A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
JAGANNAICKPUR, KAKINADA

DEPARTMENT OF COMPUTER SCIENCE

BOARD OF STUDIES OF COMPUTER APPLICATIONS

2024-2025

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
DEPARTMENT OF COMPUTER APPLICATIONS

I B.Com.(C.A.) – I Semester

FUNDAMENTALS OF COMMERCE

Course Code: BCOM24101 **No. of Hours/Week: 5**
Paper : I

Course Objectives:
The objective of this paper is to help students to acquire conceptual knowledge of the Commerce, Economy and Role of Commerce in Economic Development. To acquire Knowledge on Accounting and Taxation.

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

CO1: Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments.

CO2: Develop the skill of accounting and accounting principles.

CO3: Acquire knowledge on micro and microeconomics and factors determine demand and supply.

CO4: An Idea of Indian Tax system and various taxes levied on in India. They will acquire skills on web design and digital marketing.

CO5: Acquire skills on web design, digital marketing and utilize data analytics to predict customer behaviour.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	1	2	1	2	1	3	2	3	2
CO2	2	1	3	2	1	1	2	3	1	1
CO3	1	1	2	3	3	1	1	1	2	3
CO4	2	2	3	2	2	2	1	2	1	2
CO5	1	2	1	1	1	2	2	1	1	1
Average	1.6	1.4	2.2	1.8	1.8	1.4	1.8	1.8	1.6	1.8

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Introduction: Definition of Commerce – Role of Commerce in Economic Development - Role Commerce in Societal Development. Imports and Exports, Balance of Payments. World Trade Organization.

Unit 2: Economic Theory: Macro Economics – Meaning, Definition, Measurements of National Income, Concepts of National Income. Micro Economics – Demand and Supply. Elasticity of Demand and Supply. Classification of Markets -Perfect Competition – Characteristics – Equilibrium Price, Marginal Utility.
.

Unit 3: Accounting Principles: Meaning and Objectives Accounting, Accounting Cycle - Branches of Accounting - Financial Accounting, Cost Accounting, Management Accounting. Concepts and Conventions of Accounting – GAAP.

Unit 4: Taxation: Meaning of Tax, Taxation - Types of Tax- Income Tax, Corporate Taxation, GST, Customs & Exercise. Differences between Direct and Indirect Tax – Objectives of Tax- Concerned authorities – Central Board of Direct Taxes (CBDT) and Central Board of Excise and Customs (CBIC).

Unit 5: Computer Essentials: Web Design - Word Press Basics, Developing a Simple Website, Digital Marketing - Social Media Marketing, Content Marketing, Search Engine Optimization (SEO), E-mail Marketing. Data Analytics- Prediction of customer behavior, customized suggestions.

Text Books

1. S.P. Jain & K.L Narang, Accountancy - I Kalyani Publishers.
2. R.L. Gupta & V.K. Gupta, Principles and Practice of Accounting, Sultan Chand
3. Business Economics -S.Sankaran, Margham Publications, Chennai.

Reference Books

1. Business Economics - Kalyani Publications.
2. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann Publications.
3. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, SahityaBhavan Publications

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

I B.Com.(C.A.) – I Semester

BUSINESS ORGANISATION

Course Code: BCOM24102 **No. of Hours/Week: 5**
Paper : II

Course Objectives:

The course aims to acquire conceptual knowledge of business, formation various business organizations. To provide the knowledge on deciding plant location, plan layout and business combinations.

Course Outcomes:

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

CO1: Understand the concept and meaning, features and stages of business development and differentiate between industry, commerce and profession.

CO2: Able to evaluate the key considerations for starting a business and compare different forms of business organizations.

CO3: Identify and analyze factors influencing plant location, layout, and business size, and assess criteria for optimum size.

CO4: Understand and discuss the roles of global financial institutions like IBRD, IMF, ADB, ECB, BIS, and NDB in international finance.

CO5: Understand the evolution of computers, internet fundamentals, and ethical implications of technology.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	1	2	1	2	1	3	2	3	2
CO2	2	1	3	2	1	1	2	3	1	1
CO3	1	1	2	3	3	1	1	1	2	3
Average	1.7	1.0	2.3	2.0	2.0	1.0	2.0	2.0	2.0	2.0

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Business: Concept, Meaning, Features, Stages of development of business and importance of business. Classification of Business Activities. Meaning, Characteristics, Importance and Objectives of Business Organization.. Difference between Industry & Commerce and Business & Profession, Modern Business and their Characteristics.

Unit 2: Promotion of Business: Considerations in Establishing New Business. Qualities of a Successful Businessman. Forms of Business Organization - Sole Proprietorship, Partnership, Joint Stock Companies & Co-operatives and their Characteristics, relative merits and demerits, Difference between Private and Public Company, Concept of One Person Company.

Unit 3: Plant Location and Layout: Meaning, Importance, Factors affecting Plant Location. Plant Layout - Meaning, Objectives, Importance, Types of Layout. Factors affecting Layout. Size of Business

Unit - Criteria for Measuring the Size and Factors affecting the Size. Optimum Size and factors determining the Optimum Size.

Unit 4: Business Combination: Meaning, Characteristics, Objectives, Causes, Forms and Kinds of Business Combination. Rationalization: Meaning, Characteristics, Objectives, Principles, Merits and demerits, Difference between Rationalization and Nationalization.

Unit 5: Computer Essentials: Milestones of Computer Evolution – Computer, Block diagram, generations of computer, Internet Basics - Internet, history, Internet Service Providers, Types of Networks, IP, Domain Name Services, applications. Ethical and Social Implications - Network and security concepts- Information Assurance Fundamentals, Cryptography - Symmetric and Asymmetric, Malware, Firewalls, Fraud Techniques, privacy and data protection

Text Books

1. Gupta, C.B., "Business Organisation", Mayur Publiction, (2014).
2. Singh, B.P., Chhabra, T.N., "An Introduction to Business Organisation & Management", Kitab Mahal, (2014).
3. Sherlekar, S.A. &Sherlekar, V.S, "Modern Business Organization & Management Systems Approach Mumbai", Himalaya Publishing House, (2000).

Reference Books

1. Bhusan Y. K., "Business Organization", Sultan Chand & Sons.
2. Prakash, Jagdish, "Business Organistaton and Management", Kitab Mahal Publishers (Hindi and English)
3. Fundamentals of Computers by V. Raja Raman
4. Cyber Security Essentials by James Graham, Richard Howard, Ryan Olson

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

I B.Com.(C.A.) – II Semester

OFFICE AUTOMATION TOOLS

Course Code: OAT24202 **No. of Hours/Week: 3**

Course Objectives:

The objective of this paper is to help students to acquire knowledge on the environment of GUI in Ms-Word and its features. To introduce the fundamentals concepts of using Ms-Word and its features to make it more useful and provide hands on use of Word, Excel and PowerPoint.

Course Outcomes:

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

CO1: Understand concept of Word Processor and use its features.
CO2: Make use of advanced features of Ms-Word to make day to day usage easier.
CO3: Apply Formatting Techniques to Worksheets
CO4: Create and customize the work sheets and user advanced feature of Excel.
CO5: Make use of presentations and inserting multimedia in them.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	1	-	1	1	2	1	2	2
CO2	2	2	2	-	2	1	3	2	2	2
CO3	2	1	1	1	1	2	3	2	2	3
CO4	2	2	2	1	1	1	3	2	2	3
CO5	2	3	3	1	1	1	3	3	3	3
Average	2	2	1.8	0.6	1.2	1.2	2.8	2	2.2	2.6

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Introduction to MS Office & MS Word: MS-Word: Features of MS-Word, MS-Word Window components, working with formatted text, Shortcut keys, Formatting documents: Selecting text, Copying &moving data, Formatting characters, changing cases, Paragraph formatting ,Indents, Drop Caps ,Using format painter, Page formatting, Header & footer, Bullets & numbering, Tabs, Forming tables. Finding & replacing text, go to(F5) command, proofing text (Spell-check, Auto correct).

Case Study:
1. Create a document to write a letter to the DM&HO of the district complaining about Hygienic conditions in your area.

2. Create a document to share your experience of your recent vacation with family.

Unit 2: MS Word Advanced features: Difference between Wizard and Template - Customize the Quick Access Tool Bar – Macros: Purpose – Creating Macro – Using Macro – Storing Macro - ,Inserting pictures: From Computer, Online Pictures – Insert 3d Models - Insert Shapes – Insert Text Box – Insert Equation, Hyperlinks, Tables Insert tables Mail merging, Printing documents, Tables : Insert tables, Mathematical calculations on tables data. Insert Text Box etc.

Case Study:

1. Create a document to send a holiday intimation to all the parents at time about Dasara Vacation.
2. Create a document to create Time Table of you class using tables.

Unit 3: Introduction to MS Excel & Its features: MS-Excel: Excel Features, Spreadsheets, workbooks, creating, saving & editinga workbook, Renaming sheet, cell entries (numbers, labels, and formulas), spell check ,find and replace, Adding and deleting rows and columns Filling series, fill with drag, data sort, Formatting worksheet, Functions and its parts, Some useful Functions in Excel (SUM,AVERAGE,COUNT, MAX,MIN, IF),

Case Study:

1. Create a worksheet with you class marks displaying total, average, top marks in the class and least marks in the class.

Unit 4: Ms-Excel Advanced Features: Cell referencing (Relative, Absolute, Mixed), What-if analysis, Introduction to charts: types of charts, creation of charts, printing a chart, printing worksheet – Sort – Filters – View Menu

Case Study:

1. Prepare a chart with height and weights of you class mates in atleast 3 types of charts.
2. Demonstrate the use of Filter with the attendance data of your class.

Unit 5: Ms-PowerPoint and its Applications: MS-Power Point: Features of Power Point, Uses, components of slide, templates and wizards, using template, choosing an auto layout ,using outlines, adding sub headings, editing text, formatting text, using master slide, adding slides, changing color scheme, changing background and shading, adding header and footer, adding cliparts and auto shapes. Various presentation, Working in slide sorter view(deleting, duplicating, rearranging slides),adding transition and animations to slide show, inserting music or sound on a slide, viewing slide show ,Printing slides.

Case Study:

1. Prepare a presentation with your achievements and experiences in College

Additional Inputs:

Create and modify simple macros, Insert and configure form controls, Apply Custom Data Formats and Validation

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Computer Fundamentals–Pradeep.K.Sinha:BPBPublications.
2. Fundamentals of Computers -ReemaThareja, Oxford University Press India

References Books

1. Fundamentals of Computer – V . Rajaraman, Printice Hell of India.
2. Introduction to Computers–Peter Norton McGraw-Hill.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

I B.Com.(C.A.) - II Semester

OFFICE AUTOMATION TOOLS

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to MS Office**	2	2	24
2	**Unit – II** **MS Word Advanced Features**	2	2	24
3	**Unit – III** **Introduction to MS Excel & Its features**	2	2	24
4	**Unit – IV** **MS Excel Advanced Features**	2	1	20
5	**Unit – V** **MS Power point & Its Applications**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

MODEL QUESTION PAPER

I B.Com.(C.A.) – II Semester

OFFICE AUTOMATION TOOLS

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Identify the features of MS Word. Explain. **(CO1) (L3)**
2. Illustrate the different shortcut keys in Ms-Word. **(CO1) (L2)**
3. Discuss the purpose and process of What-If analysis in MS-Excel. **(CO4) (L4)**
4. Distinguish between Wizard and Template. **(CO2) (L4)**
5. How to insert tables in MS Word? Explain. **(CO2) (L2)**
6. Give the procedure to work with slide shorter view and explain. **(CO5) (L2)**
7. What are the functions used in MS-Excel? **(CO3) (L1)**
8. What is cell address in MS-Excel? Explain. **(CO3) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. a) Explain the role of each component in the MS-Word window. **(CO1) (L2)**

   (or)

   b) Examine the Formatting styles in MS-Word. **(CO1) (L4)**

10. a) What is Mail merge? Explain. **(CO2) (L4)**

    (or)

    b) Briefly explain the steps involved in Inserting tables and pictures. **(CO2) (L4)**

11. a) Discuss the key features of MS-Excel and their importance in data management. **(CO3) (L5)**

    (or)

    b) Summarize the different functions in MS-Excel with examples. **(CO3) (L2)**

12. a) Analyze the types of charts in MS-Excel and how they can be created and utilized. **(CO4) (L4)**

    (or)

    b) Explain the concept of cell referencing in MS-Excel. **(CO4) (L3)**

13. a) Explore the features of MS-Power Point and discuss its various applications. **(CO5) (L4)**

    (or)

    b) Determine the role of slide sorter view in detail. **(CO5) (L5)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

I B.Com.(C.A.) – II Semester

Office Automation Tools Lab

List of Experiments

Course Code: OAT24202P **No. of Hours/Week: 2**

Course Objectives:

To provide hands on exposure Microsoft Office applications Word, PowerPoint, Spreadsheet and Access databases.

Course Outcomes:

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

CO1: To perform documentation using MS Word

CO2: To enter and manipulate data in Excel

CO3: To perform presentation skills

List of Experiments

1) Design a visiting card for Managing Director of a company as per the following specification.
   - Sizeofvisitingcardis3½×2
   - Name of the company with big font
   - Phone number, Fax number and E-mail address with appropriate symbols.
   - Office and Residence address separated by a line
2) Create a table with following columns and display the result in separate cells for the following
   - Emp Name, Basic pay, DA, HRA, Total salary.
   - Sort all the employees in ascending order with the name as the key
   - Calculate the totals alary of the employee
   - Calculate the Grand total salary of the employee
   - Finding highest salary and
   - Find lowest salary
3) Prepare an advertisement to a company requiring software professional with the following
   - Attractive page border
   - Design the name of the company using WordArt
   - Use at least one clipart.
   - Give details of the company (use bullets etc)
   - Give details of the Vacancies in each category of employee's (Business manager, Software engineers, System administrators, Programmers, Data entry operators) qualification required.
4) Create a letter having following specifications
   - Name ofthecompanyonthetopofthepage2withbigfontandgoodstyle
   - Phone no, Fax no and E-mail address with symbols.
   - Main products manufactured by the company
   - Slogans if any should be specify in bold at the bottom

5) Create two pages of curriculum vitae of a graduate with the following specifications

- Table to show qualifications with proper headings
- Appropriate left and right margins
- Format ½pageusingtwo-columnapproachabout yourself
- Name on each page at the top right side
- Page no.in the footer on the right side.

6) Write a macro format documents below

- Linespacing“2”(double)
- Paragraphindentof0.1
- Justification formatting style
- Arial font andBoldof14pt-size

7) Create a letter as the main document and create10 records for the10 persons use mailmerge to create letter for selected persons among10.

8) Create an electronic spread sheet in which you enter the following decimal numbers and convert the min to octal, Hexa decimal an d binary numbers and vice-versa.

Decimal Numbers: 35,68,95,78,165,225,355,375,465

Binary Numbers: 101,1101,11101,11111,10001,11101111

9) Calculate the net pay of the employees following the conditions below

	A	B	C	D	E	F	G	H	I
1	Employee Number	Employee name	Basic Pay	DA	HRA	GPF	Gross Pay	Income tax	Net Pay
2									

DA :- 56%ofthebasicpayifBasicpayisgreaterthan20000 orelse44%.

HRA:-15%oftheBasicpaysubjecttomaximumofRs.4000.

GPF: -10%ofthebasicpay.

INCOMETAX:-10%ofbasicifBasicpayisgreaterthan20000. Find who is getting highest salary & who is get lowestsalary?

10) The ABC Company shows the sales of different product For5years.CreateBARGraph, 3D and Pie chart for the following.

A	B	C	D	E	F
S.No.	Year	Pro1	Pro2	Pro3	Pro4
1	1989	1000	800	900	1000
2	1990	800	80	500	900
3	1991	1200	190	400	800
4	1992	400	200	300	1000
5	1993	1800	400	400	1200

11) Create a suitable examination data base and find the sum of the marks (total) of each student and respective, class secured by the student.

Pass: if marks in each subject>=35

Distinction :if average>=75

First class :if average>=60but<75

Second class: if average>=50butlessthan60

Third class: if average>=35butlessthan50

Fail: if marks in any subject<35

12) Enter the following data into the sheet.

Name	Department	Salary
Anusha	Accounts	12000
Rani	Engineering	24000
Lakshmi	Accounts	9000
Purnima	Marketing	20000
Bindu	Accounts	4500
Tejaswi	Accounts	11000
Swetha	Engineering	15000
Saroja	Marketing	45000
Sunitha	Accounts	5600
Sandhya	Engineering	24000
Harika	Marketing	8000

13. Enter the following data in to the sheet.

	Raju	Rani	Mark	Rosy	Ismail	Reshma
English	76	89	43	51	76	87
2ndLang	55	85	78	61	47	33
Maths	65	82	34	58	52	65
Computers	45	91	56	72	49	56
Human Values	51	84	54	64	32	64

Apply the conditional formatting for marks

- 35 below Red
- 35 to 50 Blue
- 51 to 70 Green
- 71 to 100 Yellow

14) Create a presentation using templates.

15) Create a Custom layout or Slide Master for professional presentation.

16) Create a presentation with slide transitions and animation effects.

17) Create a table in PPT and apply graphical representation.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – III Semester

E Commerce and Web Designing

Course Code: CA23301 **No. of Hours/Week: 3**

Course Objectives:

The course aims to help learners to acquire conceptual knowledge of fundamental concept of E- commerce & Web Designing. Emphasize the importance of various E-commerce & Web Designing. Developing and implementing efficient algorithms.

Course Outcomes:

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

CO1: Understand E-Commerce websites and their functionality
CO2: Identify different types of Business
CO3: Analyze e-commerce data to make informed business decisions, including sales tracking, customer behavior analysis, and market trend identification.
CO4: Design Websites using HTML
CO5: Apply styles to the websites created using CSS

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	2	2	1	3	2	2	3
CO2	3	2	2	1	1	2	3	2	3	3
CO3	3	-	2	1	1	1	3	3	3	3
CO4	3	1	1	1	2	1	3	3	3	3
CO5	2	-	1	1	2	1	3	3	3	3
Average	2.8	1	1.4	1.2	1.6	1.2	3	2.6	2.8	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Basics And Definitions: Definition, E-Commerce with 5-C Model, Additional Terms, Business Models Related To E-Commerce, Advantages And Disadvantages, Web 2.0, Technical And Economic Challenges
Frameworks and Architectures: Actors and Stakeholders, Fundamental Sales Process AndHis 7+1 Process Steps Work, Technological Elements, Typical Applications
Case Study: Identify different E-Commerce websites and write their functionality.

Unit 2: B2C Business: B2c Basics, B2c-Business and CRM, B2c Software Systems, Customer Relationship Management (CRM)
B2B Business: B2b Basics, Differences Between B2b And B2c, B2b Software Systems, SupplyChain Management
Case Study: Identify B2B and B2C websites in Unit-I Case Study and differentiate theirfunctionality

Unit 3: Security & Compliance Management: Foundations Of Risk Management, Compliance Management, Information Security Management (Ism), Technology

Electronic Payment: Business and Money, the Payment Challenge, Payment Procedures,Receivables Management, Cyber Money

Case Study: Identify different payment methods used in purchasing of goods in Amazon,Flipkart etc.. and write their Pros and Cons of each payment method

Unit 4: Introduction to Web Programming: Introduction, creating a website, HTML tags, HTML Elements, HTML attributes, CSS Preview, History of HTML, Differences between old HTML and HTML5, how to check your HTML code

Coding Standards, Block Elements:

HTML coding conventions, Comments, HTML Elements, Should Describe Web Page Content Accurately, Content Model Categories, Block Elements, block quote Element, Whitespace Collapsing, pre Element, Phrasing Elements, Editing Elements, q and cite Elements, dfn, abbr, and time Elements, Code-Related Elements, br and wbr Elements.

Text Elements, and Character References: sup, sub, s, mark, and small Elements, strong, em, b, u, and i Elements, span Element, Character References, Web Page with Character References, and Phrasing Elements.

HTML forms: HTML form elements, input types, input attributes

Case Study: Create a web page of your department using standard HTML tags, HTML elementsand HTML attributes

Unit 5: Cascading Style Sheet (CSS): CSS Overview, CSS Rules, Types of Style sheets: Inline, Internal, External, Example with Type Selectors and the Universal Selector, CSS Syntax and Style, Class Selectors, ID Selectors, span and div Elements, Cascading, style Attribute, style Container, External CSS Files, CSS Properties, Color Properties, RGB Values for Color, Opacity Values for Color, HSL and HSLA Values for Color, Font Properties, line-height Property, Text Properties, Border Properties,Element Box, padding Property, margin Property,

Case Study: Description of your City or place with the use of CSS and compare it with previous two case studies

Text Books:

1. Introduction to E-Commerce:Combining Business And Information Technology ByMartin Kutz
2. Lallana, Quimbo, Andam, 4. Cf. Ravi Kalakota and Andrew B. Whinston, Electronic Commerce: A Manager's Guide (USA: Addison Wesley Longman, Inc., 1997), 19-20.

References:

1. Web Programming with HTML5,CSS and JavaScript, John Dean, Jones & Bartlett Learning
2. HTML & CSS: The Complete Reference, 5th Edition, Thomas. A. Powell

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DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – III Semester

E Commerce and Web Designing

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Basics And Definitions**	2	2	24
2	**Unit – II** **B2C Business**	2	2	24
3	**Unit – III** **Security & Compliance Management**	2	2	24
4	**Unit – IV** **Introduction to Web Programming**	2	1	20
5	**Unit – V** **Cascading Style Sheet**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

KAKINADA

MODEL QUESTION PAPER

II B.Com.(C.A.) – III Semester

E-COMMERCE AND WEB DESIGNING

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Write about types of E-Commerce. **(CO1) (L1)**
2. Infer a brief account on Web 2.0. **(CO1) (L2)**
3. Write about the B2B software systems. **(CO2) (L2)**
4. Explain about the supply chain management. **(CO2) (L2)**
5. What are the payment challenges involved in Electronic payment? **(CO3) (L2)**
6. Write about Information Security Management. **(CO3) (L2)**
7. Explain about the structure of HTML with a neat diagram. **(CO4) (L2)**
8. Interpret the use of inline style sheets with an illustration. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) Write the definition of E-commerce and explain briefly about 5-C model. **(CO1) (L4)**

(Or)

(b) Determine the 7 steps in the sales process? Explain. **(CO1) (L5)**

10. (a) Explain Customer Relationship Management in detail. **(CO2) (L4)**

(Or)

(b) List out the key characteristics and advantages of the B2C Model. **(CO2) (L4)**

11. (a) Explain about information security management in detail. **(CO3) (L4)**

(Or)

(b) Compare and contrast the different types of electronic payment systems. **(CO3) (L4)**

12. (a) Classify formatting tags in HTML with an example. **(CO4) (L4)**

(Or)

(b) Describe various form elements in HTM with syntax. **(CO4) (L4)**

13. (a) Explain about CSS selectors with syntax. **(CO5) (L3)**

(Or)

(b) List various types of Cascading Style Sheets. Explain. **(CO5) (L4)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – III Semester

E Commerce and Web Designing Lab

Course Code: CA23301P **No. of Hours/Week: 2**

Course Objectives:

To develop programming skills using the fundamentals of HTML and to enable effective usage CSS to design E-commerce websites

Course Outcomes:

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

CO1: Create Webpages for different scenarios

CO2: Create E-Commerce Websites with the given specifications

List of Experiments

1. Create a web page to display a hyperlink which when clicked directs you to Amazon website.
2. Create a web page to demonstrate your college name aligned with the logo of your college.
3. Create a web page to demonstrate definition lists taking various applications of ecommerce as anexample.
4. Create a web page which asks for mode of payment which includes the options: Credit card/Debit card/Online transfer (use radio buttons)
5. Create a web page which asks the user to enter his credit card details. Use textboxes, drop down buttons.
6. Create a web page to display definition list which defines the terms: B2B, B2C, C2B, C2C.
7. Create a web page which displays four buttons containing text B2B, B2C, C2B, C2C. Also whena button is clicked details about the clicked subject should appear on a separate page.
8. Create a web page to display the text “Digital Marketing” which scrolls randomly.
9. Create a web page to scroll the text “E-Commerce” for exactly 5 times from left to right of thescreen.
10. Create a web page to insert an image which when clicked redirects you to your college website.
11. Create a web page to display the name of your college in h6 size with blue as font color and background color yellow separated by a thick line and below which a paragraph about the facilities offered by your college is described.
12. Create a web page to demonstrate a pull-down menu. The menu should contain the list of your favorite south Indian dishes.
13. Create a web page with name of your college as text. The text should scroll, alternate and slide.

14. Create a web page to display an image surrounded by text on all the four sides.
15. Create a web page to display 3 images which are aligned left, right and center respectively.
16. Create a web page with 4 paragraphs of about 5 lines each describing about E-Marketing, E-Shopping, E-banking and E-Learning. The paragraphs should be aligned left, right, center and justified respectively.
17. Create a web page with name of your college as Text in h6 size, font as verdana, blue as font color followed by a copyright symbol and trademark symbol.
18. Create a login page asking the user to enter his username and password followed by a submit button.
19. Create a web page using a form which collects data about student rollno, name and marks in various subjects followed by submit and reset buttons.
20. Create a web page using a form titled as Feedback form which takes the feedback of faculty teaching a particular subject in your college. The form should have fields student name, rollno followed by 5 check boxes labeled Excellent, Very Good, Good, Average, Bad respectively.
21. Create an unordered list of popular B2C ecommerce web sites.

Note: All the questions should be practiced using **Blue Griffon, Google Web Designer, KompoZer and open Element /any related tools.** The students should be taught the usage of appropriate html tags for these questions

In the practical examination the students have to write the procedure for performing the given task in front page followed by the html tags used to perform the task.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – III Semester

Digital Marketing

Course Code: CA23302 **No. of Hours/Week: 3**

Course Objectives:

The course aims to identify the impact of digital space and digital marketing in reaching out to customers. Understand the importance of Search Engines and explain the working of Search Engines. Able to Define email Marketing and have knowledge on how Social Media Marketing is to be used by marketers?

Course Outcomes:

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

CO1: Evaluate the characteristics and strategies of digital marketing.
CO2: Analyze the Performance of Online Advertising Campaigns.
CO3: Identify and differentiate between various types of emails used in marketing campaigns.
CO4: Create and assess social media marketing strategies, utilizing various tools and platforms
CO5: Apply SEO techniques to optimize web content for search engines

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	1	-	-	-	1	3	2	3
CO2	3	3	3	1	2	-	3	3	3	3
CO3	3	1	1	2	1	1	3	3	3	3
CO4	3	3	3	2	2	2	-	2	3	3
CO5	2	1	2	-	-	1	2	3	3	3
Average	2.8	2.2	1.8	1	1	0.8	1.8	2.8	2.8	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Digital Marketing: Introduction to Digital Marketing. Traditional Vs. Digital Marketing, Technology behind Digital Marketing, Characteristics of Digital Marketing, Digital Marketing Strategy, Understanding Digital Consumer**.**

Case Study: Analyze the change in ranking of your Web Promotion Page

Unit 2: Online Advertising: Introduction, Objective, Where to Advertise, Online AdFormat, Search Engine Ad, Network Advertising, Affiliate Programs, Landing Pages

Case Study: Create Google Add for your college

Unit 3: Email Marketing: Introduction, Types of Email, Email Marketing Campaign Process, Email marketing Tools, Advantages and Disadvantages, Opt-in Email Advertising, Email tracking

Case Study: Analyse the impact of your E-Mail Campaign

Unit 4: Social Media Marketing (SMM):

What is Social Media Marketing, Seven Myths of SMM, Characteristics of Successful Social Media Marketer, Social Media Marketing plan, Social Media marketing Tools, Publishing Blogs, Podcast and Webinars, Social Media Monitoring, Social Media: Face book, Twitter?

Case Study:

1. Analyze the performance of your Facebook and Instagram Page
2. Analyze the performance of your YouTube Video

Unit 5: Search Engine Optimization (SEO): Understanding SEO, Search Engine Optimization Process – Goals, On-Page Optimization, Off-Page Optimization and Analyze, Search Engine Result Process (SERP), SEO Tools.

Case Study: Analyse the impact of your Twitter Campaign

Additional Inputs: The Digital users in India, POEM Framework, Segmenting & Customizing messages, Digital advertising Market in India

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Digital Marketing by Seema Gupta, McGraw Hill Education
2. Fundamentals of Digital Marketing by Punit Singh Bhatia, Pearson

References:

1. Basics of Digital Marketing - Course (swayam2.ac.in)

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)

DEPARTMENT OF COMPUTER APPLICATIONS

II B.Com.(C.A.) – III Semester

Digital Marketing

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Digital Marketing**	2	2	24
2	**Unit – II** **Online Advertising**	2	2	24
3	**Unit – III** **E-mail Marketing**	2	2	24
4	**Unit – IV** **Social Media Marketing**	2	1	20
5	**Unit – V** **Search Engine Optimization**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

KAKINADA

MODEL QUESTION PAPER

II B.Com.(C.A.) – III Semester

Digital Marketing

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Infer the importance of Digital marketing. **(CO1) (L2)**
2. Determine the influence of the marketing strategies based on the behaviour of digital consumer. **(CO1) (L5)**
3. What are the benefits of using landing pages? **(CO2) (L1)**
4. Write about the Search Engine Ad. **(CO2) (L2)**
5. Classify the types of E-mail marketing. **(CO3) (L4)**
6. Define the process of email marketing campaigns. **(CO3) (L2)**
7. Compare and contrast the use of Facebook and Twitter in SMM. **(CO4) (L4)**
8. Name two common SEO tools and describe their primary functions. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) Explain the key characteristics of digital Marketing. **(CO1) (L4)**

   (Or)

   (b) Compare and contrast Traditional Marketing Vs. Digital Marketing. **(CO1) (L5)**

10. (a) Elucidate network advertising. **(CO2) (L2)**

    (Or)

    (b) What are the key components of affiliate programs? Explain. **(CO2) (L2)**

11. (a) Examine the process of E-mail marketing campaigns. **(CO3) (L4)**

    (Or)

    (b) Classify the advantages and disadvantages of E-mail marketing. **(CO3) (L4)**

12. (a) What is SMM? Explain seven myths of Social Media Marketing. **(CO4) (L4)**

    (Or)

    (b) How to publish blogs, podcast and webinars? Explain. **(CO4) (L3)**

13. (a) Compare and contrast the On-Page and Off-Page SEO Techniques. **(CO5) (L5)**

    (Or)

    (b) Analyze the Search Engine Result Page(SERP) and its components. **(CO5) (L4)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – III Semester

Digital Marketing Lab

Course Code: CA23302P **No. of Hours/Week: 2**

Course Objectives:
To provide students understanding of the core concepts and strategies in digital marketing, including SEO, SEM, social media marketing, email marketing, and content marketing.

Course Outcomes:
1. Design and execute email marketing campaigns using email automation tools.

LIST OF EXPERIMENTS

1. Digital Marketing Implementation in Business Scenario
2. Create the Digital Marketing Webpage
3. Conducting the Search Engine Optimization and Search Engine Marketing
4. Using Google Analytics to analyze website performance
5. Creating Promotional banner through Canva
6. Face book Promotion using banners
7. Creating YouTube Channel for Marketing
8. Twitter Marketing
9. Instagram Marketing
10. Email Marketing

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – IV Semester

Database Management System with Oracle

Course Code: CA23401 **No. of Hours/Week: 3**

Course Objective:
To present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.

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

CO1: Identify key characteristics, advantages, and various applications of database systems

CO2: Apply Codd's rules and key constraints to design and normalize relational database schemas.

CO3: Construct and interpret Entity-Relationship (ER) diagrams and apply basic SQL commands

CO4: Make use of SQL to retrieve and maintain relational database.

CO5: Demonstrate various constructs in PL/SQL

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	2	1	-	1	3	2	2	3
CO2	3	3	3	2	1	1	3	3	2	3
CO3	3	2	3	2	-	2	3	3	2	3
CO4	3	3	3	1	1	1	3	3	3	3
CO5	2	2	2	1	1	2	3	2	3	3
Average	2.8	2.4	2.6	1.4	0.6	1.4	3	2.6	2.4	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Overview of Database Systems: Introduction: Database system, Characteristics (Database Vs File System), Database Users, Advantages of Database systems, Database applications.

Data Models: Introduction; types of data models, Concepts of Schema, Instance and data independence; Three tier schema architecture for data independence; Database system structure, environment, Centralized and Client Server architecture for the database.

Case Study:

1. Describe the differences between Database systems and File based systems
2. Study about database models and their advantages and dis-advantages

Unit 2: Relational Model: Introduction to relational model, Codd's rules, concepts of domain, attribute, tuple, relation, constraints (Domain, Key constraints, integrity constraints) and their importance , concept of keys (super key, candidate key, primary key, surrogate key, foreign key)

Normalization: Purpose of Normalization or schema refinement, concept of functional dependency, normal forms based on functional dependency (1NF, 2NF and 3 NF), Boyce-Codd normal form(BCNF)

Case Study:

Describe Relational model and normalization for database design

Unit 3: Entity Relationship Model: Introduction, Representation of entities, attributes, entity set, relationship, relationship set, constraints, sub classes, super class, inheritance, specialization, generalization using ER Diagrams

BASIC SQL: Database schema, data types, DDL operations (create, alter, drop, rename), DML operations (insert, delete, update), basic SQL querying (select and project) using where clause, arithmetic & logical operations, aggregation, grouping, ordering.

Case Study:

1. Examine issues in data storage and query processing using SQL.
2. Create, maintain and manipulate a relational database using SQL

Unit 4: SQL: Nested queries/ sub queries, implementation of different types of joins, SQL functions (Date, Numeric, String, Conversion functions), Creating tables with relationship, implementation of key and integrity constraints, views, relational set operations, Transaction Control Language: commit, Rollback, Savepoint , DCL :Grant, Revoke

Case Study:

Try to convert some sample data to information and show how it can you be used in decision making.

Unit 5: PL/SQL: Introduction, Structure, Control Structures, Cursors, Procedure, Function, Packages, Exception Handling, Triggers.

Case Study:

Use Triggers and apply them in real time databases

Additional Inputs: Reducing ER diagrams to tables, Relational Algebra & Relational Calculus

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books

1. Database Management Systems, 3rdEdition, Raghurama Krishnan, Johannes Gehrke, TMH
2. Database System Concepts,5thEdition, Silberschatz, Korth, TMH
3. Godeon C. EVEREST, Database Management-McGraw Hill Book Company.
4. MARTIN,Database Management-Prentice Hall of India, New Delhi.

References

1. David Kuklinski, Osborne, Data management system McGraw Hill Publication.
2. Shgirley Neal And Kenneth LC Trunik Database management system in Business-PHI.
3. Navathe, Database Management System.
4. S. Sumathi, S. Esakkirajan,Fundamentals of Relational Database Management System

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

DEPARTMENT OF COMPUTER APPLICATIONS

II B.Com.(C.A.) – IV Semester

Database Management System with Oracle

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I Overview of Database Management System**	2	2	24
2	**Unit – II Relational Model**	2	2	24
3	**Unit – III Entity Relationship Model**	2	2	24
4	**Unit – IV Structured query Language**	2	1	20
5	**Unit – V PL/SQL**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
KAKINADA
MODEL QUESTION PAPER
II B.Com.(C.A.) – IV Semester
Database Management System with Oracle

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Explain about the structure of database system. **(CO1) (L2)**
2. What are the advantages of database system? **(CO1) (L1)**
3. Write about CODD's rules. **(CO2) (L2)**
4. What is the need for schema refinement? Explain. **(CO2) (L3)**
5. List out different types of Entity sets. Explain. **(CO3) (L2)**
6. Explain the specialization and generalization with ER-diagram. **(CO3) (L2)**
7. Infer a short account on Cursors. **(CO5) (L2)**
8. Explain about numeric functions in SQL. **(CO4) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. a) Explain the Database Management system structure with a neat sketch. **(CO1) (L4)**

(or)

b) What is data model in DBMS? Explain various types of Data models. **(CO1) (L4)**

10. a) List out the various types of Constraints in DBMS. Explain. **(CO2) (L4)**

(or)

b) Explain briefly about Normal forms in database management system. **(CO2) (L4)**

11. a) What are the basic building blocks of Entity-Relationship Model? Explain with an example. **(CO2) (L4)**

(or)

b) Explain about DDL commands in SQL with suitable examples. **(CO3) (L4)**

12. a) What are the different types of joins? Explain. **(CO4) (L2)**

(or)

b) Write about relational set operations in SQL with illustrations. **(CO4) (L4)**

13. a) Explain about Exception handling in PL/SQL. **(CO5) (L4)**

(or)

b) Write about triggers in detail with an example. **(CO5) (L3)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
DEPARTMENT OF COMPUTER APPLICATIONS
II B.Com.(C.A.) – IV Semester

Database Management System with Oracle Lab

Course Code: CA23401P **No. of Hours/Week: 2**

Course Objective:

To provide a strong formal foundation in database concepts and emphasis is on practice to the students to groom them into well-informed database application developers.

Course Outcomes:

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

CO1: Design database for the real world scenarios

CO2: Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

List of Experiments

SQL :

Cycle-I: Aim: Marketing company wishes to computerize their operations by usingfollowing tables.

Table Name: Client- Master
Description: Used to store client information

Column Name	Data Type	Size	Attribute
CLIENT_NO	Varchar2	6	Primary key
NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESSS	Varchar2	30	
CITY	Varchar2	15	
PINCODE	Varchar2	8	
STATE	Varchar2	15	
BAL_DUE	Number	10,2	

Table Name: Product_Master
Description: Used to store product information

ColumnName	Data Type	Size	Attribute
PRODUCT_NO	Varchar2	6	Primarykey

DESCRIPTION	Varchar2	15	Not null
PROFIT _PERCENT	Number	4,2	Not null
UNIT_MEASUE	Varchar2	10	
QTY_ON_ HAND	Number	8	
REORDER_LVL	Number	8	
SELL_PRICE	Number	8,2	Not null, cannot be 0
COST _PRICE	Number	8,2	Not null,cannot be 0

Table Name: Salesman_master

Description: Used to store salesman information working for the company.

ColumnName	Data Type	Size	Attribute
SALESMAN_NO	Varchar2	6	Primary key
SALESMAN_NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESS2	Varchar2	30	
CITY	Varchar2	20	
PINCODE	Number	8	
STATE	Vachar2	20	
SAL_AMT	Number	8,2	Not null, cannotbe0
TGT_TO_GET	Number	6,2	Not null, cannotbe0
YTD_SALES	Number	6,2	Not null
REMARKS	Varchar2	20	

Table Name: SALES-ORDER Description:Used tostore client's orders

ColumnName	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primarykey
CLIENT_NO	Varchar2	6	ForeignKey
ORDER _DATE	Date		

DELY_ADDRESS	Varchar2	25	
SALESMAN_NO	Varchar2	6	ForeignKey
DELY_TYPE	Char	1	Delivery:part(p)/full(f)anddefault'F'
BILL_YN	Char	1	
DELY_DATE	Date		Can'tbe lessthanorderdate
ORDER _STATUS	Varchar2	10	Values("InProcess","Fulfilled", "Back Order", "Cancelled.

Table Name: SALES_ORDER_DETAILS
Description:Used to store client's order with details of each product ordered.

ColumnName	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primary key references SALES_ORDER table
PRODUCT_NO	Varchar2	6	Foreign Key references SALES_ORDER_table
QTY_ ORDERED	Number	8	
QTY_ DISP	Number	8	
PRODUCT_RATE	Number	10,2	Foreign Key

Solve the following queries by using above tables.

1. Retrieve the list of names, city and the state of all the clients.
2. List all the clients who are located in 'Mumbai' or 'Bangalore'.
3. List the various products available from the product_master table.
4. Find the names of salesman who have a salary equal to Rs.3000.
5. List the names o fall clients having 'a' as the second letter in their names.
6. List all clients whose Baldue is greater than value 1000.
7. List the clients who stay in a city whose first letter is 'M'.
8. List all information from sales-order table for orders placed in the month of July.
9. List the products whose selling price is greater than 1000 and less than or equal to 3000.
10. Find the products whose selling price is greater than 1000 and also find thenew selling price as original selling price 0.50.

Cycle-II Supplier

Aim: A manufacturing company deals with various parts and various suppliers supply these parts. It consists of three tables to record its entire information. Thoseare as follows.

Supplier (Supplier_No, Sname, City, status) Part(Part_no, pname, color, weight, city, cost) Shipment (supplier_No, Part_no, city) JX(project_no, project_name, city) SPJX(Supplier_no, part_no, project_no,city)

1. Get supplier numbers and status for suppliers in Chennai with status>20.
2. Get project names for projects supplied by supplier 'S'.
3. Get colors of parts supplied by supplier S.
4. Get part numbers for parts supplied to any project in Mumbai.
5. Find the id's of suppliers who supply a red or pink parts.

Cycle–III EmployeeDatabase

Aim: An enterprise wishes to maintain a database to automate its operations. Enterprise divided into a certain departments and each department consists of employees. The following two tables describes the automation schemas.

Emp(Empno, Ename, Job, Mgr, Hiredate, Sal, Comm, Deptno)
Dept(Deptno, Dname, Loc)

1. List the details of employees who have joined before the end of September '81.
2. List the name of the employee and designation of the employee, who does not report to anybody.
3. List the name,salary and PF amount of all the employees(PF is calculated as10%ofsalary)
4. List the names of employees who are more than 2 years old in the organization.
5. Determine the number of employees, who are taking commission.
6. Update the employee salary by 20%,whose experience is greater than 12 years.
7. Determine the department does not contain any employees.
8. Create a view, which contains employee name and their manager namesworking in sales department.
9. Determine the employees, whose total salary is like the minimumsalary of any department.
10. List the department numbers and number of employees in each department.

PL/SQL PROGRAMS

1. Writea PL/SQL program to check the given string is palindrome or not.
2. The HRD manager has decide to raise the employee salary by 15% write a PL/SQL block to accept the employee number and update the salary of that employee. Display appropriate message based on the existence of the record in Emp table.
3. Write a PL/SQL program to display top 10rows in Emp table based ontheir job and salary.
4. Write a PL/SQL program to raise the employee salary by 10% for departmentnumber 30 people and also maintain the raised details in the raise table.
5. Create a procedure to update the salaries of Employees by 20%, for thosewho are not getting commission
6. Write a PL/SQL procedure to prepare an electricity bill by usingfollowing table. Table used: Elect

Name	Null?	Type
MNNO	NOT NULL	NUMBER(3)
CNAME		VARCHAR2(20)
CUR_READ		NUMBER(5)
PREV_READ		NUMBER(5)
NO_ UNITS		NUMBER(5)
AMOUNT		NUMBER(8,2)
SER_TAX		NUMBER(8,2)
NET_AMT		NUMBER(9,2)

7. Create a trigger to avoid any transactions(insert, update, delete) on EMP table on Saturday & Sunday.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
III B.Com.(C.A.) – V Semester

BIG DATA ANALYTICS USING R

Course Code: **No. of Hours/Week: 5**

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

CO1: Understand data and classification of digital data.

CO2: Distinguish between big data analytics and traditional analytics.
CO3: Demonstrate the fundamentals of the R programming language.
CO4: Utilize R to manage and analyze data frames, with various functions
CO5: Create and interpret a variety of data visualizations in R.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	2	1	-	1	3	2	2	3
CO2	3	3	3	1	1	1	3	3	2	3
CO3	3	2	3	1	-	2	3	3	2	3
CO4	3	3	3	1	1	1	3	3	3	3
CO5	2	2	2	1	1	2	3	2	3	3
Average	2.8	2.4	2.6	1	0.6	1.4	3	2.6	2.4	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to Big data

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-II: Big data Analytics

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-III: Introduction to R and getting started with R

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-IV: Exploring data in R

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 V: Data Visualization using R

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

Additional Inputs:
Data Cleansing in R, Statistical Analysis of Data using R-Decision Trees, Regression

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Seema Acharya , Subhashini Chellappan --- Big Data And Analytics second edition, Wiley
2. 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

References:

1. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.
2. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj kamal, Preeti Saxena, McGraw Hill, 2018.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
III B.Com.(C.A.) – V Semester

Big data Analytics Using R

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to Big data**	2	2	24
2	**Unit – II** **Big data Analytics**	2	2	24
3	**Unit – III** **Introduction to R and getting started with R**	2	2	24
4	**Unit – IV** **Exploring data in R**	2	1	20
5	**Unit – V** **Data Visualization using R**	2	1	20
Total Marks				112

A.S.D. GOVT. DEGREE COLLEGE FOR WOMEN(A), KAKINADA

MODEL QUESTION PAPER
III B.Com.(CA) - V SEMESTER
Big data Analytics Using R

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. What are the characteristics of big data
2. What are the differences between structured and Unstructured data
3. What is big data analytics
4. What are the challenges facing Big Data
5. What are the advantages of R over other programming languages
6. Explain about R packages.
7. How to load data from .CSV files
8. How to plot Line graphs in R.

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) Explain about classification of digital data? Explain with examples?

(Or)

(b)Define Big Data? What are the challenges of Big Data

10. (a) What is the importance of big data analytics

(Or)

(b)What are the technologies needed to meet challenges of big data.

11. (a) What are the different Data types available in R? Explain with examples?

(Or)

(b) Explain about Array, Matrix and Vectors,

12. (a) Explain about dim(), nrow(), ncol(), str() and summary() functions

(Or)

(b) What is a data frame? How to access data frames?

13.(a) How to plot Histograms and Bar charts in R

(Or)

(b) How to read data from excel files and databases

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
III B.Com.(C.A.) – V Semester

Course: DATA SCIENCE USING PYTHON

Course Code: **No. of Hours/Week: 5**

Paper : 7A

Course Outcomes:

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

CO1: Understand basic concepts of data science

CO2: Write and execute Python Programs.

CO3: Use standard programming constructs like selection and repetition.

CO4: Define and call functions, utilize different types of functions arguments.

CO5: Implement functions and modules.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	-	-	1	3	2	2	2
CO2	3	2	2	-	-	2	3	2	3	3
CO3	3	-	-	-	-	1	3	3	3	3
CO4	3	1	1	-	-	1	3	3	3	3
CO5	2	-	-	-	-	1	3	3	3	3
Average	2.8	1	0.8	-	-	1.2	3	2.6	2.8	2.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to data science

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-II: Introduction to python

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-III: Control structures and strings

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-IV: Functions and modules

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 V: Classes & Objects

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.

Additional Inputs:
Data Pipelines, Preparation, Cleaning and Understanding of Data for Model Building using Python

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Steven cooper--- Data Science from Scratch, Kindle edition

References:

1. Reema Thareja—Python Programming using problem solving approach, Oxford Publication

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Data Science Using Python

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S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to data science**	2	2	24
2	**Unit – II** **Introduction to python**	2	2	24
3	**Unit – III** **Control structures and strings**	2	2	24
4	**Unit – IV** **Functions and Modules**	2	1	20
5	**Unit – V** **Classes & Objects**	2	1	20
Total Marks				112

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MODEL QUESTION PAPER
III B.Com.(C.A.) – V Semester

Data Science Using Python

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. What are the responsibilities of a data scientist
2. What are the qualifications of data scientists
3. What are the differences between Break and Continue statements.
4. What are the different data types available in Python
5. What are the basic operations that can be performed on strings
6. How to access values in dictionaries
7. What are the differences between local and global variables
8. What are the differences between public and private data members

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) Explain about Data science and its importance?

(Or)

(b)Explain about advantages of data science

10. (a) What are the features of python

(Or)

(b) Explain about different Conditional statements in python

11. (a) What is a Tuple? How to access elements of tuple in python

(Or)

(b) Explain about Dictionaries? How to access values in dictionaries?

12. (a) Explain about Functions in Python with an example

(Or)

(b) Explain about lambda and recursive functions with examples

13. (a) Explain about class and object with an example

(Or)

(b) Explain about class variables and object variables with an example

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MOBILE APPLICATION DEVELOPMENT

Course Code: MAD225207-6B **No. of Hours/Week: 5**

Paper : 6B

Course Outcomes:

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

CO1: Identify basic terms, tools and software related to android systems

CO2: Describe components of IDE, understand features of android development tools

CO3: Develop user interfaces by effectively utilizing various layout

CO4: Explain the features of services and able to publish android Application

CO5: Developing interesting Android applications using MIT App Inventor

	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2	1	-	2	1
CO2	3	2	2	1	2	2
CO3	3	-	-	-	1	-
CO4	2	1	1	1	1	1
CO5	2	-	-	1	1	1
Average	2.6	1	0.8	0.6	1.4	1

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to Big data

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-II:

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-III:

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 vie
3. 10 time and date picker
3.11 toast

Unit-IV:

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

Unit V:

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

Additional Inputs:
Android- Activities, Services, Intents, Receiving and Broadcasting Intents, Android Manifest File and its common settings

Note: Concepts from Additional inputs must be excluded from Examinations

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)

References:

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)

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Mobile Application Development

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S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I**	2	2	24
2	**Unit – II**	2	2	24
3	**Unit – III**	2	2	24
4	**Unit – IV**	2	1	20
5	**Unit – V**	2	1	20
Total Marks				112

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MODEL QUESTION PAPER
III B.Com.(C.A.) – V Semester

Mobile Application Development

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Write about the need of Android. **(CO1) (L2)**
2. Explain about the open handset alliance. **(CO1) (L2)**
3. What are the uses of AVD? Explain. **(CO2) (L2)**
4. Write about Operating system. **(CO2) (L2)**
5. Define directory structure. **(CO3) (L1)**
6. Classify the components of a UI screen. **(CO3) (L2)**
7. Summarize the concept of Android security model. **(CO4) (L2)**
8. Describe the objectives of MIT app inventor. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) What is an Android? Explain about the Android ecosystem. **(CO1) (L2)**

(Or)

(b)Explain briefly about tools and software required for developing an application. **(CO1) (L4)**

10. (a) Why do we use Android virtual devices? Explain briefly. **(CO2) (L4)**

(Or)

(b) Explain Android development tools. **(CO2) (L2)**

11.(a) Elucidate the fundamentals of UI layouts in XML file. **(CO3) (L4)**

(Or)

(b) Explain about text view using with XML code. **(CO4) (L4)**

12. (a) Explain briefly Android system architecture with a neat sketch. **(CO4) (L4)**

(Or)

(b) Examine the concept of Android security model. **(CO4) (L4)**

13.(a) Compare and contrast the Audio and Video files in MIT app Inventor. **(CO5) (L5)**

(Or)

(b) Determine the steps involved in the installation of MIT App Inventor. **(CO5) (L5)**

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CYBER SECURITY AND MALWARE ANALYSIS

Course Code: CMA225208-7B **No. of Hours/Week: 5**

Paper : 7B

Course Outcomes:

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

CO1: Understand the computer networks, networking tools and cyber security

CO2: Describe the components, functions, and tiers of the NIST Cyber Security Framework.

CO3: Identify and analyze the OWASP Vulnerabilities

CO4: Implement various Malware analysis tools

CO5: Analyze the global landscape of cybercrime legislation and Information Technology act 2000

	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2	2	2	1	2
CO2	3	2	2	2	1	1
CO3	3	1	1	-	-	1
CO4	3	1	2	2	1	2
CO5	2	2	2	2	1	3
Average	2.8	1.6	1.8	1.6	0.8	1.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to Networks & cyber security

a. Computer Network Basics
b. Computer network types
c. OSI Reference model
d. TCP/IP Protocol suite
e. Difference between OSI and TCP/IP
f. What is cyber, cyber-crime and cyber-security
g. All Layer wise attacks
h. Networking devices: router, bridge, switch, server, firewall
i. How to configure: router
j. How to create LAN

Unit-II: NIST Cyber security framework

a. Introduction to the components of the framework
b. Cyber security Framework Tiers
c. What is NIST Cyber security framework
d. Features of NIST Cyber security framework
e. Functions of NIST Cyber security framework
f. Turn the NIST Cyber security Framework into Reality/ implementing the framework

Unit-III: OWASP

a. What is OWASP?
b. OWASP Top 10 Vulnerabilities
    i. Injection
    ii. Broken Authentication
    iii. Sensitive Data Exposure
    iv. XML External Entities (XXE)
    v. Broken Access Control
    vi. Security Misconfiguration
    vii. Cross-Site Scripting (XSS)
    viii. Insecure Deserialization
    ix. Using Components with Known Vulnerabilities
    x. Insufficient Logging and Monitoring
c. Web Application Firewall

Unit-IV: MALWARE ANALYSIS

a. What is malware
b. Types of malwares
    i. Key loggers
    ii. Trojans
    iii. Ran some ware
    iv. Rootkits
c. Antivirus
d. Firewalls
e. Malware analysis
    i. VM ware
    ii. How to use sandbox
    iii. Process explorer
    iv. Process monitor

Unit V: CYBER SECURITY: Legal Perspectives

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

Additional Inputs:

End Point device and Mobile phone, security, Password policy, Security patch management, Data backup, Downloading and management of third party software, Device security policy, Cyber Security best practices

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Cyber Security by Sunit Belapure, Nina Godbole|Wiley Publications
2. TCP/IP Protocol Suite |Mcgraw-hill| Forouzan|Fourth Edition

References:

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.

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Cyber security and Malware Analysis
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S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to Networks & Cybersecurity**	2	2	24
2	**Unit – II** **NIST Cyber security framework**	2	2	24
3	**Unit – III** **OWASP**	2	2	24
4	**Unit – IV** **Malware Analysis**	2	1	20
5	**Unit – V** **Cyber security: Legal Perspectives**	2	1	20
Total Marks				112

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MODEL QUESTION PAPER
III B.Com.(C.A.) – V Semester

Cyber security and Malware Analysis

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Distinguish between LAN, MAN, WAN. **(CO1) (L4)**
2. Define cyber, cybercrime and cyber security. **(CO1) (L1)**
3. Explain about the components of the NIST framework. **(CO2) (L2)**
4. Write about the NIST cyber security framework. **(CO2) (L2)**
5. Explain any two OWASP vulnerabilities. **(CO3) (L2)**
6. Demonstrate the concept of broken authentication. **(CO3) (L2)**
7. Write a short note on antivirus. **(CO4) (L1)**
8. Explain about Indian ACT 2000. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. (a) Explain ISO-OSI reference model with a neat sketch. **(CO1) (L4)**

(Or)

(b) Discuss about all layer wise attacks in detail. **(CO1) (L4)**

10. (a) Explain NIST Cybersecurity framework Tiers in detail. **(CO2) (L2)**

(Or)

(b) What is NIST CSF? Explain features of the NIST Cybersecurity. **(CO2) (L4)**

11. (a) Interpret cross-site scripting & security misconfiguration with a neat sketch. **(CO3) (L5)**

(Or)

(b) Explain briefly about web application firewall. **(CO3) (L4)**

12. (a) Explain about antivirus and firewalls. **(CO4) (L2)**

(Or)

(b) What is malware? Explain various types of malwares. **(CO4) (L4)**

13. (a) What is cybercrime? Explain the important sections of Indian IT ACT 2000. **(CO5) (L2)**

(Or)

(b) Explain the Challenges to Indian law and cybercrime scenario in India. **(CO5) (L4)**

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E– COMMERCE APPLICATION DEVELOPMENT

Course Code: **No. of Hours/Week: 5**

Paper : 6C

Course Outcomes:

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

CO1: To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.

CO2: To understand the factors needed in order to be a successful in ecommerce

CO3: To gain the skills to bring together knowledge gathered about the different components of building a web presence

CO4: To critically think about problems and issues that might pop up during the establishment of the web presence

CO5: To apply Word Press as a content management system (CMS), Plan their website by choosing colour schemes, fonts, layouts, and more.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	1	1	1	3	2	2	2
CO2	3	2	2	-	1	2	3	2	3	3
CO3	3	-	-	1	-	1	3	3	3	3
CO4	3	1	1	1	-	1	3	3	3	3
CO5	2	-	-	-	1	1	3	3	3	3
Average	2.8	1	0.8	0.6	0.6	1.2	3	2.6	2.8	2.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I:

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-II:

2.1Business models of E – Commerce: Business to Business

2.1.2 Business to customers

2.1.3 Customers 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-III:

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-IV:

1.1 A Page on the web - HTML Basics
1.2 Client Side scripting -JAVA SCRIPT basics
1.3 Server side Scripting- PHP basics.

Unit V:

1.1 Logging in to Your Word press Site
1.2 word press dash board
1.3 creating your first post
1.4 adding photos and images
1.5 creating hyper link
1.6 adding categories and tags

Additional Inputs:

Online Product marketing, various strategies used in Ecommerce, Display Advertisements. Usability testing, evaluation of website, guidelines for customer-centric website

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

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

References:

1. WordPress All-in-One For Dummies-written by Lisa Sabin Wilson with contributions by Michael Torbert, Andrea Rennick, Cory Miller, and Kevin Palmer
2. H.M. Deitel, P. J. Deitel.

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REAL TIME GOVERNANCE SYSTEM (RTGS)

Course Code: **No. of Hours/Week: 5**

Paper : 7C

Course Outcomes:

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

CO1: Understand the terms regarding Governance, E-Governance and RTGS

CO2: Learn about E-Governance Infrastructure

CO3: Understand the E-Governance implementation in several countries

CO4: Understand the E-Governance implementation in several Indian states

CO5: Understand the applications of RTG

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	1	-	2	-	3	2	2	2
CO2	1	2	2	-	1	-	3	1	1	3
CO3	2	-	-	-	2	-	3	2	2	1
CO4	1	1	1	-	3	-	3	1	2	2
CO5	2	-	-	-	2	-	3	2	2	1
Average	1.6	1	0.8	-	2	-	3	1.6	1.8	1.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to E-Governance

a. Government, Governance and Good Governance
b. What is E-Governance or Electronic Governance?
c. E-Government and E-Governance: A conceptual Analysis
   i. Objectives
   ii. Components
   iii. application domains
   iv. four phase model
   v. implementing E-Governance
   vi. issues while implementing E-Governance
   vii. Opportunities and challenges
d. Types of E-Governance
e. What is Real-Time Governance (RTG)
f. Real Time Governance Society (RTGS)

Unit-II: E-Governance Infrastructure

a. Data Systems infrastructure
   i. Executive Information Systems
   ii. Management Information Systems
   iii. Knowledge Management Systems

iv. Transaction Processing Systems

b. Legal Infrastructural preparedness
   v. IT Act 2000
   vi. Challenges to Indian law and cybercrime scenario in India
   vii. Amendments of the Indian IT Act

c. Institutional Infrastructural preparedness
   viii. Internet
   ix. intranet
   x. extranet

d. Human Infrastructural preparedness
   xi. Top-level management
   xii. Middle-level management
   xiii. Low-level management

e. Technological Infrastructural preparedness
   xiv. Information and communications technology
   xv. Data Warehousing
   xvi. Cloud Computing

Unit-III: E-Governance: Country Experience

a. INDIA
b. US
c. UK
d. AUSTRALIA
e. DUBAI

Unit-IV: E-Governance in India

a. Andhra Pradesh
b. Karnataka
c. Kerala
d. Uttar Pradesh
e. Madhya Pradesh
f. West Bengal
g. Gujarat

Unit V: Latest Applications in Real Time Governance

a. Agriculture
b. Rural Development
c. Health care
d. Education
e. Tourism
f. Commerce and Trade

Additional Inputs:

Case study on mee-seva/Village Secretariat/Ward secretariat, a new paradigm in citizen Services in India/Andhra Pradesh

Note: Concepts from Additional inputs must be excluded from Examinations

References:

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

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MULTIMEDIA TOOLS AND APPLICATIONS

Course Code: **No. of Hours/Week: 5**

Paper : 6D

Course Outcomes:

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

CO1: Gain knowledge on the concepts related to Multimedia.

CO2: Understand the concepts like image data representation and colour modes.

CO3: Understand the different types of video signals and digital audio.

CO4: Know about multimedia data compression types and audio compression standards

CO5: Know about basic video compression techniques.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	-	-	2	3	2	2	2
CO2	3	2	2	1	1	2	3	2	3	3
CO3	3	-	-	-	1	-	3	3	3	3
CO4	3	1	1	2	-	1	3	3	3	3
CO5	2	-	-	1	1	-	3	3	3	3
Average	2.8	1	0.8	0.8	0.6	1	3	2.6	2.8	2.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to multimedia

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-II: Image Data Representations and color models:

Data Systems infrastructure

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-III: Fundamental concepts in video

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
   - Pulse code modulation
   - Differential coding of audio
   - Predictive coding

Unit-IV: Multimedia Data Compression

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
1.2.3 Dictionary-based coding
1.3. Variable Length Coding
1.3.1 Huffman Coding Algorithm

Unit V: Latest Applications in Real Time Governance

Basic Video Compression Techniques:

1. Introduction to Video compression
2. Video compression standard H.261
3. Video compression standard MPEG-1

Additional Inputs:

Product design and Authoring tools: Building blocks – classes of products – Content organizational strategies – story boarding – Multimedia tool selection

Note: Concepts from Additional inputs must be excluded from Examinations

References:

1. An introduction to digital multimedia by Savage, T. M. and Vogel, K. E. 2008.
2. Digital Multimedia by Nigel Chapman & Jenny Chapman. 2009.

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DIGITAL IMAGING

Course Code: **No. of Hours/Week: 5**

Paper : 7D

Course Outcomes:

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

CO1: Gain knowledge about Types of Graphics, Types of Objects and Types of video editing tools

CO2: Show their skills in editing and altering photographs for through a basic understanding of the tool box.

CO3: Gain knowledge in using the layers.

CO4: Gain knowledge in using the selection tools, repair tools.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	1	2	1	3	2	2	2
CO2	3	2	2	2	2	2	3	2	3	3
CO3	3	-	-	-	-	-	3	3	3	2
CO4	3	1	1	1	1	1	3	3	3	3
Average	3	1.25	1	0.8	1.25	1	3	2.5	2.75	2.75

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I: Introduction to multimedia

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:

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: Fundamental concepts in video

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 past

Unit-IV: 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:

Erasing and Touching Up:

1.1 Dodge and burn tool

1.3 Color Balance

Filters:

2.1 Filters

1.4 Blur Clone tool

1.5 Sharpening using convolve tool

2.1.1 Correcting

2.1.2 Enhance

2.1.3 Noise Filters

Additional Inputs:

GIMP Plug-ins, GIMP-DDS Plug-in, GIMP-Resynthesizer

Note: Concepts from Additional inputs must be excluded from Examinations

References:

1. Beginning GIMP from Novice to professional by Akkana Peck, Second Edition, Apress

B.Com.(Computer Applications)
MINOR – SYLLABUS

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
B.Com. (CA)[Minor] - Syllabus under CBCS
Course Structure for the Academic Year 2024-25

Semester	Paper	Subject	Hrs./ Week	Credits	IA	ES	Total
FIRST YEAR							
SEM-II	1	Office Automation Tools	3	3	40	60	100
		Office Automation Tools Lab	2	1	-	50	50
SECOND YEAR							
SEM-III	2	Database Management System	3	3	40	60	100
		Database Management System Lab	2	1	-	50	50
SEM-IV	3	Python Programming	3	3	40	60	100
		Python Programming Lab	2	1	-	50	50
	4	Operating Systems	3	3	40	60	100
		Operating Systems Lab	2	1	-	50	50

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)

DEPARTMENT OF COMPUTER APPLICATIONS

B.Com.(CA) - Minor

I Year – II Semester

OFFICE AUTOMATION TOOLS

Course Code: M-CA24201 **No. of Hours/Week: 3**

Course Objectives:

The objective of this paper is to help students to acquire knowledge on the environment of GUI in Ms-Word and its features. To introduce the fundamentals concepts of using Ms-Word and its features to make it more useful and provide hands on use of Word, Excel and PowerPoint.

Course Outcomes:

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

CO1: Understand concept of Word Processor and use its features.
CO2: Make use of advanced features of Ms-Word to make day to day usage easier.
CO3: Apply Formatting Techniques to Worksheets
CO4: Create and customize the work sheets and user advanced feature of Excel.
CO5: Make use of presentations and inserting multimedia in them.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	1	-	1	1	2	1	2	2
CO2	2	2	2	-	2	1	3	2	2	2
CO3	2	1	1	1	1	2	3	2	2	3
CO4	2	2	2	1	1	1	3	2	2	3
CO5	2	3	3	1	1	1	3	3	3	3
Average	2	2	1.8	0.6	1.2	1.2	2.8	2	2.2	2.6

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit 1: Introduction to MS Office & MS Word: MS-Word: Features of MS-Word, MS-Word Window components, working with formatted text, Shortcut keys, Formatting documents: Selecting text, Copying &moving data, Formatting characters, changing cases, Paragraph formatting ,Indents, Drop Caps ,Using format painter, Page formatting, Header & footer, Bullets & numbering, Tabs, Forming tables. Finding & replacing text, go to(F5) command, proofing text (Spell-check, Auto correct).

Case Study:

1. Create a document to write a letter to the DM&HO of the district complaining about Hygienic conditions in your area.
2. Create a document to share your experience of your recent vacation with family.

Unit 2: MS Word Advanced features: Difference between Wizard and Template - Customize the Quick Access Tool Bar – Macros: Purpose – Creating Macro – Using Macro – Storing Macro - ,Inserting pictures: From Computer, Online Pictures – Insert 3d Models - Insert Shapes – Insert Text Box – Insert Equation, Hyperlinks, Tables Insert tables Mail merging, Printing documents, Tables : Insert tables, Mathematical calculations on tables data. Insert Text Box etc.

Case Study:

1. Create a document to send a holiday intimation to all the parents at time about Dasara Vacation.
2. Create a document to create Time Table of you class using tables.

Unit 3: Introduction to MS Excel & Its features: MS-Excel: Excel Features, Spreadsheets, workbooks, creating, saving & editinga workbook, Renaming sheet, cell entries (numbers, labels, and formulas), spell check ,find and replace, Adding and deleting rows and columns Filling series, fill with drag, data sort, Formatting worksheet, Functions and its parts, Some useful Functions in Excel (SUM,AVERAGE,COUNT, MAX,MIN, IF),

Case Study:

1. Create a worksheet with you class marks displaying total, average, top marks in the class and least marks in the class.

Unit 4: Ms-Excel Advanced Features: Cell referencing (Relative, Absolute, Mixed), What-if analysis, Introduction to charts: types of charts, creation of charts, printing a chart, printing worksheet – Sort – Filters – View Menu

Case Study:

1. Prepare a chart with height and weights of you class mates in atleast 3 types of charts.
2. Demonstrate the use of Filter with the attendance data of your class.

Unit 5: Ms-PowerPoint and its Applications: MS-Power Point: Features of Power Point, Uses, components of slide, templates and wizards, using template, choosing an auto layout ,using outlines, adding sub headings, editing text, formatting text, using master slide, adding slides, changing color scheme, changing background and shading, adding header and footer, adding cliparts and auto shapes. Various presentation, Working in slide sorter view(deleting, duplicating, rearranging slides),adding transition and animations to slide show, inserting music or sound on a slide, viewing slide show ,Printing slides.

Case Study:

2. Prepare a presentation with your achievements and experiences in College

Additional Inputs:

Create and modify simple macros, Insert and configure form controls, Apply Custom Data Formats and Validation

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books:

1. Computer Fundamentals–Pradeep.K.Sinha:BPBPublications.
2. Fundamentals of Computers -ReemaThareja, Oxford University Press India

References Books

1. Fundamentals of Computer – V . Rajaraman, Printice Hell of India.
2. Introduction to Computers–Peter Norton McGraw-Hill.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

B.Com.(CA) - Minor

I Year – II Semester

OFFICE AUTOMATION TOOLS

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to MS Office**	2	2	24
2	**Unit – II** **MS Word Advanced Features**	2	2	24
3	**Unit – III** **Introduction to MS Excel & Its features**	2	2	24
4	**Unit – IV** **MS Excel Advanced Features**	2	1	20
5	**Unit – V** **MS Power point & Its Applications**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
MODEL QUESTION PAPER

B.Com.(CA) - Minor
I Year – II Semester
OFFICE AUTOMATION TOOLS

Time: 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Identify the features of MS Word. Explain. **(CO1) (L3)**
2. Illustrate the different shortcut keys in Ms-Word. **(CO1) (L2)**
3. Discuss the purpose and process of What-If analysis in MS-Excel. **(CO4) (L4)**
4. Distinguish between Wizard and Template. **(CO2) (L4)**
5. How to insert tables in MS Word? Explain. **(CO2) (L2)**
6. Give the procedure to work with slide shorter view and explain. **(CO5) (L2)**
7. What are the functions used in MS-Excel? **(CO3) (L1)**
8. What is cell address in MS-Excel? Explain. **(CO3) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. a) Explain the role of each component in the MS-Word window. **(CO1) (L2)**

   (or)

   b) Examine the Formatting styles in MS-Word. **(CO1) (L4)**

10. a) What is Mail merge? Explain. **(CO2) (L4)**

    (or)

    b) Briefly explain the steps involved in Inserting tables and pictures. **(CO2) (L4)**

11. a) Discuss the key features of MS-Excel and their importance in data management. **(CO3) (L5)**

    (or)

    b) Summarize the different functions in MS-Excel with examples. **(CO3) (L2)**

12. a) Analyze the types of charts in MS-Excel and how they can be created and utilized. **(CO4) (L4)**

    (or)

    b) Explain the concept of cell referencing in MS-Excel. **(CO4) (L3)**

13. a) Explore the features of MS-Power Point and discuss its various applications. **(CO5) (L4)**

    (or)

    b) Determine the role of slide sorter view in detail. **(CO5) (L5)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

I Year – II Semester - Minor
Office Automation Tools Lab

List of Experiments

Course Code: M-CA24201P **No. of Hours/Week: 2**

Course Objectives:

To provide hands on exposure Microsoft Office applications Word, PowerPoint, Spreadsheet and Access databases.

Course Outcomes:

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

CO1: To perform documentation using MS Word
CO2: To enter and manipulate data in Excel
CO3: To perform presentation skills

List of Experiments

1) Design a visiting card for Managing Director of a company as per the following specification.
- Sizeofvisitingcardis3½×2
- Name of the company with big font
- Phone number, Fax number and E-mail address with appropriate symbols.
- Office and Residence address separated by a line

2) Create a table with following columns and display the result in separate cells for the following

- Emp Name, Basic pay, DA, HRA, Total salary.
- Sort all the employees in ascending order with the name as the key
- Calculate the totals alary of the employee
- Calculate the Grand total salary of the employee
- Finding highest salary and
- Find lowest salary

3) Prepare an advertisement to a company requiring software professional with the following
- Attractive page border
- Design the name of the company using WordArt
- Use at least one clipart.
- Give details of the company (use bullets etc)
- Give details of the Vacancies in each category of employee's (Business manager, Software engineers, System administrators, Programmers, Data entry operators) qualification required.

4) Create a letter having following specifications
- Name ofthecompanyonthetopofthepage2withbigfontandgoodstyle
- Phone no, Fax no and E-mail address with symbols.
- Main products manufactured by the company
- Slogans if any should be specify in bold at the bottom

5) Create two pages of curriculum vitae of a graduate with the following specifications

- Table to show qualifications with proper headings
- Appropriate left and right margins
- Format ½pageusingtwo-columnapproachabout yourself
- Name on each page at the top right side
- Page no.in the footer on the right side.

6) Write a macro format documents below

- Linespacing“2”(double)
- Paragraphindentof0.1
- Justification formatting style
- Arial font andBoldof14pt-size

7) Create a letter as the main document and create10 records for the10 persons use mail merge to create letter for selected persons among10.

8) Create an electronic spread sheet in which you enter the following decimal numbers and convert the min to octal, Hexa decimal an d binary numbers and vice-versa.

Decimal Numbers: 35,68,95,78,165,225,355,375,465
Binary Numbers: 101,1101,11101,11111,10001,11101111

9) Calculate the net pay of the employees following the conditions below

	A	B	C	D	E	F	G	H	I
1	Employee Number	Employee name	Basic Pay	DA	HRA	GPF	Gross Pay	Income tax	Net Pay
2									

DA :- 56%ofthebasicpayifBasicpayisgreaterthan20000 orelse44%.

HRA:-15%oftheBasicpaysubjecttomaximumofRs.4000.
GPF: -10%ofthebasicpay.
INCOMETAX:-10%ofbasicifBasicpayisgreaterthan20000. Find who is getting highest salary & who is get lowestsalary?

10) The ABC Company shows the sales of different product For5years.CreateBARGraph, 3D and Pie chart for the following.

A	B	C	D	E	F
S.No.	Year	Pro1	Pro2	Pro3	Pro4
1	1989	1000	800	900	1000
2	1990	800	80	500	900
3	1991	1200	190	400	800
4	1992	400	200	300	1000
5	1993	1800	400	400	1200

11) Create a suitable examination data base and find the sum of the marks (total) of each student and respective, class secured by the student.

Pass: if marks in each subject>=35
Distinction :if average>=75
First class :if average>=60but<75
Second class: if average>=50butlessthan60

Third class: if average>=35butlessthan50
Fail: if marks in any subject<35

12) Enter the following data into the sheet.

Name	Department	Salary
Anusha	Accounts	12000
Rani	Engineering	24000
Lakshmi	Accounts	9000
Purnima	Marketing	20000
Bindu	Accounts	4500
Tejaswi	Accounts	11000
Swetha	Engineering	15000
Saroja	Marketing	45000
Sunitha	Accounts	5600
Sandhya	Engineering	24000
Harika	Marketing	8000

13. Enter the following data into the sheet.

	Raju	Rani	Mark	Rosy	Ismail	Reshma
English	76	89	43	51	76	87
2ndLang	55	85	78	61	47	33
Maths	65	82	34	58	52	65
Computers	45	91	56	72	49	56
Human Values	51	84	54	64	32	64

Apply the conditional formatting for marks

- 35 below Red
- 35 to 50 Blue
- 51 to 70 Green
- 71 to 100 Yellow

14) Create a presentation using templates.

15) Create a Custom layout or Slide Master for professional presentation.

16) Create a presentation with slide transitions and animation effects.

17) Create a table in PPT and apply graphical representation.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS
B.Com.(CA) - Minor
II Year – III Semester

Database Management Systems

Course Code: M-CA23301 **No. of Hours/Week: 3**

Course Objective:

To present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.

Course Outcomes:

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

CO1: Understand DBMS concepts, data models and Architecture.
CO2: Understand ER concepts and ER mapping to relational model
CO3: Improve the database design by normalization.
CO4: Make use of SQL to retrieve and maintain relational database.
CO5: Illustrate various constructs in PL/SQL.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	2	1	-	1	3	2	2	3
CO2	3	3	3	2	1	1	3	3	2	3
CO3	3	2	3	2	-	2	3	3	2	3
CO4	3	3	3	1	1	1	3	3	3	3
CO5	2	2	2	1	1	2	3	2	3	3
Average	2.8	2.4	2.6	1.4	0.6	1.4	3	2.6	2.4	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

UNIT- I

Overview of Database Systems: Introduction: Database system, Characteristics (Database Vs FileSystem), Database Users, Advantages of Database systems, Database applications.

Data Models: Introduction; types of data models, Concepts of Schema, Instance and data independence; Three tier schema architecture for data independence; Database system structure, environment, Centralized and Client Server architecture for the database.

Case Study:

1. Describe the differences between Database systems and File based systems
2. Study about database models and their advantages and dis-advantages

UNIT- II

Relational Model: Introduction to relational model, Codd's rules, concepts of domain, attribute, tuple, relation, constraints (Domain, Key constraints, integrity constraints) and their importance , concept of keys (super key, candidate key, primary key, surrogate key, foreign key) , relational Algebra & relational calculus.

Normalization: Purpose of Normalization or schema refinement, concept of functional dependency, normal forms based on functional dependency (1NF, 2NF and 3 NF), Boyce-codd normal form (BCNF)

Case Study:

Describe Relational model and normalization for database design

UNIT - III:

Entity Relationship Model: Introduction, Representation of entities, attributes, entity set,relationship, relationship set, constraints, sub classes, super class, inheritance, specialization, generalization using ER Diagrams, Reducing ER diagrams to tables

BASIC SQL: Database schema, data types, DDL operations (create, alter, drop, rename), DML operations (insert, delete, update), basic SQL querying (select and project) using where clause, arithmetic & logical operations, aggregation, grouping, ordering.

Case Study:

1. Examine issues in data storage and query processing using SQL.
2. Create, maintain and manipulate a relational database using SQL

UNIT - IV

SQL: Nested queries/ sub queries, implementation of different types of joins, SQL functions(Date, Numeric, String, Conversion functions), Creating tables with relationship, implementation of key and integrity constraints, views, relational set operations , Transaction Control Language: commit, Rollback, Savepoint , DCL :Grant, Revoke

Case Study:

1. Try to convert some sample data to information and show how it can you be usedin decision making.

UNIT –V

PL/SQL: Introduction, Structure, Control Structures, Cursors, Procedure, Function, Packages,Exception Handling, Triggers.

Case Study:

Use Triggers and apply them in real time databases

Additional Inputs: Reducing ER diagrams to tables, Relational Algebra & Relational Calculus

Note: Concepts from Additional inputs must be excluded from Examinations

Text Books

1. Database Management Systems, 3rdEdition, Raghurama Krishnan, Johannes Gehrke, TMH
2. Database System Concepts,5thEdition, Silberschatz, Korth, TMH
3. Database Management Systems, 3rd Edition , Raghurama Krishnan, Johannes Gehrke, TMH
4. Database System Concepts,5th Edition , Silberschatz, Korth, TMH

References:

1. David Kuklinski, Osborne, Data management system McGraw Hill Publication.
2. Paneerselvam:Database Management system,PHI.Godeon C. EVEREST, Database Management-McGraw Hill Book Company.
3. MARTIN,Database Management-Prentice Hall of India, New Delhi.
4. Navathe, Database Management System.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER APPLICATIONS

B.Com.(CA) - Minor
II Year – III Semester

Database Management Systems

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S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I Overview of Database Management System**	2	2	24
2	**Unit – II Relational Model**	2	2	24
3	**Unit – III Entity Relationship Model**	2	2	24
4	**Unit – IV Structured query Language**	2	1	20
5	**Unit – V PL/SQL**	2	1	20
Total Marks				112

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
KAKINADA
MODEL QUESTION PAPER
B.Com.(CA) - Minor
II Year - III Semester
Database Management Systems

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Explain about the structure of database system. **(CO1) (L2)**
2. What are the advantages of database system? **(CO1) (L1)**
3. Write about CODD's rules. **(CO2) (L2)**
4. What is the need for schema refinement? Explain. **(CO2) (L3)**
5. List out different types of Entity sets. Explain. **(CO3) (L2)**
6. Explain the specialization and generalization with ER-diagram. **(CO3) (L2)**
7. Infer a short account on Cursors. **(CO5) (L2)**
8. Explain about numeric functions in SQL. **(CO4) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. a) Explain the Database Management system structure with a neat sketch. **(CO1) (L4)**

(or)

b) What is data model in DBMS? Explain various types of Data models. **(CO1) (L4)**

10. a) List out the various types of Constraints in DBMS. Explain. **(CO2) (L4)**

(or)

b) Explain briefly about Normal forms in database management system. **(CO2) (L4)**

11. a) What are the basic building blocks of Entity-Relationship Model? Explain with an example. **(CO2) (L4)**

(or)

b) Explain about DDL commands in SQL with suitable examples. **(CO3) (L4)**

12. a) What are the different types of joins? Explain. **(CO4) (L2)**

(or)

b) Write about relational set operations in SQL with illustrations. **(CO4) (L4)**

13. a) Explain about Exception handling in PL/SQL. **(CO5) (L4)**

(or)

b) Write about triggers in detail with an example. **(CO5) (L3)**

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
DEPARTMENT OF COMPUTER APPLICATIONS

B.Com.(CA) - Minor
II Year – III Semester

Database Management Systems Lab

Course Code: M-CA23301P **No. of Hours/Week: 2**

Course Objective:

To provide a strong formal foundation in database concepts and emphasis is on practice to the students to groom them into well-informed database application developers.

Course Outcomes:

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

CO1: Design database for the real world scenarios

CO2: Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

List of Experiments

SQL :

Cycle-I: Aim: Marketing company wishes to computerize their operations by usingfollowing tables.

Table Name: Client- Master
Description: Used to store client information

Column Name	Data Type	Size	Attribute
CLIENT_NO	Varchar2	6	Primary key
NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESSS	Varchar2	30	
CITY	Varchar2	15	
PINCODE	Varchar2	8	
STATE	Varchar2	15	
BAL_DUE	Number	10,2	

Table Name: Product_Master
Description: Used to store product information

ColumnName	Data Type	Size	Attribute

PRODUCT_NO	Varchar2	6	Primarykey
DESCRIPTION	Varchar2	15	Not null
PROFIT _PERCENT	Number	4,2	Not null
UNIT_MEASUE	Varchar2	10	
QTY_ON_ HAND	Number	8	
REORDER_LVL	Number	8	
SELL_PRICE	Number	8,2	Not null, cannot be 0
COST _PRICE	Number	8,2	Not null,cannot be 0

Table Name: Salesman_master

Description: Used to store salesman information working for the company.

ColumnName	Data Type	Size	Attribute
SALESMAN_NO	Varchar2	6	Primary key
SALESMAN_NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESS2	Varchar2	30	
CITY	Varchar2	20	
PINCODE	Number	8	
STATE	Vachar2	20	
SAL_AMT	Number	8,2	Not null, cannotbe0
TGT_TO_GET	Number	6,2	Not null, cannotbe0
YTD_SALES	Number	6,2	Not null
REMARKS	Varchar2	20	

Table Name: SALES-ORDER Description:Used tostore client's orders

ColumnName	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primarykey
CLIENT_NO	Varchar2	6	ForeignKey

ORDER _DATE	Date		
DELY_ADDRESS	Varchar2	25	
SALESMAN_NO	Varchar2	6	ForeignKey
DELY_TYPE	Char	1	Delivery:part(p)/full(f)anddefault‘F’
BILL_YN	Char	1	
DELY_DATE	Date		Can’tbe lessthanorderdate
ORDER _STATUS	Varchar2	10	Values(“InProcess”,“Fulfilled”, “Back Order”, “Cancelled.

Table Name: SALES_ORDER_DETAILS
Description:Used to store client’s order with details of each product ordered.

ColumnName	Data Type	Size	Attribute
ORDER_NO	Varchar2	6	Primary key references SALES_ORDER table
PRODUCT_NO	Varchar2	6	Foreign Key references SALES_ORDER_table
QTY_ ORDERED	Number	8	
QTY_ DISP	Number	8	
PRODUCT_RATE	Number	10,2	Foreign Key

Solve the following queries by using above tables.

11. Retrieve the list of names, city and the state of all the clients.
12. List all the clients who are located in ‘Mumbai’ or ‘Bangalore’.
13. List the various products available from the product_master table.
14. Find the names of salesman who have a salary equal to Rs.3000.
15. List the names o fall clients having ‘a’ as the second letter in their names.
16. List all clients whose Baldue is greater than value 1000.
17. List the clients who stay in a city whose first letter is ‘M’.
18. List all information from sales-order table for orders placed in the month of July.
19. List the products whose selling price is greater than 1000 and less than or equal to 3000.
20. Find the products whose selling price is greater than 1000 and also find thenew selling price as original selling price 0.50.

Cycle-II Supplier

Aim: A manufacturing company deals with various parts and various suppliers supply these parts. It consists of three tables to record its entire information. Thoseare as follows.

Supplier (Supplier_No, Sname, City, status) Part(Part_no, pname, color, weight, city, cost)

Shipment (supplier_No, Part_no, city) JX(project_no, project_name, city) SPJX(Supplier_no, part_no, project_no,city)

1. Get supplier numbers and status for suppliers in Chennai with status>20.
2. Get project names for projects supplied by supplier 'S'.
3. Get colors of parts supplied by supplier S·.
4. Get part numbers for parts supplied to any project in Mumbai.
5. Find the id's of suppliers who supply a red or pink parts.

Cycle–III EmployeeDatabase

Aim: An enterprise wishes to maintain a database to automate its operations. Enterprise divided into a certain departments and each department consists of employees. The following two tables describes the automation schemas.

Emp(Empno, Ename, Job, Mgr, Hiredate, Sal, Comm, Deptno)
Dept(Deptno, Dname, Loc)

1. List the details of employees who have joined before the end of September '81.
2. List the name of the employee and designation of the employee, who does not report to anybody.
3. List the name,salary and PF amount of all the employees(PF is calculated as10%ofsalary)
4. List the names of employees who are more than 2 years old in the organization.
5. Determine the number of employees, who are taking commission.
6. Update the employee salary by 20%,whose experience is greater than 12 years.
7. Determine the department does not contain any employees.
8. Create a view, which contains employee name and their manager namesworking in sales department.
9. Determine the employees, whose total salary is like the minimumsalary of any department.
10. List the department numbers and number of employees in each department.

PL/SQL PROGRAMS

1. Writea PL/SQL program to check the given string is palindrome or not.
2. The HRD manager has decide to raise the employee salary by 15% write a PL/SQL block to accept the employee number and update the salary of that employee. Display appropriate message based on the existence of the record in Emp table.
3. Write a PL/SQL program to display top 10rows in Emp table based ontheir job and salary.
4. Write a PL/SQL program to raise the employee salary by 10% for departmentnumber 30 people and also maintain the raised details in the raise table.
5. Create a procedure to update the salaries of Employees by 20%, for thosewho are not getting commission
6. Write a PL/SQL procedure to prepare an electricity bill by usingfollowing table. Table used: Elect

Name	Null?	Type
MNNO	NOT NULL	NUMBER(3)
CNAME		VARCHAR2(20)
CUR_READ		NUMBER(5)
PREV_READ		NUMBER(5)
NO_ UNITS		NUMBER(5)
AMOUNT		NUMBER(8,2)
SER_TAX		NUMBER(8,2)
NET_AMT		NUMBER(9,2)

7. Create a trigger to avoid any transactions(insert, update, delete) on EMP table on Saturday & Sunday.

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DEPARTMENT OF COMPUTER APPLICATIONS
B.Com.(CA) - Minor
II Year – IV Semester

Python Programming

Course Code: M-CA23401 **No. of Hours/Week: 3**

Course Objective:
To present an introduction to Python Programming, to write clear and correct Python code using appropriate syntax and semantics.

Course Outcomes:

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

CO1: Classify the fundamental concepts of Python programming, including syntax, data types, and control structures.

CO2: Demonstrate a clear understanding of functions and OOP concepts in Python.

CO3: Analyze the usage of Lists, Tuples and Dictionaries.

CO4: Apply Python programming techniques to solve real-world problems using numPy and Pandas libraries.

CO5: Elucidate GUI programming using matplotlib and database connectivity through MySQL in Python.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	1	3	-	2	3	2	2	3
CO2	3	3	1	1	-	1	3	3	3	3
CO3	3	2	1	1	1	-	3	3	2	3
CO4	3	2	-	1	2	2	3	3	3	3
CO5	2	1	-	-	2	1	3	3	3	3
Average	2.8	2.2	0.6	1.2	1	1.2	3	2.8	26	3

The COs are mapped to POs based on the relevance on a scale of 0-3
(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

UNIT- I

Getting Started with Python: Introduction to Python, Python Keywords, Identifiers, Variables, Comments, Data Types, Operators, Input and Output , Type Conversion, Debugging. Flow of Control, Selection , Indentation , Repetition , Break and Continue Statement , Nested Loops .
Strings- String Operations , Traversing a String , String handling Functions.
Case Study:

1. Study the features that make Python different from Procedural Languages.

Unit-II

Functions: Functions, Built-in Functions, User Defined Functions, recursive functions, Scope of a Variable

Python and OOP: Defining Classes, Defining and calling functions passing arguments, Inheritance, polymorphism, Modules – date time, math, Packages.

Exception Handling- Exception in python, Types of Exception, User-defined Exceptions.

Case Study:

1. Present a report of how Exception handling is different from JAVA Exceptional Handling.

Unit-III

List: Introduction to List, List Operations, Traversing a List, List Methods and Built-in Functions.

Tuples and Dictionaries, Introduction to Tuples, Tuple Operations, Tuple Methods and Built-in Functions, Nested Tuples. Introduction to Dictionaries, Dictionaries are Mutable, Dictionary Operations, Traversing a Dictionary, Dictionary Methods and Built-in functions.

Case Study:

1. What are the special features of dictionaries and try to analyze about the same features in anyother language.

Unit-IV

Introduction to NumPy, Array , NumPy Array , Indexing and Slicing , Operations on Arrays , Concatenating Arrays , Reshaping Arrays , Splitting Arrays , Statistical Operations on Arrays.

Data Handling using Pandas , Introduction to Python Libraries, Series, DataFrame, Importing and Exporting Data between CSV Files and DataFrames, Pandas Series Vs NumPy ndarray.

Case Study:

1. Present a paper on advanced features of NumPy and Pandas.

Unit-V

Plotting Data using Matplotlib: Introduction, Plotting using Matplotlib –Line chart, Bar chart, Histogram, Scatter Chart, Pie Chart.

GUI Programming and Database Connectivity Using Python. Graphical User Interfaces. Using the Tkinter Module, Creating Label, Text, Buttons, info Dialog Boxes, Radiobutton, Checkbutton, Getting Input, Importing MySQL for Python , Connecting with a database, Forming a query in MySQL, Passing a query to MySQL.

Case Study:

1. Present a paper on the features and advantages of MySQL compared to other commercial Databases.

Text Books:

1. Mark Lutz, Learning Python,5th Ed. O‟REILLY
2. Core Python Programming by Dr. R. Nageswara Rao
3. Problem Solving and Python Programming by E. Balaguru Swamy

References:

1. Python programming: using problem solving approach by Reema Thareja.
2. Albert Lukaszewski ,MySQL for Python,Packet Publishing

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Python Programming

BLUE PRINT

S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to Python**	2	2	24
2	**Unit – II** **Functions**	2	2	24
3	**Unit – III** **Lists, Tuples and Dictionaries**	2	2	24
4	**Unit – IV** **Introduction to Numpy**	2	1	20
5	**Unit – V** **Plotting Data using Matplotlib**	2	1	20
Total Marks				112

A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A)

MODEL QUESTION PAPER

B.Com.(CA) - Minor

II Year – IV Semester

PYTHON PROGRAMMING

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5x4=20**

1. Explain about data types in Python. **(CO1) (L2)**
2. Infer a brief account on string operations. **(CO1) (L2)**
3. Demonstrate the benefits of inheritance with example. **(CO2) (L2)**
4. What is a Class? How to define a Class in Python? **(CO2) (L1)**
5. List various operations performed on Tuples. **(CO3) (L1)**
6. List out the any four built-in functions. Explain in detail. **(CO3) (L2)**
7. How to reshape an array in Python? **(CO4) (L1)**
8. Infer a short note on Matplotlib library. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5x8=40**

9. a) Explain Loop control statements in Python. **(CO1) (L2)**

(or)

b) List various Operators in Python. Explain briefly. **(CO1) (L4)**

10. a) Explain briefly about the principles of OOP. **(CO2) (L4)**

(or)

b) Determine the significance of user defined functions in Python with an example. **(CO2) (L5)**

11. a) Explain about the List methods with illustrations in Python. **(CO3) (L4)**

(or)

b) Distinguish between Tuples and Dictionaries. **(CO3) (L4)**

12. a) Explain about Indexing and Slicing arrays with an example. **(CO4) (L4)**

(or)

b) Analyze importing and exporting data between CSV file using pandas with an example. **(CO4) (L4)**

13. a) List different visualization methods available in Matplotlib library. Explain. **(CO5) (L4)**

(or)

b). Summarize the process of connecting with a database by importing MySQL in Python. **(CO5) (L2)**

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B.Com.(CA) - Minor

II Year – IV Semester

Python Programming Lab

Course Code: M-CA23401P **No. of Hours/Week: 2**

Course Outcomes:

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

CO1: Implement simple programs in Python

CO2: Implement programs related to various data structures like lists, dictionaries, etc.

LIST OF EXPERIMENTS

1. Write a Program to check whether given number is Armstrong or not.
2. Write a Program to check whether given number is perfect or not.
3. Write a program to find factorial of given number using recursive function
4. Write a program to implement inheritance and polymorphism
5. Demonstrate a python code to print try, except and finally block statements
6. Write a program to demonstrate String handling functions
7. Write a program to input n numbers from the user. Store these numbers in a tuple. Print themaximum and minimum number from this tuple.
8. Write a program to enter names of employees and their salaries as input and store them in adictionary
9. Write a program to implement statistical operations on arrays using numPy
10. Write a program to import and export CSV file to DataFrame.
11. Create the DataFrame Sales containing year wise sales and perform basic operation on it.
12. Visualize the plots using matplot lib.
13. Create GUI interface with different types button and labels
14. Create GUI interface and connect with MySQL database and perform CRUD(Create, Read,Update and Delete) operations.

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OPERATING SYSTEMS

Course Code: M-CA23402 **No. of Hours/Week: 3**

Course Objective:

To provide knowledge about the services and functions rendered by operating systems and inculcate knowledge on Process Scheduling and Memory Management.

Course Outcomes:

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

CO1: Interpret the basic structure of OS and architectural components.

CO2: Compare and contrast various Process scheduling algorithms.

CO3: Analyze various mechanisms of Synchronization and the principles of deadlock.

CO4: Make use of paging and segmentation in Memory management.

CO5: Demonstrate file operations and file system implementation.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	-	-	1	2	-	2	1	2	3
CO2	3	2	1	2	1	-	3	2	3	3
CO3	3	2	2	-	1	2	3	3	3	3
CO4	2	2	1	-	2	2	3	2	2	2
CO5	3	3	2	1	1	2	3	2	3	3
Average	2.6	1.8	1.2	0.8	1.4	1.2	2.8	2	2.6	2.8

The COs are mapped to POs based on the relevance on a scale of 0-3

(1: Slight [Low]; 2: Moderate [Medium]; 3: Substantial [High], '-'/0:No Correlation)

Unit I

Introduction: What is Operating System? ,History and Evolution of OS, Basic OS Functions, Computer System Architecture, Operating System Structure, Types of Operating Systems– Multiprogramming Systems, Batch Systems, Time Sharing Systems; Operating Systems for Personal Computers, Workstations and Hand-held Devices, Process Control & Real time Systems..
System Structures: Operating System Services, User Operating System Interface, System Calls, Types of System Calls, Overview of UNIX Operating System.

Case Study:

1. Understanding and listing the basic differences between UNIX OS and Windows OS in usage, user interface, features etc.

Unit II

Process Management: Process Concept, Operation on Processes, Communication in Client-Server Systems.
Process Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms

Case Study:

1. Present your understanding on how CPU Scheduling is different in WINDOWS compared to UNIX/LINUX.

Unit III

Synchronization: Process Synchronization, Semaphores: Usage, Implementation, TheCritical Section Problem, Classic problems of synchronization.

Deadlocks: Introduction, Deadlock Characterization, Necessary and Sufficient conditions forDeadlock, Deadlock Handling Approaches: Deadlock prevention, Deadlock Avoidance and Deadlock detection and Recovery.

Case Study:

1. Present your understanding of Deadlocks and new methodologies available in new Operating Systems released in the market.

Unit IV

Memory Management: Overview, Swapping, Contiguous Memory Allocation, Paging, Paging Examples, Segmentation, Page Replacement Algorithms

Case Study:

1. Present a paper on new methods used in Memory management in the present day OperatingSystems

Unit V

Files and Directories: Files, Directory Structure, File Operations, File System Implementation: File Allocation Methods

Case Study:

1. Present a Paper on how UNIX treats regular files and directories differently from other operating systems.

Text Books

1. Operating System Concepts: Abraham Silberschatz, Peter B. Galvin, Greg Gagne, 8th Edition,Wiley.

Reference Books:

1. Principles of Operating Systems by Naresh Chauhan, OXFORD University Press.
2. Tanenbaum A S, Woodhull A S, Operating System Design and Implementation,3rdedition, PHI 2006.

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Operating Systems

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S.No	Unit	Essay Questions 8 marks	Short Questions 4 marks	Marks Allotted
1	**Unit – I** **Introduction to Operating Systems**	2	2	24
2	**Unit – II** **Process Management**	2	2	24
3	**Unit – III** **Synchronization**	2	2	24
4	**Unit – IV** **Memory Management**	2	1	20
5	**Unit – V** **Files and Directories**	2	1	20
Total Marks				112

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

MODEL QUESTION PAPER

B.Com.(CA) - Minor

II Year – IV Semester

OPERATING SYSTEMS

Time : 3hrs **Max Marks : 60**

SECTION-A

I. Answer any FIVE of the following questions. **5 X 4=20**

1. Explain the structure of Operating system with a neat sketch. **(CO1) (L2)**
2. Explain time sharing and distributed operating systems. **(CO1) (L2)**
3. Discuss about the process synchronization. **(CO2) (L4)**
4. Infer the Process state diagram with a neat sketch. **(CO2) (L2)**
5. Give the necessary conditions for deadlock. **(CO3) (L1)**
6. What is critical section? Explain. **(CO3) (L2)**
7. Write about the segmentation. **(CO4) (L1)**
8. List out the File attributes. Explain. **(CO5) (L2)**

SECTION-B

II. Answer the following questions. **5 X 8=40**

9. a) Elucidate the functions of Operating System. **(CO1) (L4)**

(or)

b) List out the types of Operating Systems. Explain. **(CO1) (L2)**

10. a) Compare and contrast FCFS and SJF Process Scheduling Algorithm with illustrations. **(CO2) (L5)**

(or)

b) Explain about Communication in Client-Server system. **(CO2) (L2)**

11. a) Explain about semaphores in process synchronization. **(CO3) (L4)**

(or)

b) What are the methods for handling deadlock? Explain. **(CO3) (L4)**

12. a) Elaborate various page replacement algorithms. **(CO4) (L4)**

(or)

b) Write about memory management in detail. **(CO4) (L2)**

13. a) Compare and contrast various File allocation methods with an example. **(CO5) (L4)**

(or)

b). List various types of Directory structures. Explain. **(CO5) (L4)**

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B.Com.(CA) - Minor

II Year – IV Semester
Operating Systems Lab

Course Code: M-CA23402P **No. of Hours/Week: 2**

Course Objective:

To impart knowledge on Operating System design Principles and demonstrate Process Scheduling Algorithms.

Course Outcomes:

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

CO1: Get Acquainted with Shell programming

CO2: Implement various shell scripts.

List of Experiments

1. Introducing the LINUX Native editor vi: Working on basics of creating and editing a textfile using standard commands of vi.
2. Introduction to UNIX Operating System, Compare with Windows OS.
   Writing andexecuting simple Hello World C Program in UNIX Environment.
3. Getting hands-on on basic UNIX Commands.
4. Write a program using the following system calls of UNIX OS fork, exec, getpid, exit, wait, close, opendir, readdir?
5. Write a Simple shell script for basic arithmetic and logical calculations?
6. Write Shell script to check the given number is even or odd?
7. Write a shell script to swap the two integers?
8. Write Shell script to perform various operations on given strings.
9. Write Shell scripts to explore system variables such as PATH, HOME etc.
10. Write a shell script to display list of users currently logged in.
11. Write a shell script to delete all the temporary files.
12. Write a shell script to find the Factorial of a Number ?
13. Write C programs to implement the following Scheduling Algorithms:
    - First Come First Serve.
    - Shortest Job First.
    - Round Robin.

Text Books:

1. Brian W. Kernighan vand Rob Pike,"The UNIX Programming Environment" Prentice Hall India (Edition available in LRCandin the form of E Book on student resource).
2. Yashwant Kanetkar, "UNIX Shell Programming" BPB Publications (FirstEdition).