SVB Govt Degree College, Koilkuntla

Programme Specific Outcomes (PSOs)

B.Sc (MPCs)

1. Students develop problem-solving skills and methods and develop logical tools and models used to solve various real-life problems.
2. Students acquire knowledge of traditional and modern techniques of solving algebraic, transcendental equations, differential, and integral equations, which have applications in many disciplines.
3. The students attain sound knowledge in the areas of Mechanics, Thermal Physics, Waves and oscillations, optics, electromagnetism, modern physics, and solid-state physics for pursuing higher education and research.
4. Ability to design and develop software applications to address real-time problems using Programming languages, Databases, and Operating Systems Concepts.

Course Learning Outcomes (CLOs)

I SEMESTER

Paper-I: PROGRAMMING IN C

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

1. Appreciate and understand the working of a digital computer
2. Analyze a given problem and develop an algorithm to solve the problem
3. Improve upon a solution to a problem
4. Use the 'C' language constructs in the right way
5. Design, develop and test programs written in 'C'

II SEMESTER

Paper-II: DATA STRUCTURES

After completing this course satisfactorily, a student will be able to:

1. Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms
2. Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.
3. Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs
4. Demonstrate different methods for traversing trees
5. Compare alternative implementations of data structures with respect to performance
6. Compare and contrast the benefits of dynamic and static data structures implementations
7. Describe the concept of recursion, give examples of its use, and describe how it can be implemented using a stack.
8. Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

III SEMESTER

Paper-II: OBJECT ORIENTED PROGRAMMING USING JAVA

1. Understand the concept and underlying principles of Object-Oriented programming
2. Understand how object-oriented concepts are incorporated into the Java programming language
3. Develop problem-solving and programming skills using the OOP concept
4. Understand the benefits of a well-structured program
5. Develop the ability to solve real-world problems through software development in high-level
6. programming language like Java
7. Develop efficient Java applets and applications using the OOP concept
8. Become familiar with the fundamentals and acquire programming skills in the Java language.

IV SEMESTER

Paper-IV: DATA STRUCTURES

After completing this course satisfactorily, a student will be able to:

1. Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms
2. Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.
3. Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs
4. Demonstrate different methods for traversing trees
5. Compare alternative implementations of data structures with respect to performance
6. Compare and contrast the benefits of dynamic and static data structures implementations
7. Describe the concept of recursion, give examples of its use, and describe how it can be implemented using a stack.
8. Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

V SEMESTER

Paper-V: Data Base Management System

On completing the subject, students will be able to:

1. Design and model of data in the database.
2. Store, Retrieve data in the database.

V SEMESTER

Paper VI: Software Engineering

1. Ability to gather and specify requirements of the software projects.
2. Ability to analyze software requirements with existing tools
3. Able to differentiate different testing methodologies
4. Able to understand and apply the basic project management practices in real-life projects
5. Ability to work in a team as well as independently on software projects

VI SEMESTER

Paper-VII: Elective-A

Web Technologies:

1. To understand the web architecture and web services.
2. To practice the latest web technologies and tools by conducting experiments.
3. To design interactive web pages using HTML and Style sheets.
4. To study the framework and building blocks of the .NET Integrated Development Environment.
5. To provide solutions by identifying and formulating IT-related problems.

VI SEMESTER

Paper-VII: Elective-A

PHP:

Course Outcomes

1. Introduction to web development with PHP
2. How to code a PHP application
3. Introduction to relational databases and MySQL
4. How to use PHP with a MySQL database
5. How to use the MVC pattern to organize your code
6. How to test and debug a PHP application
7. How to work with form data
8. How to code control statements
9. How to work with strings and numbers
10. How to work with dates
11. How to create and use arrays
12. How to work with cookies and sessions
13. How to create and use functions
14. How to use regular expressions, handle exceptions & validate data