAGEMENT Semester III**

**Learning objective:** To enable the students to learn the Organization Principles and Practices of Management.

**Hours**

**UNIT I Introduction to Business Organization 12**

Business – Definition, Essentials & Scope - Classification of Business Activities, Business Organization – Definition, Characteristics and Objectives - Evolution of Business Organization. Modern Business, Business & Profession, Objectives of Business.

**UNIT II Start ups and Forms of Business Organization 12**

Start ups and Forms of Business Organization - Plant Location, Plant Layout & Size of Business Unit. Forms of Business Organization - Sole Proprietorship, Partnership, Joint Stock Companies & Co-operatives. Business Combinations Meaning Causes, Objectives, Types and Forms - Mergers, Takeovers and Acquisitions.

**UNIT III Introduction to Management and Planning 12**

Management – Definition – Meaning – Management is a Science or Art - Theories of Management – Henry Fayol, F.W.Taylor – Principles of Management - Administration Vs Management - Levels of Management Managerial Skills. Planning Definition – Features – Process – Importance – Types – Forecasting Planning Premises – MBO - Meaning – Characteristics- Advantages - Limitations – Decision Making.

**UNIT IV Organization, Staffing and Leadership 12**

Nature and Importance of Organization – Theories of Organization - Organization Process – Principles of Organization - Types of Organization - Authority and Responsibility – Centralization - Decentralization - Departmentation. Staffing Meaning – Significance – Elements of Staffing Process - Recruitment – Selection Training - Appraisal - Promotion - Leadership – Need for Leadership – Leadership Theories – Qualities of a Leader – Types of Leadership.

**UNIT V Communication, Motivation, Co-ordination and Controlling 12**

Communication – Meaning – Objectives – Process – Importance - Types Characteristics of Good Communication System - Problems of Communication Motivation – Theories of Motivation – Maslow’s Theory and Herzberg Theory -Types of Motivation – Co-ordination – Control - Nature - Process of Control, Characteristics of Ideal Control System - Control techniques.

**Text Book**

1. Bhushan Y.K “ Business Organisation &Management” Sultan Chand & Sons, New Delhi
2. Dinkar Pagare , “Principles of Management ”, Sultan Chand & Sons , New Delhi.

**Reference Books**

1. Moshal B.S. “Management Theory and Practice”, Galgotia Publishing Company,NewDelhi.
2. Gupta C.B., “Business Management”, Sultan Chand & Sons, New Delhi.
3. Gupta R.N.,“Principles of Management ”, S.Chand &Company Ltd, New Delhi.
4. Gupta C.B., “Organisation &Management, Sultan Chand & Sons, New Delhi.

**Learning Objective:** To enable the students to understand the basics of NoSQL – MongoDB.

	<b>Hours</b>
<p><b>UNIT I Introduction to MongoDB</b></p> <p>Big Databases- SQL – NoSQL Tradeoffs – CAP Theorem – Eventual Consistency NoSQL – Database Types – MongoDB- Introduction - MongoDb – Need – MongoDB Vs RDBMS – MongoDBDriver Installation – Configuration – Import and Export MongoDB Server Configuration</p>	<b>8</b>
<p><b>UNIT II Data Extraction Fundamentals</b></p> <p>Data Extraction Fundamentals - Intro to Tabular Formats - Parsing CSV -Parsing XLS with XLDParsing XML - Intro to JSONGetting Data into MongoDB - MongoDB-CURD – Database Creation –Update – Read –Delete Using mongoimport -Operators like \$gt, \$lt, \$exists, \$regex -Querying Arrays and using \$in and \$all Operators - Changing entries: \$update, \$set, \$unset</p>	<b>10</b>
<p><b>UNIT III Data Analysis</b></p> <p>Data Analysis - Field Queries -Projection Queries- Limiting – Sorting - - Aggregation - Examples of Aggregation Framework -The Aggregation Pipeline -Aggregation Operators: \$match, \$project, \$unwind, \$group</p>	<b>10</b>
<p><b>UNIT IV User management</b></p> <p>User Management – MongoDb Data Replication in Servers – Data Sharding - MongoDB Indexes – Create – Find – Drop – Backup – MongoDB – Relationships – Analyzing Queries – MongoDB Objectid</p>	<b>10</b>
<p><b>UNIT V Map reduce and regular expressions</b></p> <p>Advanced MongoDB: MapReduce – MongoDB - Text Processing - Regular Expression Case Studies – Text processing of large datasets, Map Reduce using MongoDB</p>	<b>10</b>

#### **Text Books**

1. MongoDB: The Definitive Guide, 2nd Edition , Powerful and Scalable Data Storage, By Kristina Chodorow, Publisher: O'Reilly Media [Unit III,IV & V]
2. NoSQL Distilled A Brief Guide to the Emerging World of Polyglot Persistence Pramod J. Sadalage Martin Fowler, Pearson Education, Inc., 2013. [ Unit I & II]

#### **Reference Book**

1. MongoDB Basics - David Hows, Peter Membrey, Eelco Plugge, Publisher Apress - Ebook(free) <https://it-ebooks.info/book/4527/>

**Learning Objective:** To Promote the knowledge of Applied Statistics in the field of Business.

	<b>Hours</b>
<b>UNIT I Time Series</b>	<b>12</b>
Time Series – Definitions – Components – Additive and Multiplicative Model- Secular Trend – Measuring the Trend – Method of Least Squares, Method of Moving Averages. Seasonal Fluctuations – Methods of Simple Average, Ratio to Moving Average – Simple problems.	
<b>UNIT II Index numbers</b>	<b>12</b>
Index Numbers – Definitions – Application of Index Numbers – Unweighted Index Numbers – Weighted Index Numbers – Laspeyre’s Paasche’s and Fisher’s Ideal Index Numbers – Time and Factor Reversal Tests. Cost of Living Index Numbers – Simple problems.	
<b>UNIT III Correlation and Regression Analysis</b>	<b>12</b>
Correlation Analysis: Definitions - Scatter Diagram – Karl-Pearson’s and Spearman’s Rank Correlation - Simple problems. Regression Analysis: Definitions – Uses - Fitting of Regression Equations – Difference between Correlation and Regression analysis, Simple problems.	
<b>UNIT IV Multivariate distribution</b>	<b>12</b>
Basic Concepts of Multivariate Distribution – Multinomial and Multivariate Normal Distributions – Concepts and Its uses in Business Analytics. Discriminant Analysis and Classification (Concepts only).	
<b>UNIT V Principal Component Analysis</b>	<b>12</b>
Principal Component analysis - Factor Analysis uses in Business Analytics – Sample Size Issues – Components Extraction – Different Extraction Methods – Factor Rotation – Rotated Factor Matrix – Selecting the Factor Solution. (Concept only)	

**Distribution of Marks:** 80% Problems and 20% Theory

**Text Book**

Gupta.S.C &.Kapoor, V.K.,“Fundamentals of Mathematical Statistics”, Sultan Chand & Sons, New Delhi, Vol-3, 1994

**Reference Books**

1. Navanitham,P.A., “Business Mathematics and Statistics”, Jai Publishers Chennai. 2008
2. Srivastava & ShailajaRego, “Statistics for Management” Tata McGraw Hill Education Pvt.Ltd, New Delhi, 2008
3. Lawrence, S., Meyers & Glenn Gamst & AJ, Guarino, “ Applied Multivariate Research Design and Interpretation”, SAGE Publications New Delhi .,Second Edition (17 August 2012).
4. Hair, Black, Babin & Anderson & Tatham,“Multivariate Data Analysis, Pearson Publishers, New Delhi 2010.

**Learning Objective:** To develop the skills in applying the Statistical Tools in Economics

	<b>Hours</b>
<b>UNIT I Econometrics</b> Econometrics - Definitions – Scope – Objectives and Limitations – Two Variables Linear Model and Testing Methods – Concept of Economic Forecasting.	<b>12</b>
<b>UNIT II Econometric Models</b> Basics of Econometric Modeling – Bivariate Econometric Modeling – Multivariate Econometric Modeling - Multicollinearity – Serial Correlation (Concept Only)	<b>12</b>
<b>UNIT III Forecasting models</b> Heteroskedasticity – Dummy Variables – Econometric Modeling – Panel Data Modeling – Log Modeling – Basic of Time Series – Box-Jenkin’s Model – Error Measurements - Univariate Time Series Modeling – Concepts and its Applications in Business Analytics.	<b>12</b>
<b>UNIT IV Input -Output analysis</b> Leontief’s Input – Output Analysis – Assumptions – Closed and Open I/O Models Simple Problems.	<b>12</b>
<b>UNIT V Auto Correlation</b> Auto Correlation – Auto Regression - ARIMA Modeling – ARCH /GARCH EGARCH/TGARCH Modeling – Basic Concepts and its Applications in Business Analytics.	<b>12</b>

**Text Book**

Damodar N & Gujarathi, “Basic Econometrics”, 4<sup>th</sup> edition, McGraw-Hill Education (India) Pvt., Ltd. New Delhi.

**Reference Books**

1. Gujarathi D.N. & D.C. Porter “Essentials of Econometrics” 4<sup>th</sup> Edition, McGraw-Hill Education (India) Pvt., Ltd. New Delhi;
2. Christopher Dougherty, “Introduction to Econometrics”, 4<sup>th</sup> Edition, OUP, Indian Edition.
3. Navdeep Kaur & Arul Pragasam S. Shyamala, “ A Text book of Econometrics”, Vishal Publishing Co. Jalandar, 2nd (Reprint) Edition (2013)
4. Johnston . J., “ Econometric Methods,” McGraw Hill Education (India) Pvt., Ltd. New Delhi; 2nd Edition (1971).
5. Singh S. P. “Econometrics”, S. Chand Publishing, New Delhi. 2013
6. Koutsoyiannis A.” Econometrics”, Palgrave Macmillan; Macmillan Publishers, Chennai, 2nd Edition, 2001

## (NoSQL-MongoDB)

**Learning Objective :** To Provide Practical Knowledge in MongoDB

**(Use relevant data set for analyzing)**

1. Design an E-Commerce product catalog system using MongoDB as a storage engine and insert values.
2. Perform basic CRUD (Create, Update, Read and Delete) functions for the product catalog.
3. Perform built in functions.
4. Perform Sorting, indexing and filter for a dataset (use some real time data set)
5. Create a database for Music store and find albums by genre and sort by year produced .
6. Create a Collection and Document and perform the following:
  - Find a document by id
  - Find a user by email
  - Find a list of all users with the same first name
  - Find all users who are more than 12 years old
7. Use real time data set of Stock exchange. Import the file from from the command line using the mongo import shell command.
  - Find all the stocks where the profit is over 0.5
  - Find all the stocks with negative growth
8. Create a cursor to retrieve all the records from the database and display in the formatted manner.
9. Use aggregation pipeline to filter the result set(based on all possibilities like year, month and dayOfMonth etc.,)
10. Collect a Company startup Database and preprocess the file. Filter by tags as an array. Use a cursor to iterate over the array and convert the comma separated string into an array, and count the total number of tags.

**Learning Objective:** To enable the students to understand the Principles and Techniques of Cost and Management Accounting

	<b>Hours</b>
<b>UNIT I Cost Accounting &amp; Management Accounting</b>	<b>14</b>
Cost Accounting - Evolution – Concepts - Classification - Methods of Costing Elements of Cost- Cost Statement- Unit Costing. Management Accounting-Meaning Nature and Scope – Objectives - Significance of Management Accounting	
<b>UNIT II Materials and Employee Costs</b>	<b>13</b>
Material Control- Meaning – Need - Techniques of Material Control - Methods of Valuing Material Cost. Employee Cost - Accounting for Overtime -Idle Time and Labour Turnover-Methods of Remuneration - Incentive and Bonus Schemes.	
<b>UNIT III Overhead Accounting and Specific Methods of Costing</b>	<b>14</b>
Overhead Classification - Accounting and Control of Overheads - Overhead Allocation, Apportionment and Absorption – Machine Hour Rate - Operating - Costing Contract Costing-Process Costing –Normal and Abnormal Losses.	
<b>UNIT IV Funds Flow and Cash Flow Statements</b>	<b>16</b>
Funds Flow Statement - Concepts-Schedule of Changes in Working Capital- Preparation of Funds Flow Statement. Cash Flow Statement – Uses – Significance- Preparation of Cash Flow Statements (As per AS3)	
<b>UNIT V Budgeting and Budgetary Control, Marginal Costing</b>	<b>15</b>
Budgeting and Budgetary Control - Concepts - Budget Preparation - Fixed and Flexible Budgets - Functional Budgets - Zero Based Budgeting (ZBB). Marginal Costing - Basic Concepts- Contribution - P/V Ratio- BEP - Margin of Safety Applications of Marginal Costing (Theory only)	

Distribution of Marks : 40% Theory, 60% Problems

#### **Text Books**

1. Jain S.P and Narang K.L. “ Cost Accounting”, Kalyani Publishers, New Delhi
2. Sharma R.K and S.K.Gupta “ Management Accounting”, Kalyani Publishers - New Delhi.

#### **Reference Books**

1. Iyengar.S.P., “Cost Accounting-Principles and Practice”, Sultan Chand & Sons, New Delhi.
2. Maheshwari.S.N. “Cost and Management Accounting”, Sultan Chand & Sons, New Delhi.
3. Pillai. R.S.N.& Bagavathi.V, “Cost Accounting” S.Chand Publishing Company, New Delhi.
4. Khan M.Y. and Jain P.K, “Management Accounting” Tata McGraw-Hill Education(India) Private Limited, New Delhi.

**Learning objective:** To provide adequate Knowledge in Indian Business Law

	<b>Hours</b>
<b>UNIT I Indian Contract Act 1872</b> Contract Law- Essential Elements of Valid Contract – Types of Contract, Offer and Acceptance – Legal Rules – Communication of Offer, Acceptance and Revocation Modes of Revocation of an Offer - Consideration – Legal Rules as to Consideration Contract Without Consideration - Stranger to a Contract - Free Consent- Undue Influence - Misrepresentation- Fraud- Mistake.	<b>10</b>
<b>UNIT II Law Relating to Contracts</b> Legality of Object – Unlawful and Illegal Agreements – Effects of Illegality Agreements Opposed to Public Policy – Performance of Contracts - Discharge of Contracts - Remedies for Breach of Contract - Quasi Contracts.	<b>10</b>
<b>UNIT III Bailment , Pledge and Law of Agency</b> Bailment and Pledge – Meaning – Rights and Duties of the Bailor and Bailee - Pledger and Pledgee - Law of Agency – Creation of Agency - Classification of Agents - Rights and Duties of Principal and Agent - Delegation of Authority Relationship of Principal with Third Parties - Personal Liability of an Agent – Termination of Agency.	<b>10</b>
<b>UNIT IV Sale of Goods Act 1930.</b> Contract of Sale – Agreement to Sell and Sale – Sale and Hire Purchase Agreement Sale and Bailment – Transfer of Ownership – Documents of Title to Goods – Price Condition and Warranties – Caveat Emptor - Performance of Contract of Sale Rights of Unpaid Seller.	<b>8</b>
<b>UNIT V The Negotiable Instruments Act 1881 , Partnership Act 1932 and Limited Liability Partnership Act 2008</b> The Negotiable Instruments Act, 1881 - Negotiable Instrument - Definition Characteristics and Classification - Presentment of Instruments - Dishonor of Instruments and Remedies - Discharge of Instruments - Types of Hundis - The Indian Partnership Act 1932 - Nature of Partnership - Rights and Duties of Partners Registration and Dissolution of a Firm. Limited Liability Partnership Act 2008- Formation – Membership – Functioning –Dissolution.	<b>10</b>

**Text Books**

Kapoor N.D., “Elements of Mercantile Law”, Sultan Chand & Sons, New Delhi.

**Reference Books**

1. Shukla M.C., “A Manual of Mercantile Law”, Sultan Chand & Sons, New Delhi.
2. Sreenivasan M.R., “Commercial and Industrial Law”, Margham Publications. Chennai.
3. Tulsian P.C., “Business Law”, Tata McGraw – Hill Publishing Co. Ltd., New Delhi.
4. Gogna. P.P.S., “A Text Book of Mercantile Law” S. Chand Company Ltd, New Delhi.

**Learning Objective:** To Promote the knowledge of Applying Statistical Quality Control Techniques in Business

**Hours****UNIT I Statistical Quality Control**

Statistical Quality Control – Quality of a Product – Need for Quality Control – Basic Concepts of Process Control, Product Control and Process Capability– Importance of Statistical Methods in Industrial Research and Practice – Benefits, Specification of Items - Under Lot Quality Corresponding to Visual Gauging. **12**

**UNIT II Control Charts**

Control Charts for Variables and Attributes – Construction of  $\bar{x}$ , R, C, p, np Charts Simple Problems. Acceptance Sampling for Attributes – Producer’s Risk and Consumer’s Risk – Single Sampling Plan – OC, ASN, ATI, and AOQ – Double Sampling Plan - OC, ASN, ATI, and AOQ Curves. **12**

**UNIT III Basics of Total Quality**

Basics of Total Quality – Evaluation and Definition of Quality – Need for Quality Improvement – TQM – Definitions – Fundamentals of TQM – TQM Models – ISO 9001:2000 Series with Reference to Process Control and Statistical Techniques. **12**

**UNIT IV Process Capability**

Process Capability – Process Capability Index (PCI) – Interpreting PCI Statistical Process Control and Quality Improvement. **12**

**UNIT V Reliability**

Reliability – Definitions – Scope of Reliability – Concept of Hazard Rate - Concept of IFR and DFR – Failure Distribution – Cumulative Hazard Rate – Constant Failure Rate – Relevance of Exponential Distribution (Single Parameter) – Simple Problems. **12**

**Text Book:**

Montgomery D.C, “Introduction to Statistical Quality Control” John Wiley & Sons, Mumbai 7 edition (October 10, 2009)

**Reference Books:**

1. Gupta.S.C&.Kapoor,V.K.,“Fundamentals of Applied Statistics”,Sultan Chand & Sons,New Delhi, Vol-3, 1994
2. Wetherill G.Band.Brown,D.W, “Statistical Quality Control Theory and Practice” Chapman& Hall, N.Y.3<sup>rd</sup> Edition, 1991
3. Duncan,A.J. IrwinR.D, “Quality Control and Industrial” Irwin Professional Publishing, New Delhi, 4th Edition,1974

**Learning Objective:** To make the students proficient in R Language to solve the problems

### Hours

#### **UNIT I Introduction, Simple Manipulations Numbers and Vectors** **10**

Introduction - The R Environment - Related Software and Documentation- R and Statistics- R and the Window System - Using R Interactively - Getting Help with Functions and Features - R Commands, Case Sensitivity - Recall and Correction of Previous Commands - Executing Commands from or Diverting Output to a File - Data Permanency and Removing Objects. Simple Manipulations Numbers and Vectors: Vectors and Assignment - Vector Arithmetic - Generating Regular Sequences - Logical Vectors- Missing Values - Character Vectors - Index Vectors - Selecting and Modifying Subsets of a Data Set - Other Types of Objects.

**10**

#### **UNIT II Objects, Arrays and Matrices**

Objects, Their Modes and Attributes: Intrinsic Attributes- Mode and Length – Changing the Length of an Object - Getting and Setting Attributes - The Class of an Object. Ordered and Unordered Factors: The Function Tapply () and Ragged Arrays- Ordered Factors. Arrays and Matrices: Array Indexing - Subsections of an Array - Index Matrices- The Array() Function - Mixed Vector and Array Arithmetic - The Recycling Rule - The Outer Product of Two Arrays - Generalized Transpose of an Array - Matrix Facilities - Matrix Multiplication.

**9**

#### **UNIT III Lists and Data Frames**

Lists and Data Frames: Lists - Constructing and Modifying Lists Concatenating Lists - Data Frames - Making Data Frames Attach () and Detach () - Working with Data Frames. Reading Data from Files: The Read Table () Function - The Scan () Function Accessing Built - In Datasets - Loading Data from Other R Packages. Probability Distributions: R as a Set of Statistical Tables - Examining The Distribution of a Set of Data - One and Two - Sample Tests

#### **UNIT IV Grouping, Loops and Conditional Execution, Statistical Models in R**

Grouping, Loops and Conditional Execution: Grouped Expressions - Control Statements - Conditional Execution: If Statements - Repetitive Execution for Loops, Repeat and While Statistical Models in R: Defining Statistical Models - Formulae Contrasts Linear Models - Generic Functions for Extracting Model Information Analysis of Variance and Model Comparison - Anova Tables - Updating Fitted Models Generalized Linear Models - The Glm() Function - Nonlinear Least Squares and Maximum Likelihood Models - Least Squares Maximum Likelihood Some Non-Standard Models.

**10**

#### **UNIT V Graphical Procedures**

High-Level Plotting Commands - The Plot() Function Displaying Multivariate Data - Display Graphics - Arguments to High-Level Plotting Functions Low-Level - Plotting Commands - Mathematical Annotation - Hershey Vector Fonts -Interacting with Graphics - Using Graphics Parameters - Graphics Parameters List - Device Drivers.

**9**

#### **Text Book**

1. W. N. Venables, D. M. Smith, “An Introduction to R- A Programming Environment for Data Analysis and Graphics” Version 3.3.2 (2016-10-31).

## Reference Book

1. Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshir, “An Introduction to Statistical Learning: with Applications in R”, Springer publications.Chennai.
2. Brett Lantz ,“Machine Learning with R”,Packt, 2<sup>nd</sup> Edition.
3. Kun Ren ,“Learning R Programming”, Packt, 2016.
4. Colin Gillespie and Robin Lovelace , “Efficient R Programming: A Practical Guide to Smarter Programming”,O’Reilly, 2016.



Since - 1947

**Learning Objective:** To enable the students to know the formulation of Mathematical Models and Linear Programming Techniques.

<b>UNIT I Introduction to Operations Research and Linear Programming Problem (Sections 2.1 to 2.4, 3.1 to 3.5, 4.1, 4.3) (Problems only)</b>	<b>13</b>
Introduction to Operations Research – Definitions - Nature - Scope - General Linear Programming - Problems – Mathematical Formulation of Linear Programming Problem – Solution to L.P.P by Graphical Method – Simplex Method.	
<b>UNIT II Transportation Problem and Assignment Problem (Sections 10.1 to 10.3, 10.5, 10.6, 10.9, 10.12, 10.13, 10.15, 11.1 to 11.4) (Problems only)</b>	<b>11</b>
Transportation Problem: North West Corner Rule – Matrices Minimum Method Vogel’s Approximation Method – MODI Method. Assignment Problem: Mathematical Formulation – Hungarian Method Unbalanced Assignment Problems.	
<b>UNIT III Game Theory (Sections 17.1 to 17.7) (Problems only)</b>	<b>10</b>
Concepts of Pure and Mixed Strategies – Value of Games – Solving Two Person Zero Sum Games with Saddle Points – Solving 2x2 games without Saddle Points Graphical Solution of 2xn and mx2 games – Dominance Principle.	
<b>Unit IV Network Analysis (Sections 25.1, 25.2, 25.4 to 25.7) (Problems only)</b>	<b>11</b>
Introduction – Network and Basic Components – Rules of Network Construction Time Calculation in Network – Critical Method – PERT Calculation.	
<b>Unit V Sequencing Problem (Sections 12.1 to 12.5) (Problems only)</b>	<b>10</b>
Johnson’s Rule for n-jobs – Two machines, n-jobs k machine Problem	

### Hours

#### Text Book

Kanti Swarup, Gupta P.K., Man Mohan, “Operations Research”, 16<sup>th</sup> Edition 2013, Sultan Chand & Sons, New Delhi.

#### Reference Books

1. Kalavathy. S, “Operations Research”, 4<sup>th</sup> Edition , Vikas Publishing House,Pvt Ltd.Chennai.
2. Dharani Venkata Krishnan, “Operations Research”, Keerthi Publications, Vijayawada.
3. Hamdy A. Taha, “ Operations Research- An Introduction”, Pearson Publications, New Delhi.
4. Sharma J.K,“Operations Research : Theory and Applications”, MacMillan Publishers India, New Delhi.

## IV

**Learning Objective :** To understand and implement programs using R

- 1 Read a CSV & excel file and perform Subsets of dataset, Merging datasets
- 2 Create an R program:
  - a) To add two vectors.
  - b) To find sum, mean and product of vector.
  - c) To generate random number from standard distributions
  - d) To sample from a population.
- 3 Consider an experiment with Cars. Three different brands and four different models have been tested, and there are three replications for each of the 12 combinations. The production has been registered for each of the 36 units. The data are saved in the file cars.xlsx. Make a histogram of the production details. Moreover, compute the mean, median and standard deviation of the production variable.
- 4 Take the data from two different sources (files), and merge before analysis. And analyse the data set using charts.
- 5 Apply table () function to summarize the dataset, “Rental Units”.
- 6 Draw a cumulative frequency graph using R with relevant data
- 7 Create R program to verify the age of Voting using Conditional Statement.
- 8 Analyse the Banking Crisis using two way ANOVA method.
- 9 As part of a large project on characterization of ecological zones, 11 environmental variables were measured at 30 sites along the Doubs River. The variables were distance from the source, i.e. from the start location (das), altitude (alt), slope (pen), mean minimum discharge (deb), pH of water (pH), concentration of calcium, phosphate, nitrate, ammonium, respectively (dur,pho, nit, amm), dissolved oxygen (oxy), biological oxygen demand (dbo). Perform PCA and make a plot for first two principal components.
- 10 Perform the following: Matrix computations, Transpose, Inverse matrix, Determinant

**17CBA21 INSTITUTIONAL TRAINING AND VIVA VOCE Semester - V**

Students shall undergo practical training in industries and business establishments during the II year summer holidays for a period of Fifteen days. They should maintain a work dairy during the training programme and submit a report of the training they underwent. This is evaluated for 100 marks as per the components approved in the Board.



Since - 1947

**Learning objective:** To Provide Theoretical and Practical Knowledge in Income Tax.

	<b>Hours</b>
<b>UNIT I Income Tax Act 1961</b>	<b>14</b>
Income Tax Act 1961 – Definitions - Agricultural Income, Assessee, Person, Income, Gross Total Income , Assessment Year, Previous Year , Capital and Revenue Receipts and Expenses – Basis of Charge – Residential Status of an Individual, HUF, Firms, AOP and Company - Incidence of Taxation – Exempted Incomes – PAN - DIN	
<b>UNIT II Salaries and Income from House Property</b>	<b>15</b>
Salaries - Computation of Salary Income - Salary u/s 17(1) - Annual Accretion Allowances – Perquisites - Profits in lieu of Salary - Deduction u/s 16 - Rebate u/s 80C. Income From House Property-Exempted Income from House Property-Annual Value-Determination of Annual Value of Self Occupied and Let Out House. Deductions u/s 24.	
<b>UNIT III Profits and Gains of Business and Profession, Capital Gains</b>	<b>15</b>
Profits and Gains of Business and Profession – Definition - Deductions Expressly Allowed and Disallowed – Depreciation - Capital Gains – Short Term Capital Gains Long Term Capital Gains – Tax on Capital Gains	
<b>UNIT IV Income from Other Sources &amp; Deductions</b>	<b>14</b>
Income from Other Sources –General Incomes u/s 56(1)-Specific Incomes u/s56(2)-Expenses u/s57-Exempted Incomes-Deductions u/s 80C to 80U (Pertaining to Individuals and Companies)	
<b>UNIT V Set off and Carry Forward of Losses &amp;Gross Total Income</b>	<b>14</b>
Set off of losses - Carry forward and Set off of Losses – Clubbing of Income Computation of Gross Total Income - Tax Deducted at Source – Advance Tax (Basic Theory)	

#### **Text Book**

Gaur.V.P & Narang.D.B, “Income Tax Law and Practice”, Kalyani Publishers, Ludhiana.

#### **Reference Books**

1. Dr. Mehrotra, “Income Tax Law and Practice”, Sahitya Bhavan Publications New Delhi.
2. Dinkar Pagare, “Law and Practice of Income Tax”, Sultan Chand & Sons, New Delhi.
3. [www.incometaxindia.gov.in](http://www.incometaxindia.gov.in)
4. [www.allbusiness.com](http://www.allbusiness.com)

**Learning Objective:** To enable the students to understand the concepts and practices of Marketing Management.

	<b>Hours</b>
<b>UNIT I Introduction to Marketing</b>	<b>14</b>
Marketing – Meaning – Concepts – Features of Modern Marketing – Importance Approaches to the Study of Marketing – Marketing Environment - Functions - Marketing Management – Objectives – Process - Marketing Mix - Recent Innovations in Modern Marketing.	
<b>UNIT II Consumer Behavior and Market Segmentation</b>	<b>14</b>
Consumer Behavior – Need for Understanding Consumer Behavior – Kinds of Markets Consumer Decision Behavior – Consumer Buying Decision Process – Buying Motives of Consumers – Market Segmentation – Requirements of Effective Segmentation Bases of Market Segmentation – Benefits - Target Market	
<b>UNIT III Product Mix and Pricing</b>	<b>14</b>
Product – Product Objectives and Policies - Product Planning and Development - Product Line – Product Standardization - Branding - Packaging – Labeling - Product Positioning - New Product Development – Product Life Cycle. Pricing–Policies - Types of Policies- Types of Pricing – Pricing Strategies	
<b>UNIT IV Distribution and Promotional Strategies</b>	<b>15</b>
Channels of Distribution -- Factors Influencing the Selection of Channels – Types of Channels – Physical Distribution of Goods - Concept – Objectives- Advertising Media Planning – Advertising Copy – Pre and Post Testing – Sales Promotion –Types and Techniques – Personal Selling.	
<b>UNIT V Service Marketing, Marketing Research and Marketing Information System</b>	<b>15</b>
Marketing of Services – Features of Service Marketing – Marketing Mix for Service Marketing. Marketing Research – Definition – Scope of Marketing Research - Marketing Research Process – Marketing Information System.	

#### **Text Book**

Gupta C.B.& Rajan Nair., “Marketing Management”, Sultan Chand & Sons NewDelhi

#### **Reference Books**

1. Rajan Nair N., “Marketing”, Sultan Chand & Sons, NewDelhi.
2. Rajan Nair.N and Sanjith, R. Nair., “Marketing”, Sultan Chand & Sons, NewDelhi.
3. Sherlekar S.A., “Marketing Management”, Himalaya Publishing House, Mumbai.
4. Rajendra Nargundkar., “Marketing Research”, McGraw Hill Education (India) Private Limited, New Delhi.

**Learning Objective:** To enable the Students to understand the Big Data in Technology Perspective.

### Hours

#### **UNIT I Big Data and Analytics** **12**

Big Data and Analytics – Applications – Basic Nomenclature – Analytics Process Model – Job Profiles Involved – Analytics – Analytical Model Requirements.

#### **UNIT II Data Collection, Sampling and Preprocessing** **12**

Data Collection, Sampling and Preprocessing – Types of Data Sources – Sampling Types of Data Elements – Visual Data Exploration and Exploratory Statistical Analysis Missing Values – Outlier Detection and Treatment – Standardization Data Categorization – Weights of Evidence Coding – Variable Selection – Segmentation.

#### **UNIT-III Industry and Big Data** **12**

Industry Examples of Big Data – Digital Marketing and the Non – Line World – Database Marketers, Pioneers of Big Data – Big Data and the New School of Marketing Fraud and Big Data – Risk and Big Data – Credit Risk Management – Big Data and Algorithmic Trading – Advertising and Big Data – Using Consumer Products as a Doorway.

#### **UNIT-IV Big Data Technology** **12**

Big Data Technology – The Elephant in the Room: Hadoop's Parallel World Old Vs New Approaches – Data Discovery: Work the Way People's Minds Work – Open Source Technology for Big Data Analytics – The Cloud and Big Data – Software as a Service BI – Mobile Business Intelligence is Going Mainstream – Crowd Sourcing Analytics – Inter and Trans Firewall Analytics.

#### **UNIT-V Applications** **12**

Applications – Credit Risk Modeling – Fraud Detection – Net Lift Response Modeling Churn Prediction – Recommender Systems – Web Analytics – Social Media Analytics Business Process Analytics.

#### **Textbook**

1. Wiley Baesens, "Analytics Big data World - The Essential Guide to Data Science and its Applications", Wiley, 2014.
2. Minelli Chambers Dhiraj, "Big Data Big Analytics - Emerging Business Intelligence and Analytics Trends for Today's Businesses", Wiley, 2013.

#### **Reference Books**

1. James R Evans, "Business Analytics- Methods, Models and Decisions", Pearson education India Chennai.2013.
2. R.N Prasad, Seema Acharya, "Fundamentals of Business Analytics", Wiley, 2015.
3. Wayne.L.Winston, "Marketing Analytics : Data driven techniques with MS-Excel ", Wiley, 1<sup>st</sup> ed. 2014.
4. Furht, Borko, Villanustre,Flavio,"Big Data Technologies and Applications", Springer,2016.
5. Jeffrey Ohlmann , James J. Cochran, Michael Fry , Jeffrey D. Camm, "Essentials of Business Analytics", kindle edition,2014.

**Learning Objective:** To Promote the knowledge of Actuarial Statistics in the field of Business.

### Hours

#### UNIT I Demographic Method

Source of Demographic Data – Census - Registration Method–Survey Method–Mortality Measurements, Crude Death Rate – Infant Mortality Rate – Age, Sex, and Cause Specific Death Rates – Force of Mortality Rates – Gompertz and Makeham’s Laws. 12

#### UNIT II Life Tables

Description and Construction of Various Columns of Life Table – Simple Problems Uses of a Life Table – Migration and Distribution – Gross, Net, Mobility of Migration Rates – Interpretation of Spatial Distribution of Population. 12

#### Unit III Population Projection

Population Projection – Components of Population Change of Growth – Population Estimates and Projection – Arithmetic, Geometric and Exponential Growth Rates – Logistic Curve – Basic Ideas of Stationary and Stable Population. 12

#### Unit IV Life Distribution

Life Distribution – Definition of Survival Parameters with Exponential, Weibul, Normal, Lognormal and Gamma Models for Failure Data 12

#### Unit V Survival Function

Estimation of Survival Function – Actuarial Estimation - Kaplan –Meier Estimator, Estimation Under the Assumption of IFR and DFR – Gehan Test, Log Rank Test. 12

#### Text Book

1. Srivatsava., “Studies in Demography”, Jai Prakash Nath publisher, The University of California, 1980. (Unit 1,2,3)
2. Cox, D. R.; Oakes, D.: “Analysis of Survival Data”. Chapman and Hall, London – New York 1984, (Unit 4,5)

#### Reference Books

1. Donald D.W.A, “Compound Interest and Annuities” Cambridge University Press, 2016.
2. Gupta S.P., “Statistical Methods”, 4<sup>th</sup> Edition., Sultan Chand & Sons, 2011.
3. Mathematical Basis of the Assurance – Federation of Insurance Institute Study Courses.
4. Benjamin,B., “Elements of Vital Statistics”, The University of California, Allen & Unwin, 1959.
5. Gupta.S.C & Kapoor,V.K., “Fundamentals of Applied Statistics”, Sultan Chand & Sons, New Delhi, Vol-3, 1994.

17CBA26A

**CORE ELECTIVE-I (A)  
FINANCIAL MANAGEMENT**

**Semester V**

**Learning Objective:** To enable the students to understand the Concepts of Financial Management and its Application for Financial Decisions.

**Hours**

**UNIT I Financial Management and Time Preference for Money** **14**

Financial Management – Meaning and Scope – Objectives –Key Financial Decisions - Functional Areas of Financial Management – Organization of Finance Function Concepts of Value and Return – Time Preference and Money – Compounding and Discounting Techniques - Concept of Annuity.

**UNIT II Financial Statement Analysis** **15**

Financial Statement Analysis-Types and Techniques of Financial Statement Analysis Comparative Statements - Common Size Statements -Trend Analysis - Ratio Analysis – Liquidity, Solvency, Activity, Profitability ratios.

**UNIT III Capital Budgeting Techniques** **15**

Capital Budgeting – Meaning, Purpose, Objectives and Process – Types of Projects Techniques of Decision Making – Pay Back Period Method, Accounting Rate of Return Method, Net Present Value Method, Internal Rate of Return method, Discounted Payback Period and Profitability Index Methods – Ranking of Competing Projects.

**UNIT IV Cost of Capital and Capital Structure** **15**

Cost of Capital – Meaning – Importance – Specific Cost of Capital – Cost of Debt Cost of Preference Capital – Cost of Equity Capital – Cost of Retained Earnings Weighted Average Cost of Capital – Capital Structure - Meaning and Importance Capital Structure Theories – Net Income Approach – Net Operating Income Approach - Traditional Approach - Modiglieni Miller (MM) Model- Long Term Sources of Finance.

**UNIT V Working Capital Management** **13**

Working Capital – Meaning – Importance –Types – Working Capital Cycle Determinants of Working Capital – Sources of Working Capital

**Distribution of Marks : 60% Problems and 40% theory**

**Text Book**

Sharma R.K.and Shashi K.Gupta , “Financial Management” Kalyani Publishers, New Delhi.

**Reference Books**

1. Maheswari S.N, “Elements of Financial Management”, Sultan Chand & Sons, New Delhi.
2. Khan M.Y. and Jain P.K, “Basic Financial Management”, Tata McGraw-Hill Publishing Company Limited, New Delhi.
3. Pandey I.M. “ Essentials of Financial Management”, VikasPublishing House Pvt Ltd, New Delhi.
4. Prasanna Chandra, “Fundamentals of Financial Management”, McGraw-Hill Education (India) Private Limited, New Delhi.

**WORKING CAPITAL MANAGEMENT**

**Learning Objective:** To educate the importance of working capital management concepts in corporate finance.

**Hours****UNIT I Introduction to Working Capital Management** **14**

Working Capital Management – Meaning – Objectives – Working Capital Policies  
Factors affecting Working Capital Requirements – Forecasting of Working Capital  
Requirements.- Working Capital Management – Theories and Approaches

**15****UNIT II Financing of Working Capital**

Financing of working capital –Working Capital Financing Mix - Financing of  
Working Capital by Banks – Measuring the working capital.

**15****UNIT III Receivables Management**

Receivables Management – Meaning – Objectives - Cost of Maintaining Receivables  
Factors Influencing Size of Receivables - Forecasting the Receivables – Dimensions  
of Receivables Management

**15****UNIT IV Cash and Inventory Management**

Cash Management – Managing Cash Flows – Determining Optimum Cash  
Balance. Inventory Management – Meaning, Nature, Benefits, Risk And Cost Of  
Inventory Management – Tools and Techniques of Inventory Management.

**13****UNIT V Working Capital Control**

Working Capital Control and Banking policy – Committee Recommendations on  
Working Capital – New System of Assessment of Working Capital Finance. - Money  
Market Instruments - Bank Finance - Assessment and Appraisal – Managing  
Corporate Liquidity and Financial Flexibility

**Distribution of Marks:** 60% problems (simple problems only) and 40% theory

**Text Book**

V.K.Bhalla, “ Working Capital Management”, Text and Cases, Sixth Edition, Anmol  
Publications New Delhi.

**Reference Books**

1. Prasanna Chandra, “Financial Management, Theory and Practice”, Tata McGraw- Hill  
Publishing Company Limited, New Delhi.
2. Pandey I.M, ‘Financial Management’, Vikas Publications, New Delhi.
3. Khan and Jain, Financial Management, Tata McGraw- Hill Publishing Compan  
Limited, New Delhi.

**Learning Objective:** To develop the skills in applying the Statistical tools in Business

**Hours**

**UNIT- I: Econometrics**

Econometrics - Definitions – Scope – Objectives and Limitations – Two Variables Linear Model and Testing Methods – Concept of Economic Forecasting.

**8**

**UNIT- II: Econometric Models**

Basics of Econometric Modeling – Bivariate Econometric Modeling – Multivariate Econometric Modeling.

**7**

**UNIT –III: Regression Analysis**

Least square Regression – Interpretation of a Regression Equation – Goodness of Fit  $R^2$

**9**

**Text Book:**

Damodar N and Gujarathi, “Basic Econometrics”, 4<sup>th</sup> Edition, McGraw-Hill, New Delhi.

**Reference Books:**

1. D.N. Gujarathi and D.C. Porter “Essentials of Econometrics” 4<sup>th</sup> Edition, McGraw-Hill, New Delhi.
2. Christopher Dougherty “Introduction to Econometrics”, 4<sup>th</sup> Edition, OUP, Indian Edition, New Delhi.



Since - 1947

**Learning Objective:** To enable the students to be Proficient in Banking and Insurance System in India.

	<b>Ho urs</b>
<b>UNIT I Banking System in India - An Overview (Constitutions and Functions)</b>	<b>10</b>
Origin of Banking – Banking System - Indigenous Bankers – Commercial Banks Co-operative Banks – Regional Rural Banks - Foreign Banks – Payment Banks Reserve Bank of India – Import Export Bank of India.	
<b>UNIT II Banker and Customer</b>	<b>10</b>
Banker – Customer - Relationship Between Banker and Customer- Types of Deposits Account Opening – Know Your Customer Guidelines – Pass Book - Types of Customers. Secured and Unsecured Advances – Principles of Sound Lending Modes of Charging - Security - Lien – Pledge – Mortgage – Assignment Hypothecation - Cash Credit - Overdraft – Bank Guarantee - Letter of Credit.	
<b>UNIT III Service Channels of Banks</b>	<b>8</b>
Alternate Channels– ATM– Internet Banking – Phone Banking – Payment and Remittance Services – Pay Order– Draft – Electronic Fund Transfer - Intra Branch Inter Branch, Inter Bank, NEFT, RTGS . Allied Services – Safe Keeping, Advisory Services – Demat Services - Credit Card- Debit Card	
<b>UNIT IV IRDAI , Insurance and Types of Insurance</b>	<b>10</b>
Insurance – Definition - Nature and Scope – Principles of Insurance – Functions of Insurance - Role and Importance of Insurance - IRDAI – Life Insurance Contract Definition – Features – Types of Assurances – Role of Actuaries.	
<b>UNIT V Non Life Insurance</b>	<b>10</b>
Fire Insurance – Definition – Kinds of Policies. Marine Insurance – Definition- Contract Elements – Policies- Difference Between Fire And Marine Insurance – Miscellaneous and Health Insurance – Basic Concepts of Natural Premiums, Level Premiums, Office Premiums.	

#### **Text Book**

1. Gordan.E. & Natrajan.K., “Banking Theory Law and Practice”, Himalaya Publishing House, New Delhi.
2. Mishra M.N., “Insurance Principles and Practice”, Sultan Chand & Sons, New Delhi.

#### **Reference Books**

1. Sundharam K.P.M & Varshney P.N., “Banking Theory Law and Practice”, Sultan Chand & Sons, New Delhi.
2. Kaptan.S.S., “New Concepts in Banking”, Sarup & Sons, New Delhi.
3. Vinayakam.N, Radhaswamy & Vasudevan.S.V., “Insurance Principles and Practice”, Sultan Chand & Sons, New Delhi.
4. Mishra M.N., “Modern Concepts of Insurance”, Sultan Chand & Sons, New Delhi.

**Learning Objective:** To enable the students to learn the Concepts and Principles of Logistics and Supply Chain Management.

### Hours

#### **UNIT I Introduction to Logistics and Supply Chain Management** **12**

Concept of Logistics - Objectives - Importance of Logistics - Logistics Interface with Marketing - System Elements - Relevance of Logistics to Export Management - Principles of Logistics Excellence.

Introduction to SCM - Functions - Objectives - Scope - Key Issues - Supply Chain Decisions and Tradeoffs.

#### **UNIT II Logistics Distribution and Measuring Logistics** **12**

Introduction - Centralized and Decentralized Supply Chains - SCM Decision Making- MRP - Key features of Network Configuration - Data Collection - Transportation - Warehousing - Strategic Location and Management - Demand Forecasting –Price Performance – Cost Effectiveness – Quality and Time - Fourth party Logistics. Strategic Performance

#### **UNIT III Inventory and Vendor Management** **12**

Introduction - Concepts of Material Management – Objectives – Inventory Control- Advantages and Disadvantages of Holding Inventories. Vendor Development. Vendor Selection - Vendor Performance Monitoring - Vendor Rating Contract Negotiations and Relationships - Vendor Relationship Management.

#### **UNIT IV Value of Information and MIS in SCM** **12**

The Bullwhip Effect in Logistics - Quantifying Bullwhip Effect - Lead Time Production - Developing Supply Chain as a Competitive Focus - Conflicting Objectives of SCM. MIS in SCM - International Co-ordination- Database System Architecture - Communications in SCM

#### **UNIT V Managing Global SCM and Current Issues in SCM** **12**

Challenges in Global Logistics - Planning and Organizing in Global Logistics Communication and Co-ordination at Global level -Procurement of Services - Value Engineering and Value Analysis Concept - New Organisational Requirements Green Supply Chain - Rural Supply Chain Management - Quality in Supply Chain.

#### **Text Books**

1. Mohanty.R.T and Deshmukh.S.G, “Supply Chain Management Theory and Practice”, Bistantra Management for Flat World, New Delhi.
2. Jermy F.Shapiro, “Modelling the Supply Chain”, Thomson Duxbury, Bangalore.

#### **Reference Books**

1. Badi.N.V, “Supply Chain Management”, Vrinda Publications Pvt Ltd, Delhi.
2. Krishnaveni Muthiah,“Logistics Management and World Seaborne Trade”, Himalaya Publishing House, Mumbai.
3. David Simchi-Levi, Edith Simchi-Levi, & Philip Kaminsky, “Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies Tata McGraw Hill Education (India) Pvt., Ltd. New Delhi

**Learning Objective:** To Promote the knowledge of Data Analytics using SPSS.

	<b>Hours</b>
<b>UNIT I Overview of SPSS</b>	<b>12</b>
Overview of SPSS – Opening a Data File, Running an Analysis – Viewing Results Creating Charts. Importing and Exporting Data Files.	
<b>UNIT II Transform, Sorting Data, File Processing</b>	<b>12</b>
Transform (Recode into same variables, Recode into Different Variables) – Selected Cases Sorting Data, Split File Processing – Sorting Cases for Split – File Processing.	
<b>UNIT III Diagrams and Graphs</b>	<b>12</b>
Diagrams and Graphs – Bar, Line, dot, Pie charts – Descriptive Statistics (Frequencies, Descriptive, Crosstabs) – Compare Means – One sample t-test, Independent Samples t-test and Paired t-test.	
<b>UNIT IV One-way ANOVA – Correlation – Regression</b>	<b>12</b>
One-way ANOVA – Correlation – Bivariate, Partial and Multiple – Regression - Linear Regression.	
<b>UNIT V Non –parametric test</b>	<b>12</b>
Data Reduction – Non –parametric test – Run, Chi-square, One sample K-S test, Two Sample K-S test.	

#### **Text Book**

Andy field , “ Discovering Statistics Using IBM SPSS Statistics,” SAGE Publications India Pvt.Ltd, New Delhi, 4<sup>th</sup> Edition, 2013

#### **Reference Books**

Ajai S Gaur &Sanjaya S Gaur. “Statistical Methods for Practice and Research-A guide to Data Analysis using SPSS” SAGE Publications India Pvt.ltd, New Delhi, 2<sup>nd</sup> Edition, 2009

**Learning Objective:** To enable the students to understand the basics of Data Mining and Business Intelligence

### Hours

#### **UNIT I Overview and Concepts of Data Warehousing and Business Intelligence** 8

Reporting and Analysing data, Raw data to Valuable Information –Lifecycle of Data Business Intelligence – BI and DW in today's Perspective – Data Warehousing – The Building Blocks: Defining Features – Data Warehouses and Data 1marts – Overview of the Components – Metadata in the Data Warehouse – Need for `Data Warehousing Basic Elements of Data Warehousing – Trends in Data Warehousing.

#### **UNIT II The Architecture of BI and DW** 10

BI and DW Architectures and its Types - Relation between BI and DW - OLAP (Online Analytical Processing) Definitions - Difference between OLAP and OLTP Dimensional Analysis - What are Cubes? Drill-down and Roll-up - slice and dice or rotation - OLAP models - ROLAP versus MOLAP - Defining Schemas: Stars, Snowflakes and Fact Constellations

#### **UNIT III Introduction to Data Mining (DM)** 10

Motivation for Data Mining - Data Mining-Definition and Functionalities Classification of DM Systems - DM task primitives - Integration of a Data Mining System with a Database or a Data Warehouse - Issues in DM – KDD Process -Data Pre-processing : Data cleaning: Missing Values, Noisy Data - Data Integration and Transformation - Data Reduction: Data cube aggregation, Dimensionality reduction - Data Compression - Numerosity Reduction

#### **UNIT IV Concept Description and Association Rule Mining** 10

Concept Description - Data Generalization and Summarization-Based Characterization Attribute Relevance - Class Comparisons Association Rule Mining: Market Basket Analysis – Basic Concepts - Finding Frequent Item Sets: Apriori Algorithm Generating Rules – Improved Apriori Algorithm – Incremental Arm – Associative Classification – Rule Mining –Clustering Techniques – Classification Techniques Decision Trees

#### **UNIT V Data Mining for Business Intelligence Applications** 10

Data mining for business Applications like Balanced Scorecard, Fraud Detection, Click stream Mining, Market Segmentation, Retail Industry, Telecommunications Industry, Banking & Finance and CRM etc., Data Analytics Life Cycle: Introduction to Big data Business-Analytics - State of the Practice in Analytics role of Data Scientists Key roles for Successful Analytic Project - Main phases of Life-cycle - Developing Core Deliverables for Stakeholders.

**Text Books**

- 1 Han J. & Kamber M, “Data Mining Concepts and Techniques”, Morgan Kaufmann
2. Kantardzic M, “Data mining: Concepts, models, methods and algorithms, John Wiley & Sons Inc New Delhi.

**Reference Books**

1. Paulraj Ponnian, “Data Warehousing Fundamentals”, John Willey New Delhi.
2. Dunham M, “Data Mining: Introductory and Advanced Topics”, Pearson Education India Chennai .
3. Shmueli G, Patel N.R., & Bruce P.C. “Data Mining for Business Intelligence: Concepts, Techniques, and Applications in Microsoft Office Excel with XLMiner”, Wiley India New Delhi.



**Learning Objective:** To develop an understanding of strategic management concepts and Techniques

<b>UNIT I Introduction to Strategic Management</b>	<b>9</b>
Strategic Management – Definition - Conceptual Frame Work for Strategic Management – Policy – Strategy – Tactics - Strategic Management Process.	
<b>UNIT II Strategic Formulation</b>	<b>10</b>
Organizational Mission, Objectives and Business Ethics – Environmental analysis Industry and Competition analysis – Techniques of Environmental Analysis Organizational Analysis – Competitive Advantages – Types of Competitive Advantage – Approaches for Competitive Advantages – Generic Competitive Strategy.	
<b>UNIT III Strategy Implementation</b>	<b>10</b>
Grand Strategies - Growth Strategies – Choice of strategies – Frame Work for Strategy Implementation – Structural Implementation – Functional Implementation- Behavioral Implementation – Leadership – Strategic Leadership - Role of Leadership in strategic implementation – Leadership Styles - Effective leadership.	
<b>UNIT -IV Organizational Change and Innovation</b>	<b>10</b>
Nature of Organizational Change – Process of Management of Change – Resistance to Change – Factors in Resistances to Change – Overcoming Resistance to Change Innovation – Innovation Generation – Innovation Diffusion – Learning organization.	
<b>UNIT V Strategy Evaluation and Control</b>	<b>9</b>
Concept of Strategic Evaluation and Control- Framework for Strategic Evaluation and Control – Barriers in Strategic Evaluation and Control – Stages of control – Control Process - Criteria of Business Success - Techniques of Strategic Evaluation and Control.	

**Text Book**

Prasad.L.M., “Business Policy Strategic Management”, Sultan Chand & Sons, New Delhi.

**Reference Books**

1. Ghosh.P.K, “Business Policy, Strategic planning and management”, Sultan Chand & Sons, New Delhi.
2. Vipin Gupta, Kamala Gollakota & Srinivasan.R “Business policy and Strategic Management Concepts & Applications”, PHI Learning Pvt. Ltd. New Delhi.
3. Thosmpson & Strickland, “Strategic Management - Concepts and Cases”, McGraw Hill Education (India) Pvt., Ltd. New Delhi.

17CBA32  
VI

COMPUTER PRACTICAL V

Semester –

(Data Mining and Business Intelligence)

**Learning Objective:** To Provide working Knowledge in Data Mining and Business intelligence concepts

1. Use unsupervised attribute filters algorithm to find a file.
2. Use supervised attribute filters algorithm to find a file.
3. Implementation of preprocessing on student dataset.
4. Implementation of preprocessing on labour dataset.
5. Implementation of Association rule process on shopping dataset using apriori algorithm.
6. Implementation of Association rule process on real time dataset using apriori algorithm.
7. Implementation of classification rule process on healthcare dataset.
8. Implementation of classification rule process on company purchase dataset.
9. Implementation of clustering rule process on patient dataset.
10. Implementation of clustering rule process on vehicle purchase dataset.



**17CBA33**

**PROJECT WORK AND VIVA VOCE**

**Semester - VI**

Project work will be assigned to the students on the basis of group under the supervision and guidance of the faculty members in the areas of Marketing, Finance and Management with computer and statistical techniques. The grouping may be done in such a way that it has minimum three and maximum five students. The project report shall be submitted jointly by the group, evaluated by the internal and external examiners but the marks will be awarded to each student separately by conducting viva-voce examination.



### SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

**Learning Objective:** To equip the students with the Knowledge of Portfolio Risk and Return Analysis.

	<b>Hours</b>
<b>UNIT I Introduction to Investments</b>	<b>12</b>
Investments – Meaning – Features – Objectives - Investments vs. Speculation - Types of Investors – Portfolio Management – Meaning - Phases – Evolution.	
<b>UNIT II Investment Avenues</b>	<b>12</b>
Fixed Deposits and Investment in Government Securities-Investment in Equity Markets – Corporate Bonds – Features – Types – Preference Shares- Equity Shares Mutual Funds – Types - Benefits – Real Estate – Gold and Silver.	
<b>UNIT III Risk and Return</b>	<b>12</b>
Risk – Elements of Risk – Systematic Risk – Unsystematic Risk - Business Risk Financial Risk – Measurement of Risk – Standard Deviation and Beta Calculation. Efficient Market Hypothesis. Risk returns Analysis.	
<b>UNIT IV Portfolio Creation and Portfolio Theory</b>	<b>12</b>
Fundamental Analysis – Economic Analysis – Industry and Company Analysis Technical Analysis - Dow Theory- Principles of Technical Analysis - Chart Patterns Markowitz model and Sharpe model of Portfolio Optimization – Capital Asset Pricing Model – Capital and Security Market Line – Pricing of Securities with CAPM.	
<b>UNIT V Portfolio Evaluation and Revision</b>	<b>12</b>
Portfolio Evaluation – Need – Measuring Portfolio Return, Risk, Adjusted Return Decomposition of Performance. Portfolio Revision –Need - Constraints and Strategies.	
<b>Text Book</b>	
Kevin S., “Security Analysis and Portfolio Management”, PHI Learning Pvt., Ltd. New Delhi.	

#### Reference books

1. Preeti Singh, “Investment Management”, Himalaya Publishing House, New Delhi.
2. Dhanesh Kumar Khatri, “ Investment management & Security Analysis Text and cases”, Macmillan India Ltd, New Delhi.
3. Punithavathy Pandian, “Security Analysis and Portfolio Management”, Vikas Publishing House Pvt. Ltd, New Delhi.
4. Sasidharan and Alex K Mathews, “Security Analysis and Portfolio Management”, Tata McGraw Hill Education (India) Pvt., Ltd. New Delhi.

## CORE ELECTIVE –II (B)

### 17CBA34B      PRIMARY MARKET AND SECONDARY MARKET Semester – VI

**Learning Objective:** To impart knowledge on various investment avenues and about the Structure of Capital Market.

#### Hours

#### **UNIT I Introduction and Various Avenues of Investment** **12**

Concepts of Investment - Elements of Investment- Need for Investment - Risk and Return on Investment - Investment in Government Securities, shares, Insurance Policies, Mutual Funds, Bank Deposits, Provident Fund Schemes, Post office Schemes, Real Estate.

#### **UNIT II Financial Markets** **12**

Financial Markets - Definition – Role - Functions- Constituents of Financial Markets Primary Market - Secondary Market - Money Market- Capital Market- Debt Market Eurobond Market- Equity Market- Financial Services Market- Depository Market- Non Depository Market- Commodity market- FOREX market- Financial Instruments Capital Market Instruments.

#### **UNIT III: Stock Exchange** **12**

Definition- Functions- Stock exchange and Commodity exchange distinguished- Listing agreement- Stock exchange powers- Listing benefits - Consequences of non-Listing- New Entry Norms for Unlisted Companies – Suspension/Withdrawal of Listing

#### **UNIT IV: SEBI** **12**

Features of SEBI Act- Objectives- Management- Powers and Functions- Regulatory Role-Investor Protection- Loss of Confidence of Small Investors- Causes- Rights of Investors-Facilities by BSE- Ombudsman

#### **UNIT V: Stock Market Trading Mechanism** **12**

Stock Exchange Dealings - Share Prices- Factors- Depository Participant(DP)- Depository (DEMAT) Services- DEMAT Account- Electronic Settlement of Trade Procedure - Short comings of DEMAT System- Indian Depository- Role of CDSL- Benefits- Role of NSDL- Online Stock Trading - Features. Stock Market Index- Meaning- Features- BSE INDEX SENSEX- CNX Nifty.

#### **Text Books**

1. Dr Gurusamy.S, “Capital Markets”, Vijay Nicole Imprints Pvt Ltd, New Delhi.

#### **Reference Books**

1. Bhalla V.K, “Investment Management, Security Analysis and Portfolio Management”, Sultan Chand and Co.Ltd, New Delhi.
2. Gordon.E and Natarajan.H, “Capital markets in India”, Himalaya Publishing House, Mumbai.
3. Preeti Singh, “Investment Management, Security Analysis and Portfolio Management”, Himalaya Publishing House, Mumbai.
- 4.Sanjeev Agarwal, “Guide to Indian Capital Market”, Bharat Law House, New Delhi.

## **OFFICE MANAGEMENT (SELF STUDY)**

**Learning objective:** To learn the principles and practices of office management.

### **UNIT I Modern Office and Management**

Introduction – Meaning – Office Functions – Principles of Office Management - Elements  
Functions of Office Management – Information Management – Organization Characteristics  
Importance – Benefits – Steps - Principles.

### **UNIT II Administration and Accommodation.**

Administration – Objectives – Accommodation – Principles – Location – Office Layout–  
Re-Layout – New Trends in Office Layout – Office Lighting – Types – Benefits  
Ventilation – Interior Decoration- Physical Hazards – Sanitary Requirements – Security  
Secrecy – Cleanliness.

### **UNIT III Office System and Procedures**

System Concept – Definition – System Analysis – Flow of Work – Role of Manager  
Centralization vs Decentralization – Mechanization – Criteria – Types of Office Machines  
Office Forms – Forms Control – Designing – Sets – Stationery.

### **UNIT IV Records Management**

Records – Importance – Filing – Essentials - Classification and Arrangement of Files  
Methods – Modern Filing Devices – Indexing – Types – Selection – Filing Routine -  
Manual – Retention Evaluation – Modern Tendencies in Records Making.

### **UNIT V Communication and Office Correspondence**

Importance – Barriers – Process – Characteristics – Office Correspondence – Mail Services  
Facilities – Arrangements – Mail Routines – Cost Reduction or Cost Saving – Areas –  
Budgetary Control.

### **Text Book**

.Chopra R.K, “Office Organization and Management”, Himalaya Publishing House, Mumbai.

### **Reference Books**

1. Singh B.P, “Office Organization and Management”, Kalyani Publishers, New Delhi.
2. Gupta C.B, “Office Management”, Sultan Chand & Sons, New Delhi.

Since - 1947