National Institute of Technology Calicut
Department of Computer Science and Engineering
CS3095D DBMS Lab

Time: 60 minutes **Test II** **8 Marks**

Submission II : B- tree
Set C

Part A
Answer all questions

1. Consider a B- tree of order 6 with elements 8, 18, 25 and 49 as shown below. Insert elements 25, 16, 19, 9, 7, 63 and 12 in the same order. Explain each insertion step with crisp and clear explanations.

7*0.25=1.75

8	18	25	49

2. Consider the B-tree you have gotten after inserting elements given in Question 1. Delete elements 16, 25 and 12. Give a brief explanation for each deletion.

3*0.75=2.25

Part B

Note:- Use C/C++ for implementing the following question. Two test cases will be provided during the evaluation. Each test case carries 2 marks each.

Question: Implement a B- Tree, **of order 4**, which **uses characters as its key values**. The B- Tree should incorporate the following functionalities:

Insert – To insert a key value into the B- Tree

Search – To search for a key value in the B- Tree. If the key value is found, return TRUE. Else, return FALSE.

Print – To display the elements currently present in the B- Tree (**in-order traversal**)

(2 x 2 = 4 marks)