ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

(A Statutory body of the Government of Andhra Pradesh)

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REVISED SYLLABUS OF B Com (Computer Applications) (Hons)

UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-21

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

(With Learning Outcomes, Unit-wise Syllabus, References, Co-curricular Activities & Model Q.P.)

For Fifteen Courses of 1, 2, 3 & 4 Semesters)

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION
(A Statutory body of the Government of Andhra Pradesh)

PROGRAMME: Four-Year BCom (Computer Applications) (Hons)
(w.e.f. 2020-21 Admitted Batch)

Domain Subject: Commerce (Computer Applications)
(Syllabus with Outcomes, Co-curricular Activities, References for Fifteen Courses of 1, 2, 3 & 4 Semesters)

Structure of B.Com (Computer Applications) Programme under Revised CBCS

Sl. No	Code	Sem	Courses	Name of Course (Each Course consists 5 Units with each Unit having 12 hours of class-work)	Hours/ Week	Credits	Marks	
							Mid Sem	Sem End
1		I	1A	Fundamentals of Accounting	5	4	25	75
2		I	1B	Business Organization and Management	5	4	25	75
3		I	1C	**Information Technology**	3T + 2P	3 +1	25	75
4		II	2A	Financial Accounting	5	4	25	75
5		II	2B	Business Economics	5	4	25	75
6		II	2C	**E-commerce and Web Designing**	3T + 2P	3 +1	25	75
7		III	3A	Advanced Accounting	5	4	25	75
8		III	3B	Business Statistics	5	4	25	75
9		III	3C	**Programming with C & C++**	3T + 2P	3 +1	25	50+25
10		IV	4A	Corporate Accounting	5	4	25	75
11		IV	4B	Cost and Management Accounting	5	4	25	75
12		IV	4C	Income Tax	5	4	25	75
13		IV	4D	Business Laws	5	4	25	75
14		IV	4E	**Object Oriented Programming With Java**	3T + 2P	3 +1	25	50+25
15		IV	4F	**Data Base Management System**	3T + 2P	3 +1	25	50+25
Total					**75**	**60**	**375**	**1125**

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS(w.e.f. 2020-21 Admitted Batch)

I Year B Com (Gen & CA), Semester – I

Course1A: Fundamentals of Accounting

Learning Outcomes:

At the end of the course, the student will able to

- Identify transactions and events that need to be recorded in the books of accounts.
- Equip with the knowledge of accounting process and preparation of final accounts of sole trader.
- Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
- Analyze the difference between cash book and pass book in terms of balance and make reconciliation.
- Critically examine the balance sheets of a sole trader for different accounting periods.
- Design new accounting formulas & principles for business organisations.

Syllabus:

Unit-I – Introduction

Need for Accounting – Definition – Objectives, – Accounting Concepts and Conventions – GAAP - Accounting Cycle - Classification of Accounts and its Rules – BookKeeping and Accounting - Double Entry Book-Keeping - Journalizing - Posting to Ledgers, Balancing of Ledger Accounts (including Problems).

Unit-II: Subsidiary Books:

Types of Subsidiary Books - Cash Book, FOUR-column Cash Book- Petty Cash Book (including Problems).

Unit-III: **Trial Balance and Rectification of Errors:**

Preparation of Trial balance - Errors – Meaning – Types of Errors – Rectification of Errors – Suspense Account (including Problems)

Unit-IV: Bank Reconciliation Statement:

Need for Bank Reconciliation - Reasons for Difference between Cash Book and Pass Book Balances- Preparation of Bank Reconciliation Statement - Problems on both Favourable and Unfavourable Balance (including Problems).

Unit -V: Final Accounts:

Preparation of Final Accounts: Trading account – Profit and Loss account – Balance Sheet – Final Accounts with Adjustments (including Problems).

References:

1. RanganathamG and Venkataramanaiah, Fundamentals of Accounting, S Chand Publications
2. T.S.Reddy& A. Murthy, Financial Accounting, Margham Publications
3. S N Maheswari and SK Maheswari, Financial Accounting, Vikas Publications
4. R L Gupta & V K Gupta, Principles and Practice of Accounting, Sultan Chand & Sons
5. S.P. Jain & K.L Narang, Accountancy-I, Kalyani Publishers
6. Tulasian, Accountancy -I, Tata McGraw Hill Co.
7. V.K.Goyal, Financial Accounting, Excel Books
8. K. Arunjothi, Fundamentals of Accounting; Maruthi Publications
9. Prof EChandraiah : Financial Accounting Seven Hills International Publishers

Suggested Co-Curricular Activities:

- Bridge Course for Non-commerce Students
- Practice of Terminology of Accounting
- Quiz, Word Scramble
- Co-operative learning
- Seminar
- Co-operative learning
- Problem Solving Exercises
- Matching, Mismatch
- Creation of Trial Balance
- Visit a firm (Individual and Group)

- Survey on sole proprietorship and prepare final accounts of concern
- Group Discussions on problems relating to topics covered in syllabus
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester – I

Course 1B: Business Organization and Management

Learning Outcomes:

At the end of the course, the student will be able to

- Understand different forms of business organizations.
- Comprehend the nature of Joint Stock Company and formalities to promote a Company.
- Describe the Social Responsibility of Business towards the society.
- Critically examine the various organizations of the business firms and judge the best among them.
- Design and plan to register a business firm. Prepare different documents to register a company at his own.
- Articulatenew models of business organizations.

Syllabus:

Unit-I –Introduction Concepts of Business, Trade, Industry and Commerce: Business – Meaning, Definition, Features and Functions of Business - Trade Classification – Aids to Trade – Industry Classification and Commerce - Factors Influencing the Choice of Suitable form of Organisation

Unit –II– Forms of Business Organizations: Features,Merits and Demerits of Sole Proprietor Ship and Partnership Business - Features Merits and Demits of Joint Stock Companies - Public Sector Enterprises (PSEs) - Multinational Corporations (MNCs)- Differences between Private Limited Public Limited Company

Unit-III -Company Incorporation: Preparation of Important Documents for Incorporation of Company - Certificate of Incorporation and Certificate of Commencement of Business - Contents of Memorandum and Articles of Association - Contents of Prospectus

Unit-IV- Management: Meaning Characteristics - Fayol's 14 Principles of Management - Administration Vs Management - Levels of Management

Unit-V-Functions of Management: Different Functions of Management - Meaning – Definition – Characteristics Merits and Demits of Planning - Principles of Organisation – Line and staff of Organisation

Reference Books:

1. Industrial Organization and Management,C.B.Guptha, Sultan Chand.
2. Business Organization - C.D.Balaji and G. Prasad, Margham Publications, Chennai.
3. Business Organization -R.K.Sharma and Shashi K Gupta, Kalyani Publications.
4. Business Organization & Management: Sharma Shashi K. Gupta, Kalyani Publishers
5. Business Organization & Management: C.R. Basu, Tata McGraw Hill
6. Business Organization & Management: M.C. Shukla S. Chand,
7. Business Organisation and Management, Dr.NeeruVasishth, Tax Mann Publications.
8. Business Organisation and Management, Dr B E V L Naidu, Seven Hills International Publishers, Hyderabad

Suggested Co-Curricular Activities:

- Book Reading
- Student Seminars, Debates
- Quiz Programmes
- Assignments
- Co-operative learning
- Individual / Group Field Studies
- Group Discussions on problems relating to topics covered by syllabus
- Collecting prospectus of different companies through media
- Collection of news reports and maintaining a record of paper-cuttings relating to topics covered in syllabus
- Talk on current affairs about business, industry etc.

- Simple project work on development of Certificate of Incorporation, Prospectus and Certificate of commencement of business
- Biography of well-known management thinkers and managers of gigantic companies
- Examinations (Scheduled and surprise tests)

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Computer Applications

Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester- I

Discipline: COMPUTER APPLICATIONS

Course 1A:Information Technology

Model Outcomes:

At the end of the course, the students is expected to DEMONSTRATE the following cognitive abilities (thinking skill) and psychomotor skills.

A. *Remembers and states in a systematic way (Knowledge)*
   1. Describe the fundamental hardware components that make up a computer's hardware and the role of each of these components
   2. understand the difference between an operating system and an application program, and what each is used for in a computer
   3. Use technology ethically, safely, securely, and legally
   4. Use systems development, word-processing, spreadsheet, and presentation software to solve basic information systems problems

B. *Explains (Understanding)*
   5. Apply standard statistical inference procedures to draw conclusions from data
   6. Retrieve information and create reports from databases
   7. Interpret, produce, and present work-related documents and information effectively and accurately

C. *Critically examines, using data and figures (Analysis and Evaluation**)*
   8. Analyse compression techniques and file formats to determine effective ways of securing, managing, and transferring data
   9. Identify and analyse user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing based systems.
   10. Analyse a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
   11. Identify and analyse computer hardware, software

D. Working in 'Outside Syllabus *Area' under a Co-curricular Activity*(Creativity)
Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

E. Efficiently learn and use Microsoft Office applications.

Course 1C :Information Technology

(Five units with each unit having 12 hours of class work)

Unit	Details
I	**Introduction:**

Computer Definition - Characteristics and Limitations of Computer Hardware— Generations of Computer, Classification of Computers, Applications of Computer, Basic Components of PC, Computer Architecture - Primary and Secondary Memories- Input and Output Devices- Operating System- Function of Operating System- Types of Operating System- Languages and its Types

II MS word:

Word Processing – Features-Advantages and Applications- Parts of Word Window-Toolbar-Creating, Saving, Closing, Opening and Editing of a Document-Moving and Coping a Text-Formatting of Text and Paragraph- Bullets and Numbering-Find and Replace - Insertion of objects-Headers and Footers- Page Formatting- Auto Correct-Spelling and Grammar- Mail Merge- Macros

III MS Excel:

Features – Spread Sheet-Workbook – Cell-Parts of a window-Saving, Closing, Opening of a Work Book – Editing – Advantages – Formulas- Types of Function-Templates – Macros – Sorting- Charts – Filtering – Consolidation – Grouping- Pivot Table

IV MS Power point:

Introduction – Starting – Parts-Creating of Tables- Create Presentation – Templates-Auto Content Wizard-Slide Show-Editing of Presentation-Inserting Objects and charts

V MS Access:

Orientation to Microsoft Access - Create a Simple Access Database - Working with Table Data - Modify Table Data - Sort and Filter Records - Querying a Database - Create Basic Queries - Sort and Filter Data in a Query - Perform Calculations in a Query - Create Basic Access Forms - Work with Data on Access Forms - Create a Report - Add Controls to a Report - Format Reports

Learning Resources (Course 1C:Information Technology)

References:

(1) P.Mohan computer fundamentals- HimalayaPublications.

(2) R.K.Sharma and Shashi K Gupta, Computer Fundamentals - Kalyani Publications

(3) Fundamentals of Computers ByBalagurusamy, Mcgraw Hill

(4) Computer Fundamentals Anita Goel Pearson India

(5) Introduction to Computers Peter Norton

(6) Fundamentals of Computers Rajaraman V Adabala N

(7) Office 2010 All-in-One For Dummies Peter Weverka

(8) MS-Office S.S. Shrivastava

(9) MS-OFFICE 2010 Training Guide Prof. Satish Jain, M. Geetha, KratikaBPB Publications

Online Resources:

https://support.office.com/en-us/office-training-center

https://www.skillshare.com/browse/microsoft-office

https://www.tutorialspoint.com/computer_fundamentals/index.htm

https://www.javatpoint.com/computer-fundamentalstutorial

https://edu.gcfglobal.org/en/subjects/office/

https://www.microsoft.com/en-us/learning/training.aspx

Practical Component: @ 2 hours/week/batch

- MS word creation of documents letters invitations etc, tables, mailmerge, animations in word, formatting text
- MS Excel performing different formulas, creating charts,macros
- MS power point slide creation, creation of animation
- MS Access creation of database, forms and reports

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

General

1. Group Discussion
2. Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS(w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester – II

Course 2A: Financial Accounting

Learning Outcomes:

At the end of the course the student will able to;

- Understand the concept of consignment and learn the accounting treatment of the various aspects of consignment.
- Analyze the accounting process and preparation of accounts in consignment and joint venture.
- Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.
- Determine the useful life and value of the depreciable assets and maintenance of Reserves in business entities.
- Design an accounting system for different models of businesses at his own using the principles of existing accounting system.

Syllabus

Unit-I:Depreciation: Meaning and Causes of Depreciation - Methods of Depreciation: Straight Line – Written Down Value –Annuity and Depletion Method (including Problems).

Unit-II:Provisions and Reserves: Meaning – Provision vs. Reserve – Preparation of Bad Debts Account – Provision for Bad and Doubtful Debts – Provision for Discount on Debtors – Provision for Discount on Creditors - Repairs and Renewals Reserve A/c (including Problems).

Unit-III: Bills of Exchange: Meaning of Bill – Features of Bill – Parties in the Bill – Discounting of Bill – Renewal of Bill – Entries in the Books of Drawer and Drawee (including Problems).

Unit-IV: Consignment Accounts: Consignment - Features - Proforma Invoice - Account Sales – Del-credere Commission - Accounting Treatment in the Books of Consigner and Consignee - Valuation of Closing Stock - Normal and Abnormal Losses (including Problems).

Unit-V: Joint Venture Accounts: JointVenture - Features - Difference between Joint-Venture and Consignment – Accounting Procedure – Methods of Keeping Records–One Vendor Keeps the Accounts and Separate Set off Books Methods (including Problems).

Reference Books:

1. Ranganatham G and Venkataramanaiah, **Financial Accounting-II,** S Chand Publications, New Delhi.
2. T. S. Reddy and A. Murthy - **Financial Accounting**, Margham Publications.
3. R.L. Gupta & V.K. Gupta, **Principles and Practice of Accounting**, Sultan Chand.
4. SN Maheswari and SK Maheswari – **Financial Accounting**, Vikas Publications.
5. S.P. Jain & K.L Narang,**Accountancy-I**, Kalyani Publishers.
6. Tulsan, **Accountancy-I**, Tata McGraw Hill Co.
7. V.K. Goyal, **Financial Accounting**, Excel Books
8. T.S. Grewal, **Introduction to Accountancy**, Sultan Chand & Co.
9. Haneef and Mukherjee, **Accountancy-I**, Tata McGraw Hill.
10. Arulanandam and Ramana, **Advanced Accountancy**, Himalaya Publishers.
11. S.N.Maheshwari&V.L.Maheswari, **Advanced Accountancy-I**, Vikas Publishers.
12. Prof E Chandraiah, **Financial Accounting**, Seven Hills International Publishers.

Suggested Co-Curricular Activities:

- ★ QuizPrograms
- ★ Problem Solving Exercises
- ★ Co-operative learning
- ★ Seminar
- ★ Group Discussions on problems relating to topics covered by syllabus
- ★ Reports on Proforma invoice and account sales
- ★ Visit a consignment and joint venturefirms(Individual and Group)

- ★ Collection of proforma of bills and promissory notes
- ★ Examinations (Scheduled and surprise tests)
- ★ Any similar activities with imaginative thinking beyond the prescribed syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester – II

Course 2B: Business Economics

Learning Outcomes:

At the end of the course, the student will able to;

- ➢ Describe the nature of economics in dealing with the issues of scarcity of resources.
- ➢ Analyze supply and demand analysis and its impact on consumer behaviour.
- ➢ Evaluate the factors,such as production and costs affecting firmsbehaviour.
- ➢ Recognize market failure and the role of government in dealing with those failures.
- ➢ Use economic analysis to evaluate controversial issues and policies.
- ➢ Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.

Syllabus

Unit-I: Introduction: Meaning and Definitions of Business Economics - Nature and Scope of Business Economics -Micro and Macro Economics and their Interface.

Unit-II: Demand Analysis: Meaning and Definition of Demand – Determinants to Demand –Demand Function -Law of Demand – Demand Curve – Exceptions to Law of Demand - Elasticity of Demand – Measurements of Price Elasticity of Demand

Unit – III: Production, **Cost and Revenue Analysis**: Concept of Production Function – Law of Variable Proportion -Law of Returns to Scale - Classification of Costs -Break Even Analysis - Advantages

Unit-IV: Market Structure: Concept of Market – Classification of Markets -Perfect Competition – Characteristics – Equilibrium Price -Monopoly – Characteristics – Equilibrium Under Monopoly.

Unit-V: National Income: Meaning – Definition – Measurements of National Income - Concepts of National Income -Components of National Income-Problems in Measuring National Income

References:

1. Business Economics -S.Sankaran, Margham Publications, Chennai.
2. Business Economics - Kalyani Publications.
3. Business Economics - Himalaya Publishing House.
4. Business Economics - Aryasri and Murthy, Tata McGraw Hill.
5. Business Economics -H.L Ahuja, Sultan Chand & Sons
6. Principles of Economics -Mankiw, Cengage Publications
7. Fundamentals of Business Economics -Mithani, Himalaya Publishing House
8. Business Economics -A.V. R. Chary, Kalyani Publishers, Hyderabad.
9. Business Economics -Dr K Srinivasulu, Seven Hills International Publishers.

Suggested Co-Curricular Activities:

- Assignments
- Student Seminars
- Quiz , JAM
- Study Projects
- Group Discussion
- Graphs on Demand function and demand curves
- Learning about markets
- The oral and written examinations (Scheduled and surprise tests),
- Market Studies
- Individual and Group project reports,
- Annual talk on union and state budget
- Any similar activities with imaginative thinking beyond the prescribed syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Computer Applications

Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester – II

Discipline: COMPUTER APPLICATIONS

Course 2C: E- Commerce & Web Designing

(Five units with each unit having 12 hours of class work)

Learning Outcomes:

At the end of the course, the students is expected to DEMONSTRATE the following cognitive abilities (thinking skill) and psychomotor skills.

B. *Remembers and states in a systematic way (Knowledge)*

1. Understand the foundations and importance of E-commerce
2. Define Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational
3. Describe the infrastructure for E-commerce
4. Discuss legal issues and privacy in E-Commerce
5. Understand the principles of creating an effective web page, including an in-depth consideration of information architecture

B. *Explains (Understanding)*

6. Recognize and discuss global E-commerce issues
7. Learn the language of the web: HTML and CSS.

C. *Critically examines, using data and figures (Analysis and Evaluation)*

8. Analyze the impact of E-commerce on business models and strategy
9. Assess electronic payment systems
10. Exploring a web development framework as an implementation example and create dynamically generated web site complete with user accounts, page level security, modular design using css

D. Working in 'Outside Syllabus *Area' under a Co-curricular Activity*(Creativity)

Use the Systems Design Approach to implement websites with the following steps:

- Define purpose of the site and subsections
- Identify the audience
- Design and/or collect site content
- Design the website theme and navigational structure
- Design & develop web pages including: CSS Style Rules, Typography, Hyperlinks, Lists, Tables, Frames, Forms, Images, Behaviours, CSS Layouts

E. Build a site based on the design decisions and progressively incorporate tools and techniques covered

SYLLABUS

Course 2C: E-commerce & Web Designing

Unit	Details
I	**Unit I: Introduction:** Meaning, Nature, Concepts, Advantages, Disadvantages and reasons for Transacting Online, Types of E-Commerce, e-commerce Business Models (Introduction , Key Elements of a Business Model And Categorizing Major E-Commerce Business Models), Forces Behind e-commerce. **Technology used in E-commerce:** The dynamics of World Wide Web and Internet (Meaning, EvolutionAnd Features); Designing, Building and Launching e-commerce website (A systematic approach involving decisions regarding selection of hardware, software, outsourcing Vs. in-house development of a website)
II	**Unit-II: E-payment System:** Models and methods of e–payments (Debit Card, Credit Card, Smart Cards, e-money), Digital Signatures (Procedure, Working And Legal Position), Payment Gateways, Online Banking (Meaning, Concepts, Importance, Electronic Fund Transfer, Automated Clearing House, Automated Ledger Posting), Risks Involved in e-payments.

III **Unit-III: On-line Business Transactions:**

Meaning, Purpose, Advantages and Disadvantages of Transacting Online, E-Commerce Applications in Various Industries Like {Banking, Insurance, Payment of Utility Bills, Online Marketing, E-Tailing (Popularity, Benefits, Problems and Features), Online Services (Financial, Travel and Career), Auctions, Online Portal, Online Learning, Publishing and Entertainment} Online Shopping (Amazon, Snap Deal, Alibaba, Flipkart, etc.)

IV **Unit-IV: Website designing**

Designing a home page, HTML document, Anchor tag Hyperlinks, Head and body section, Header Section, Title, Prologue, Links, Colorful Pages, Comment, Body Section, Heading Horizontal Ruler, Paragraph, Tabs, Images And Pictures, Lists and Their Types, Nested Lists, Table Handling.

Frames: Frameset Definition, Frame Definition, Nested Framesets, Forms and Form Elements. DHTML and Style Sheets: Defining Styles, elements of Styles, linking a style sheet to a HTML Document, Inline Styles, External Style Sheets, Internal Style Sheets & Multiple Style Sheets.

V **Unit V: Security and Encryption:**

Need and Concepts, E-Commerce Security Environment: (Dimension, Definition and Scope Of E-Security), Security Threats in The E-Commerce Environment (Security Intrusions And Breaches, Attacking Methods Like Hacking, Sniffing, Cyber-Vandalism Etc.), Technology Solutions (Encryption, Security Channels Of Communication, Protecting Networks And Protecting Servers And Clients)

Learning Resources (Course 2C: E-commerce & Web Designing)

References:

(1) E-commerce and E-business Himalaya publishers

(2) E-Commerce by Kenneth C Laudon, PEARSON INDIA

(3) Web Design: Introductory with MindTap Jennifer T Campbell, Cengage India

(4) HTML & WEB DESIGN:TIPS& TECHNIQUES JAMSA, KRIS, McGraw Hill

(5) Fundamentals Of Web Development by Randy Connolly, Ricardo Hoar, Pearson

(6) HTML & CSS: COMPLETE REFERENCE POWELL,THOMAS, McGrawHill

Online Resources:

http://www.kartrocket.com

http://www.e-commerceceo.com

http://www.fastspring.com

https://teamtreehouse.com/tracks/web-design

Practical Component:@ 2 hours/week/batch

1. Creation of simple web page using formatting tags
2. Creation of lists and tables with attributes
3. Creation ofhyperlinks and including images
4. Creation of forms
5. Creation of framesets
6. Cascading style sheets – inline, internal and external

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

MEASURABLE

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

GENERAL

Group Discussion

Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA), Semester – III

Course 3A:Advanced Accounting

Learning Outcomes:

At the end of the course, the student will able to;

- Understand theconcept of Non-profit organisations and its accounting process
- Comprehend the concept of single-entry system and preparation of statement of affairs
- Familiarize with the legal formalities at the time of dissolution of the firm
- Prepare financial statements for partnership firm on dissolution of the firm.
- Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership

Syllabus

Unit-I:**Accounting for Non Profit Organisations**: Non Profit Entities- Meaning - Features of Non-Profit Entities –Provisions as per Sec 8 - Accounting Process- Preparation of Accounting Records - Receipts and Payments Account- Income and Expenditure Account - Preparation of Balance Sheet (including problems).

Unit-II: Single Entry System: Features – Differences between Single Entry and Double Entry – Disadvantages of Single Entry- Ascertainment of Profit and Preparation of Statement of Affairs (including Problems).

Unit-III:Hire Purchase System: Features –Difference between Hire Purchase and Instalment Purchase Systems - Accounting Treatment in the Books of Hire Purchaser and Hire Vendor - Default and Repossession (including Problems).

Unit-IV: Partnership Accounts-I: Meaning – Partnership Deed - Fixed and Fluctuating Capitals-Accounting Treatment of Goodwill - Admission and Retirement of a Partner(including problems).

Unit-V: Partnership Accounts-II: Dissolution of a Partnership Firm – Application of Garner v/s Murray Rule in India – Insolvency of one or more Partners (including problems).

References:

1. Advanced Accountancy: T S Reddy and A Murthy by Margham Publications.
2. Financial Accounting: SN Maheswari& SK Maheswari by Vikas Publications.
3. Principles and Practice of Accounting: R.L. Gupta & V.K. Gupta, Sultan Chand & Sons.
4. Advanced Accountancy: R.L.Gupta&Radhaswamy, Sultan Chand &Sons..
5. Advanced Accountancy (Vol-II): S.N.Maheshwari&V.L.Maheswari, Vikas publishers.
6. Advanced Accountancy: Dr. G. Yogeshwaran, Julia Allen - PBP Publications.
7. Accountancy–III: Tulasian, Tata McGraw Hill Co.
8. Accountancy–III: S.P. Jain & K.L Narang, Kalyani Publishers.
9. Advanced Accounting (IPCC): D. G. Sharma, Tax Mann Publications.
10. Advanced Accounting: Prof B Amarnadh, Seven Hills International Publishers.
11. Advanced Accountancy: M Shrinivas& K Sreelatha Reddy, Himalaya Publishers.

Suggested Co-Curricular Activities:

- Quiz Programs
- Problem Solving exercises
- Co-operative learning
- Seminar
- Visit a single-entry firm, collect data and Creation of Trial Balance of the firm
- Visit Non-profit organization and collect financial statements
- Critical analysis of rate of interest on hire purchase schemes
- Visit a partnership firm and collect partnership deed
- Debate on Garner v/s Murray rule in India and outside India
- Group Discussions on problems relating to topics covered by syllabus
- Examinations (Scheduled and surprise tests) on all units

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA) Semester – III

Course 3B: Business Statistics

Learning Outcomes:

At the end of the course, the student will able to;

- Understand the importance of Statistics in real life
- Formulate complete, concise, and correct mathematical proofs.
- Frame problems using multiple mathematical and statistical tools, measuring relationships by using standard techniques.
- Build and assess data-based models.
- Learn and apply the statistical tools in day life.
- Create quantitative models to solve real world problems in appropriate contexts.

Syllabus:

Unit 1: Introduction to Statistics: Definition – Importance, Characteristics and Limitations of Statistics -Classification and Tabulation – Frequency Distribution Table -Diagrams and Graphic Presentation of Data (including problems)

Unit 2: Measures of Central Tendency: Types of Averages – Qualities of Good Average - Mean, Median, Mode, and Median based Averages-Geometric Mean – Harmonic Mean(including problems)

Unit 3: Measures of Dispersion: Meaning and Properties of Dispersion – Absolute and Relative Measures - Types of Dispersion-Range - Quartile Deviation (Semi – Inter Quartile Range) -Mean Deviation - Standard Deviation - Coefficient of Variation. (including problems)

Unit 4: Skewness and Kurtosis: Measures of Skewness: Absolute and Relative Measures- Co-efficient of Skewness: Karl Pearson's, Bowley's and Kelly's - Kurtosis: Meso kurtosis, Platy kurtosis and Leptokurtosis (including problems)

Unit 5: Measures of Relation: Meaning and use of Correlation – Types of Correlation - Karlpearson's Correlation Coefficient - Probable Error-Spearman's Rank-Correlation (including problems)

Suggested Readings:

1. Business Statistics, Reddy C.R., Deep Publications.
2. Statistical Methods: Gupta S.P.Sultan Chand & Sons.
3. Statistics-Problems and Solutions: Kapoor V.K, Sultan Chand &Sons.
4. Fundamentals of Statistics: Elhance. D.N
5. Business Statistics, Dr.P.R.Vittal, Margham Publications
6. Business Statistics, LS Agarwal, Kalyani Publications.
7. Statistics: Dr V Murali Krishna, Seven Hills International Publishers.
8. Fundamentals of Statistics: Gupta S.C. Sultan Chand &Sons.
9. Statistics-Theory, Methods and Applications: Sancheti, D.C. & Kapoor V.K.
10. Business Statistics: J.K. Sharma, Vikas Publishers.
11. Business Statistics: Bharat Jhunjhunwala, S Chand Publishers.
12. Business Statistics: S.L.Aggarval, S.L.Bhardwaj and K.Raghuveer, Kalyani Publishers.

Suggested Co-Curricular Activities

- Student Seminars,Quiz
- Problem Solving Exercises
- Observe Live Population Clocks – India and world
- Collection of statistical data of village/town, District, State, Nation
- Participate in Crop Cutting Experiments at villages
- Percentiles in CET exams
- Practice Statistical Functions in MS Excel
- Draw diagrams and Graphs in MS Excel
- Use statistical tools in real life like class/college results, local production etc

- Prepare questionnaire and schedule
- Application of averages in everyday life
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Computer Applications

Semester-wise Syllabus under CBCS (w.e.f. 2020-21 Admitted Batch)

I Year B Com (CA), Semester – III

Discipline: COMPUTER APPLICATIONS

Course 3C: Programming with C & C++

(Five units with each unit having 12 hours of class work)

Model Outcomes:

At the end of the course, the students is expected to DEMONSTRATE the following cognitive abilities (thinking skill) and psychomotor skills.

C. *Remembers and states in a systematic way (Knowledge)*

1. Develop programming skills
2. Declaration of variables and constants use of operators and expressions
3. learn the syntax and semantics of programming language
4. Be familiar with programming environment of C and C++
5. Ability to work with textual information (characters and strings) & arrays

D. *Explains (Understanding)*

6. Understanding a functional hierarchical code organization
7. Understanding a concept of object thinking within the framework of functional model
8. Write program on a computer, edit, compile, debug, correct, recompile and run it

E. *Critically examines, using data and figures (Analysis and Evaluation)*

9. Choose the right data representation formats based on the requirements of the problem
10. Analyze how C++ improves C with object-oriented features
11. Evaluate comparisons and limitations of the various programming constructs and choose correctone for the task in hand.

D. Working in 'Outside Syllabus *Area' under a Co-curricular Activity*(Creativity)

Planning of structure and content, writing, updating and modifying computer programs for user solutions

E. Exploring C programming and Design C++ classes for code reuse (Practical skills***)

SYLLABUS

Course 3C: Programming with C & C++

Unit	Details
I	**Introduction and Control Structures:** History of 'C' - Structure of C program – C character set, Tokens, Constants, Variables, Keywords, Identifiers – C data types - C operators - Standard I/O in C - Applying if and Switch Statements
II	**Loops And Arrays:** Use of While, Do While and For Loops - Use of Break and Continue Statements - Array Notation and Representation - Manipulating Array Elements - Using Multi Dimensional Arrays
III	**Strings and Functions:** Declaration and Initialization of String Variables - String Handling Functions -Defining Functions - Function Call - Call By Value, Call By Reference – Recursion

IV **Classes and Objects**

Introduction to OOP and its basic features - C++ program structure - Classes and objects - Friend Functions- Static Functions –Constructor – Types of constructors – Destructors - Unary Operators

V **Inheritance:**

Inheritance - Types of Inheritance -Types of derivation- Public – Private - Protected Hierarchical Inheritance - Multilevel Inheritance – Multiple Inheritance - Hybrid Inheritance

Learning Resources (Course 3C: : Programming with C & C++)

References:

(1) E. Balagurusamy "Object oriented programming with C++

(2) R.Ravichandran "Programming with C++"

(3) Mastering C by K R Venugopal and Sudeep R Prasad, McGraw Hill

(4) Expert C Programming: Deep Secrets Kindle Edition Peter van der Linden

(5) Let Us C YashavantKanetkar

(6) The C++ Programming Language Bjarne Stroustrup

(7) C++ Primer Stanley B. Lippman, Josée Lajoie, Barbara E. Moo

Online Resources:

https://www.tutorialspoint.com/cprogramming/index.html

https://www.learn-c.org/

https://www.programiz.com/c-programming

https://www.w3schools.in/c-tutorial/

https://www.cprogramming.com/tutorial/c-tutorial.html

https://www.tutorialspoint.com/cplusplus/index.html

https://www.programiz.com/cpp-programminghttp://www.cplusplus.com/doc/tutorial/

https://www.learn-cpp.org/

https://www.javatpoint.com/cpp-tutorial

Practical Component: @ 2 hours/week/batch

1. Write C programs for
   a. Fibonacci Series
   b. Prime number
   c. Palindrome number
   d. Armstrong number.
2. 'C' program for multiplication of two matrices
3. 'C' program to implement string functions
4. 'C' program to swap numbers
5. 'C' program to calculate factorial using recursion
6. 'C++' program to perform addition of two complex numbers using constructor
7. Write a program to find the largest of two given numbers in two different classes using friend function
8. Program to add two matrices using dynamic contructor
9. Implement a class string containing the following functions:
   a. Overload + operator to carry out the concatenation of strings.
   b. Overload == operator to carry out the comparison of strings.
10. Program to implement inheritance.

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

MEASURABLE

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)

5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

General

Group Discussion

Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted:

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4A:Corporate Accounting

Learning Outcomes:

At the end of the course, the student will able to;

- Understand the Accounting treatment of Share Capital and aware of process of book building.
- Demonstratetheprocedure for issue of bonus shares and buyback of shares.
- Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments.
- Participate in the preparation of consolidated accounts for a corporate group.
- Understand analysis of complex issues, formulation ofwell-reasoned arguments and reachingbetter conclusions.
- Communicate accounting policy choiceswith reference to relevant laws and accounting standards.

SYLLABUS:

Unit-I:

Accounting for Share Capital: Kinds of Shares – Types of Preference Shares – Issue of Shares at Par, Discount and Premium - Forfeiture and Reissue of Shares (including problems).

Unit-II:

Issue and Redemption of Debentures and Issue of Bonus Shares: Accounting Treatment for Debentures Issued and Repayable at Par, Discount and Premium -Issue of Bonus Shares - Buyback of Shares - (including problems).

Unit-III:

Valuation of Goodwill: Need and Methods - Average Profit Method, Super Profits Method – Capitalization Method and Annuity Method (Including problems).

Unit –IV:

Valuation Shares: Need for Valuation - Methods of Valuation - Net Assets Method, Yield Basis Method, Fair Value Method (including problems).

UNIT – V:

Company Final Accounts: Provisions of the Companies Act, 2013 - Preparation of Final Accounts – Adjustments Relating to Preparation of Final Accounts – Profit and Loss Account and Balance Sheet – (including problems with simple adjustments).

Reference Books:

1. Corporate Accounting – T.S Reddy and Murthy, MarghamPublications, Chennai.
2. Advanced Accounts: M C Shukla, T S Grewal and S C Gupta, S Chand Publications
3. Corporate Accounting – Haneef & Mukherji, Tata McGraw Hill Publications.
4. Corporate Accounting – RL Gupta & Radha Swami,Sultan Chand & sons
5. Corporate Accounting – P.C. Tulsian, S.Chand Publishers
6. Advanced Accountancy: Jain and Narang,,Kalyani Publishers
7. Advanced Accountancy: R.L. Gupta and M.Radhaswamy, S Chand.
8. Advanced Accountancy :Chakraborthy, Vikas Publishers
9. Corporate Accounting: S.N. Maheswari, S.K. Maheswari, Vikas Publishing House.
10. Advanced Accounts: M.C. Shukla, T.S. Grewal, S.C. Gupta, S. Chand & Company
11. Corporate Accounting: Umamaheswara Rao, Kalyani Publishers
12. Corporate Accounting: Dr ChandaSrinivas, SevenHills International Publishers,
13. Advanced Accountancy: Arulanandam& Raman, Himalaya Publishing House.

Suggested Co-Curricular Activities:

- Assignments
- Problem Solving Exercises
- Collect and fill the share application form of a limited Company
- Collect Prospectus of a company and identify its salient features
- Collect annual report of a Company and List out its assets and Liabilities.
- Collect the annual reports of company and calculate the value of goodwill under different methods
- Power point presentations on types of shares and share capital
- Group Discussions on problems relating to topics covered by syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4B:Cost and Management Accounting

Learning Outcomes:

At the end of the course, the student will able to;

- Understand various costing methods and management techniques.
- Apply Cost and Management accounting methods for both manufacturing and service industry.
- Prepare cost sheet, quotations, and tenders to organization for different works.
- Analyze cost-volume-profit techniques to determine optimal managerial decisions.
- Compare and contrast the financial statements of firms and interpret the results.
- Prepare analysis of various special decisions, using relevant management techniques.

SYLLABUS:

UNIT-I: Introduction:

Cost Accounting: Definition – Features – Objectives – Functions – Scope – Advantages and Limitations - Management Accounting: Features – Objectives – Functions –
Elements of Cost - Preparation of Cost Sheet (including problems)

UNIT-II: Material and Labour Cost:

Techniques of Inventory Control – Valuation of Material Issues: FIFO - LIFO - Simple and Weighted Average Methods

Labour: Direct and Indirect Labour Cost – Methods of Payment of Wages- Incentive Schemes -Time Rate Method, Piece Rate Method, Halsey, Rowan Methods and Taylor Methodsonly(including problems)

UNIT-III: Job Costing and Batch Costing:

Definition and Features of Job Costing – Economic Batch Quantity (EBQ) – Preparation of Job Cost Sheet – Problems on Job Cost Sheet and Batch Costing(including problems)

UNIT-IV: Financial Statement Analysis and Interpretation:

Financial Statements - Features, Limitations. Need, Meaning, Objectives, and Process of Financial Statement Analysis- Comparative Analysis – Common Size Analysis and Trend Analysis (including problems)

UNIT-V: Marginal Costing:

Meaning and Features of Marginal Costing – Contribution –Profit Volume Ratio- Break Even Point – Margin of Safety – Estimation of Profit and Estimation of Sales(including problems)

References:

1. S.P. Jain and K.L. Narang – Advanced Cost Accounting, Kalyani Publishers.
2. M.N. Arora – A test book of Cost Accounting, Vikas Publishing House Pvt. Ltd.
3. S.P. Iyengar – Cost Accounting, Sultan Chand & Sons.
4. Nigam & Sharma – Cost Accounting Principles and Applications, S.Chand& Sons.
5. S.N. Maheswari– Principles of Management Accounting, Sultan Chand & Sons.
6. I.M.Pandey – Management Accounting, Vikas Publishing House Pvt. Ltd.
7. Sharma & Shashi Gupta – Management Accounting, Kalyani Publishers.
8. Murthy & Guruswamy – Management Accounting, Tata McGraw Hill, New Delhi.
9. S.P. Gupta – Management Accounting, S. Chand Publishing, New Delhi.
10. Umamaheswara Rao and Ranganath, Cost Accounting, Kalyani Publishers.
11. Dr V Murali Krishna – Cost Accounting, Seven Hills International Publishers.

Suggested Co-Curricular Activities:

- Debate on methods of payments of wages
- Seminars
- Problem Solving Exercises
- Seminar on need and importance of financial statement analysis
- Graphs showing the breakeven point analysis
- Identification of elements of cost in services sector by Visiting any service firm
- Cost estimation for the making of a proposed product

- Listing of industries located in your area and methods of costing adopted by them
- Collection of financial statements of any two organization for two years and prepare a common Size Statements
- Collection of cost sheet and pro-forma of quotation
- Examinations (Scheduled and surprise tests)

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4C:Income Tax

Learning Outcomes:

At the end of the course, the student will able to;

- Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning.
- Understand the provisions and compute income tax for various sources.
- Grasp amendments made from time to time in Finance Act.
- Compute total income and define tax complicacies and structure.
- Prepare and File IT returns of individual at his own.

Syllabus:

Unit-I: Introduction: Income Tax Act-1961 - Basic Concepts: Income, Person, Assessee - Assessment Year, Previous Year, Rates of Tax, Agricultural Income,ResidentialStatusof Individual -Incidence of Tax – IncomesExempt from Tax (theory only).

Unit-II: Income from Salaries: Basis of Charge, Tax Treatment of Different Types of Salaries Allowances, Perquisites, Profits in Lieu of Salary, Deductions from Salary Income, Computation of Salary Income (including problems).

Unit-Ill: Income from House Property and Profits and Gains from Business: Annual Value, Let-out/Self Occupied/Deemed to be Let-out house -Deductions from Annual Value - Computation of Income from House Property

Definition of Business and Profession – Procedure for Computation of Income from Business – Revenue and Capital Nature of Incomes and Expenses – Allowable Expenses – Expenses Expressly Disallowed – Computation (including problems).

Unit-IV: Income from Capital Gains - Income from Other Sources: Meaning of Capital Asset – Types – Procedure for Computation of Long-term and Short-term Capital Gains/Losses

Meaning of Other Sources - General Incomes – Specific Incomes – Computation (including problems).

Unit-V: Computation of Total Income of an Individual: Deductions under Section 80 - Computation of Total Income (Simple problems).

Reference Books:

1. Dr. Vinod; K. Singhania; Direct Taxes – Law and Practice, Taxman Publications
2. T. S. Reddy and Dr. Y. Hari Prasad Reddy - Taxation , by Margham Publications
3. Premraj and Sreedhar, Income Tax, Hamsrala Publications
4. B.B. Lal - Direct Taxes; Konark Publications
5. Dr. Mehrotra and Dr. Goyal -Direct Taxes, Law and Practice, Sahitya Bhavan Publication.
6. Balachandran&Thothadri- Taxation Law and Practice, PHI Learning.
7. V.P. Gaur and D.B. Narang - Income Tax, Kalyani Publications
8. Dr Y Kiranmayi - Taxation, Jai Bharath Publishers
9. Income Tax, Seven Lecture Series, Himalaya Publications

Suggested Co-Curricular Activities:

- Seminar on different topics of Income tax
- Quiz programs
- Problem Solving Exercises
- Debate on Tax Evasion and Avoidance
- Practice of provisions of Taxation
- Visit a Tax firm
- Talk on Finance Bill at the time of Union Budget
- Guest lecture by Chartered Accountant
- Presentation of tax rates
- Practice of filing IT Returns online
- Group Discussions on problems relating to topics covered by syllabus
- Examinations (Scheduled and surprise tests)

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Commerce

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4D:Business Law

Learning Outcomes:

At the end of the course, the student will able to;

- Understand the legal environment of business and laws of business.
- Highlight the security aspects in the present cyber-crime scenario.
- Apply basic legal knowledge to business transactions.
- Understand the various provisions of Company Law.
- Engage critical thinking to predict outcomes and recommend appropriate action on issues relating to business associations and legal issues.
- Integrate concept of business law with foreign trade.

Syllabus:

Unit-I: Contract:

Meaning and Definition of Contract - Essential Elements of Valid Contract -Valid, Void and Voidable Contracts - Indian Contract Act, 1872

Unit-II: Offer, Acceptance and Consideration:

Definition of Valid Offer, Acceptance and Consideration - Essential Elements of a Valid Offer, Acceptance and Consideration.

Unit-Ill: Capacity of the Parties and Contingent Contract:

Rules Regarding to Minors Contracts - Rules Relating to Contingent Contracts - Different Modes of Discharge of Contracts - Rules Relating to Remedies to Breach of Contract.

Unit-IV: Sale of Goods Act 1930 and Consumer Protection Act 2019:

Contract of Sale - Sale and Agreement to Sell - Implied Conditions and Warranties - Rights of Unpaid Vendor- Definition of Consumer - Person - Goods - Service - Consumer Dispute - Consumer Protection Councils - Consumer Dispute Redressal Mechanism

Unit-V: Cyber Law:

Overview and Need for Cyber Law - Contract Procedures - Digital Signature – Safety Mechanisms.

References:

1. J. Jaysankar, Business Laws, Margham Publication. Chennai.
2. ND Kapoor, Business Laws, S Chand Publications.
3. Balachandram V, Business law, Tata McGraw Hill.
4. Tulsian, Business Law, Tata McGraw Hill.
5. Pillai Bhagavathi, Business Law,SChand Publications.
6. Business Law, Seven Hills Publishers, Hyderabad.
7. K C Garg, Business Law, Kalyani Publishers.

Suggested Co-Curricular Activities

- Seminar on Basics of Indian Contract Act,1872
- Quiz programs
- Co-operative learning
- Seminar on Cyber Law
- Group Discussions
- Debate on Offer, Agreement, and Contract
- Creation of Contract by abiding rules of Indian Contract Act,1872
- Making a sale by abiding rules of Sale of Goods Act,1930
- Guest lecture by a Lawyer/Police officer
- Celebrating consumers day by creating awareness among the students
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Computer Applications

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA)– Semester – IV

Course 4E: Object Oriented Programming with Java

Learning Outcomes:

At the end of the course, the student will able to;

- Understanding the meaning and necessity of audit in modern era
- Comprehend the role of auditor in avoiding the corporate frauds
- Identify the steps involved in performing audit process
- Determine the appropriate audit report for a given audit situation
- Apply auditing practices to different types of business entities
- Plan an audit by considering concepts of evidence, risk and materiality

SYLLABUS:

Unit I: Introduction to OOPs: Problems in Procedure Oriented Approach, Features of Object Oriented Programming

Introduction to Java: Features of Java, The Java Virtual Machine (JVM), Parts of Java program, Naming Conventions in Java, Data Types in Java, Operators in Java, Reading Input using scanner Class, Displaying Output using System. out.println (), Command Line Arguments.

Unit II: Control Statements in Java: if... else, do... while Loop, while Loop, For loop, Switch Statement, break Statement, continue Statement

Arrays: Types of Arrays, array name, length,

Strings: Creating Strings, String Class Methods, String Comparison, Immutability of Strings.

Unit III: Classes and Objects: Object Creation, Initializing the Instance Variables, Access Specifiers, Constructors

Inheritance: Inheritance, Types of Inheritance

Polymorphism: Method overloading, Operator overloading

Abstract Classes: Abstract Method and Abstract Class

Unit IV: Packages: Package, Different Types of Packages, Creating Package and Accessing a Package

Streams: Stream classes, Creating a File using File Output Stream, Reading Data from a File using File Input Stream, Creating a File using File Writer, Reading a File using File Reader

Unit V: Exception Handling: Errors in Java Program, Exceptions, throws Clause, throw Clause, Types of Exceptions
Threads: Single Tasking, Multi-Tasking, Uses of Threads, Creating a Thread and Running it, Terminating the Thread, Thread Class Methods.

References:

1. The Complete Reference JAVA Seventh Edition Herbert Schildt. Tata McGraw Hill Edition.
2. Core Java: An Integrated Approach, Dr. R. Nageswara Rao & Kogent Learning Solutions Inc.
3. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGrawHill Company

Online Resources:

https://stackify.com/java-tutorials/
https://www.w3schools.com/java/
https://www.javatpoint.com/java-tutorial
https://www.tutorialspoint.com/java/index.html

Practical Component: @ 2 hours/week/batch

1. Write a program to implement command line arguments.
2. Write a program to read Student Name, Reg.No, Marks and calculate Total, Percentage, and Result. Display all the details of students .
3. Write a program to perform String Operations.
4. Java program to implement Addition of two N X N matrices.
5. Java program to implement bubble sort.
6. Java program to demonstrate the use of Constructor.
7. Calculate area of the following shapes using method overloading.
   a.Rectangle b. Circle c. Square
8. Implement multilevel inheritance
9. Java program for to display Serial Number from 1 to 5 by creating two Threads
10. Java program to demonstrate the following exception handlings
    a. Divided by Zero b. Array Index Out of Bound c. Arithmetic Exception

PROGRAMME: FOUR-YEAR B Com (Computer Applications) (Hons)

Domain Subject: Computer Applications
Semester-wise Syllabus under CBCS(w.e.f. 2020-21 Admitted Batch)

II Year B Com (CA), Semester – IV
Discipline: COMPUTER APPLICATIONS

Course 3F:Database Management System

(Five units with each unit having 12 hours of class work)

Model Outcomes for Database Management System

At the end of the course, the students is expected to DEMONSTRATE the following cognitive abilities (thinking skill) and psychomotor skills.

F. *Remembers and states in a systematic way (Knowledge)*

1. Understand the role of a database management system in an organization.
2. Understand basic database concepts, including the structure and operation of the relational data model.
3. Understand and successfully apply logical database design principles, including E-R diagrams and database normalization
4. Understand Functional Dependency and Functional Decomposition

G. *Explains (Understanding)*

5. To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS.
6. Perform PL/SQL programming using concept of Cursor Management, Error Handling, Packages

H. *Critically examines, using data and figures (Analysis and Evaluation)*

7. Apply various Normalization techniques
8. Model an application's data requirements using conceptual modeling tools like ER diagrams and design database schemas based on the conceptual model

D. Working in 'Outside Syllabus *Area' under a Co-curricular Activity*(Creativity)
Design and implement a small database project

E. Construct simple and moderately advanced database queries using Structured Query Language (SQL)(Practical skills)

SYLLABUS

Course 4F: Database Management System

Unit	Details
I	**Overview of Database Management System** Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management System, Classification of Database Management System.
II	**File-Based System** File Based System. Drawbacks of File-Based System, DBMS Approach, Advantage of DBMS, Data Models, Components of Database System, Database Architecture, DBMS Vendors and their products.
III	**Entity-Relationship Model:** Introduction, The Building Blocks of an Entity-Relationship, Classification of Entity Set, Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, Aggregation and Composition, CODD's Rules, Relational Data Model, Concept of Relational Integrity.
IV	**Structured Query Language** Introduction, History of SQL Standards, Commands in SQL, Data types in SQL, Data Definition Language (DDL),Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.
V	**PL/SQL:** Introduction, Structure of PL/SQL,PL/SQL Language Elements, Data Types, Control Structure, Steps to Create a PL/SQL Program, Iterative Control Cursors, Steps to Create a Cursor, Procedure, Functions, Packages, Exceptions Handling, Database Triggers, Types of triggers.

Learning Resources (Course 4F: Database Management System)

References:

1. Paneerselvam:Database Management system,PHI.
2. David Kuklinski, Osborne, Data management system McGraw Hill Publication.
3. Shgirley Neal And Kenneth LC Trunik Database management system in Business-PHI.
4. Godeon C. EVEREST, Database Management-McGraw Hill Book Company.
5. MARTIN,Database Management-Prentice Hall of India, New Delhi.
6. Bipin C.Desai ,`An Introduction to Database System`,Galgotia Publications
7. Korth, Database Management System.
8. Navathe, Database Management System.
9. S. Sumathi, S. Esakkirajan,Fundamentals of Relational Database Management System

Online resources:

http:// www.onlinegdb.com/

http:// www.tutorialspoint.com/

http://learnsql.com

https://www.codecademy.com/learn/learn-sql/

https://www.w3schools.com/sql/default.asp

Practical Component: @ 2 hours/week/batch

1. Create tables department and employee with required constraints.
2. Initially only the few columns (essential) are to be added. Add the remaining columns separately by using appropriate SQL command.
3. Basic column should not be null
4. Add constraint that basic should not be less than 5000.
5. Calculate hra, da, gross and net by using PL/SQL program.
6. The percentage of hra and da are to be stored separately.
7. When the da becomes more than 100%, a message has to be generated and with user permission da has to be merged with basic.
8. Empno should be unique and has to be generated automatically.

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity)
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)
4. Field studies (individual observations and recordings as per syllabus content and related areas (Individual or team activity)
5. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

General

3. Group Discussion
4. Visit to Software Technology parks / industries

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted:

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Coding exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports,
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Recommended Format for Question Paper

For Courses 1A, 2A, 3A, 3B, 4A, 4B, 4C

Time: 3 Hours] *[Max. Marks : 75*

Section-A ***[5X5=25]***

Answer any **FIVE** of the following questions.

(at least 4 problems must be given*)*

1 Contents of **Unit-I**

2 Contents of **Unit-II**

3 Contents of **Unit-III**

4 Contents of **Unit-IV**

5 Contents of **Unit-V**

6 Contents of **Unit-I to Unit V**

7 Contents of **Unit-I to Unit V**

8 Contents of **Unit-I to Unit V**

Section-B **[5X10=50]**

Answer **FIVE** questions

9 a Contents of **Unit-I**(Theory/Problem)

(OR)

9 b Contents of **Unit-I**(Problem)

10 a Contents of **Unit-II**(Theory/Problem)

(OR)

10 b Contents of **Unit-II**(Problem)

11 a Contents of **Unit-III**(Theory/Problem)

(OR)

11 b Contents of **Unit-III**(Problem)

12 a Contents of **Unit-IV**(Theory/Problem)

(OR)

12 b Contents of **Unit-IV**(Problem)

13 a Contents of **Unit-V**(Theory/Problem)

(OR)

13 b Contents of **Unit-V**(Problem)

Recommended Format for Question Paper

For Courses 1B, 1C, 2B, 2C,3C, 4D, 4E,4F

Time: 3 Hours *[Max. Marks : 75]*

Section-A ***[5X5=25]***

Answer any **FIVE** of the following questions.

1 Contents of **Unit-I**

2 Contents of **Unit-II**

3 Contents of **Unit-III**

4 Contents of **Unit-IV**

5 Contents of **Unit-V**

6 Contents of **Unit-I to Unit V**

7 Contents of **Unit-I to Unit V**

8 Contents of **Unit-I to Unit V**

Section-B **[5X10=50]**

Answer **FIVE** questions

9 a Contents of **Unit-I**

(OR)

9 b Contents of **Unit-I**

10 a Contents of **Unit-II**

(OR)

10 b Contents of **Unit-II**

11 a Contents of **Unit-III**

(OR)

11 b Contents of **Unit-III**

12 a Contents of **Unit-IV**

(OR)

12 b Contents of **Unit-IV**

13 a Contents of **Unit-V**

(OR)

13 b Contents of **Unit-V**

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

(A Statutory body of the Government of Andhra Pradesh)

REVISED UG SYLLABUS UNDER CBCS

(Implemented from Academic Year 2020-21)

PROGRAMME: FOUR YEAR B.Com. (Hons)

Domain Subject**: Commerce**

Skill Enhancement Courses (SECs) for Semester V, from 2022-23 *(Syllabus with Learning Outcomes, References, Co-curricular Activities & Model Q.P. Pattern)*

Structure of SECs for Semester– V

(To choose Three pairs from the Nine alternate pairs of SECs)

(For each SEC: Hours/Week: 05, Credits: 4, Max Marks: 100)

Pairs of Skill Enhancement Courses (SEC) under each series in Commerce for Semester-V.

Course No.	***Series-A: Accountancy***	***Course No.***	***Series-B: Services***	***Course No.***	***Series-C: E commerce***
	Course Name		*Course Name*		*Course Name*
16-A	Advanced Corporate Accounting	16-B	Advertising and Media Planning	16-C	Digital Marketing
17-A	Software Solutions to Accounting	17-B	Sales Promotion and Practice	17-C	Service Marketing
18-A	Management Accounting	18-B	Logistics Services and Practice	18-C	Income Tax Procedure& Practice
19-A	Cost Control Techniques	19-B	EXIM Procedure and practice	19-C	GST Procedure &Practice
20-A	Stock Markets	20-B	Life Insurance with Practice	20-C	E Commerce
21-A	Stock Market Analysis	21-B	General Insurance with practice	21-C	E filing

Note-1: In Semester-V a B.Com. General students have to study Three pairs of SECs (a total of 6 courses). The Pairs are, SEC numbers 16 & 17, 18 & 19 and 20 &21.As there shall be choice to students under CBCS, a total of 9 pairs shall be offered from which B.Com. General students have to choose a total of Three pairs of SECs.

The 9 pairs are from 3 series namely (A) Accountancy, (B) Services and (C) E-Commerce. Students can, however, choose their **Three pairs** from any of the **Nine** pairs but a pair shall not be broken.

For example students can choose any Three pairs like the following;
16-A &17-A (from Accountancy), 18-B, 19-B (from Services) and 20-C, 21-C from E-Commerce.

Or 16-A&17-A, 18-C &19-C and 20-B &21-B
Or 16-B &17-B, 18-A &19-A and 20-C &21-C
Or 16-B &17-B, 18-C &19-Cand 20-A &21-A
Or 16-C &17-C, 18-B & 19-B and 20-A &21-A
Or 16-C &17-C, 18-A &19-A and 20-B, 21-B

Whereas, B.Com Computers Students can choose any two pairs from the above 9 pairs.

Note-2: One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate skills related to the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four- year B.Com. (Hons)
Domain Subject: **COMMERCE**
IV Year B. Com. (Hons) – Semester – V

Max Marks: 100

Course 16-A. ADVANCED CORPORATE ACCOUNTING

(Skill Enhancement Course (Elective), 4 Credits)

I: Course Learning Outcomes

After completing the course, the student shall be able to:

1. Understand Corporate Accounting environment
2. Record Transactions related to Purchase of Business, Amalgamation and Reconstruction
3. Analyze the situations of Purchase of Business and Liquidation
4. Create formulas and calculations relating to Amalgamation, Internal Reconstruction and Holding company accounts
5. Acquire skills of Accounting Procedure of Advanced Corporate Accounting Environment.

II. Syllabus: Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)

Unit-I: Purchase of Business

Meaning - Purchase Consideration - Methods for determining Purchase Consideration-Discharge of Purchase Consideration-Accounting Treatment.

Unit-II: Amalgamation of Companies

Meaning and Objectives - Provisions for Amalgamation of Companies as per Accounting Standard 14 - Accounting Treatment.

Unit-III: Internal Reconstruction of Companies

Meaning - Forms of Internal Reconstruction - Alteration of Share Capital and Reduction of Share Capital- Accounting Treatment.

Unit-IV: Accounts of Holding Companies

Meaning of Holding Companies and Subsidiary companies- Consolidated Financial Statements- Legal requirements on Consolidation-Calculation of Minority Interest- Accounting Treatment.

Unit-V: Liquidation

Meaning - Modes of Winding up of a Company- - Liquidator's Final Statement of Account - Calculation of Liquidator's Remuneration - Preparation of Statement of Affairs and Deficiency Account- Accounting Treatment

III. References:

1. Goyal, Bhushan Kumar. Corporate Accounting. Taxmann, New Delhi
2. Kumar, Alok. Corporate Accounting. Kitab Mahal
3. Monga, J. R. Fundamentals of Corporate Accounting. Mayur Paper Backs, New Delhi
4. Sah, Raj Kumar, Concept Building Approach to Corporate Accounting, Cengage
5. Sehgal Ashok & Sehgal Deepak. Corporate Accounting
6. Tulsian P. C. Corporate Accounting. S Chand & Co. New Delhi
7. *https://thebookee.net/ad/advanced-corporate-accounting-and-accounting-standards*
8. Web resources suggested by the Teacher concerned and the College Librarian including reading material

IV. Co-Curricular Activities:

A. Mandatory(*student training by teacher in related real time field skills: total 10 hours*)**:**

1. **For Teachers**: Training of students by the teacher (using actual field material) in classroom and field for a total of not less than 10 hours on techniques in Advanced Corporate Accounting. Accounts and calculation in the event of recent Mergers, Liquidations and Internal Reconstruction.
   a. Calculation of Purchase Consideration for a given purchase of business (ref. unit-1)
   b. Preparation of Accounts for Recent Banking Companies mergers (ref. unit-2)
   c. Design Reconstruction formula for a current sick Company. (Ref. unit-3)
   d. Calculate Minority Interest for a given Company (ref. unit 4)
   e. Preparation of Statement of Affairs for a recent Liquidation (ref. unit.5)
2. **For Students:** Individual Fieldwork/Project work on identified real time situations with respect to Amalgamation, Liquidation, Purchase Consideration. On practical aspects dealt with by an Auditor. Each student has to make observations and submit to the teacher a handwritten Fieldwork/Project work Report, not exceeding 10 pages, on his/her observations etc.
3. Max marks for Fieldwork/Project work Report: 05.
4. Suggested Format for Fieldwork/Project work Report: (not more than 10 pages**):** Title page, student details, contents, objective, step-wise work done, findings, conclusions and acknowledgements.
5. Unit tests (IE).

B. Suggested Co-Curricular Activities

1. Training of students by a related field expert.
2. Assignments including technical assignments like Working with Audit Company for Observation of Purchase Consideration and Observation of recent Amalgamations in Banking Sector and Corporate Sector
3. Seminars, Conferences, discussions by inviting concerned institutions
4. Field Visit
5. Invited Lectures and presentations on related topics .

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION - A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)
Out of Eight covering all units
SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×10 Marks)
Out of Eight covering all units.

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A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four-year B.Com. (Hons)
Domain Subject: **COMMERCE**
IV Year B. Com. (Hons) – Semester – V

Max Marks: 100

Course 17- A. SOFTWARE SOLUTIONS TO ACCOUNTING
(Skill Enhancement Course (Elective), 4 Credits)

I: Course Learning Outcomes

After completing the course, the student shall be able to:

At the end of the course, the student will able to;

1. Understand the technical environment of accounting softwares.
2. Highlight the major accounting softwares in India.
3. Apply basics of accounting softwares into business firms for accounting transactions.
4. Understand the various versions of Tally and other softwares.
5. Integrate the concept of different Accounting softwares for accounting purpose
6. Design new approaches for use of accounting software environment.

II. Syllabus: Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)

Unit-1: Computerized Accounting
Microsoft Excel Spread Sheet- Functions in Excel- Preparation of Accounts, Statements and Budgets using MS Excel- Analysis and Interpretation.

Unit-II: Introduction to Leading Accounting Softwares - Busy - Marg – Quick Books - Zoho Books -Tally- Features and Accounting.

Unit-III: Tally ERP-9 - Company Creation -Tally Startup Screen- Gateway of Tally- Create a Company - Alter & Delete company- Backup and Restore- Security Features in Tally.

Unit-IV: Tally- Accounting Masters- Groups- Create Ledgers- Alter& Delete - **Inventory Masters-** Creating Stock Groups - Stock Items- Unit of Measurement- Alter & Delete.

Unit- V: Tally-Voucher Entry -Vouchers Types - Vouchers Entry - Alter and deleting Settings Purchase Vouchers and Sales Vouchers including Tax component –Reports Generation.

III: References

1. Nadhani, Ashok K, Tally ERP 9 Training Guide, BPB Publications
2. Tally 9 in Simple Steps, Kogent Solutions Inc., John Wiley & Sons.
3. Tally 9.0 (English Edition), (Google eBook) Computer World
4. Tally.ERP 9 Made Simple Basic Financial Accounting by BPB Publisher.

5. Tally ERP 9 For Real Time Accounting by Avichi Krishnan
6. Fundamentals of Computers, by V. Rajaraman, PHI.
7. Tally ERP 9 book advanced user, Swayam Publication (www.tallyerp9book.com)
8. *Web resources suggested by the Teacher concerned and the College Librarian including reading material*

IV. Co-Curricular Activities

A. Mandatory(*student training by teacher in related real time field skills: total 10 hours*)**:**

1. **For Teachers**: Training of students by the teacher (using actual field material) in classroom and field for a total of not less than 10 hours on techniques in Computerized Accounting, working with Accounting Software. Train the students in Computerized Accounts with selected Accounting software.
   a. Working with Excel-Spread sheet calculations and tabulation Lab Practice (Ref. unit-1)
   b. Working with any accounting software- analyze the special characters (ref. unit-2)
   c. Company Creation Lab Practice-(ref. unit-3)
   d. Creating Masters in Tally with a given Company- Lab Work .Lab Work (ref. Unit 4)
   e. Voucher Entry for Given Transactions- Generation of Reports for a given Company Lab Work (ref.Unit.5)
2. **For Student**: Each student has to visit at least one business organization dealt with Computerized Accounting. Collect data relating to the business transactions and practice in college computer lab. Each student has to prepare one System based accounting during the semester. They shall write their observations and submit a Fieldwork/Project work report, not exceeding 10 pages, to the teacher in the given format.
3. Max marks for Fieldwork/Project work Report: 05
4. Suggested Format for Fieldwork/Project work (not more than 10 pages)**:** Title page, student details, Contents, objective, step-wise work done, findings, conclusions and acknowledgements.
5. Unit tests (IE)**.**

B. Suggested Co-Curricular Activities

1. Training of students by a related field expert.
2. Assignments including technical assignments like Working with Excel & Tally
3. Seminars, Conferences, Discussions by inviting concerned institutions
4. Field Visit
5. Invited lectures and presentations on related topics

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION - A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)

SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×5 Marks)
OUT OF EIGHT Questions COVERING ALL UNITS

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four-Year B. Com. (Hons)
Domain Subject: **COMMERCE**
IV YEAR B. COM. (HONS) - Semester -V

Max Marks: 100

Course 18 A: MANAGEMENT ACCOUNTING AND PRACTICE
(Skill Enhancement Course (Elective), Credits: 04)

I. Learning Outcomes

Upon successful completion of the course the student will be able to

1. Understand the nature and scope of management accounting and differentiate management accounting, financial accounting and cost accounting.
2. Compute ratios and draw inferences
3. Analyze the performance of the organization by preparing funds flow statement and cash flow statements
4. Prepare cash budget, fixed budget and flexible budget.

II. Syllabus :*(Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)*

UNIT I: Introduction

Nature & Scope of Management Accounting – Management Accounting Principles – Significance of Management Accounting - Difference between management accounting, financial accounting and Cost accounting – Limitations of Management Accounting – Installation of Management Accounting – Tools of Management Accounting.

UNIT 2: Ratio Analysis

Meaning - Advantages and Limitation of Ratio Analysis – Types of Ratios –Profitability Ratios- Gross Profit Ratio (GPR) – Net Profit Ratio (NPR) – Operating Ratio –Solvency Ratios- Current Ratio – Liquidity Ratio – Debt-Equity Ratio-Turnover Ratios-Fixed Assets Turnover Ratio – Working Capital Turnover Ratio – Debtors Turnover Ratio – Creditors Turnover Ratio - Stock Turn Over Ratio - Return on Investment (ROI)-Calculation and interpretation.

UNIT 3: Fund Flow and Cash Flow Analysis as per AS3

Meaning and Concept of Working Capital (Fund) – Fund Flow Statement –Meaning and Uses of Funds Flow Statement – Preparation of Funds Flow Statement. Cash Flow Statement – Meaning and Uses of Cash Flow Statement – Preparation of Cash Flow Statement – Difference between Cash Flow Statement and Funds flow Statement.

UNIT 4: Budgeting and Budgetary Control

Meaning of Budget – Forecast and Budget - Elements of Budget – Features – objectives and budget procedure -– Classification of Budgets - Meaning of Control – Meaning of Budgetary control – objectives of Budgetary control system – Advantages and Limitations of Budgetary control system. Prepare cash budget, fixed budget and flexible budget.

UNIT 5: Management Reporting:

Reports - Meaning –- Modes of Reporting – Requisites of a good report — Kinds of Reports – General formats of Reports - Need for Management Reporting- financial reporting Vs. Management Reporting - Strategies for Writing Effective Reporting.

III. References

1. Management Accounting and financial control S.N. Maheswari, Sultan Chand and Sons.
2. Principles of Management Accounting by Manmohan & Goyal, Publisher: PHI Learning
3. Cost and Management Accounting by SP Jain and KL Narang
4. Introduction to Management Accounting – Horn green and Sundlem
Publisher: PHI Learning
5. Cost and Management Accounting by M.N. Arora, Vikas Publishing House PVT ltd.,
6. Management Accounting: Text, Problems & Cases by Khan & Jain, Tata McGraw Hill (TMH)

Web Sources: Web sources suggested by the concerned teacher and college librarian including reading material.

IV. Co-Curricular Activities:

A Mandatory: (*student training by teacher in related real time field skills: total 10 hours)*

1.Teachers: Teacher shall provide students with financial data relating to business organizations and train them (using actual field material)to present such data in a more meaningful manner to facilitate managerial decision making, preparation of various budgets, forecast, analyze, interpret and present such information in different reporting forms.

2. Student: Students shall visit any local company and collect their financial data or from web sources. Differentiate management accounting, financial accounting and cost accounting. Extract the Financial data of any company and Compute Ratios and draw inferences, prepare Cash budgets, Fixed and flexible budgets and submit a brief report after analyzing such data.

3. Max marks for Fieldwork/Project work Report: 05.

4. Suggested Format for Fieldwork/Project work (not more than 10 pages): Title page, student details, contents, objective, step-wise work done, findings, conclusions and acknowledgements.

5. Unit tests (IE).

B. Suggested Co-Curricular Activities

1. Organize short term training on specific technical skills in collaboration with Computer Department or skill training institution (Government or Non-Government Organization).
2. Seminars/Conference/ Workshops on management accountant profession, skills required for Management accountant Professional Development, integration of technical and analytical s kills for effective job performance, Ethical behavior of management accountant.
3. On job work with ICMA professional duration of work be decided on the basis of feasibility and opportunity.
4. Interaction with Area Specific Experts.

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)
OUT OF EIGHT COVERING ALL UNITS

SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×5 Marks)
OUT OF EIGHT Questions COVERING ALL UNITS

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four-Year B. Com. (Hons)
Domain Subject: COMMERCE
IV YEAR B. COM. (HONS) - Semester -V

Max Marks: 100

Course19 A: COST CONTROL TECHNIQUES
(Skill Enhancement Course (Elective) 4 credits)

I. Learning Outcomes

Up on completion of the course the student will be able to

1. Differentiate cost control, cost reduction concepts and identify effective techniques.
2. Allocate overheads on the basis of Activity Based Costing.
3: Evaluate techniques of cost audit and rules for cost record.
4: Appraise the application of marginal costing techniques to evaluate performances, fix selling price, make or buy decisions.

II. Syllabus: (Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)

Unit 1: Introduction-Nature and Scope

Introduction**:** Meaning of Cost Control – Cost Control Techniques – Requisites of effective Cost Control System – Cost Reduction – meaning – essentials for an effective cost Reduction Program – Scope of cost reduction - Difference between Cost Control and Cost Reduction –Meaning of cost audit – Types of Cost Audit – Auditing techniques.

Unit 2: **Activity Based Costing**

Concept of ABC – Characteristics of ABC – Categories of ABC – Allocation of Overheads under ABC – Cost Reduction under ABC – advantages of implementing ABC –Application on overhead allocation on the basis of ABC-

Unit 3: **Cost Volume Profit Analysis (CVP Analysis)**

Applications of Marginal Costing – profit planning – Evaluation of Performance-fixing selling price – Key Factor –Make or Buy decision – Accept or Reject - closing down or suspending activities –

Unit 4: **Standard Costing and Variance Analysis**

Concept of Standard Cost and Standard Costing – Advantages and limitations – analysis of variances-importance of Variance Analysis - computation and application of variances relating to material and labour.

Unit 5: Application of Modern Techniques

Kaizen Costing – Introduction – objectives – scope –Principles – 5 S (Sort, Set in Order, Shine, Standardize, and Sustain) in Kaizen Costing– Advantages and Disadvantages of Kaizen Costing. Learning Curve Analysis-concept and Application.

III. References

1. Cost and Management Accounting by SP Jain and KL Narang.
2. Cost Accounting by M.C. Shukla, T. S. Grewal & Dr M. P. Gupta, S. Chand and Company Private Limited, New Delhi

3. Cost Accounting: Principles & Practice Bookby M. N. Arora, Vikas Publishing House Private Limited.

4. Advanced Cost Accounting: JK Mitra, New Age International

5. Advanced Cost Accounting: SN Maheswari, S. Chand and Company Private Limited, New Delhi.

Web Sources: Web sources suggested by the concerned teacher and college librarian including reading material**.**

IV. Co-Curricular Activities:

A. Mandatory (*student training by teacher in related real time field skills: total 10 hours)*

1. **For Teachers:** Teacher should train students (using actual field material) in classroom/field for not less than10 hours on techniques relating to determine fixed Costs, variable costs based on the data of concerned firm, to identify and analyze of cost variances and to prepare budgeting reports of business/industry houses.

2. **Students:** Students should develop skills by adopting techniques on differences between cost controls and cost reduction, allocation of overheads on the basis of Activity Based Costing. Should visit any business and learn the methods and techniques of ascertaining costs of various products using with same material, machine and money under same management (For example, Dairy, Sweet, Leather products etc.) and identify the reasons for variances in estimated and actual cost and submit a report in the given format not exceeding 10 pages to the teacher

3. Max marks for Fieldwork/Project work Report: 05.

4. Suggested Format for Fieldwork/Project work (not more than 10 pages): Title page, student details, contents, objective, step-wise work done, findings, conclusions and acknowledgements.

5. Unit tests (IE).

B. Suggested Co-Curricular Activities

1. Organize short term training on specific technical skills in collaboration with Computer Department or skill training institution (Government or Non-Government Organization). Like Zoho, Fresh book, MS Excel….

2. Seminars/Conference/ Workshops on Cost accountant profession, skills required for cost accountant Professional Development, integration of technical and analytical skills for effective job performance, Ethical behaviour of management accountant.

3. Real time work experience with ICMA professional duration of work be decided on the basis of feasibility and opportunity.

4. Arrange for Interaction with Area Specific Experts.

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION - A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)

OUT OFN EGHIT COVERING ALL UNITS

SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×10 Marks)

OUT OF EGHITCOVERING ALL UNITS

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four-year B.Com. (Hons)
Domain Subject: **COMMERCE**
IV Year B. Com. (Hons) – Semester – V

Max Marks: 100

Course-20 A: STOCK MARKETS
(Skill Enhancement Course (Elective), 4 Credits)

I. Learning Outcomes:

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

1. Expose to theory and functions of the Share Market in Financial Sector as job careers
2. Study the functioning of capital markets and create awareness among the public
3. Acquire knowledge on operations of Share Market and Research skills
4. Involve in activities of Mutual Funds and stock market firms
5. Enhance their skills by practicing in preparation of accounting statements

II. Syllabus: (Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)

UNIT 1: Introduction, Nature, Scope and basics of stock market

Introduction of Investments-Need of Investment-Short and Long Term investment- Money market Vs Capital Market-Primary Market-Secondary Market-Depositories-Buy Back Shares-Forward Contract and Future Contract- Types of Investors- Speculators, Hedgers, Arbitragers.

UNIT 2: Capital Markets

Definition-Participants of Capital Market Participants-Primary Market issues of Equity Shares and Preference Shares and Debentures its types Mutual Funds –Secondary Market-/Stock Exchange-National Stock Exchange of India-Over the Counter Exchange of India –Qualified Individual/Institutional Buyers -Under writers.

UNIT 3. - Financial Intermediaries

Depositories- -Buy Back of Shares-- Forward Contract and Future Contract- differences – Participants in Future Contract- Clearing of Mechanism.

UNIT 4. Stock Indices

Index and its types-SENSEX- Calculation Methodology-Types of Clearing Members.

UNIT 5. –Regulatory Mechanism

Security and Exchange Board of India (SEBI)-Powers, functions,-Over The Counter Exchange (OTCE) of India-Functions and Mechanism.

III. References:

1. I.M.Pandey. ,Financial Management, Vikas Publishing House
2. Prasanna Chandra, Fincial Management TaTa Mc Graw Hill
3. Bhole.L.M. Financial Markets and Institutions, Tata McGraw Hill Publishing House
4. Khan MY,Jain PK, Financial Management, Tata McGraw Hill
5. Kishore Ravi.M., Financial Management, Taxman Publication

6. *Web resources suggested by the Teacher concerned and the College Librarian including reading material*

IV Co-Curricular Activities:

A. Mandatory *(student training by teacher in real time field skills: 10 hours)*:

1. **For Teachers: Training** of students by the teacher(using actual field material) in classroom and field for not less than 10 hours on techniques in valuation of shares of selected companies, preparation of documents, identification of local individuals / institutions who are involved in share markets. Listing out Local Money Market institutions, Identifying the investors and their experience in operational activities
   Analysis of various companies Financial Statements and interpretations
2. **For Students:** Students shall **i**ndividually study the work of stock market professionals and agencies and make observations. Their observations shall be written as the Fieldwork/Project work Report in the given format not exceeding 10 pages and submit to the teacher.
3. Max marks for Fieldwork/Project work Report: 05.
4. Suggested Format for Fieldwork/Project work (not more than 10 pages**):** Title page, student details, contents, objectives, step-wise work done, findings, conclusions and acknowledgements.
5. Unit tests (IE).

B. **Suggested Co-Curricular Activities**

1. Training of students by a related field expert.
2. Assignments (including technical assignments like identifying the investors and their activities in share markets
3. Seminars, Conferences, discussions by inviting concerned institutions
4. Visits to local Investment Institutions ,offices,
5. Invited lectures and presentations on related topics by field experts.

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION - A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)
Out of Eight covering All units

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SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×10 Marks)
Out of Eight covering All units

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A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2020-21

Course Code:

Four-year B.Com. (Hons)
Domain Subject: **COMMERCE**
IV Year B. Com. (Hons) – Semester – V

Max Marks: 100

Course 21 A: STOCK MARKETS ANALYSIS
(Skill Enhancement Course (Elective) 4 credits)

II. Learning Outcomes:

By the completion of the course, the students are able to

1. Expose to theory and functions of the monetary and Financial Sector as job careers
2. Study the functioning of local Capital markets and
3. Create awareness among the public by giving reporting after analysis
4. Acquire knowledge on operations of Share Market and Research skills
5. Enhance their skills by involving activities of Share Market analysis

II. Syllabus: Total 75hrs (Teaching 60, Training10, Others 05 including IE etc.)

UNIT 1: Introduction, Nature, Scope and basics of stock market analysis

Introduction of Investments- Need of Security Analysis-Types of analysis-Fundamental Analysis, Technical Analysis, Quantity Analysis.

UNIT 2:Fundamental Analysis-Based on Company's Records and Performance-EPS Ratio-Price to Sales Ration-P/Earnings Ratio, P/Equity Ratio, ROI,D/P Ratio- Intrinsic Value-

UNIT 3. **–Technical Analysis-** Based on Share Price Movement and Market Trends-Bullish Pattern-Bearish pattern

UNIT 4**-Quantity Analysis:** Based on data for special Research purpose (Descriptive, Correlation, Comparative and Experimental) by preparing questionnaire, observation, focus groups and interviews – Dow Theory

UNIT 5. **–Mutual Funds**

Importance and the role of Mutual Fund –Types of Mutual Funds-Various schemes in India-Growth Fund, Income Fund, Growth and Income Fund, Tax planning schemes ,other categories, Asset Management Mutual Funds-its method of analysis's

III. References:

1. Khan.M.Y. Financial Management, Vikas Publishing House
2. Bhole.L.M. Financial Markets and Institutions, Tata McGraw Hill Publishing House
3. Prasanna Chandra,Investment Analysis and Portfolio Management, Tata McGraw Hill
4. DamodharanAswath, Valuation: Security Analysis for Investment and corporate Finance.,Johnwiely, Newyork
5. Francis.J.C., Investment Analysis and Management, Tata Mc Graw Hill

6 Web resources suggested by the Teacher concerned and the College Librarian including reading material

IV Co-Curricular Activities:

B. Mandatory: *(student training by teacher in real time field skills: 10 hours)*

1. For Teachers: Training of students by the teacher (using actual field material)in classroom and field for not less than 10 hours on Security Markets analysis, preparation of documents and Analysis of Shares and debentures, Fundamental Analysis of various companies Financial Statements and interpretations, Technical Analysis of Various Financial Statements, Quantity Analysis of various companies Financial statements and interpretations, Analysis of Mutual fund operations and their performances

Case Studies of various companies' performances based on analysis of their securities and the success stories of investors.

2. For Students: Students shall individually study the data of selected institutions and their performance by analyzing the statements learning from practical experiences from Charted Accountants and Cost Accountants. They shall record their observations in a hand written Fieldwork/Project work report not exceeding 10 pages in the given format and submit to the teacher.

3. Max marks for Fieldwork/Project work Report: 05**.**
4. Suggested Format for Fieldwork/Project work Report **(**not more than 10 pages): Title page, student details, contents, objective, step-wise work done, findings, conclusions and acknowledgements.
5. Unit tests (IE).

B. **Suggested Co-Curricular Activities**

1. Training of students by a related field expert.
2. Assignments (including technical assignments like identifying sources of local financial institutions,
3. Seminars, Conferences, discussions by inviting concerned institutions
4. Visits to local Financial Institutions like HDFC securities, ICICI Direct Securities Reliance Securities etc.
5. Invited lectures and presentations on related topics by field experts.

V. Suggested Question Paper Pattern:

Max. Marks 75 Time: 3 hrs

SECTION - A (Total 25 marks)
Answer any FIVE Questions (5×5 Marks)

OUT OF EIGHT COVERING ALL UNITS

SECTION - B (Total 50 marks)
Answer any FIVE Questions (5×10 Marks)

OUT OF EIGHT UNITS COVERING ALL UNITS

ANDHRAPRADESHSTATECOUNCILOFHIGHEREDUCATION
(A Statutory body of the Government of Andhra Pradesh)

REVISED UG SYLLABUS UNDER CBCS
(Implemented from Academic Year - 2020-21)
PROGRAMME: FOUR YEAR B.A./B.Com (Hons)

Domain Subject**: Computer Applications for Arts/Commerce**
Skill Enhancement Courses (SECs) for Semester V, from 2022-23 *(Syllabus/Curriculum)*

Pair Options of SECs for Semester–V
(To choose One pair from the Four alternate pairs of SECs)

Univ. Code	Course NO. 6&7	Name of Course	Hrs. / Week	Max Marks IE	Max Marks EE	Credits
	6A	Big data Analytics using R	5	25	75	4
	7A	Data Science using Python	5	25	75	4
		OR				
	6B	Mobile application development	5	25	75	4
	7B	Cyber security and malware analysis	5	25	75	4
		OR				
	6C	E– commerce application development	5	25	75	4
	7C	Real time governance system (RTGS)	5	25	75	4
		OR				
	6D	Multimedia Tools and Applications	5	25	75	4
	7D	Digital imaging	5	25	75	4

Note-1: For Semester–V, for the domain subject Computer Applications, any one of the above four pairs of SECs shall be chosen as courses 6 and 7, i.e., 6A & 7A or 6B & 7B or 6C& 7C or 6D & 7D.The pair shall not be broken (ABCD allotment is random, not on any priority basis).

Note-2: *One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate practical skills related to the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.*

Note-3: *Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per subject/course.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Subject: **Computer Applications for Arts/Commerce**
Four year B.A. /B.Com. (Hons) Semester –V (from 2022-23)

Course Code: Max Marks: 100

Course-**6A: BIGDATA ANALYTICS USING R**
(Skill Enhancement Course (Elective), 4 credits)

I. **Learning Outcomes**:

Upon successful completion of the course, a student will be able to:

1. Understand data and classification of digital data.
2. Understand Big Data Analytics.
3. Load data in to R.
4. Organize data in the form of R objects and manipulate them as needed.
5. Perform analytics using R programming.

II. Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit – 1: Introduction to Big data (12 h)

Data, classification Of Digital Data--structured, unstructured, semi-structured data, characteristics of data, evaluation of big data, definition and challenges of big data , what is big data and why to use big data ?, business intelligence Vs big data.

Unit – 2: Big data Analytics (10 h)

What is and isn't big data analytics? Why hype around big data analytics? Classification of analytics, top challenges facing big data, importance of big data analytics, technologies needed to meet challenges of big data.

Unit – 3: Introduction to R and getting started with R **(**13h)

What is R? Why R? , advantages of R over other programming languages, Data types in R-logical, numeric, integer, character, double, complex, raw, coercion, ls() command, expressions, variables and functions, control structures, Array, Matrix, Vectors, R packages.

Unit – 4: Exploring data in R (13h)

Data frames-data frame access, ordering data frames, R functions for data frames dim(), nrow(), ncol(), str(), summary(), names(), head(), tail(), edit() .Load data frames—reading from .CSV files, sub setting data frames, reading from tab separated value files, reading from tables.

Unit – 5: Data Visualization using R (12h)

Reading and getting data into R (External Data): XML files, Web Data, JSON files, Databases, Excel files.

Working with R Charts and Graphs: Histograms, Bar Charts, Line Graphs, Scatterplots, Pie Charts

BOOKS

1. Seema Acharya , Subhashini Chellappan --- Big Data And Analytics second edition, Wiley
2. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.
3. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj kamal,
   Preeti Saxena, McGraw Hill, 2018.
4. Big Data, Big Analytics: Emerging Business intelligence and Analytic trends for Today's
   Business, Michael Minelli, Michelle Chambers, and Ambiga Dhiraj, John Wiley & Sons,
   2013

Reference Books:

1. An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics. W. N. Venables, D.M. Smith and the R Development Core Team

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups a steams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

B. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports.
5. Observation of practical skills,
6. Individual and group project reports like “Creating Text Editor in C”.
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Course-6A: **Big Data Analytics Using R---- Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Create a vector in R and perform operations on it.
2. Create integer, complex, logical, character data type objects in R and print their values and their class using print and class functions.
3. Write code in R to to demonstrate sum(), min(), max() and seq() functions.
4. Write code in R to manipulate text in R using grep(), toupper(), tolower() and substr() functions.
5. Create data frame in R and perform operations on it.
6. Import data into R from text and excel files using read.table () and read.csv () functions.
7. Write code in R to find out whether number is prime or not.
8. Print numbers from 1 to 100 using while loop and for loop in R.
9. Write a program to import data from csv file and print the data on the console.
10. Write a program to demonstrate histogram in R.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned Faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons)

Course Code:

Subject: **Computer Applications for Arts/Commerce**
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)

Max Marks: 100

Course**-7A: DATA SCIENCE USING PYTHON**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Understand basic concepts of data science
2. Understand why python is a useful scripting language for developers.
3. Use standard programming constructs like selection and repetition.
4. Use aggregated data (list, tuple, and dictionary).
5. Implement functions and modules.

II. Syllabus :(Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit – 1: Introduction to data science (12h)

Data science and its importance, advantages of data science, the process of data science, Responsibilities of a data scientist, qualifications of data scientists, would you be a good data scientist, why to use python for data science.

Unit – 2: Introduction to python (14h)

What is python , features of python, history of python, writing and executing the python program, basic syntax, variables, keywords, data types ,operators ,indentation, Conditional statements-if, if-else, nested if-else, looping statements-for, while, break, continue, pass

Unit – 3: Control structures and strings (10h)

Strings - definition, accessing, slicing and basic operations

Lists - introduction, accessing list, operations, functions and methods,

Tuples - introduction, accessing tuple

Dictionaries - introduction, accessing values in dictionaries

Unit – 4: Functions and modules (13h)

Functions - defining a function, calling a function, types of functions, function arguments, local and global variables, lambda and recursive functions, Modules- math and random

Unit-5: Classes & Objects **(11h)**

Classes and Objects, Class method and self-argument, class variables and object variables, public and private data members, private methods, built-in class attributes, static methods.

Reference Books:

1. Steven cooper--- Data Science from Scratch, Kindle edition
2. Reemathareja—Python Programming using problem solving approach, Oxford Publication

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

C. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups a steams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

D. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

11. The oral and written examinations (Scheduled and surprise tests),
12. Closed-book and open-book tests,
13. Problem-solving exercises,
14. Practical assignments and laboratory reports.
15. Observation of practical skills,
16. Individual and group project reports like "Creating Text Editor in C".
17. Efficient delivery using seminar presentations,
18. Viva voce interviews.
19. Computerized adaptive testing, literature surveys and evaluations,
20. Peers and self-assessment, outputs form individual and collaborative work

Course-7A**: Data Science Using Python; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Python Program to Find the Square Root
2. Python Program to Swap Two Variables
3. Python Program to Generate a Random Number
4. Python Program to Check if a Number is Odd or Even
5. Python Program to Find the Largest Among Three Numbers
6. Python Program to Check Prime Number
7. Python Program to Display the multiplication Table
8. Python Program to Print the Fibonacci sequence
9. Python Program to Find the Sum of Natural Numbers
10. Python Program to Find Factorial of Number Using Recursion
11. Python Program to work with string methods.
12. Python Program to create a dictionary and print its content.
13. Python Program to create class and objects.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned Faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons)

Course Code:

Subject: **Computer Applications for Arts/Commerce**
Four year B.A./B.Com.(Hons) Semester –V (from 2022-23)

Max Marks: 100

Course-**6B: MOBILE APPLICATION DEVELOPMENT**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Identify basic terms ,tools and software related to android systems
2. Describe components of IDE, understand features of android development tools
3. Describe the layouts and controls
4. Explain the significance of displays using the given view
5. Explain the features of services and able to publish android Application
6. Developing interesting Android applications using MIT App Inventor

Unit-1:(Total hours: 75 including Theory, Practical, Training, Unit tests etc.)
10 Hrs

1.1 Introduction to Android ,open headset alliance, Android Ecosystem
1.2 Need of Android
1.3 Features of Android
1.4 Tools and software required for developing an Application

Unit-2: **13Hrs**

2.1 operating system, java JDK, Android SDK
2.2 Android development tools
2.3 Android virtual devices
2.4 steps to install and configure Android studio and sdk
2.5 Android activities

Unit-3: **14Hrs**

3.1 control flow, directory structure
3.2 components of a screen
3.3 fundamental UI design
3.4 linear layout, absolute layout , table layout
3.5 text view
3.6 edit text
3.7 button, image button, radio button
3.8 radio group, check box, and progress bar
3.9 list view, grid view, image view, scroll view

3.10 time and date picker
3.11 toast

Unit-4: **10Hrs**

4.1 android platform services
4.2 Android system Architecture
4.3 Android Security model

Unit-5 13Hrs.

5.1 Introduction of MIT App Inventor
5.2 Application Coding
5.3Programming Basics & Dialog
5.4 Audio& Video
5.5 File

Text Books:

1. Erik Hellman, "Android Programming – Pushing the Limits", 1st Edition, Wiley India Pvt Ltd, 2014.
2. App Inventor: create your own Android apps by Wolber, David (David Wayne)

Reference Books:

1. Dawn Griffiths and David Griffiths, "Head First Android Development", 1st Edition, O'Reilly SPD Publishers, 2015.
2. J F DiMarzio, "Beginning Android Programming with Android Studio", 4th Edition, Wiley India Pvt Ltd, 2016. ISBN-13: 978-8126565580
3. Anubhav Pradhan, Anil V Deshpande, " Composing Mobile Apps" using Android, Wiley 2014, ISBN: 978-81-265-4660-2
4. Android Online Developers Guide
5. http://developer.android.com/reference/ Udacity: Developing Android
6. Apps- Fundamentals
7. https://www.udacity.com/course/developing-android-appsfundamentals--ud853-nd
8. http://www.appinventor.mit.edu/

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

E. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time

problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

General

a. Group Discussion
b. Try to solve MCQ's available online.
c. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports.
5. Observation of practical skills,
6. Efficient delivery using seminar presentations,
7. Viva voce interviews.
8. Computerized adaptive testing, literature surveys and evaluations,
9. Peers and self-assessment, outputs form individual and collaborative work

Course-6B**: Mobile Application Development: Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Outcomes:

1. Understand the android platform
2. Design and implementation of various mobile applications

Experiments:

1. Demonstrate mobile technologies and devices
2. Demonstrate Android platform and applications overview
3. Working with texts , shapes, buttons and lists
4. Develop a calculator application
5. Implement an application that creates a alarm clock

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A./B.Com.(Hons) (Hons) Semester –V (from 2022-23)
Course Code: Max Marks: 100
Domain Subject: **Computer Applications for Arts/Commerce**
IV Year B. Sc./B.Com (Hons) – Semester – V
Course-**7B**: **CYBER SECURITY AND MALWARE ANALYSIS**
(Skill Enhancement Course (Elective), 4 credits)

COURSE OUTCOMES:
Upon successful completion of this course, students should have the knowledge and skills to

1. Understand the computer networks, networking tools and cyber security
2. Learn about NIST Cyber Security Framework
3. Understand the OWASP Vulnerabilities
4. Implement various Malware analysis tools
5. Understand about Information Technology act 2000

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT 1: Introduction to Networks & cyber security 14hrs

- Computer Network Basics
- Computer network types
- OSI Reference model
- TCP/IP Protocol suite
- Difference between OSI and TCP/IP
- What is cyber, cyber-crime and cyber-security
- All Layer wise attacks
- Networking devices: router, bridge, switch, server, firewall
- How to configure: router
- How to create LAN

UNIT 2: NIST Cyber security framework 12hrs

- Introduction to the components of the framework
- Cyber security Framework Tiers
- What is NIST Cyber security framework
- Features of NIST Cyber security framework
- Functions of NIST Cyber security framework
- Turn the NIST Cyber security Framework into Reality/ implementing the framework

UNIT 3: OWASP **12hrs**

- What is OWASP?
- OWASP Top 10 Vulnerabilities
  - ❖ Injection
  - ❖ Broken Authentication
  - ❖ Sensitive Data Exposure
  - ❖ XML External Entities (XXE)
  - ❖ Broken Access Control
  - ❖ Security Misconfiguration
  - ❖ Cross-Site Scripting (XSS)
  - ❖ Insecure Deserialization
  - ❖ Using Components with Known Vulnerabilities
  - ❖ Insufficient Logging and Monitoring
- Web application firewall

UNIT 4: MALWARE ANALYSIS **12hrs**

- What is malware
- Types of malware
  - ❖ Key loggers
  - ❖ Trojans
  - ❖ Ran some ware
  - ❖ Rootkits
- Antivirus
- Firewalls
- Malware analysis
  - ❖ VM ware
  - ❖ How to use sandbox
  - ❖ Process explorer
  - ❖ Process monitor

UNIT 5: CYBER SECURITY: Legal Perspectives **10hrs**

- Cybercrime and the legal landscape around the world
- Indian IT ACT 2000 --Cybercrime and Punishments
- Challenges to Indian law and cybercrime scenario in India

Textbooks:

1. Computer Networks | Fifth Edition | By Pearson (6th Edition)|Tanenbaum, Feamster & Wetherill
2. Computer Networking | A Top-Down Approach | Sixth Edition | By Pearson | Kurose James F. Ross Keith W.
3. Cyber Security by Sunit Belapure, Nina Godbole|Wiley Publications
4. TCP/IP Protocol Suite |Mcgraw-hill| Forouzan|Fourth Edition

Website References:

- https://csrc.nist.gov/Projects/cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-guide
- https://owasp.org/www-project-top-ten/
- https://owasp.org/www-project-juice-shop/

Co-Curricular Activities:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

B. General

1. Group Discussion
2. Try to solve MCQ's available online.

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Practical assignments and laboratory reports,
4. Observation of practical skills,
5. Individual and group project reports.
6. Efficient delivery using seminar presentations,
7. Viva-Voce interviews.
8. Computerized adaptive testing, literature surveys and evaluations,
9. Peers and self-assessment, outputs form individual and collaborative work

Course-7B: Cyber Security and Malware Analysis; Lab (Practical) Syllabus (15 Hrs.)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Experiments:

1. Configure a LAN by using a switch
2. Configure a LAN by using Router
3. Perform the packet sniffing mechanism by download the “wire shark” tool and extract the packets
4. Perform an SQL Injection attack and its preventive measure to avoid Injection attack

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)
Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course-**6C**: **E– COMMERCE APPLICATION DEVELOPMENT**

(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.
2. To understand the factors needed in order to be a successful in ecommerce
3. To gain the skills to bring together knowledge gathered about the different components of building a web presence
4. To critically think about problems and issues that might pop up during the establishment of the web presence
5. To apply Word Press as a content management system (CMS), Plan their website by choosing colour schemes, fonts, layouts, and more

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit-1: **(10h)**

1.1 Introduction to E– commerce:
1.2 Meaning and concept – E– commerce
1.3 E– commerce v/s Traditional Commerce
1.4 E– Business & E– Commerce – History of E– Commerce
1.5 EDI – Importance, features & benefits of E– Commerce
1.6 Impacts, Challenges & Limitations of E– Commerce

Unit-2: **(12h)**

2.1 Business models of E – Commerce: Business to Business
2.1.2 Business to customers
2.1.3Customers to Customers
2.1.4 Business to Government
2.1.5 Business to Employee
2.2 Influencing factors of successful E– Commerce
2.3 Architectural framework of Electronic Commerce
2.4 Web based E Commerce Architecture.
2.5 Internet Commerce

Unit-3: **(12h)**

3.1 Electronic data Interchange
3.2 EDI Technology
3.3 EDl- Communications

3.4 EDI Agreements
3.5 E– Commerce payment system.
3.6 Digital Economy

Unit -4: **(13h)**

4.1 A Page on the web - HTML Basics
4.2 Client Side scripting -JAVA SCRIPT basics
4.3 Server side Scripting- PHP basics.

Unit-5: **(13h)**

5.1 Logging in to Your Word press Site
5.2 word press dash board
5.3 creating your first post
5.4 adding photos and images
5.5 creating hyper link
5.6 adding categories and tags

Textbooks:

1. Turban, Rainer, and Potter, Introduction to E-Commerce, second edition, 2003
2. H. M. Deitel, P. J. Deitel and T. R. Nieto, E-Business and E-Commerce: How to Programe, Prentice hall, 2001
3. WordPress All-in-One For Dummies -written by Lisa Sabin Wilson with contributions by Michael Torbert, Andrea Rennick, Cory Miller, and Kevin Palmer

Reference Books:

1. Elias. M. Awad, “Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. Ravi Kalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley
3. https://w3cschools.com
4. David Whiteley, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill.

RECOMMENDED CO-CURRICULAR ACTIVITIES: (Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

B. General

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Efficient delivery using seminar presentations,
4. Computerized adaptive testing, literature surveys and evaluations,
5. Peers and self-assessment, outputs form individual and collaborative work

Course-6C: E– Commerce Application Development; Lab (Practical) Syllabus (15 Hrs)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Case study of e –commerce

1. Home page design of web site
2. Validation using PHP
3. Implement Catalogue design
4. Implement Access control mechanism(eg: username and password)
5. Case study on business model of online E-Commerce store

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four year B.A. /B.Com. (Hons)Semester –V (from 2022-23)

Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course**-7C: REAL TIME GOVERNANCE SYSTEM (RTGS)**

(Skill Enhancement Course (Elective), 4 credits)

COURSE OUTCOMES:

Upon successful completion of this course, students will have the knowledge and skills to

1. Understand the terms regarding Governance, E-Governance and RTGS
2. Learn about E-Governance Infrastructure
3. Understand the E-Governance implementation in several countries
4. Understand the E-Governance implementation in several Indian states
5. Understand the applications of RTG

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT 1: Introduction to E-Governance 12hrs

- Government, Governance and Good Governance
- What is E-Governance or Electronic Governance?
- E-Government and E-Governance: A conceptual Analysis
    - ❖ Objectives
    - ❖ Components
    - ❖ application domains
    - ❖ four phase model
    - ❖ implementing E-Governance
    - ❖ issues while implementing E-Governance
    - ❖ Opportunities and challenges
- Types of E-Governance
- What is Real-Time Governance (RTG)
- Real Time Governance Society (RTGS)

UNIT 2: E-Governance Infrastructure 14hrs

- Data Systems infrastructure
    - ❖ Executive Information Systems
    - ❖ Management Information Systems
    - ❖ Knowledge Management Systems

- ❖ Transaction Processing Systems
- Legal Infrastructural preparedness
  - ❖ IT Act 2000
  - ❖ Challenges to Indian law and cybercrime scenario in India
  - ❖ Amendments of the Indian IT Act
- Institutional Infrastructural preparedness
  - ❖ Internet
  - ❖ intranet
  - ❖ extranet
- Human Infrastructural preparedness
  - ❖ Top-level management
  - ❖ Middle-level management
  - ❖ Low-level management
- Technological Infrastructural preparedness
  - ❖ Information and communications technology
  - ❖ Data Warehousing
  - ❖ Cloud Computing

UNIT 3: E-Governance: Country Experience **12hrs**

- INDIA
- US
- UK
- AUSTRALIA
- DUBAI

UNIT 4: E-Governance in India **12hrs**

- Andhra Pradesh
- Karnataka
- Kerala
- Uttar Pradesh
- Madhya Pradesh
- West Bengal
- Gujarat

UNIT 5: Latest Applications in Real Time Governance **10hrs**

- Agriculture
- Rural Development
- Health care
- Education
- Tourism
- Commerce and Trade

Textbooks:

1. E-Governance: concepts and case studies| CSR Prabhu| Prentice-Hall|
2. E-Governance| Niranjanpani, Sanhari Mishra | Himalaya Publishing House

Website References:

1. http://www.egov4dev.org/success/case/
2. https://vikaspedia.in/e-governance/resources-for-vles
3. https://altametrics.com/en/information-systems/information-system-types.html
4. https://core.ap.gov.in/CMDashBoard/Index.aspx

Co-Curricular Activities:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

B. General

1. Group Discussion
2. Try to solve MCQ's available online.

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

10. The oral and written examinations (Scheduled and surprise tests),
11. Closed-book and open-book tests,
12. Practical assignments and laboratory reports,
13. Observation of practical skills,
14. Individual and group project reports.
15. Efficient delivery using seminar presentations,
16. Viva-Voce interviews.
17. Computerized adaptive testing, literature surveys and evaluations,
18. Peers and self-assessment, outputs form individual and collaborative work

Course-7C: Real Time Governance System (RTGS); Lab (Practical) Syllabus (15 Hrs)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Note: Here the students have to gather the details in computer lab by surfing several websites & Google Search Engines and submit the report to the class/lab instructor before leaving the lab.

Week 1: Write a Report on the role of Nationwide Networking in E-Governance

Week 2: Write a Report on SETU: A Citizen Facilitation Centre in India, regarding it's successful or failure journey.

Week 3: Write a Report on National Cyber Security Policy, how it is useful to Indian citizens.

Week 4: Write a Report on mee-seva/Village Secretariat/Ward secretariat, a new paradigm in citizen services.

Week 5: Write a Report on how Andhra Pradesh is implementing RTGS in Agriculture.

Week 6: Write a Report on how Andhra Pradesh is implementing RTGS in social welfare schemes

Week 7: Write a Report on how Andhra Pradesh is implementing RTGS in waste lands, agricultural lands and house properties.

Week 8: Write a Report on Electronic Birth Registration in any one state of our country.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

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A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20

Four-year B.A. /B.Com. (Hons) Semester-V (from 2022-23)
Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course**-6D: MULTIMEDIA TOOLS AND APPLICATIONS**
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:
Upon successful completion of the course, a student will be able to:

1. Gain knowledge on the concepts related to Multimedia.
2. Understand the concepts like image data representation and colour modes.
3. Understand the different types of video signals and digital audio.
4. Know about multimedia data compression types and audio compression standards
5. Know about basic video compression techniques.

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

Unit-1: Introduction to multimedia: 12Hr

1. What is Multimedia?
2. Components of Multimedia System
3. Multimedia and Hypermedia
4. Multimedia Authoring metaphors
5. Multimedia Production
6. Multimedia Presentation
7. Some Technical Design Issues
8. Automatic Authoring

Unit-2: Image Data Representations and color models: 12Hr

1. Color science Human vision Image data types:
2. 2.Black & white images
   2.1 1-bit images (Binary image)
   2.2 8 -bit (Gray -level images)
3. Color images
   3.1 24-bit color images
   3.2 8-bit color images
4. Color models

Unit-3: Fundamental concepts in video: 12Hr

1. Types of Video Signals
   1.1 Analog Video
   1.2 Digital Video

Basics of Digital Audio:

2. What is Sound?

2.1 Digitization of Sound

2.2 Quantization and Transmission of Audio

2.2.1 Pulse code modulation

2.2.2 Differential coding of audio

2.2.3 Predictive coding

Unit-4:

Multimedia Data Compression: 13Hr

1. Introduction

1.1 Basics of Information Theory

1.2 Lossless Compression Algorithms

1.2.1 Fix-Length Coding

1.2.2 Run-length coding

1.2.4 Dictionary-based coding

1.3. Variable Length Coding

1.3.1 Huffman Coding Algorithm

Audio Compression standards:

2. Introduction

2.1 Psychoacoustics model

2.2 MPEG Audio

Unit-5: Basic Video Compression Techniques: 11Hr

1. Introduction to Video compression

2. Video compression standard H.261

3. Video compression standard MPEG-1

Text Books:

Fundamentals of Multimedia by Ze-Nian Li & Mark S. Drew. Publisher: Prentice Hall

Reference Books:

1. An introduction to digital multimedia by Savage, T. M. and Vogel, K. E. 2008.

2. Digital Multimedia by Nigel Chapman & Jenny Chapman. 2009.

Online Resources: https://ksuit342.wordpress.com/lectuers/

https://www.tutorialspoint.com/multimedia

Recommended Co-Curricular Activities (participation: total 15 weeks):

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. **General**
   1. Group Discussion
   2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Programming exercises,
4. Observation of practical skills,
5. Efficient delivery using seminar presentations,
6. Viva voce interviews.
7. Computerized adaptive testing, literature surveys and evaluations,
8. Peers and self-assessment, outputs form individual and collaborative work

Suggested Software

1) Image Editing – GIMP
2) Audio Editing – Audacity
3) Video Editing – video pad
4) NCH software tools.

Course-6D**: Multimedia Tools and Applications; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Editing images using GIMP
2. Improve the Quality of your Image in GIMP
3. Create an impressive background in GIMP
4. Applying Shadow & Highlight effects in images
5. Black& white and color photo conversion.

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four-year B.A./B.Com (Hons) Semester-V (from 2022-23)

Domain Subject: **Computer Applications for Arts/Commerce**

Course Code: Max Marks: 100

Course**-7D: DIGITAL IMAGING**

(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Gain knowledge about Types of Graphics, Types of Objects and Types of video editing tools
2. Show their skills in editing and altering photographs for through a basic understanding of the tool box.
3. Gain knowledge in using the layers.
4. Gain knowledge in using the selection tools, repair tools.
5. Gain knowledge in using selection tools, applying filters and can show their skills.

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT-I **12 Hrs**

1. Types of Graphics
    1.1 Raster vs Vector Graphics
2. Types of Objects
    2.1 Audio formats
    2.2 Video formats
    2.3 Image formats
    2.4 Text document formats
3. Types of video editing
4. Different color modes.
5. Image Scanner
    5.1 Types of Image Scanners

UNIT-II **12 Hrs**

1. What is GIMP?
2. GIMP tool box window
3. Layers Dialog
4. Tool Options Dialog
5. Image window
6. Image window menus

UNIT-III **12 Hrs**

Improving Digital Photos

1.1 Opening files

1.1.1 Rescaling saving files

1.2. Cropping

1.3. Brightening & Darkening

1.4. Rotating

1.5. Sharpening

Introduction to layers

2. What is layer?

2.1. Using layer to add text

2.2. Using move tool

2.3. Changing colors

2.4. Simple effects on layers

2.5 Performing operations on layers

2.7 Using layers to copy and paste

UNIT-IV **12 Hrs**

Drawing:

1.1 Drawing lines and curves

1.2 Changing colors and brushes

1.3 Erasing

1.4 Drawing rectangles, Circles and other shapes

1.6 Outlining and filling regions

1.7 Filling with patterns and gradients

Selection:

2.1 Working with selections

2.2 Select by color and fuzzy

2.3 Select Bezier paths

2.5 Modifying selections with selection modes

UNIT-V **12 Hrs**

Erasing and Touching Up:

1.1 Dodge and burn tool

1.3 Clone tool

1.4 Sharpening using convolve tool

1.5 Correcting Color Balance

Filters:

2.1 Filters

2.1.1 Blur

2.1.2 Enhance

2.1.3 Noise Filters

References:

Textbook: Beginning GIMP from Novice to professional by Akkana Peck,
Second Edition, Apress

Recommended Co-Curricular Activities (participation: total 15 weeks):
(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. **Measurable**
   1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
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B. **General**
   1. Group Discussion
   2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;
1. The oral and written examinations (Scheduled and surprise tests),
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6. Viva voce interviews.
7. Computerized adaptive testing, literature surveys and evaluations,
8. Peers and self-assessment, outputs form individual and collaborative work

Course-7D**: DIGITAL IMAGING; Lab (Practical) Syllabus (15 Hrs.)**

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Designing a Visiting card
2. Design Cover page of a book
3. Paper add for calling tenders
4. Design a Pamphlet
5. Brochure designing
6. Titles designing
7. Custom shapes creation
8. Image size modification
9. Background changes
10. Texture and patterns designing

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

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