B.Com (Computer Applications) 
Syllabus (CBCS) 
(w.e.f. 2019–2020)
<table>
<thead>
<tr>
<th>Sl.No.</th>
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<th>HPW</th>
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<td>1.</td>
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<td>Fundamentals of Information Technology</td>
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<td>Object Oriented Programming using JAVA</td>
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<td>15.</td>
<td>SEC 1</td>
<td>a) Principles of Insurance/ b) Foundation of Digital Marketing/ c) Fundamentals of Business Analytics</td>
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<td>16.</td>
<td>SEC 2</td>
<td>a) Practice of Life Insurance/ b) Web Design &amp; Analytics/ c) Application of Business Analytics</td>
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<td>Relational Database Management System</td>
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<td>50T+35P+15I</td>
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<td>22.</td>
<td>SEC 3</td>
<td>a) Practice of General Insurance/ b) Social Media Marketing/ c) Business Intelligence</td>
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<td>23.</td>
<td>SEC 4</td>
<td>a) Regulation of Insurance Business/ b) Search Engine Optimization &amp; Online Advertising c) Data Visualisation &amp; Storytelling</td>
<td>2</td>
<td>2</td>
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<td>40U+10I</td>
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# Faculty of Commerce

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<tr>
<th>Sl. No.</th>
<th>Course Code</th>
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<tr>
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<td>b) Financial Planning &amp; Performance/</td>
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<td>c) International Financial Reporting-I</td>
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<td>b) Financial Decision Making-I/</td>
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<td>c) International Tax &amp; Regulation</td>
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<tr>
<td>32.</td>
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<td>b) Ecommerce/</td>
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<td>c) Mobile Applications</td>
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<td>b) Financial control/</td>
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<td>b) Financial Decision Making-II/</td>
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<td>c) International Auditing</td>
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<td>38.</td>
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<td>b) Cyber Security/</td>
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<td>c) Data Analytics</td>
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**Note:** If a student should opt for “a” in SEC in III semester, the student has to opt for “a” only in IV semester and so is the case with “b” and “c”. In the case of DSE also the rule applies.

## SUMMARY OF CREDITS

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**CREDITS UNDER NON-CGPA**

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<th>Category</th>
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<tr>
<td>NSS/NCC/Sports/Extra Curricular</td>
<td>Up to 6 (2 in each year)</td>
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<tr>
<td>Summer Internship</td>
<td>Up to 4 (2 in each after I &amp; II years)</td>
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</table>
Objective: To acquire conceptual knowledge of basics of accounting and preparation of final accounts of sole trader.

UNIT-I: ACCOUNTING PROCESS:

UNIT-II: SUBSIDIARY BOOKS:

UNIT-III: BANK RECONCILIATION STATEMENT:

UNIT-IV: RECTIFICATION OF ERRORS AND DEPRECIATION:


UNIT-V: FINAL ACCOUNTS:
Final Accounts of Sole Trader: Meaning -Uses -Preparation of Manufacturing, Trading and Profit & Loss Account and Balance Sheet – Adjustments – Closing Entries.(Including problems)

SUGGESTED READINGS:
5. Introduction to Accountancy: T.S.Grewal, S.Chand and Co.
Objective: To acquaint the students with the basics of Commerce and Business concepts and functions, forms of Business Organization and functions of Management.

UNIT-I: INTRODUCTION AND FORMS OF BUSINESS ORGANISATIONS:

UNIT-II: JOINT STOCK COMPANY:

UNIT-III: INTRODUCTION TO FUNCTIONS OF MANAGEMENT:

UNIT-IV: PLANNING AND ORGANISING:

UNIT-V: AUTHORITY, COORDINATION AND CONTROL:
Meaning of Authority, Power, responsibility and accountability - Delegation of Authority - Decentralization of Authority - Definition, importance, process, and principles of Coordination-techniques of Effective Coordination - Control - Meaning - Definition – Relationship between planning and control - Steps in Control – Types (post, current and pre-control) - Requirements for effective control.

SUGGESTED READINGS:
3. Business Organization & Management: Dr. Manish Gupta, PBP.
7. Business Organization & Management: M.C. Shukla S. Chand,
8. Business Organisation and Management: D.S. Vittal, S. Chand
13.
Hours Per Week: 6 (4T+2P)  
Credits: 5

Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objective: To understand the basic concepts and terminology of information technology and to identify issues related to information security.

UNIT-I: INTRODUCTION TO COMPUTERS:
Introduction, Definition, Characteristics of computer, Evolution of Computer, Block Diagram of a computer, Generations of Computer, Classification of Computers, Applications of Computer, Capabilities and limitations of computer.
Role of I/O devices in a computer system. Input Units: Keyboard, Terminals and its types.
Non-Impact Printers and its types, Plotters, types of plotters, Sound cards, Speakers.

UNIT-II: COMPUTER ARITHMETIC & STORAGE FUNDAMENTALS:
Binary, Binary Arithmetic, Number System: Positional & Non Positional, Binary, Octal, Decimal, Hexadecimal, Converting from one number system to another.

UNIT-III: SOFTWARE:
Software and its needs, Types of S/W. System Software: Operating System, Utility Programs

UNIT-IV: OPERATING SYSTEM:
Functions, Measuring System Performance, Assemblers, Compilers and Interpreters.
Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.

UNIT-V: DATA COMMUNICATION:
Data, Communication, Basic Networking Devices, Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics, Types of Networks, LAN Topologies, Computer Protocols, Concepts relating to networking.

SUGGESTED READINGS:
Computer Fundamentals: P.K. Sinha
Objective: To acquire accounting knowledge of bills of exchange and other business accounting methods.

UNIT-I: BILLS OF EXCHANGE:
Bills of Exchange - Definition- Distinction between Promissory note and Bills of exchange-
Accounting treatment of Trade bills: Books of Drawer and Acceptor- Honour and Dishonour of
Bills- Renewal of bills- Retiring of bills under rebate- Accommodation bills.(Including problems)

UNIT-II: CONSIGNMENT ACCOUNTS:
Consignment – Meaning – Features– Proforma invoice - Account sales – Del credere
commission-Accounting treatment in the books of the consignor and the consignee - Valuation
of consignment stock –Treatment of Normal and abnormal Loss - Invoice of goods at a price
higher than the cost price. (Including problems)

UNIT-III: JOINT VENTURE ACCOUNTS:
Joint Venture – Meaning –Features-Difference between Joint Venture and Consignment-
Accounting Procedure-Methods of Keeping Records for Joint Venture Accounts-Method of
Recording in co-ventures books-Separate Set of Books Method- Joint Bank Account-
Memorandum Joint Venture Account (Including problems)

UNIT-IV: ACCOUNTS FROM INCOMPLETE RECORDS:
Single Entry System – Meaning -Features–Difference between Single Entry and Double Entry
systems -Defects in Single Entry System - Books and accounts maintained - Ascertainment of
Profit - Statement of Affairs and Conversion method (Including problems)

UNIT-V: ACCOUNTING FOR NON-PROFIT ORGANIZATIONS:
Non- Profit Organization – Meaning – Features – Receipts and Payments Account – Income and
Expenditure Account – Balance Sheet(Including problems)

SUGGESTED READINGS:
Objective: To understand basics of contract act, sales of goods act, IPRs and legal provisions applicable for establishment, management and winding up of companies in India.

UNIT–I: INDIAN CONTRACT ACT:

UNIT–II: SALE OF GOODS ACT AND CONSUMER PROTECTION ACT:

UNIT–III: INTELLECTUAL PROPERTY RIGHTS:

UNIT–IV: MANAGEMENT OF COMPANIES AND MEETINGS:

UNIT–V: WINDING UP:

SUGGESTED READINGS:
2) Company Law: Rajashree. – HPH
3) Business Law - Kavitha Krishna, Himalaya Publishing House
4) Business Laws – Dr. B. K. Hussain, Nagalakshmi - PBP
5) Company Law: Prof. G. Krishna Murthy, G. Kavitha, PBP
6) Company Law and Practice: GK Kapoor& Sanjay Dhamija, Taxmann Publication.
9) Business Law: D.S. Vital, S Chand
Hours Per Week: 7 (3T+4P)  
Credits: 5

Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objectives: 1. To understand fundamentals of object-oriented programming in Java and to create Java application programs using sound OOP practices such as interfaces, APIs and error exception handling.

UNIT- I: OBJECT ORIENTED PROGRAMMING & INHERITANCE:

Introduction to Java: Java buzzwords, bytecode. Java Programming Fundamentals: Applet and Application program using simple java program, data types, variables, arrays, operators, expressions, control statements, type conversion and casting, concepts of classes, objects, constructors, methods, access control, this keyword, garbage collection, overloading methods and constructors. Introducing: access control, static, final, nested and inner classes, exploring string class, using command-line arguments.

Inheritance: Inheritance concept, types of inheritance, Member access rules, use of super and final. Polymorphism - dynamic binding, method overriding, abstract classes and methods.

UNIT–II: INTERFACES, PACKAGES, EXCEPTION HANDLING & MULTITHREADING:

Interfaces: Defining an interface, implementing interfaces, extending interface.
Packages: Defining, Creating and Accessing a Package, importing packages.

Exception handling: Benefits of exception handling, classification, checked exceptions and unchecked exceptions, usage of try, catch, throw, throws and finally, rethrowing exceptions, built in exceptions, creating own exception sub classes.

Multithreading: Java Thread Model, The Main Thread, creating a Thread, creating multiple threads, using isAlive() and join(), thread priorities, synchronization, interthread communication, deadlock.

UNIT- III: COLLECTIONS & OTHER UTILITY CLASSES:


Other Utility classes: String Tokenizer, Date, Calender, GregorianCalendar, Scanner
Java Input/Output: exploring java.io, Java I/O classes and interfaces, File, Stream classes, byte stream, character stream, serialization.

UNIT- IV: GUI PROGRAMMING WITH JAVA, EVENT HANDLING &DATABASE PROGRAMMING USING JDBC:

GUI Programming with java: The AWT class hierarchy, MVC architecture. Applet Revisted: Basics, architecture and skeleton, simple applet program.


Database Programming using JDBC: Introduction to JDBC, JDBC Drivers & Architecture, CURD operation Using JDBC, Connecting to non-conventional Databases.

UNIT-V: EXPLORING SWING & SERVLET:

Exploring Swing: JLabel, ImageIcon, JTextField, the Swing buttons, JTabbedPane, JScrollPane, JList, JComboBox.


SUGGESTED READINGS:
**Objective:** To make students to learn the Principles of Insurance.

**UNIT I: RISK MANAGEMENT AND INSURANCE & INSURANCE TERMINOLOGY:**

**UNIT II: INSURANCE CONTRACT AND INSURANCE PRODUCTS:**

**SUGGESTED READINGS:**

1. Principles of Insurance : A Publication of the Insurance Institute of India
2. Principles of Insurance : Telugu Academy, Hyderabad
3. Guide to Risk Management : Sagar Sanyal
4. Principles of Insurance : Dr V Padminavathi, Dr V Jayalakshmi - PBP
5. Insurance and Risk Management : P.K. Gupta
6. Insurance Theory and Practice : Tripathi PHI
8. Life and Health Insurance : Black, JR KENNETH & Harold Skipper, Pearson

**Suggested Websites:**

1) [www.irda.gov.in](http://www.irda.gov.in)  
2) [www.policyholder.gov.in](http://www.policyholder.gov.in)  
3) [www.irdaindia.org.in](http://www.irdaindia.org.in)
Objective: To make students to learn Foundation of digital marketing.

UNIT I: DIGITAL MARKETING FOUNDATIONS:

UNIT II: OPTIMIZING MARKETING EMAILS, MOBILE MARKETING FOUNDATIONS AND CONTENT MARKETING FOUNDATIONS:
Email marketing tools and setup – Email marketing segmentation, personalization and mobile friendly design – Content marketing foundations – Blogs for content marketing – Content marketing for staying relevant – Newsletters for content marketing – Mobile marketing foundations.

SUGGESTED READINGS:
4. Digital Marketing by Vandana Ahuja, Oxford
5. Digital Marketing by Seema Gupta, McGraw Hill
6. Digital Marketing For Dummies by Ryan Deiss and Russ Henneberry
Objective: To make students to understand the Fundamentals of Business Analytics.

UNIT I: USING DATA TO DRIVE BUSINESS DECISIONS:

UNIT II: DATA ANALYTICS USING EXCEL:

SUGGESTED READINGS:

1. Fundamentals of Business Analytics, 2nd Edition; R N Prasad; Wiley
2. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson
3. Monetizing Your Data: A Guide to Turning Data into Profit-Driving Strategies and Solutions; Andrew Roman Wells, Kathy Williams Chiang; Wiley
4. Excel Data Analysis: Your visual blueprint for creating and analyzing data, charts and PivotTables, 3rd Edition; Denise Etheridge; Wiley
5. Microsoft Excel 2019 Formulas and Functions (Business Skills), 1st Edition; Paul McFedries; Microsoft
7. Microsoft Excel 2019: For Beginners; J. Davidson
8. Microsoft Excel 2019: Learn Excel Basics with Quick Examples; James Jackson
Objectives: To make students to learn Practice of Life Insurance.


SUGGESTED READINGS:

1. Practice of Life Insurance: Insurance Institute of India, Mumbai.
4. Principles of Life Insurance – Dr. V. Padmavathi, Dr. V. Jayalakshmi - PBP
Objective: To make students to understand the Web Design and Analytics.

UNIT I: WEB DESIGN AND OPTIMIZING CONVERSION RATES:
Exploring and learning web design – Understanding Conversion rate optimization (CRO) – Setting CRO – Understanding target audience – Pptimization champion

UNIT II: GOOGLE ANALYTICS:
Getting started with Google Analytics – Core concepts – Additional interface features – Using reports – Audience reports – Acquisition reports – Social reports – Behavior reports – Track events – Conversion reports – Additional features

SUGGESTED READINGS:

3. Digital Marketing by Vandana Ahuja, Oxford
5. Digital Marketing For Dummies by Ryan Deiss and Russ Henneberry
6. Don’t Make Me Think Revisited: A Common Sense Approach to Web Usability By Steve Krug
7. Web Analytics 2.0 – Avinash Kaushik
8. Successful Analytics by Brian Clifton
9. Math and Stats for Web Analytics and Conversion Optimization by Himanshu Sharma
Objective: To make students to understand the Analytics of Application of Business Analytics.

UNIT I: STATISTICS USING EXCEL:

UNIT II: GETTING STARTED WITH R:
Introduction to R and RStudio components: Read datasets into R - Export data from R - Manipulate and Process Data in R - Use functions and packages in R - Demonstrate with a Case Study to perform basic analytics using R

SUGGESTED READINGS:
1. Microsoft Business Intelligence Tools for Excel Analysis; Michael Alexander, Jared Decker, Bernard Wehbe; Wiley
2. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson
3. Excel Data Analysis: Your visual blueprint for creating and analyzing data, charts and PivotTables, 3rd Edition; Denise Etheridge; Wiley
4. Microsoft Excel 2019 Formulas and Functions (Business Skills), 1st Edition; Paul McFedries; Microsoft
6. Data Analytics with R; Bharti Motwani; Wiley
Objective: To acquire accounting knowledge of partnership firms and joint stock companies

UNIT-I: PARTNERSHIP ACCOUNTS-I:
Meaning – Partnership Deed - Capital Accounts (Fixed and Fluctuating) – Admission of a Partner – Retirement and Death of a Partner (Excluding Joint Life Policy)(Including problems)

UNIT-II: PARTNERSHIP ACCOUNTS–II:
Dissolution of Partnership – Insolvency of a Partner (excluding Insolvency of all partners) – Sale to a Company (Including problems)

UNIT-III: ISSUE OF SHARES, DEBENTURES, UNDERWRITING AND BONUS SHARES:
Issue of Shares at par, premium and discount – Pro-rata allotment – Forfeiture and Re-issue of Shares – Issue of Debentures with Conditions of Redemption – Underwriting: Meaning – Conditions- Bonus Shares: Meaning – SEBI Guidelines for Issue of Bonus Shares – Accounting of Bonus Shares(Including problems)

UNIT-IV: COMPANY FINAL ACCOUNTS AND PROFIT PRIOR TO INCORPORATION:

UNIT-V: VALUATION OF GOODWILL AND SHARES:

SUGGESTED READINGS:
5. Advanced Accountancy: Dr. G. Yogeshwaran, Julia Allen - PBP
9. Guidance Note on the Revised Schedule VI to the Companies Act, 1956, The Institute of Chartered Accounts of India.
10. Advanced Accounting (IPCC): D. G. Sharma, Tax Mann Publications.
Objective: to inculcate analytical and computational ability among the students.

UNIT-I: INTRODUCTION:

UNIT – II: DIAGRAMMATIC AND GRAPHIC PRESENTATION:

UNIT-III: MEASURES OF CENTRAL TENDENCY:

UNIT-IV: MEASURES OF DISPERSION, SKEWNESS AND KURTOSIS:
Measures of Skewness - Karl Pearson’s Coefficient of Skewness - Bowley’s Coefficient of Skewness - Kelly’s Measure of Skewness – Kurtosis: Mesokurtosis, Platy kurtosis and Leptokurtosis.

UNIT-V: CORRELATION:
Meaning -Types - Correlation and Causation – Methods: Scatter Diagram - Karl Person’s Coefficient of Correlation - Probable Error and Interpretation of Coefficient of Correlation - Rank Correlation - Concurrent Deviation Method.

SUGGESTED READINGS:
1. Statistics for Management: Levin & Rubin, Pearson
4. Business Statistics –I: Dr. Obul Reddy, Dr. D. Shridevi - PBP
7. Fundamentals of Statistical: S. P Gupta, Sultan Chand
10. Statistics-Problems and Solutions: Kapoor V.K, S. Chand
11. Statistics - Theory, Methods and Applications: Sancheti D.C. & Kapoor V.K
Objective: to acquire basic conceptual background necessary to design and develop simple database system, Relational database mode, ER model and distributed databases, and to write good queries using a standard query language called SQL.


LAB: SQL QUERIES BASED ON VARIOUS COMMANDS.

Objective: To make the student understand general policies and accounting.

Unit I: GENERAL INSURANCE POLICIES:

Unit II: UNDERWRITING, PREMIUMS, CLAIMS AND INSURANCE RESERVES AND ACCOUNTING:
Concept of Underwriting—Underwriting Process—Risk sharing and its methods—risk management and steps involved in it—Rating and Premiums—concept of soft and hard markets—Concept of Claim-understanding the process of claim management—claims fraud and fraud prevention—Insurance reserves and accounting—different types of reserves of insurance companies—reserving process followed by insurance companies—Insurance accounting.

SUGGESTED READINGS:
1. Practice of General Insurance – Insurance Institute of India.
2. Practice of General Insurance – D.S. Vittal-HPH.
3. Principles & Practice of Insurance- Dr. P. Periasamy – HPH.
4. Risk Management : A Publication of the Insurance Institute of India.,
5. Practice of General Insurance: Dr. V. Padmavathi, Dr. V. Jayalakshmi, PBP.
6. Insurance Theory and Practice: Tripathi PHI
7. Life and Health Insurance: Black, JR KENNETH & Harold Skipper, Pearson
8. Risk Management and Insurance : Trieschman ,Gustavson and Hoyt
Objective: To make students to understand the Social Media Marketing.

UNIT I: SOCIAL MEDIA MARKETING:
Building an online community – Understanding Social Media Marketing – Marketing and building presence on Facebook – Marketing and building presence on Twitter – Employer branding on LinkedIn

UNIT II: ONLINE ADVERTISING ON SOCIAL MEDIA:
Facebook advertising overview – How Facebook ads work – How to create Facebook ads – Additional advertising options and best practices for Facebook advertising – Marketing and monetizing on YouTube – Customize your YouTube Channel – Video optimization on YouTube – YouTube Analytics

SUGGESTED READINGS:
3. Digital Marketing by Vandana Ahuja, Oxford
4. Tuten: Social Media Marketing, sage
5. Digital Marketing by Seema Gupta, McGraw Hill
6. Social Media Marketing All-In-One for Dummies By Jan Zimmerman and Deborah Ng
7. Facebook Growth Hacking: How to Correctly Set Up and Maintain Your Facebook Presence and Gain Massive Amounts of Fans (Social Media Marketing) by Jeff Abston
8. Youtube Influencer: How To Become a Youtube Influencer, Why Influencer Marketing Matters, and How To Monetize Your Channel by Jeff Abston
Objective: To make students to understand the Business Intelligence.

UNIT I: BUSINESS INTELLIGENCE USING POWER BI:
Getting data in Power BI: Overview of Power BI Desktop - Connect to data sources in Power BI Desktop - Clean and transform data with the Query Editor - advanced data import and cleaning techniques - Cleaning irregularly formatted data - Modeling the data: Manage data relationships – Create calculated columns – Optimizing data models – Create calculated measures – Create calculated tables – Explore time-based data - Exploring data: Introduction to the Power BI service - Turn business intelligence data into data insights

UNIT II: POWER BI AND EXCEL:
Using Excel data in Power BI: Uploading an Excel workbook with a simple table into Power BI - Upload workbooks created with Excel Power Pivot and Power View - Publishing and sharing: Publish Power BI Desktop reports - Print and export dashboards and reports - Manually republish and refresh data - Power BI Mobile - Create groups in Power BI – Publish to web

SUGGESTED READINGS:

1. Introducing Microsoft Power BI; Alberto Ferrari, Marco Russo; Microsoft Press
2. Introduction to Microsoft Power Bi: Bring Your Data to Life; M.O. Cuddley; Create space Independent Pub
3. Applied Microsoft Power BI: Bring your data to life; Teo Lachev; Prologika Press
4. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson
**Objective:** To equip the students with the knowledge regarding Insurance Business Regulations

**UNIT I: INSURANCE LEGISLATION IN INDIA:**

**UNIT II: POLICY HOLDERS RIGHTS OF ASSAINGMENT, NOMINATION AND TRANSFER:**
Assignment and transfer of insurance policies—provisions related to nomination—repudiation—Fraud—protection of policyholder interest—stages in insurance policy-presale stage-post sale stage-free look period—grievance redressal—claim settlement—key feature document—dispute resolution mechanism—insurance ombudsman—solvency margin and investments—international trends in insurance regulation.

**SUGGESTED READINGS:**

1. Regulation of Insurance Business – Insurance Institute of India
2. Regulation of Insurance Business – D.S. Vittal, HPH
3. Regulation of Insurance Business: Dr. V. Padmavathi, PBP
4. Risk Management : A Publication of the Insurance Institute of India
5. Insurance Theory and Practice: Tripathi PHI
6. Life and Health Insurance: Black, JR KENNETH & Harold Skipper, Pearson
7. Risk Management and Insurance : Trieschman ,Gustavson and Hoyt
8. South Western College Publishing Cincinnati, Ohio.
**Objective:** To make students to understand the Search engine optimization and online advertising.

**UNIT I: SEO FOUNDATIONS AND SEO KEYWORD STRATEGY:**
Understanding SEO – Keyword strategy – Content optimization – Long-term content planning – Link-building strategies – Measuring SEO effectiveness – SEO for Ecommerce – Local search – Mobile SEO

**UNIT II: GOOGLE ADWORDS AND REMARKETING:**
Pay-Per-Click Advertising – Getting started with Google Adwords – Advertising tracking – Key Google Adwords strategies – Remarketing with Google – Budget and ROI tips – B2B Remarketing Campaigns

**SUGGESTED READINGS:**

3. Digital Marketing by Vandana Ahuja, Oxford
6. SEO Fitness Workbook: 2018 Edition: The Seven Steps to Search Engine Optimization Success on Google By Jason McDonald
7. The Art of SEO: Mastering Search Engine Optimization By Eric Enge, Stephan Spencer and Jessie Stricchiola
Objective: To make students to understand the Data visualization & Storytelling.

UNIT I: DATA VISUALIZATION USING POWER BI:
Visuals in Power BI: Bar charts – Pie charts – Treemaps – Combination charts – Slicers – Map visualizations – Matrixes and Tables – Scatter charts – Waterfall and funnel charts - Gauges and single-number cards - Modifying visuals and reports: Modify colors in charts and visuals – Add shapes, text boxes, and images to reports - Page layout and formatting - Other Data Visualization features and options: Group interactions among multiple visualizations on the same report page - Summarization and category options – Z-order - Visual hierarchies and drill-down

UNIT II: TELLING STORIES WITH DATA:
Data Storytelling: Apply storytelling principles to business analytics - Improve business analytics presentations through storytelling - Creating high-impact reports and presentations: Guidelines and best practices

SUGGESTED READINGS:
1. Introducing Microsoft Power BI; Alberto Ferrari, Marco Russo; Microsoft Press
2. Introduction to Microsoft Power Bi: Bring Your Data to Life; M.O. Cuddley; Createspace Independent Pub
3. Applied Microsoft Power BI: Bring your data to life; Teo Lachev; Prologika Press
4. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson
5. Microsoft Power BI Dashboards Step by Step, Errin O'Connor, Microsoft Press
6. Storytelling with Data: A Data Visualization Guide for Business Professionals; Cole Nussbaumer Knaflic; Wiley
Objective: To acquire conceptual and legal knowledge about Income Tax provisions relating to computation of Income from different heads with reference to an Individual Assessee.

UNIT–I: INTRODUCTION:

UNIT–II: INCOME FROM SALARIES:

UNIT–III: INCOME FROM HOUSE PROPERTY:

UNIT–IV: PROFITS AND GAINS OF BUSINESS OR PROFESSION:

UNIT–V: CAPITAL GAINS AND INCOME FROM OTHER SOURCES:

SUGGESTED READINGS:
2. Taxation: Dr. M.N. Ravi, PBP.
3. Direct Taxes Law & Practice: Dr. Vinod K. Singhania & Dr. Kapil Singhania, Taxmann
7. Taxation Law and Practice: Balachandran & Thothadri, PHI Learning.
8. Direct Tax Law and Practice : Ahuja Girish
Objective: Students will learn how to start working with MS Excel right from basics to Tables, Templates and Printing of their work.

UNIT - I: INTRODUCTION TO EXCEL:
Workbooks and Worksheets, Moving Around a Worksheet, Ribbon tabs, Types of commands on the Ribbon, Using Shortcut Menus, Working with Dialogue Boxes, Task Panes, Getting started on your worksheet, Creating a chart, Printing your worksheet, Saving your worksheet, Exploring Data Types, Modifying Cell Contents, Deleting, Replacing, Editing of a cell. Some handy data entry techniques, Number Formatting.

UNIT - II: WORKSHEET OPERATIONS:
Moving and resizing windows, Switching among windows, Activating a worksheet, Adding, Deleting a worksheet, Changing a sheet tab color, Rearranging your worksheets, Hiding, un-hiding a worksheet, Worksheet View, Comparing sheets side by side, Selecting ranges, complete rows and columns, noncontiguous ranges, multi-sheet ranges, special types of cells. Copying or Moving Ranges. Paste Special dialogue box, Adding comments to cells.

UNIT - III: TABLES AND FORMATTING:
Creating a Table, Changing the Look of a Table, Navigating in a Table, Selecting parts of a Table, Adding, Deleting new rows or columns, Moving a Table, Working with the Total Row, Removing duplicate rows from a table. Sorting and filtering a table, Converting Table into Range. Formatting tools on the Home tab, Mini Toolbar, Fonts, Text Alignment, Wrapping text to fit a cell, Colors and Shading, Borders and Lines. Naming Styles.

UNIT - IV: EXCEL FILES & TEMPLATES:
Creating a New Workbook, Filtering filenames, Saving and Auto Recovery, Password-Protecting a Workbook, Recovering unsaved work, Protect Workbook options, Checking Compatibility. Creating a Excel Templates, Modifying a template, Custom Excel Templates, Default Templates, Editing your Template, Resetting the default workbook, Saving your Custom Templates, Getting ideas for creating Templates.


SUGGESTED READINGS:
Objective: To inculcate analytical and computational ability among the students.

UNIT-I: REGRESSION:

UNIT-II: INDEX NUMBERS:
Introduction - Uses - Types - Problems in the Construction of Index Numbers - Methods of Constructing Index Numbers - Simple and Weighted Index Number (Laspeyre - Paasche, Marshall – Edgeworth) - Tests of Consistency of Index Number: Unit Test - Time Reversal Test - Factor Reversal Test - Circular Test - Base Shifting - Splicing and Deflating of Index Numbers.

UNIT-III: TIME SERIES:

UNIT-IV: PROBABILITY:

UNIT-V: THEORITECAL DISTRIBUTIONS:

SUGGESTED READINGS:
1. Statistics for Management: Levin & Rubin, Pearson,
4. Business Statics – II: Dr. OBul Reddy, Dr. D. Shridevi - PBP
7. Fundamentals of Statistical: S. P Gupta , Sultan Chand
10. Statistics-Problems and Solutions: Kapoor V.K. S. Chand
11. Statistics-Teory, Methods and Applications: SanchetiD.C. & Kapoor V.K
Paper DSC 403: WEB TECHNOLOGIES

Hours Per Week: 7 (3T+4P)  Credits: 5
Exam Hours: 1 ½  Marks: 50U+35P+15I
Objective: To gain skills of usage of Web Technologies to design Web pages.

UNIT-I: INTRODUCTION:

UNIT-II: AN OVER VIEW OF DYNAMIC WEB PAGES & DYNAMIC WEB PAGE:
An over view of dynamic web pages and dynamic web page technologies: Introduction to Dynamic HTML programming - Cascading style sheets (CSS) - Basic syntax and structure - Events handling - Changing Text and Attributes - Dynamically changing style - Text Graphics and placements - Creating multimedia effects with filters and Transactions.

UNIT-III: JAVA SCRIPT&EVENTS AND EVENT HANDLERS:
Java Script: Introduction - Client side Java script - Server side Java script - Core features - Data types and variables – Operators - Expressions and statements – Functions – Objects – Array - Date and math related objects - Document object model - Event handling.

UNIT-IV: HYPER TEXT PRE PROCESSOR (PHP):
Introduction to PHP: Declaring variables, data types, arrays, strings, operators, expressions, control structures, functions, Reading data from web form controls like text boxes, radio buttons, lists etc., Handling File Uploads. Connecting to database (MySQL as reference), executing simple queries, handling results, Handling sessions and cookies.
File Handling in PHP:File operations like opening, closing, reading, writing, appending, deleting etc. on text and binary files, listing directories.

UNIT-V: EXTENSIBLE MARKUP LANGUAGE (XML)& JSP:
JSP:Introduction to JSP:The Anatomy of a JSP Page, JSP Processing, Declarations, Directives, Expressions, Code Snippets, implicit objects, Using Beans in JSP Pages, Using Cookies and session for session tracking, connecting to database in JSP.

LAB WORK: CREATING A WEBSITE WITH DYNAMIC FUNCTIONALITY USING CLIENT-SIDE AND SERVER SIDE SCRIPTING.

SUGGESTED READINGS:
1. Web Technology: Pradeep Kumar, HPH
4. HTML & XML An Introduction NIIT, PHI.
5. HTML for the WWW with XHTML & CSS: Wlizabeth Castro, Pearson
7. Web Technology: A Developer’s Perspective: Gopalan&Sivaselvan, PHI.
13. Java Server Pages —Hans Bergsten, SPD O’Reilly,
Objective: To acquire knowledge for application of economic principles and tools in business practices.

UNIT-I: INTRODUCTION:

UNIT- II: DEMAND ANALYSIS:
Meaning – Function - Factors influencing Demand -Types of Demand -Demand Curve - Law of Demand –Exceptions to the law of demand-Elasticity of Demand: Concept - Types of elasticity of demand-price, income and cross Elasticity of Demand –measurement of elasticity—arc and point methods—Importance of various Elasticity of Demand.

UNIT-III: SUPPLY ANALYSIS:

UNIT- IV: PRODUCTION ANALYSIS:

UNIT-V: COST AND REVENUE ANALYSIS:

SUGGESTED READINGS:
2. Managerial Economics: Vanith Agrawal, Pearson Education
8. Managerial Economics: Varshney and Maheswari, Sultan Chand
Objective: To make the students acquire the knowledge of cost accounting methods.

UNIT-I: INTRODUCTION:

UNIT-II: MATERIAL:

UNIT-III: LABOUR AND OVERHEADS:
Labour: Direct and Indirect Labour Cost – Methods of Payment of Wages (only Incentive Plans): Halsey, Rowan, Taylor Piece Rate and Merrick Multiple Piece Rate Methods.
Overheads: Classification - Methods of Allocation - Apportionment and Absorption of overheads.

UNIT-IV: UNIT AND JOB COSTING:
Unit Costing: Features - Cost Sheet – Tender and Estimated Cost Sheet.

UNIT-V: CONTRACT AND PROCESS COSTING:

SUGGESTED READINGS:
1. Cost Accounting: Jain and Narang, Kalyani
2. Cost Accounting: Srihari Krishna Rao, Himalaya
3. Cost and Management Accounting: Prashanta Athma, Himalaya
4. Cost Accounting: Dr. G. Yogeshweran, PBP.
4. Cost Accounting: Jawaharlal, Tata Mcgraw Hill
5. Cost Accounting: Theory and Practice: Banerjee, PHI
6. Introduction to Cost Accounting: Tulsian, S.Chand
7. Cost Accounting: Horngren, Pearson
Objective: To make students to understand the Financial planning & Performance.

UNIT I: STRATEGIC PLANNING:

UNIT II: BUDGETING AND FORECASTING:

UNIT III: COST AND VARIANCE ANALYSIS:
Cost and Variance Analysis: Comparison of actual to planned results - Use of flexible budgets to analyze performance - Management by exception - Standard Cost System: Use of standard cost systems - Analysis of variation from standard cost expectations

UNIT IV: PERFORMANCE MEASURES:

UNIT V: TECHNOLOGY AND ANALYTICS:
Data analytics: Business intelligence - Data mining - Analytic tools - Data visualization

SUGGESTED READINGS:
6. Management Accounting: An Integrative Approach; McNair-Connolly, C.J., Merchant, Kenneth A.; IMA.
**Paper DSE 501 (c): INTERNATIONAL FINANCIAL REPORTING -I**

**Objective:** To make students to understand the International Financial Reporting.

**UNIT I: GENERAL PURPOSE OF FINANCIAL ACCOUNTING AND REPORTING AS PER US GAAP AND IFRS:**


**UNIT II: CURRENT ASSETS AND CURRENT LIABILITIES (AS PER US GAAP AND IFRS):**


**UNIT III: FINANCIAL INVESTMENTS AND FIXED ASSETS (AS PER US GAAP AND IFRS):**


**UNIT IV: FINANCIAL LIABILITIES (AS PER US GAAP AND IFRS):**

Bonds Payable: Types of Bonds - Convertible bonds vs. Bonds with detachable warrants - Bond Retirement - Fair Value Option & Fair Value Election - Debt Restructuring: Settlement - Modification of terms

**UNIT V: SELECT TRANSACTIONS (AS PER US GAAP AND IFRS):**

Fair value measurements: Valuation techniques - Fair value hierarchy - Fair value concepts - Accounting changes and error correction: Changes in accounting estimate - Changes in accounting principle - Changes in reporting entity - Correction of an error - Contingencies: Possibility of occurrence (remote, reasonably possible or probable) - Disclosure vs. Recognition - Derivatives and Hedge Accounting: Speculation (non-hedge) - Fair value hedge - Cash flow hedge - Non-monetary exchanges: Exchanges with commercial substance - Exchanges without commercial substance - Leases: Operating lease - Finance lease - Sale leaseback

**SUGGESTED READINGS:**

1. Miles CPA Review Concept Book: Financial Accounting & Reporting, Miles Education
3. IFRS & US GAAP Best Practices in Accounting World: GAAP Analysis, Rajesh Dhawan
5. IFRS and US GAAP: A Comprehensive Comparison, Steven E. Shamrock, Wiley
6. Wiley GAAP: Interpretation and Application of Generally Accepted Principles, Barry J. Epstein and Ralph Nach, Wiley
7. IFRS Simplified with Practical Illustration Part 1 & 2, Mr Rammohan Bhave and Dr Mrs Anjali Rammohan Bhave, CNBC TV 18.
Objective: To make the students to acquire the knowledge of computer software

UNIT I: MAINTAINING CHART OF ACCOUNTS IN ERP:

UNIT II: MAINTAINING STOCK KEEPING UNITS (SKU):
Introduction-Inventory Masters in ERP - Creating Inventory Masters-Creation of Stock Group-Creation of Units of Measure-Creation of Stock Item-Creation of Godown-Defining of Stock Opening Balance in ERP Stock Category-Reports.

UNIT III: RECORDING DAY-TO-DAY TRANSACTIONS IN ERP:
Introduction-Business Transactions-Source Document for Voucher-Recording Transactions in ERP - Accounting Vouchers-Receipt Voucher (F6)-Contra Voucher (F4)-Payment Voucher (F5)-Purchase Voucher (F9)-Sales Voucher (F8)-Debit Note Voucher-Credit Note (Ctrl+F8)-Journal Voucher (F7).

UNIT IV: ACCOUNTS RECEIVABLE AND PAYABLE MANAGEMENT:

UNIT V: MIS REPORTS:

SUGGESTED READINGS:
1. Computerised Accounting: Garima Agarwal, Himalaya
2. Computerised Accounting: A. Murali Krishna, Vaagdevi publications
3. Computerised Accounting: Dr. G. Yogeshweran, PBP.
5. Mastering Tally: Dinesh Maidasani, Firewal Media
8. Manuals of Respective Accounting Packages
Objective: To make students to understand the Financial Decision Making.

UNIT I: FINANCIAL STATEMENT ANALYSIS

UNIT II: FINANCIAL MANAGEMENT
Risk & Return: Calculating return - Types of risk - Relationship between risk and return Long-term Financial Management: Term structure of interest rates - Types of financial instruments - Cost of capital - Valuation of financial instruments

UNIT III: RAISING CAPITAL
Raising Capital: Financial markets and regulation - Market efficiency - Financial institutions - Initial and secondary public offerings - Dividend policy and share repurchases - Lease financing

UNIT IV: WORKING CAPITAL MANAGEMENT
Managing working capital: Cash management - Marketable securities management - Accounts receivable management - Inventory management - Short-term Credit: Types of short-term credit - Short-term credit management

UNIT V: CORPORATE RESTRUCTURING AND INTERNATIONAL FINANCE
Corporate Restructuring: Mergers and acquisitions - Bankruptcy - Other forms of restructuring International Finance: Fixed, flexible, and floating exchange rates - Managing transaction exposure - Financing international trade - Tax implications of transfer pricing

SUGGESTED READINGS:
2. Interpretation and Application of International Financial Reporting Standards; Mackenzie, Bruce, Coetsee, Danie, Njikizana, Tapiwa, Chamboko, Raymond, Colyvas, Blaise, and Hanekom, Brandon; Wiley
5. Principles of Corporate Finance, 11th edition; Brealey, Richard A., Myers, Stewart C., and Allen, Franklin; McGraw Hill
Objective: To make students to understand the International Tax & Regulation.

UNIT I: TAXATION OF INDIVIDUALS:
Individual Income Tax Return: Filing Status - Cash basis and Accrual basis
Gross Income: Wages, Salaries, Bonus, Commission, Fees & Tips - Interest & Dividend Income
- Business Income - Capital Gains & Losses - Passive Income - Farming Income - Deductions:
  Adjustments - Deductions from AGI - Calculating Tax: Tax Credits - Alternative Minimum Taxes - Other Taxes - Estimated Tax penalty

UNIT II: PROPERTY TRANSACTIONS & DEPRECIATION:
Capital Gains & Losses - Gains & Losses from Sale of Long-term Business Property
- Depreciation & Amortization

UNIT III: TAXATION OF CORPORATIONS:

UNIT IV: TAXATION OF OTHER ENTITIES:

UNIT V: STATUTORY REGULATIONS, ACCOUNTANT RESPONSIBILITIES, BUSINESS STRUCTURES:

SUGGESTED READINGS:
1. Miles CPA Review Concept Book: Regulation, Miles Education
2. Wiley CPA Excel Exam Review Course Study Guide: Regulation, Wiley
3. Internal Revenue Code: Income, Estate, Gift, Employment and Excise Taxes, CCH Tax Law Editors
Paper DSE 503a: MANAGEMENT INFORMATION SYSTEM

Hours Per Week: 7 (3T+4P)  
Credits: 5  
Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objective: To equip the students with finer nuances of MIS.

UNIT–I: INTRODUCTION TO MIS:  

UNIT-II: INFORMATION SYSTEMS FOR DECISION MAKING:  

UNIT-III: DEVELOPMENT OF MIS:  

UNIT-IV: ADVANCED MIS:  

UNIT-V: COLLABORATION, IMPACT & PITFALLS IN MIS:  

SUGGESTED READINGS:

2. Process, Systems, and Information, David M. Kroenke,  
Paper DSE 503b: E-COMMERCE

Hours Per Week: 7 (3T+4P)  
Credits: 5
Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objective: to acquire conceptual and application knowledge of e-commerce.

UNIT-I: INTRODUCTION:
E-Commerce: Meaning - Advantages & Limitations - E-Business: Traditional & Contemporary Model,  
Impact of E-Commerce on Business Models - Classification of E-Commerce: B2B - B2C - C2B - C2C -  
B2E - Applications of Ecommerce: E-Commerce Organization Applications - E-Marketing - E-  

UNIT-II: FRAMEWORK OF E-COMMERCE:
Framework of E-Commerce: Application Services - Interface Layers - Secure Messaging - Middleware  
Services and Network Infrastructure - Site Security - Firewalls & Network Security - TCP/IP – HTTP -  
Secured HTTP – SMTP - SSL.  
Data Encryption: Cryptography – Encryption – Decryption - Public Key - Private Key - Digital  
Signatures - Digital Certificates.

UNIT-III: CONSUMER ORIENTED E-COMMERCE APPLICATIONS:
Introduction - Mercantile Process Model: Consumers Perspective and Merchant’s Perspective - Electronic  
Payment Systems: Legal Issues & Digital Currency - E-Cash & E-Cheque - Electronic Fund Transfer  
(EFT) - Advantages and Risks - Digital Token-Based E-Payment System - Smart Cards.

UNIT-IV: ELECTRONIC DATA INTERCHANGE:
Introduction - EDI Standards - Types of EDI - EDI Applications in Business – Legal - Security and  
Privacy issues if EDI - EDI and E-Commerce - EDI Software Implementation.

UNIT-V: E-MARKETING TECHNIQUES:
Introduction - New Age of Information - Based Marketing - Influence on Marketing - Search Engines &  
Directory Services - Charting the On-Line Marketing Process - Chain Letters - Applications of 5P’s  
(Product, Price, Place, Promotion, People) E-Advertisement - Virtual Reality & Consumer Experience -  
Role of Digital Marketing.

Lab work: Using Microsoft Front Page Editor and HTML in Designing a Static Webpage/Website.

SUGGESTED READINGS:
1. Frontiers of Electronic Commerce: Ravi Kalakota, Andrew B Whinston, Pearson
2. E-Commerce: Tulasi Ram Kandula, HPH.
3. E-Commerce: An Indian Perspective: P.T. Joseph, S.J. PHI
7. E-Commerce & Computerized Accounting: Rajinder Singh, Er. KaisarRasheed, Kalyani
8. E-Commerce & Mobile Commerce Technologies: Pandey, SaurabhShukla, S. Chand
10. Electronic Commerce: Pete Loshin / John Vacca, Firewall Media
11. E-Commerce, Strategy, Technologies And Applications : David Whiteley, Tata Mcgraw Hill
Objective: To understand and apply the mobile applications.

UNIT-I: INTRODUCTION:

UNIT-II: MOBILE SOFTWARE:

UNIT-III: MOBILE DISPLAY:
Displaying Text with TextView, Retrieving Data from Users, Using Buttons, Check Boxes and Radio Groups, Getting Dates and Times from Users, Using Indicators to Display Data to Users, Adjusting Progress with SeekBar, Working with Menus using views, Gallery, ImageSwitcher, GridView, and ImageView views to display images, Creating Animation, Saving and Loading Files, SQLite Databases, Android Database Design, Exposing Access to a Data Source through a Content Provider, Content Provider Registration, Native Content Providers

UNIT-IV: MOBILE APPLICATIONS:
Intent Overview, Implicit Intents, Creating the Implicit Intent Example Project, Explicit Intents, Creating the Explicit Intent Example Application, Intents with Activities, Intents with Broadcast Receivers, An Overview of Threads, The Application Main Thread, Thread Handlers, A Basic Threading Example, Creating a New Thread, Implementing a Thread Handler, Passing a Message to the Handler, Sending SMS Messages Programmatically, Getting Feedback after Sending the Message, Sending SMS Messages Using Intent Receiving, sending email,
Introduction to location-based service, configuring the Android Emulator for Location-Based Services, Geocoding and Map-Based Activities, Playing Audio and Video, Recording Audio and Video, Using the Camera to Take and Process Pictures

UNIT-V: MOBILE APP DEVELOPMENT & INSTALLATION:
Introduction to Windows Phone App Development, Installing the Windows Phone SDK, Creating Your First XAML for Windows Phone App, Understanding the Role of XAP Files, the Windows Phone Capabilities Model, the Threading Model for XAML-Based Graphics and Animation in Windows Phone, Understanding the Frame Rate Counter, The Windows Phone Application Analysis Tool, Reading Device Information, Applying the Model-View-ViewModel Pattern to a Windows Phone App, Property Change Notification, Using Commands

SUGGESTED READINGS:

Web Resource:
Objective: To introduce the basics of conducting research in social sciences.

UNIT-I: INTRODUCTION, MEASUREMENT AND HYPOTHESIS TESTING:

UNIT-II: PARAMETRIC AND NON PARAMETRIC TESTS AND RESEARCH REPORT:

SUGGESTED READINGS:

2. Methodology of Research in Social Sciences: Krishna Swamy,
3. Research Methodology: Kothari & Garg, New Age Publication
4. Research Methodology: Paneerselvam R, PHI
5. Research Methodology: Dr Vijay Upagade & Dr Arvind Shende, S. Chand Publications
6. Research Methodology: Ranjit Kumar, Pearson Publication
7. Reading in Research Methodology in Commerce & Business Management: Achalapathi KV

GUIDELINES FOR PROJECT WORK

1) Project work is a part of the prescribed curriculum to B. Com students.
2) Project work is allotted to a group of 4 students.
3) During the IV semester, students are expected to undergo internship at a business firm/ Government Department /Software organization/Voluntary organization as per the guidance of teacher concerned.
4) Students should get a certificate from the organization.
5) At the end of Semester-VI, the project reports would be evaluated by the external examiner designated by the Controller of Examinations, from the panel submitted by the Board of Studies in Commerce. The Examiner would evaluate the project reports for a maximum of 35 marks and conduct Viva-Voce examination for 15 marks. The award lists duly signed would be sent the Controller of Examinations.
6) Examiners will examine the following in the project report: i) Survey/Analysis on the topic chosen; ii) Method of data collection; iii) Presentation: Style, Comprehensiveness, graphs, charts etc.; iv) Analysis and inference and implications of the study; v) Bibliography.
7) Students must ensure that they maintain regular contact with their supervisor and also that they provide the supervisor with drafts of their work at regular intervals.
8) Students are required to submit a project report on a topic related/connected with trade, industry & commerce. Project can be done by taking the information from the select organization focusing on areas like marketing, finance, human resource, operations, general management etc.
9) Project should be a practical, in-depth study of a problem, issue, opportunity, technique or procedure or some combination of these aspects of business. The Students are required to define an area of investigation, assemble relevant data, analyse the data, draw conclusions and make recommendations.

**ORGANISATION OF PROJECT REPORT**

1) Project report should be presented in the following sequence:
   i) Title page; ii) Student’s declaration; iii) Supervisor’s certificate; iv) Internship certificate; v) Abstract; vi) Acknowledgements; vii) Table of contents; viii) List of tables; ix) List of figures; x) List of appendices.

2) Chapter Design should be as follows:

*Chapter-I: Introduction:* this chapter includes the research problem, need for study/significance of the project, objectives, methodology (hypotheses, statistical tools, data source, scope, sample, chapter design).

*Chapter-II: Company Profile:* this chapter should contain a brief historical retrospect about the entity of your study.

*Chapter-III: Data Analysis and interpretation:* this chapter should present the data analysis and inferences.

*Chapter-IV: Summary and Conclusions:* This Chapter should give an overview of the project, conclusions, implications, recommendations and scope for further research.

*Bibliography:* lists the books, articles, and websites that are referred and used for research on the topic of the specific project. Follow Harvard style of referencing.

*Appendices:* the data, used to prepare the tables for analysis, may not be feasible to incorporate as part of chapters, may given as appendices.

**TECHNICAL SPECIFICATIONS OF THE PROJECT**

1) Project should be typed on A4 white paper, and be 1.5 spaced.
2) All pages should be numbered, and numbers should be placed at the centre of the bottom of the page.
3) All tables, figures and appendices should be consecutively numbered or lettered, and suitably labeled.
4) 3 bound copies & a soft-copy should be handed in to the principal/director of your college/institute at the time of submission.
5) bibliography and referencing: Referencing is necessary to avoid plagiarism, to verify quotations and to enable readers to follow-up and read more fully the cited author’s arguments. Reference is given within the text of the project as well as at the end of the project. The basic difference between citation and a reference list (bibliography) is that the latter contains full details of all the in-text citations.
   - Citation provides brief details of the author and date of publication for referencing the work in the body of the text.
   - Reference list is given at the end of the text and is a list of all references used with additional details provided to help identify each source.

Proper referencing is as crucial aspect of your project. You are therefore strongly advised to talk to your supervisor about this, in order to make sure that your project report follows the appropriate referencing system.
Objective: To be acquaint with Cost Control techniques, Managerial Accounting decision-making techniques and reporting methods.

UNIT-I: INTRODUCTION TO MANAGEMENT ACCOUNTING & MARGINAL COSTING:

UNIT-II: BUDGETARY CONTROL AND STANDARD COSTING:

UNIT-III: TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS:

UNIT-IV: FUNDS FLOW ANALYSIS:
Concept of Funds – Meaning and Importance – Limitations – Statement of Changes in Working Capital – Statement of Sources and Application of Funds.

UNIT-V: CASH FLOW ANALYSIS (AS-3):

SUGGESTED READINGS:
1. Management Accounting- Principles & Practice: Sharma RK & Shashi K. Gupta, Kalyani
2. Advanced Managerial Accounting: Srihari Krishna Rao, Himalaya
3. Advanced Managerial Accounting: Dr. Sundaram, PBP
5. Management Accounting: Rustagi R.P, Galgotia
6. Managerial Accounting: Ronald W. Hilton, TMH
Objective: To make students to understand the Financial Control.

UNIT I: EXTERNAL FINANCIAL REPORTING DECISIONS (AS PER US GAAP & IFRS):

UNIT II: RECOGNITION, MEASUREMENT, VALUATION, AND DISCLOSURE (AS PER US GAAP & IFRS):
Assets, Liabilities & Equity: Asset valuation - Valuation of liabilities - Equity transactions - Income: Revenue recognition - Income measurement - Major differences between U.S. GAAP and IFRS

UNIT III: COST MANAGEMENT:

UNIT IV: SUPPLY CHAIN MANAGEMENT AND BUSINESS PROCESS IMPROVEMENT:

UNIT V: INTERNAL CONTROLS:
Governance, Risk & Compliance: Internal control structure and management philosophy - Internal control policies for safeguarding and assurance - Internal control risk - Corporate governance - External audit requirements - System Controls & Security Measures: General accounting system controls - Application and transaction controls - Network controls - Backup controls - Business continuity planning

SUGGESTED READINGS:
5. Horngreen’s Cost Accounting: A Managerial Emphasis, 16th edition; Charles T., Datar, Srikant, and Rajan, Madhav; Pearson
6. Management Accounting: An Integrative Approach; McNair-Connolly, C.J., Merchant, Kenneth A.; IMA
Paper DSE 601(c) : INTERNATIONAL FINANCIAL REPORTING - II

Objective: To make students to understand the International Financial Reporting.

UNIT I: PENSIONS & POST-EMPLOYMENT BENEFITS (AS PER US GAAP & IFRS):
Defined contribution pension plans - Defined benefit pension plans: Pension obligations - Pension plan assets - Net pension expense - Other Post-retirement benefits

UNIT II: INCOME TAXES (AS PER US GAAP & IFRS):
Income tax expense: Current income tax expense - Deferred income tax expense - Deferred taxes on balance sheet: Deferred tax assets - Deferred tax liabilities - Specific accounting - considerations: Net Operating Losses (NOL) - Investee’s undistributed dividends

UNIT III: EQUITY (AS PER US GAAP & IFRS):
Equity accounts: Common Stock - Preferred Stock - Additional Paid-In Capital - Retained Earnings - Accumulated Other Comprehensive Income - Treasury Stock - Specific accounting considerations: Share-based Payments to Employees - Equity Securities Classified as Debt
Presentation of Equity: On Balance sheet - On Statement of Changes in Equity - Earnings per Share (EPS): Basic EPS - Diluted EPS

UNIT IV: SELECT TRANSACTIONS (AS PER US GAAP & IFRS):
Business Combinations and Consolidations: Acquisitions - Non-controlling Interest - Intercompany Transactions - Variable Interest Entities (VIE) - Foreign currency: Remeasurement - Translation

UNIT V: NOT-FOR-PROFIT AND GOVERNMENTAL ACCOUNTING AND REPORTING (AS PER US GAAP):

SUGGESTED READINGS:
1. Miles CPA Review Concept Book: Financial Accounting & Reporting, Miles Education
3. IFRS & US GAAP Best Practices in Accounting World: GAAP Analysis, Rajesh Dhawan
5. IFRS and US GAAP: A Comprehensive Comparison, Steven E. Shamrock, Wiley
6. Wiley GAAP: Interpretation and Application of Generally Accepted Principles, Barry J. Epstein and Ralph Nach, Wiley
7. IFRS Simplified with Practical Illustration Part 1 & 2, Mr Rammohan Bhave and Dr Mrs Anjali Rammohan Bhave, CNBC TV 18
Objective: To equip the students with the knowledge regarding Theory and Practice of GST.

UNIT I: INTRODUCTION TO GST:
Introduction – GST - Taxes Subsumed under GST - Determination of Tax - Registration - Process of Registration - Cancellation and renovation of registration - Supply of Goods and Services - Transition to GST - Registered Business - Availed Input Tax Credit - Unavailed CENVAT credit and Input VAT on capital goods - Availing the input credit held in closing stock - Invoicing - Tax Invoice - Bill of Supply - Credit Note, Debit Note and Supplementary Invoice - Transportation of goods without issue of Invoice - Input Credit Mechanism - Input Tax - GST Returns - Payment of Tax.

UNIT II: GETTING STARTED WITH GST:

UNIT III: RECORDING ADVANCED ENTRIES, GST ADJUSTMENT AND RETURN FILING:

UNIT IV: GETTING STARTED WITH GST (SERVICES):
Introduction - Determination of supply of services - Determining the Place of Supply of Services - Enabling GST and Defining Tax Details - Transferring Input Tax credit to GST - Intrastate Supply of Goods - Intrastate Inward Supply - Intrastate Outward Supply - Interstate Outward Supply - Interstate Inward Supply - Interstate Outward Supply of Services - Cancellation of Services - Cancellation of Inward Supplies - Cancellation of Outward Supply of Services - Defining Tax Rates at Master and Transaction Levels.

UNIT V: RECORDING ADVANCED ENTRIES AND MIGRATION TO ERP:
Introduction - Accounting Multiple Services in a Single Supply - Recording Partial Payment to Suppliers - Outward Supplies - Recording Outward Supply with Additional Expenses - Supply of services - Business to consumers - Time of Supply of Services - Place of Supply of Services - Determining place of supply of services - Exempt Supply of Services under GST - Export Supply of Services - Reverse Charge on Services under GST - Advance Receipts from Customers under GST - Advance Receipt and issuing Invoice on same month - Advance Receipt and issuing Invoice on different month - Reversal of GST on account of cancellation of advance receipt - Generating GSTR - Report in ERP - Input Tax Credit Set Off - Migration to ERP - Activate Goods and Services Tax (GST) in ERP - Set up GST rates - Update Masters - Update party GSTIN/UIN - Creation of GST Duty ledgers.

SUGGESTED READINGS:
1. Taxmann’s Basics of GST
2. Taxmann’s GST: A practical Approach
3. Theory & Practice of GST, Srivathasala, HPH
4. Theory & Practice of GST: Dr. Ravi M.N, PBP.
Objective: To make students to understand the Financial Decision Making.

UNIT I: DECISION ANALYSIS:
Cost/volume/profit analysis: Breakeven analysis - Profit performance and alternative operating levels - Analysis of multiple products - Marginal Analysis: Sunk costs, opportunity costs and other related concepts - Marginal costs and marginal revenue - Special orders and pricing - Make versus buy - Sell or process further - Add or drop a segment - Capacity considerations

UNIT II: PRICING:
Pricing decisions: Pricing methodologies - Target costing - Elasticity of demand - Product life cycle considerations - Market structure considerations

UNIT III: RISK MANAGEMENT:
Enterprise Risk: Types of risk - Risk identification and assessment - Risk mitigation strategies - Managing risk

UNIT IV: INVESTMENT DECISIONS:

UNIT V: PROFESSIONAL ETHICS:
Business ethics: Moral philosophies and values - Ethical decision making - Ethical considerations for management accounting and financial management professionals: IMA’s Statement of Ethical Professional Practice - Fraud triangle - Evaluation and resolution of ethical issues - Ethical considerations for the organization: Organizational factors and ethical culture - IMA’s Statement on Management Accounting, “Values and Ethics: From Inception to Practice” - Ethical leadership - Legal compliance - Responsibility for ethical conduct - Sustainability and social responsibility.

SUGGESTED READINGS:
3. Horngreen’s Cost Accounting: A Managerial Emphasis, 16th edition; Charles T., Datar, Srikant, and Rajan, Madhav; Pearson
**Objective:** To make students to understand the International Auditing.

**UNIT I: ETHICS, PROFESSIONAL RESPONSIBILITIES AND GENERAL AUDITING PRINCIPLES:**
Introduction to Auditing: Generally Accepted Auditing Standards (GAAS) - International Standards of Auditing (ISA) - Ethics, independence and professional conduct: AICPA Code of Professional Conduct - Sarbanes-Oxley Act (SOX), 2002 - Public Company Accounting Oversight Board (PCAOB) - Securities & Exchange Commission (SEC) - International Standards - Engagement Understanding and Acceptance: Pre-Engagement Acceptance Activities - Engagement Letter - Auditor’s communication with those charged with governance
Quality Control: Statements on Quality Control Standards (SQCS) - Elements of a System of Quality control

**UNIT II: ASSESSING AUDIT RISK AND DEVELOPING A PLANNED RESPONSE:**
Audit Risk: Inherent Risk - Control Risk - Detection Risk - Fraud Risk: Fraudulent financial reporting - Misappropriation of assets - Fraud risk factors - Auditor’s consideration of fraud
Planning the Audit: Audit Strategy - Audit Plan - Internal Controls: Auditor’s Consideration of Internal Control - Operating Cycles - Internal Control Reports and Communications

**UNIT III: PERFORMING FURTHER PROCEDURES AND OBTAINING AUDIT EVIDENCE:**

**UNIT IV: AUDIT REPORTING:**
Audit Reports: Unmodified opinion - Unmodified Opinion with Emphasis-of-matter and/or Other-matter paragraph - Qualified Opinion - Adverse Opinion - Disclaimer of Opinion - Audit Reporting Considerations: Audit of Comparative financial statements - Supplementary Information - Audit of Group financial statements - Audit of Single financial statements & Specific financial statement elements, accounts or items - Audit of Special Purpose financial statements - Audit of financial statements prepared using financial reporting framework of another country

**UNIT V: OTHER ENGAGEMENTS:**

**SUGGESTED READINGS:**
1. Miles CPA Review Concept Book: Auditing and Attestation, Miles Education
Paper DSE603a: MULTIMEDIA SYSTEMS

Hours Per Week: 7 (3T+4P)  
Credits: 5
Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objective: To acquire the knowledge of multimedia systems.

UNIT-I: MEDIA AND DATA STREAMS:

UNIT-II: DIGITAL IMAGE & ANIMATIONS:
Animations: Basic concepts, animation languages, animations control transmission.

UNIT-III: DATA COMPRESSION STANDARDS & STORAGE:
Data Compression Standards: JPEG, H-261, MPEG DVI
Optical storage devices and Standards: WORHS, CDDA, CDROM, CDWO, CDMO.
Real Time Multimedia, Multimedia file System.

UNIT-IV: MULTIMEDIA COMMUNICATION SYSTEM, DATABASES & SYNCHRONIZATION:
Multimedia Communication System: Collaborative computing session management, transport subsystem, QOS, resource management.
Multimedia Databases: Characteristics, data structures, operation, integration in a database model.
Synchronization: Issues, presentation requirements, reference to multimedia synchronization, MHEG.

UNIT-V: MULTIMEDIA APPLICATION:
Media preparation, Composition, integration communication, consumption, entertainment.

SUGGESTED READINGS:
Hours Per Week: 7 (3T+4P)  
Credits: 5  
Exam Hours: 1 ½  
Marks: 50U+35P+15I

Objective: to understand the cyber security, detection, network security, the law and cyber forensic.

UNIT-I: INTRODUCTION TO CYBER SECURITY, CYBER SECURITY VULNERABILITIES AND CYBER SECURITY SAFEGUARDS:


Cyber Security Vulnerabilities: Overview, vulnerabilities in software, System administration, Complex Network Architectures, Open Access to Organizational Data, Weak Authentication, Unprotected Broadband communications, Poor Cyber Security Awareness.


UNIT-II: SECURING WEB APPLICATION, SERVICES AND SERVERS:
Introduction, Basic security for HTTP Applications and Services, Basic Security for SOAP Services, Identity Management and Web Services, Authorization Patterns, Security Considerations, Challenges.

UNIT-III: INTRUSION DETECTION AND PREVENTION:

UNIT-IV: CRYPTOGRAPHY AND NETWORK SECURITY:

UNIT-V: CYBERSPACE AND THE LAW, CYBER FORENSICS:

Cyber Forensics: Introduction to Cyber Forensics, Handling Preliminary Investigations, Controlling an Investigation, Conducting disk-based analysis, Investigating Information-hiding, Scrutinizing E-mail, Validating E-mail header information, Tracing Internet access, Tracing memory in real-time.

SUGGESTED READINGS:
1. Ramandeepkaurnagra, Cyber laws and Intellectual Property Rights, Kalyani Publishers, 7e,
Hours Per Week: 7 (3T+4P)          Credits: 5
Exam Hours: 1 ½                     Marks: 50U+35P+15I

Objective: To learn the different ways of data Analysis, data streams, mining and clustering and visualization.

UNIT-I: INTRODUCTION TO BIG DATA:

UNIT-II: DATA ANALYSIS:

UNIT-III: MINING DATA STREAMS:

UNIT-IV: FREQUENT ITEMSETS AND CLUSTERING:

UNIT-V: FRAMEWORKS AND VISUALIZATION:
MapReduce – Hadoop, Hive, MapR – Sharding – NoSQL Databases – S3 – Hadoop Distributed file systems – Visualizations – Visual data analysis techniques, interaction techniques; Systems and applications:

SUGGESTED READINGS:
Paper AEC1 (a): BASIC COMPUTER SKILLS

Hours Per Week: 2  Credits: 2
Exam Hours: 1 ½  Marks: 40U+10I

Objective: to impart a basic level understanding of working of a computer and its usage.

UNIT I: UNDERSTANDING OF COMPUTER AND WORD PROCESSING:
Knowing computer: What is Computer, Basic Applications of Computer; Components of Computer System, Central Processing Unit (CPU), VDU, Keyboard and Mouse, Other input/output Devices, Computer Memory, Concepts of Hardware and Software; Concept of Computing, Data and Information; Applications of IECT; Connecting keyboard, mouse, monitor and printer to CPU and checking power supply.

Operating Computer using GUI Based Operating System: What is an Operating System; Basics of Popular Operating Systems; The User Interface, Using Mouse; Using right Button of the Mouse and Moving Icons on the screen, Use of Common Icons, Status Bar, Using Menu and Menu-selection, Running an Application, Viewing of File, Folders and Directories, Creating and Renaming of files and folders, Opening and closing of different Windows; Using help; Creating Short cuts, Basics of O.S Setup; Common utilities.

Understanding Word Processing: Word Processing Basics; Opening and Closing of documents; Text creation and Manipulation; Formatting of text; Table handling; Spell check, language setting and thesaurus; Printing of word document.

UNIT II: SPREAD SHEET, PRESENTATION SOFTWARE & INTRODUCTION TO INTERNET, WWW AND WEB BROWSERS:
Using Spread Sheet: Basics of Spreadsheet; Manipulation of cells; Formulas and Functions; Editing of Spread Sheet, printing of Spread Sheet.
Basics of presentation software: Creating Presentation; Preparation and Presentation of Slides; Slide Show; Taking printouts of presentation / handouts.

Introduction to Internet, WWW and Web Browsers:
Introduction to Internet: Basic of Computer networks; LAN, WAN; Concept of Internet; Applications of Internet; connecting to internet; What is ISP; Knowing the Internet; Basics of internet connectivity related troubleshooting.

World Wide Web: Search Engines; Understanding URL; Domain name; IP Address; Using e-governance website.

Web Browsing: Software, Communications and collaboration: Basics of electronic mail; Getting an email account; Sending and receiving emails; Accessing sent emails; Using Emails; Document collaboration; Instant Messaging; Netiquettes.

SUGGESTED READINGS:


Web Resources: