Mid-West University
Examinations Management Office
Final Examinations-2079

Bachelor level/ B.Sc CSIT / 3rd Semester	Full Marks: 60
Time: 3 hours	Pass Marks: 30
Subject: Data Structure and Algorithms (COM431)	

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Long Answer Questions (Any Three)   **[3x8=24]**

1) Explain the circular Queue with insertion and deletion algorithm and C function.
2) What is linked list? Explain its types. Explain the Deletion operation at the beginning and end of singly linked list.
3) What is searching? Why it is essential? Explain the Sequential and Binary search.
4) Explain the different type of Binary Tree Traversal.

Group B

Short Answer Questions (Any Five)   **[5x4=20]**

5) Explain different Operation use in Data Structure
6) Explain different operation use in Stack
7) Explain the Search Operation in Binary Search Tree (BST).
8) What is Recursion? Explain with example.
9) Explain the Bubble Sort.
10) Explain the Matrix Representations of Graph.

Group C

Very Short Answer Questions   **[8x2=16]**

11) Define Abstract Data Type (ADT).
12) Define overflow and underflow in Stack.
13) Difference between Static and Dynamic List.
14) Explain Complete Binary Tree.
15) What is Time and Space Complexity?
16) What is Hashing?
17) Define Round-Robin algorithms.
18) Explain Divide and Conquer algorithm

THE END