

Mid-West University
Examinations Management Office
Surkhet, Nepal
End Semester Examinations -2078

Bachelor level/B.Sc CSIT /3rd Semester

Time: 3 hrs

Subject : Data Structure and Algorithms (COM431)

Full Marks : 60

Pass Marks : 30

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'

Very short Answer Questions (Attempt ALL questions)

[8x2=16]

1. Define Abstract Data Type (ADT).
2. Define overflow and underflow in Stack.
3. What is Enqueue and Dequeue?
4. Define different types of Linked list.
5. Explain Complete Binary Tree.
6. What is Time Complexity?
7. What is Hashing?
8. Define Graph.

Group 'B'

Short Answer Questions (Attempt any FIVE questions)

[5x4=20]

9. What is Expression? Explain its types.
10. Explain different operation used in data structure.
11. Explain the Search Operation in Binary Search Tree (BST).
12. What is Recursion? Explain its types with example.
13. Explain the Selection Sort.
14. Explain the different type of Graph Representations.

Group 'C'

Long Answer Questions (Attempt any THREE questions)

[3x8=24]

15. Explain the operation used in Stack.
16. Explain the circular queue with insertion and deletion algorithms and C functions.
17. What is linked list? Explain the Insertion operation in different position of linked list.
18. Explain the different type of Binary Tree Traversal with algorithms and examples.

THE END