

17/10/13

Roll No.

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B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV/DEC 2013

ECE

(R 2008)

Semester 3

CS9211 Data Structures and OBJECT ORIENTED PROGRAMMING IN C++

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. What is a token?
2. What is a destructor?
3. What is the use of virtual function ?
4. What is an exception?
5. Give 2 uses of stack ?
6. What is a queue?
7. What is minimum spanning tree?
8. What is depth first search?
9. How is pivot selected in Quick sort ?
10. How divide and conquer technique works?

Part – B (5 x 16 = 80 marks)

11. (i) Explain the various forms of constructors giving suitable example for each.
12. a) Write a C++ program to copy file f1 to file f2.
(OR)
b) Explain the various inheritance using examples.
13. a) Explain the working of linear probing and quadratic probing with an example.
(OR)
b) (i) Write an algorithm to find an element X in list L
(ii) Write an algorithm to insert an element Y in list L
14. a) (i) Construct expression trees for
(1) $(a+b*c)+((d*e+f)*g)$
(2) $ab+cde+**$
(II) Construct the binary search tree for
(1) 6,2,8,1,4,3
(OR)
14.b. (i) Write the unweighted shortest path algorithm.
(ii) Explain how you will represent a graph using adjacency list.

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15. a) Write the insertion sort algorithm and sort the sequence 6,2,8,1,4,3 using the algorithm .

(OR)

15.b Write the merge sort algorithm and apply the algorithm to the sequence 24,13,26,1,2,27,38,15. .