

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A), KAKINADA
B.Com. Computer Applications Syllabus Under CBCS
Academic Year 2021-22 Course Structure

Semester	Paper	Subject	Hrs.	Credits	IA	ES	Total
FIRST YEAR							
SEMESTER I	I	Information Technology	5	4	25	75	100
		Information Technology Lab	2	2	--	50	50
	Life Skills Course	BASIC COMPUTER APPLICATIONS	2	2	--	50	50
SEMESTER II	II	E-Commerce and Web Designing	5	4	25	75	100
		E-Commerce and Web Designing	2	2	--	50	50
	Life Skills Course	Information & Communication Technology	2	2	--	50	50
SECOND YEAR							
SEMESTER III	III	Programming with C&C++	5	4	25	75	100
		Programming with C&C++ Lab	2	2	--	50	50
SEMESTER IV	IV	Database Management Systems	5	4	25	75	100
		Database Management Systems Lab	2	2	--	50	50
	V	Object Oriented Programming with Java	5	4	25	75	100
		Object Oriented Programming with Java Lab	2	2	--	50	50
THIRD YEAR							
SEMESTER V	V	Data Base Management System	5	4	25	75	100
		Web Technologies	5	4	25	75	100
SEMESTER VI	VI	E-Commerce	5	4	25	75	100
		Project	--	4	--	--	100

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

I B.Com(C.A.) – I Semester

Course:Information Technology

Course Code:

No. of Hours/Week: 3

Paper I

Course Objectives:

To introduce the fundamental concepts of Computers, Hardware, Software and able to interact with documentation, PowerPoint, Spreadsheet and databases.

Learning Outcomes:

At the end of the course, the student is expected to demonstrate the following cognitive abilities (thinking skill) and psycho-motor skills.

A. Remembers and states in a systematic way (Knowledge)

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

B. Explains (Understanding)

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

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

8. Analyse compression techniques and file formats to determine effective ways of securing, managing, and transferring data
9. Identify and analyse user needs and to take them into account in the selection,

creation, integration, evaluation, and administration of computing based systems.

10. Analyse a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

11. Identify and analyse computer hardware, software

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

Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

E. Efficiently learn and use Microsoft Office applications.

I Introduction:

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

II MS word:

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

III MS Excel:

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

IV MS Power point:

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

V MS Access:

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

References:

1. P.Mohan computer fundamentals- Himalaya Publications.
2. R.K.Sharma and Shashi K Gupta, Computer Fundamentals - Kalyani Publications

3. Fundamentals of Computers By Balagurusamy, McGraw Hill
4. Computer Fundamentals Anita Goel Pearson India
5. Introduction to Computers Peter Norton
6. Fundamentals of Computers Rajaraman V Adabala N
7. Office 2010 All-in-One For Dummies Peter Weverka
8. MS-Office S.S. Shrivastava
9. MS-OFFICE 2010 Training Guide Prof. Satish Jain, M. Geetha, KratikaBPB Publications

Online Resources:

<https://support.office.com/en-us/office-training-center>
<https://www.skillshare.com/browse/microsoft-office>
https://www.tutorialspoint.com/computer_fundamentals/index.htm
<https://www.javatpoint.com/computer-fundamentalstutorial>
<https://edu.gcfglobal.org/en/subjects/office/>
<https://www.microsoft.com/en-us/learning/training.aspx>

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

I B.Com(C.A.) – I Semester

Information Technology

BLUE PRINT

S.No	Unit	Essay Questions	Short Questions	Marks Allotted
		10 marks	5 marks	
1	Unit – I Introduction	2	2	30
2	Unit – II MS word	2	2	30
3	Unit – III MS Excel	2	2	30
4	Unit – IV MS Power point:	2	1	25
5	Unit – V MS Access	2	1	25
Total Marks				140

A.S.D.GOV. DEGREE COLLEGE FOR WOMEN (A)
MODEL QUESTION PAPER
I B.Com(C.A.) – I Semester
Information Technology

Time : 3hrs

Max Marks : 75

SECTION-A

I. Answer any FIVE of the following questions.

5x5=25

1. What are the Applications of Computers?
2. Describe about various output devices
3. Write about macros in MS word
4. Explain the procedure for Find and Replace in MS word
5. What are the features of MS-Excel?
6. Explain how to use formulas in Excel with examples?
7. What are the features of MS-Power Point?
8. What are the features of MS Access

SECTION-B

II. Answer the following questions.

5x10=50

9. a) Explain about Computer Architecture.
(or)
b) Explain about primary and secondary memories
10. a) What are the Features and Applications of MS-Word
(or)
b) Explain about Mail Merge in MS Word
11. a) Explain about different types of functions available in Excel?
(or)
b) Explain about Different types of charts in Excel?
12. a) Write the process of how to prepare a power point presentation and slideshow.
(or)
b) Write about different types of animations in MS-Power Point.
13. a) Write the process how to Create a Report, Add Controls to a Report and Format Reports in MS-Access.
(or)
b) Write the process how to create a Simple Access Database, Working with Table Data and Modify Table Data.

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

I B.Com(C.A.) – I Semester

Course:Information Technology Lab

Course Code:

No. of Hours/Week: 2

Course Objectives:

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

Learning Outcomes:

At the end of the course student will be able to

- to perform documentation using MS Word
- to enter and manipulate data in Excel
- to perform presentation skills
- to manage databases using MS Access

List of Experiments

1. Prepare a Leave Letter to the Principal using MS Word.
2. Prepare your class Time Table using MS Word.
3. Demonstrate Mail Merge tool/option in MS Word.
4. Create your Resume/Bio Data using MS Word.
5. The following are the marks obtained by the students in 3 different subjects. Draw a Bar Chart for the given data.

a. <u>Roll No</u>	<u>Name</u>	<u>SUB1</u>	<u>SUB2</u>	<u>SUB3</u>
b. 1011	Pravallika	50	90	80
c. 1012	Arya	40	80	60
d. 1013	Akrosh	38	70	75
e. 1014	Prajaktha	80	60	68
f. 1015	Trisha	84	57	84

6. The following are the marks obtained by the students in 3 different subjects. Find Total Marks, Pass/Fail and Class/Grade secured by the student using the given rules.

a. <u>Name</u>	<u>SUB1</u>	<u>SUB2</u>	<u>SUB3</u>	<u>SUB4</u>	<u>SUB5</u>
b. Ravi	45	75	64	48	98
c. Vamsi	65	74	85	85	86
d. Rao	35	45	48	74	82

e. Satya	32	48	78	76	79
f. Siva	46	31	86	78	75
g. Ramesh	89	45	45	82	72
h. Ramu	45	46	43	44	41
i.					

Rules:

Pass if marks in each subject ≥ 35

Distinction if average ≥ 70

First class if average ≥ 60 but < 70

Second class if average ≥ 50 but < 60

Third class if average ≥ 35 and but < 50

Fail if marks in any subject is < 35

7. Create a Power Point using different layouts – describing about your College.
8. Create a Power Point using Templates in MS PowerPoint.
9. Create an Employee database with table Emp (Eno, Ename, Esal, Edept, Eloc) and insert any five records. Create a report for the above table with some fields only.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER SCIENCE
LIFE SKILLS COURSES
Course: BASIC COMPUTER APPLICATIONS

SEMESTER-I

Course Code:

No. of Hours/Week: 2

Paper :

Objectives: This course aims at providing exposure to students in skill development towards basic office applications.

Course Learning Outcomes:

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

1. Demonstrate basic understanding of computer hardware and software.
2. Apply skills and concepts for basic use of a computer.
3. Identify appropriate tool of MS office to prepare basic documents, charts, spreadsheets and presentations.
4. Create personal, academic and business documents using MS office.
5. Create spreadsheets, charts and presentations.
6. Analyze data using charts and spread sheets

UNIT-I

Basics of Computers: Definition of a Computer - Characteristics of computers, Applications of Computers
Block Diagram of a Digital Computer – I/O Devices, hardware, software human ware, application software, system software, Memories - Primary, Auxiliary and Cache Memory.

MS Windows – Desktop, Recycle bin, My Computer, Documents, Pictures, Music, Videos, Task Bar, Control Panel.

Unit-II

MS-Word : Features of MS-Word - MS-Word Window Components - Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Mail Merge.

Unit-III: MS-Excel : Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Inserting Rows/Columns –Changing column widths and row heights, Formulae, Referencing cells , Changing font sizes and colors, Insertion of Charts, Auto fill, Sort.

MS-PowerPoint: Features of PowerPoint – Creating a Presentation - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and scaling of an Object – Slide Transition – Custom Animation

TEXT BOOKS:

1. Working in Microsoft Office – Ron Mansfield - TMH.
2. MS Office 2007 in a Nutshell –Sanjay Saxena – Vikas Publishing House.
3. Excel 2020 in easy steps-Michael Price – TMH publications

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

I B.Com(C.A.) – II Semester

Course: E-COMMERCE AND WEB DESIGNING

Course Code:

No. of Hours/Week: 3

Paper II

Learning Outcomes:

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

A. Remembers and states in a systematic way (Knowledge)

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

B. Explains (Understanding)

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

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

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

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

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

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

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

Unit I: Introduction:

Meaning, Nature, Concepts, Advantages, Disadvantages and reasons for Transacting Online, Types of E-Commerce, e-commerce Business Models (Introduction , Key Elements of a Business Model And Categorizing Major E-Commerce Business Models), Forces Behind e-commerce.

Technology used in E-commerce: The dynamics of World Wide Web and Internet (Meaning, Evolution and Features); Designing, Building and Launching e-commerce website (A systematic approach involving decisions regarding selection of hardware, software, outsourcing Vs. in-house development of a website)

Unit-II: E-payment System:

Models and methods of e-payments (Debit Card, Credit Card, Smart Cards, e-money), Digital Signatures (Procedure, Working And Legal Position), Payment Gateways, Online Banking (Meaning, Concepts, Importance, Electronic Fund Transfer, Automated Clearing House, Automated Ledger Posting), Risks Involved in e-payments.

Unit-III: On-line Business Transactions:

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

Unit-IV: Website designing

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

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

Unit V: Security and Encryption:

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

References:

1. E-commerce and E-business Himalaya publishers
2. E-Commerce by Kenneth C Laudon, PEARSON INDIA
3. Web Design: Introductory with MindTap Jennifer T Campbell, Cengage
4. HTML & WEB DESIGN:TIPS& TECHNIQUES JAMSA, KRIS, McGraw Hill
5. Fundamentals Of Web Development by Randy Connolly, Ricardo Hoar,Pearson
6. HTML & CSS: COMPLETE REFERENCE POWELL,THOMAS, McGrawHill

Online Resources:

<http://www.kartrocket.com>

<http://www.e-commerceceo.com>

<http://www.fastspring.com>

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

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

DEPARTMENT OF COMPUTER SCIENCE

I B.Com(C.A.) – II Semester

E-COMMERCE AND WEB DESIGNING

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S.No	Unit	Essay Questions	Short Questions	Marks Allotted
		10 marks	5 marks	
1	Unit – I Introduction	2	2	30
2	Unit – II E-payment System	2	2	30
3	Unit – III On-line Business Transactions	2	2	30
4	Unit – IV Website designing	2	1	25
5	Unit – V Security and Encryption	2	1	25
Total Marks				140

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

KAKINADA

MODEL QUESTION PAPER

I B.Com(C.A.) – II Semester

E-COMMERCE AND WEB DESIGNING

Time : 3hrs

Max Marks : 75

SECTION-A

I. Answer any FIVE of the following questions.

5x5=25

1. Write about Types of E-Commerce.
2. What are the features of WWW and Internet?
3. What are the methods of e-Payments?
4. What are the Risks Involved in e-payments?
5. Write about online marketing
6. What are the Advantages and Disadvantages of Transacting Online?
7. Write about image and anchor tags in HTML with examples
8. Write the Definition and Scope of E-Security.

SECTION-B

II. Answer the following questions.

5x10=50

9. a) Write about e-commerce Business Models
(or)
b) Explain about Designing, Building and Launching e-commerce website
10. a) Explain about Digital Signatures.
(or)
b) Explain about Online Banking.
11. a) Write about features and benefits of E-Tailing
(or)
b) What are the applications of E commerce in various industries
12. a) What are the different types of lists available in HTML? Explain with examples.
(or)
b) What are the different mechanisms that are used to add style sheet properties to a document?
13. a) Write about Security Threats in the E-Commerce Environment.
(or)

b) Write about Technology Solutions for Security

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

I B.Com(C.A.) – II Semester

Course:E-COMMERCE AND WEB DESIGNING LAB

Course Code:

No. of Hours/Week: 2

Course Objective:

To enable the students to develop static and dynamic web pages.

Course Outcomes:

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

1. Make use of HTML tags to design Web pages.
2. Develop dynamic Web pages

List of Experiments

1. Write a HTML script to illustrating text formatting.
2. Write a HTML script to create a table using different attributes
3. Write a simple HTML script to illustrate three types of lists.
4. a.Prepare a sample code to illustrate links between different sections of the page
b.Write a HTML script to use image as a hyperlink
5. Create a form that accepts the information from a user
6. Divide the page into different sections using frames
7. Design a web page using internal style sheets
8. Design a web page using embedded style sheets
9. Design a web page using external style sheets

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

Life Skill Course

Common for B.Sc./B.Com/B.A-SEMESTER II

INFORMATION & COMMUNICATION TECHNOLOGY

Course Code:

No. of Hours/Week: 2

Objectives:

This course aims at acquainting the students with basic ICT tools which help them in their day to day and life as well as in office and research.

Course outcomes:

After completion of the course, student will be able to

1. Understand the literature of social networks and their properties.
2. Explain which network is suitable for whom.
3. Develop skills to use various social networking sites like twitter, flickr, etc.
4. Learn few GOI digital initiatives in higher education.
5. Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research.
6. Get acquainted with internet threats and security mechanisms.

SYLLABUS

UNIT-I: (08 hrs)

Fundamentals of Internet: What is Internet?, Internet applications, Internet Addressing – Entering a Web Site Address, URL–Components of URL, Searching the Internet, Browser–Types of Browsers, Introduction to Social Networking: Twitter, Tumblr, LinkedIn, Facebook, flickr, Skype, yahoo, YouTube, WhatsApp .

UNIT-II:(08 hrs)

E-mail: Definition of E-mail-Advantages and Disadvantages–User Ids, Passwords, Email addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management. G-Suite: Google drive, Google documents, Google spread sheets, Google Slides and Google forms.

UNIT-III:(10 hrs)

Overview of Internet security, E-mail threats and secure E-mail, Viruses and antivirus software, Firewalls, Cryptography, Digital signatures, Copyright issues. What are GOI digital initiatives in higher education? (SWAYAM, SwayamPrabha, National Academic Depository, National Digital Library of India, E-Sodh-Sindhu, Virtual labs, e-acharya, e-Yantra and NPTEL)

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

INFORMATION & COMMUNICATION TECHNOLOGY

Common for B.Sc./B.Com/B.A

II Semester

Time: 90Mins

Max. Marks: 50

SECTION-A

II. Answer any FOUR of the following questions.

4 x 5 = 20

1. What is a Browser? What are different types of Browsers
2. What is URL? What are the Components of URL
3. What is Twitter explain its features
4. Write about Google Slides and Google forms
5. What are the components of Email message
6. Write about Google documents
7. What is Virus? Write about antivirus software?
8. Explain about Firewalls

SECTION-B

III. Answer any THREE of the following questions.

3 x 10 = 30

9. What is Internet? What are the applications of Internet?
10. Write about different Social Networking sites flickr, Skype, yahoo, YouTube, WhatsApp
11. What is e- mail? Explain advantages and disadvantages of e- mail
12. Write about different G-Suite components
13. Write about GOI digital initiatives SWAYAM, SwayamPrabha, National Academic Depository in higher education?

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

Course: Programming with C & C++

Course Code:

No. of Hours/Week: 3

Paper : III

Course Objective:

To impart basic knowledge of C Programming language so that Students will be able to develop logics and applications to solve real time problems using C and To impart knowledge on fundamentals of Object Oriented Programming.

Course Outcomes:

At the end of the course, the student is expected to demonstrate the following abilities (thinking skill) and psychomotor skills.

A. Remembers and states in a systematic way (Knowledge)

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

B. Explains (Understanding)

6. Understanding a functional hierarchical code organization
7. Understanding a concept of object thinking within the framework of functional model
8. Write program on a computer, edit, compile, debug, correct, recompile and run it
9. Choose the right data representation formats based on the requirements of the problem
10. Analyze how C++ improves C with object-oriented features
11. Evaluate comparisons and limitations of the various programming constructs and choose correct one for the task in hand.

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

D. Working in 'Outside Syllabus Area' under a Co-curricular Activity(Creativity)Planning of structure and content, writing, updating and modifying computer programs for user solutions

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

Unit I: Introduction and Control Structures

History of 'C' - Structure of C program – C character set, Tokens, Constants, Variables, Keywords, Identifiers – C data types - C operators - Standard I/O in C - Applying if and Switch Statements.

Unit-II: Loops And Arrays

Use of While, Do While and For Loops - Use of Break and Continue Statements -Array Notation

and Representation - Manipulating Array Elements - Using Multi-Dimensional Arrays.

Unit-III: Strings and Functions

Declaration and Initialization of String Variables - String Handling Functions - Defining Functions- Function Call - Call By Value, Call By Reference – Recursion

Unit-IV: Principles of Object Oriented Programming

Procedure Oriented Programming, Object Oriented Programming, Basic concepts of Object Oriented Programming, Applications of C++, A simple C++ Program, An example with Class, Structure of C++ Program, Creating sourcefile, Compiling and Linking.

Unit V: Classes and Objects:

Tokens, Keywords, Declaration of Variables, Dynamic initialization of variables, Specifying a Class, Defining member functions, Function overloading, Operator overloading, Constructors and Destructors, Inheritance and types of Inheritance.

References:

1. E. Balagurusamy "Object oriented programming with C++
2. R.Ravichandran "Programming with C++"
3. Mastering C by K R Venugopal and Sudeep R Prasad, McGraw Hill
4. Expert C Programming: Deep Secrets Kindle Edition [Peter van der Linden](#)
5. Let Us C [Yashavant Kanetkar](#)
6. The C++ Programming Language [Bjarne Stroustrup](#)
7. C++ Primer [Stanley B. Lippman](#), [Josée Lajoie](#), [Barbara E. Moo](#)

Online Resources:

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

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

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

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

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

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

<https://www.programiz.com/cpp-programming><http://www.cplusplus.com/doc/tutorial/>

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

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

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER SCIENCE
II B.Com(C.A.) – III Semester
Programming with C & C++

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S.No	Unit	Essay Questions	Short Questions	Marks Allotted
		10 marks	5 marks	
1	Unit – I Introduction and Control Structures	2	2	30
2	Unit – II Loops And Arrays	2	2	30
3	Unit – III Strings and Functions	2	2	30
4	Unit – IV Principles of Object Oriented Programming	2	1	25
5	Unit – V Classes and Objects	2	1	25
Total Marks				140

A.S.D.GOV. DEGREE COLLEGE FOR WOMEN (A),KAKINADA
MODEL QUESTION PAPER
II B.Com(C.A.) – III Semester
Paper III-Programming with C & C++

Time : 3hrs

Max Marks : 75

SECTION-A

IV. Answer any FIVE of the following questions.

5x5=25

1. Explain about switch statement in C
2. Write about Keywords, Identifiers in C?
3. What are the differences between while and do..while loops.
4. Explain about multi-dimensional arrays
5. Write about declaration and initialization of String Variables
6. What is meant by recursion? Explain?
7. What are the applications of C++?
8. Explain about function overloading

SECTION-B

II. Answer the following questions.

5x10=50

9. a) Explain the structure of C- programming languages?
(or)
b) Write about different types of Operators in 'C'?
10. a) Write about looping statements available in c?
(or)
b) What is an array? Explain various types of arrays
11. a) What is a String ? Write about String handling functions?
(or)
b) Write about classification of functions based on number of arguments and return values?
12. a) Explain about basic concepts of OOP.
(or)
b) Write about Creating source file, Compiling and Linking.
13. a) Explain about types of constructors
(or)
b) Write a c++ program to illustrate operator overloading

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

Course: Programming with C & C++ LAB

Course Code:

No. of Hours/Week: 2

Course Objective:

To develop programming skills using the fundamentals of C Language and to enable effective usage of arrays, functions and to introduce various Object Oriented Concepts through which the students will be enabled to implement classes, inheritance and operator overloading.

Course Outcomes:

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

1. Implement programs using fundamental features of C Language.
2. Solve problems with the use of loops, decision making statements and functions.
3. Implement programs performing various Operations on Arrays
4. Implement programs using constructor.
5. Implement programs to implement inheritance
6. Implement programs for operator overloading

List of Experiments

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

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

Course: Database Management Systems

Course Code:

No. of Hours/Week: 3

Paper : III

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 students is expected to demonstrate the following abilities (thinking skill) and psychomotor skills.

- A. Remembers and states in a systematic way (Knowledge)
 - 1. Understand the role of a database management system in an organization.
 - 2. Understand basic database concepts, including the structure and operation of the relational data model.
 - 3. Understand and successfully apply logical database design principles, including E-R diagrams and database normalization
 - 4. Understand Functional Dependency and Functional Decomposition
- B. Explains (Understanding)
 - 5. To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS.
 - 6. Perform PL/SQL programming using concept of Cursor Management, Error Handling, Packages
- C. *Critically examines, using data and figures (Analysis and Evaluation)*
 - 7. Apply various Normalization techniques
 - 8. Model an application's data requirements using conceptual modeling tools like ER diagrams and design database schemas based on the conceptual model
- D. Working in 'Outside Syllabus Area' under a Co-curricular Activity (Creativity)
Design and implement a small database project
- E. Construct simple and moderately advanced database queries using Structured Query Language (SQL) (Practical skills)

Unit I: Overview of Database Management System

Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management System, Classification of Database Management System.

Unit-II: File-Based System

File Based System. Drawbacks of File-Based System, DBMS Approach, Advantage of DBMS, Data Models, Components of Database System, Database Architecture, DBMS Vendors and their products.

Unit-III: Entity-Relationship Model

Introduction, The Building Blocks of an Entity-Relationship, Classification of Entity Set, Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, Aggregation and Composition, CODD's Rules, Relational Data Model, Concept of Relational Integrity.

Unit-IV: Structured Query Language

Introduction, History of SQL Standards, Commands in SQL, Data types in SQL, Data Definition Language (DDL), Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations

Unit V:PL/SQL

Introduction, Structure of PL/SQL, PL/SQL Language Elements, Data Types, Control Structure, Steps to Create a PL/SQL Program, Iterative Control Cursors, Steps to Create a Cursor, Procedure, Functions, Packages, Exceptions Handling, Database Triggers, Types of triggers.

References:

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

Online resources:

[http:// www.onlinegdb.com/](http://www.onlinegdb.com/) [http://](http://www.tutorialspoint.com/)

www.tutorialspoint.com/

<http://learnsql.com>

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

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

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

Paper IV:Database Management Systems

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S.No	Unit	Essay Questions	Short Questions	Marks Allotted
		10 marks	5 marks	
1	Unit – I Overview of Database Management System	2	2	30
2	Unit – II File-Based System	2	2	30
3	Unit – III Entity Relationship Model	2	2	30
4	Unit – IV Structured query Language	2	1	25
5	Unit – V PL/SQL	2	1	25
Total Marks				140

A.S.D.GOV. DEGREE COLLEGE FOR WOMEN (A)
KAKINADA
MODEL QUESTION PAPER
B.Com – II Year IV Semester

Paper IV:Database Management Systems

Time : 3hrs

Max Marks : 75

SECTION-A

I. Answer the following questions.

5x5=25

1. What are the advantages of DBMS?
2. write about drawbacks of File- Based system ?
3. write about CODD'S RULE?
4. Discuss about aggregation and composition?
5. Write about Data Definition language?
6. Write about Set operations?
7. Write about data models?
8. Write about data types?

SECTION-B

II. Answer any FIVE of the following questions.

5x10=50

9.(a)Write about Evolution of Database Management Systems?

(OR)

(b) Explain about the Classification of Database Management System

10.(a) Write about Data Models?

(OR)

(b) Explain about the Database Architecture?

11.(a)Explain about the Relational Data Model?

(OR)

(b) Write about the Classification of Entity Sets?

12.(a) Explain about Commands in SQL?

(OR)

(b) Explain about Aggregate Functions?

13. (a) Explain about Exceptions Handling?

(OR)

(b) Write about Types of Triggers?

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

Course: Database Management Systems Lab

Course Code:

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

1. Design database for the real world scenarios
2. Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

List of Experiments

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

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

II B.Com(C.A.) – IV Semester

Course: Object Oriented Programming with Java

Course Code:
Paper V

No. of Hours/Week: 3

Learning Outcomes:

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

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

SYLLABUS:

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

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

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

Arrays: Types of Arrays, array name, length,

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

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

Inheritance: Inheritance, Types of Inheritance

Polymorphism: Method overloading, Operator overloading

Abstract Classes: Abstract Method and Abstract Class

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

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

Unit V: Exception Handling: Errors in Java Program, Exceptions, throws Clause, throw Clause, Types of Exceptions

Threads: Single Tasking, Multi-Tasking, Uses of Threads, Creating a Thread and Running it, Terminating the Thread, Thread Class Methods.

References:

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

Online Resources:

<https://stackify.com/java-tutorials/>

<https://www.w3schools.com/java/>

<https://www.javatpoint.com/java-tutorial>

<https://www.tutorialspoint.com/java/index.html>

DEPARTMENT OF COMPUTER SCIENCE

II B.Com(C.A.) – IV Semester

Object Oriented Programming with Java

BLUE PRINT

S.No	Unit	Essay Questions	Short Questions	Marks Allotted
		10 marks	5 marks	
1	Unit – I Introduction to Java	2	2	30
2	Unit – II	2	2	30
3	Unit – III	2	2	30
4	Unit – IV	2	1	25
5	Unit – V	2	1	25
Total Marks				140

A.S.D. GOVT. DEGREE COLLEGE FOR WOMEN(A), KAKINADA
MODEL QUESTION PAPER
B.Com II YEAR - IV SEMESTER
OBJECT ORIENTED PROGRAMMING WITH JAVA

Time : 3hrs

Max Marks : 75

SECTION-A

I. Answer any FIVE of the following questions.

5x5=25

1. Explain the features of Java.
2. Write a short note on JVM.
3. Explain about break and continue statements in java
4. Explain about switch statement in java
5. Discuss about abstract methods and classes.
6. Write a short note on Constructors.
7. Explain different types of packages
8. Explain about different types of Exceptions

SECTION-B

II. Answer the following questions.

5x10=50

9. (a) What are the basic concepts of Object Oriented Programming? Explain.

(Or)

(b) Explain various types of Operators available in Java.

10.(a) How to create strings in java? Explain about String Class Methods.

(Or)

(b) How to create Arrays in Java? Explain with Example.

11.(a) What is Inheritance? Explain about types of inheritance.

(Or)

(b) Explain about Method overloading with an example

12. (a) What is a package? Explain how to create and access packages.

(Or)

(b) Explain about FileInputStream and FileOutputStream.

13.(a) What is a Thread? How to create Threads in Java?

(Or)

(b) Explain about Exception handling in Java.

Practical Component: @ 2 hours/week/batch

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

DEPARTMENT OF COMPUTER SCIENCE
B.Com (C.A.) – V Semester

Course: DATA BASE MANAGEMENT SYSTEMS

Course Code: DBMS5208

No. of Hours/Week: 5

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

1. Understand DBMS concepts, data models and Architecture.
2. Understand ER concepts and ER mapping to relational model
3. Improve the database design by normalization.
4. Make use of SQL to retrieve and maintain relational database.
5. Illustrate various constructs in PL/SQL.

UNIT-I

Overview of Database Management System: Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management Systems, Classification of Database Management System.

UNIT-II

File-Based System, Drawbacks of File-Based System , DBMS Approach, Advantages of DBMS, Data Models , Components of Database System, Database Architecture.

UNIT-III

Entity–Relationship Model: Introduction, The Building Blocks of an Entity– Relationship, Classification of Entity Sets , Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, aggregation and composition, CODD’S Rules, Relational Data Model , Concept of ,Relational Integrity.

UNIT-IV

Structured Query Language: Introduction, History of SQL Standard, Commands in SQL, Data types in SQL, Data Definition Language (DDL), Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.

UNIT –V

PL/SQL: Introduction, Structure of PL/SQL, PL/SQL Language Elements ,Data Types, Control Structure,, Steps to Create a PL/SQL Program, Iterative Control ,Types of Cursors , Procedure, Function ,Exceptions Handling, Database Triggers.

Additional Inputs:

Transaction Management and Concurrency Control: What is transaction, Concurrency control, Concurrency control with locking Methods, Concurrency control with time stamping methods.

Text Books:

1. Database System Concepts by Abraham Silberschatz, Henry Korth, and S. Sudarshan, McGrawhill, 2010.
2. Database Management Systems by Raghu Ramakrishnan, McGrawhill, 2002.
3. Fundamentals of Relational Database Management Systems by S. Sumathi, S. Esakkirajan, Springer Publications.

Reference Books:

1. An Introduction to Database Systems by Bipin C Desai
2. Principles of Database Systems by J. D. Ullman
3. Fundamentals of Database System by R. Elmasri and S. Navathe
4. Database Systems Design, Implementation and Management by Peter Rob, Carlos CoronelSeventh Edition, Thomson , 2007.

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

Course: WEB TECHNOLOGIES

Course Code: WT5209

No. of Hours/Week: 5

Course Objective:

To inculcate knowledge on web architecture, web services, client side and server side scripting technologies and to provide skills to design interactive and dynamic web sites.

Course Outcomes:

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

1. Write well-structured, easily maintained, standards-compliant, accessible HTML code to design a web page.
2. Design well-structured, easily maintained CSS code to present HTML pages in different ways.
3. Know the basics of java script to perform client side programming
4. Build dynamic web pages using JavaScript.

UNIT-I

Introduction: HTML, XML, and WWW, Topologies, Bus, Star, Ring, Hybrid, Tree, Lan, Wan, Man. HTML: Basic HTML, Document body, Text, Hyper links, Adding more formatting, Lists, Tables using colors and images. More HTML: Multimedia objects, Frames, Forms towards interactive, HTML document heading.

UNIT-II

Cascading Style Sheets: Introduction, using Styles, simple examples, your own styles, properties and values in styles, style sheet, formatting blocks of information, layers.

UNIT-III

Introduction to JavaScript: What is DHTML, JavaScript, basics, variables, string manipulations, mathematical functions, statements, operators, arrays.

UNIT-IV

Objects in JavaScript: Data and objects in JavaScript, regular expressions, exception handling, built-in objects, events.

UNIT-V

DHTML with JavaScript: Data validation, opening a new window, messages and confirmations, the status bar, different frames, rollover buttons, moving images.

Text Books:

1. Internet & World Wide Web How to Program by Harvey M. Deitel and Paul J. Deitel, 4/e, Pearson Education.
2. Web Technologies by Uttam Kumar Roy, Oxford University Press

Reference Books:

1. Beginning Web Programming by Jon Duckett, WROX.
2. Programming world wide web by Sebesta, Pearson.

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
DEPARTMENT OF COMPUTER SCIENCE
B.Com (C.A.) – VI Semester

Course: E-COMMERCE

Course Code: ECE6209

No. of Hours/Week: 5

Course Objective:

To impart knowledge on the concept of E-commerce, its types and familiarize the students with various concepts of E-business models. Make the students understand Selling and marketing on web.

Course Outcomes:

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

1. Recognize the fundamental principles of e-Business and e-Commerce
2. Describe scenarios for B2B e-commerce.
3. Identify the role of internet and extranet in E-Commerce.
4. Explain policy and regulatory issues in E-commerce.
5. Identify the necessary infrastructure for implementing E-Commerce.

UNIT-I

Introduction to E-Commerce: Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage - Sustainable Competitive Advantage, Competitive Advantage using E-Commerce - Business Strategy.

UNIT-II

Business-to-Business Electronic Commerce: Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts, EDI and Business.

UNIT-III

Internet and Extranet : Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, Intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges.

UNIT-IV

Public Policy: From Legal Issues to Privacy : Legal Incidents, Ethical and Other Public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

UNIT-V

Infrastructure For EC : Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – Problems in Operation – Future of EC.

Additional Inputs:

Corporate Data Warehouses, Consumer search and Resource discovery.

Text Books:

1. David Whiteley, “E-Commerce”, Tata McGraw Hill, 2000.
2. E Business by Parag Kulakarni and Sunitha Jahirabdkar from Oxford University Press.
3. E Business by Jonathan Reynolds from Oxford University Press.

Reference Books

1. Eframi Turban, Jae Lee, David King, K. Michael Chung, “Electronic Commerce”, Pearson Education, 2000.
2. R. Kalakota and A. B. Whinston, Frontiers of Electronic Commerce, Addison Wesley.
3. David Kosiur, Understanding Electronic Commerce, Microsoft Press.
4. Soka, From EDI to Electronic Commerce, McGraw Hill.