

SH-IV/Com.Sc./401/C-8(PR)/19

B.Sc. 4th Semester (Honours) Practical Examination, 2019

COMPUTER SCIENCE

(Analysis and Design of Algorithms)

Paper : 401/C-8

Course ID : 41521

Time: 2 Hours

Full Marks: 15

The figures in the right hand side margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the right hand side margin indicate marks.

The questions are of equal value.

LNB + Viva = 5 marks. Experiment = 10 marks.

Perform any one experiment:

1. Implement Insertion Sort algorithm.
 2. Implement Radix Sort algorithm.
 3. Implement merge sort algorithm.
 4. Implement heap sort algorithm.
 5. Write a program to determine the minimum spanning tree of a graph.
 6. Implement quick sort algorithm.
 7. Create a red-black tree and perform following operations on it:
 - (i) Insert a node
 - (ii) Delete a node
 8. Implement BFS in a graph.
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