

## **CS3353 C PROGRAMMING AND DATA STRUCTURES**

### **IMPORTANT QUESTION**

#### **UNIT - I C PROGRAMMING FUNDAMENTALS**

##### **2 - Mark**

1. What are the Types of Data?
2. Define the Operations of C programming.
3. Identify Conditional Statements.
4. What are Recursive Functions?
5. What are Arrays?

##### **13 - Mark**

1. Explain Variables
2. Describe Expressions and Statements
3. Explain the functions of C programming
4. Demonstrate single and Multi-Dimensional Arrays.

#### **UNIT - II C PROGRAMMING - ADVANCED FEATURES**

##### **2 - Mark**

1. What are structures?
2. Define union.
3. Write about Arrays and Functions.
4. What is File Handling?

##### **13 - Mark**

1. Describe Enumerated Data Types.
2. Explain Pointers.
3. Define preprocessor Directives with detailed reference.

### **UNIT - III LINEAR DATA STRUCTURES**

#### **2 - Mark**

1. List ADT in linear data structures
2. Define Implementation of Stack
3. State the Applications of linear data structures
4. Queue ADT linear data structures
5. What are Priority Queues?
6. Define Queue Implementation.

#### **13 - Mark**

1. Explain Abstract Data Types (ADTs)
2. Describe Array-Based Implementation
3. Demonstrate Circular Linked List.
4. Define stack ADT with detailed reference.
5. Distinguish Linked List & Doubly- Linked

### **UNIT IV NON-LINEAR DATA STRUCTURES**

#### **2 - Mark**

1. What are Trees?
2. Define Binary Trees.
3. Explain Binary Search Tree.
4. What is hashing?
5. Define linear Probing.
6. What is Double Hashing?

#### **13 - Mark**

1. Explain tree Traversals.
2. Describe expression Trees.
3. Define Hash Functions with detailed reference.
4. Define Separate Chaining
5. Describe Open Addressing
6. Demonstrate Quadratic Probing

**UNIT V SORTING AND SEARCHING TECHNIQUES**

**2 - Mark**

1. What is Insertion Sort
2. Define Quick Sort
3. Write about Heap Sort
4. What is Merge Sort

**13 - Mark**

1. Explain Linear Search
2. Describe Binary Search.

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