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

### DEPARTMENT OF COMPUTER SCIENCE

### ACADEMIC YEAR 2020-2021

## **B.Sc.(MPCS) PROGRAMME OUTCOMES**

- **PO1.** Graduates will acquire adequate knowledge and leadership skills for a successful career
- **PO2.** Graduates will cooperate with each other to solve problems with creative thinking
- **PO3.** Graduates will acquire practical skills- plan & execute experimental techniques independently as well as to analyse & interpret data.
- **PO4.** Graduates will effectively be able to manage resources, time, will be able to learn independently and develop critical thinking.
- **PO5.** Graduates will accomplish ability to communicate effectively and able to understand ethical responsibility. They also acquire adequate knowledge to use information & communication technology.
- **PO6.** Graduates will carry on to learn and to adapt in a world of constantly evolving technology.

## **B.Sc.(MPCS) PROGRAMME SPCIFIC OUTCOMES**

- **PSO1.** To understand the importance of Mathematics in learning Physics and Computer Science and vice versa.
- **PSO2.** To understand the inter relationship between mathematics and computer science with regard to algorithms, computations and excel calculations, data presentation and data analysis.
- **PSO3.** To understand the inter relationship between Physics and Computer Science in the design and architecture of computers.
- **PSO4.** To apply the knowledge of Mathematics and Computer Science in solving problems in real life situations.
- **PSO5.** To create employment opportunities in interdisciplinary areas such as data analyst, statistician, computer assisted instrument operator etc.

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## **B.Sc.(MPCS) COURSE OUTCOMES**

B.Sc.(MPCS) – Semester-I Course: PROBLEM SOLVING IN C

Course Code: CS201304 No. of Hours/Week: 4

Paper : I

**Course Outcomes:** 

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

- 1. Understand the fundamentals of C programming.
- 2. Make use of loops, decision making statements and functions to solve the problem.
- 3. Implement different Operations on Arrays.
- 4. Understand Pointers, Structures and Unions.
- 5. Implement File Operations for a given application using C file handling functions.

Course: PROBLEM SOLVING IN C

No. of Hours/Week: 2

Course Code: CS201304P

**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.

## B.Sc.(MPCS) – Semester II Course: DATA STRUCTURES USING C

Course Code: CS202304 No. of Hours/Week: 4

Paper: II

**Course Outcomes:** 

- 1. Understand fundamental concepts of Data structures and to design Linked lists.
- 2. Implement linear data structures stacks, queues.
- 3. Design non-linear data structures like trees, graphs and implement their operations.
- 4. Compare and Contrast different searching and sorting techniques.
- 5. Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
- 6. Design and develop programs using various data structures

Course: DATA STRUCTURES USING C LAB

Course Code: CS202304P No. of Hours/Week: 2

### **Course Outcomes:**

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

- 1. Implement various operations on arrays
- 2. Implement Linked list and Perform operations on it.
- 3. Make use of arrays and linked lists to implement Stack and Queues.
- 4. Implement various traversals on Trees and Graphs.
- 5. Implement various shortest path algorithms.
- 6. Implement various searching and sorting techniques.

## B.Sc.(MPCS) –Semester - III Course: OBJECT ORIENTED PROGRAMMING USING JAVA

Course Code: CS3304 No. of Hours/Week: 4

Paper: III

### **Course Outcomes:**

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

- 1. Understand and Apply Object Oriented features and understand the basics of Java.
- 2. Develop problem-solving and programming skills using OOP concepts.
- 3. Apply the concepts of inheritance and to create arrays, strings.
- 4. Able to demonstrate Exception Handling and Multithreading.
- 5. Develop efficient Java applets and applications using OOP concepts.

### Course: OBJECT ORIENTED PROGRAMMING USING JAVA LAB

Course Code: CS3304P No. of Hours/Week: 2

### **Course Outcomes:**

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

- 1. Apply OOP concepts to solve real time problems.
- 2. Make use of class, inheritance, interface and packages to develop solutions for complex problems.
- 3. Build java applications using Exception handling and Threads.

## **B.Sc.(MPCS)** – **Semester IV Course: DATA STRUCTURES**

Course Code: CS4304 No. of Hours/Week: 4

Paper: IV

#### **Course Outcomes:**

- 1. Understand fundamental concepts of Data structures and to design Linked lists.
- 2. Implement linear data structures stacks, queues.
- 3. Design non-linear data structures like trees, graphs and implement their operations.
- 4. Compare and Contrast different searching and sorting techniques.

Course: DATA STRUCTURES USING JAVA LAB

Course Code: CS4304P No. of Hours/Week: 2

**Course Outcomes:** 

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

1. Implement Linked list and Perform operations on it.

- 2. Make use of arrays and linked lists to implement Stack and Queues.
- 3. Implement various traversals on Trees and Graphs.

## B.Sc.(MPCS) – Semester V Course: DATA BASE MANAGEMENT SYSTEMS

Course Code: CS5307 No. of Hours/Week: 3

Paper: V

### **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.

### Course: DATA BASE MANAGEMENT SYSTEMS LAB

Course Code: CS5307P No. of Hours/Week: 2

### **Course Outcomes:**

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

- 1. Design database and ER diagrams for the real world scenarios
- 2. Understand ER concepts and ER mapping to relational model
- 3. Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

## B.Sc.(MPCS) –Semester V Course: SOFTWARE ENGINEERING

Course Code: CS5308 No. of Hours/Week: 3

Paper: VI

### **Course Outcomes:**

- 1. Understand basic concepts of software engineering.
- 2. Analyse the principles of requirement analysis
- 3. Create architectural design for a given project.
- 4. Plan the Project and identify the risk
- 5. Apply different testing techniques

Course: SOFTWARE ENGINEERING LAB

Course Code: CS5308P No. of Hours/Week: 2

Paper: VI

### **Course Outcomes:**

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

- 1. Understand basic concepts of software process models.
- 2. Develop SRS for a real world Project.
- 3. Analyze the risk related to a project using RMMM plan.
- 4. Design various test cases for a real world scenario.

## B.Sc.(MPCS) – Semester VI Course: WEB TECHNOLOGIES Elective - C

**Course Code: CS6304** 

Paper: VII No. of Hours/Week: 3

### **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.
- 5. Create XML documents used to share data on the World Wide Web

Course: WEB TECHNOLOGIES LAB Elective - C

Course Code: CS6304P No. of Hours/Week: 2

### **Course Outcomes:**

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

## B.Sc.(MPCS) – Semester VI Course: DISTRIBUTED SYSTEMS

**Cluster 1: Elective – B-1** 

Course Code: CSE20310

Paper: VIII No. of Hours/Week: 3

**Course Outcomes:** 

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

- 1. Demonstrate knowledge of the basic elements and concepts related to distributed system technologies.
- 2. Demonstrate knowledge of the core architectural aspects of distributed systems.
- 3. Use and apply important methods in distributed systems to support scalability and fault tolerance;
- 4. Demonstrate experience in building large-scale distributed applications.

**Course: DISTRIBUTED SYSTEMS LAB** 

**Cluster 1: Elective – B-1** 

Course Code: CSE20310P No. of Hours/Week: 2

**Course Outcomes:** 

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

- 1. Demonstrate Inter-process Communication and Remote Procedure Call in Distributed Systems.
- 2. Implement Mutual Exclusion in Distributed Systems.
- 3. Demonstrate Election Algorithm in Distributed Systems.

## B.Sc.(MPCS) – Semester VI Course: CLOUD COMPUTING

Cluster 1: Elective – B-2

**Course Code: CSE20311** 

Paper: VIII No. of Hours/Week: 3

**Course Outcomes:** 

- 1. Compare the strengths and limitations of cloud computing
- 2. Identify the architecture, infrastructure and delivery models of cloud computing
- 3. Apply suitable virtualization concept.
- 4. Choose the appropriate Cloud Model and approach.
- 5. Address the core issues of cloud computing such as security, privacy and interoperability.

Course: CLOUD COMPUTING LAB

**Cluster 1: Elective – B-2** 

Course Code: CSE20311P No. of Hours/Week: 2

**Course Outcomes:** 

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

1. Define & implement Virtualization using different Cloud Vendors

- 2. Describe steps toper form on demand Application delivery using various Cloud Service Providers
- 3. Analyse and understand the functioning of different components in Amazon web services.

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