

Tribhuvan University
Institute of Science and Technology
2065

Bachelor Level/ First Year/ Second Semester/ Science
Computer Science and Information Technology (CSc. 154)
(Data Structure and Algorithm)

Full Marks:60
PassMark:24

Time: 3 hours.

Section A

Attempt any TWO questions: (10x2=20)

1. What do you mean by binary tree? Explain the binary search tree with example.
2. What do you mean by recursion? Explain the implementation of factorial and Fibonacci sequences with example.
3. Explain the implementation of stack and queue with example.

Section B

Attempt any EIGHT questions: (8x5=40)

4. What are the difference between two dimension array and multidimension array?
5. What are the major characteristics of algorithms?
6. How can you convert from infix to post fix notation?
7. How can you use Queue as ADT?
8. What is Post-order traversal?
9. What is sorting? Describe the Insertion.
10. Explain the binary searching.
11. Differentiate between Pre-order and In order traversal.
12. Explain the tower of Hanoi algorithm.
13. Explain the Kruskal's algorithm.

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