

## CS3095D DBMS Lab (B. Tech)

### Exercise No: 06

#### B-Tree/B+ Tree

**Total Marks: 06**

**Date: 04/11/2022**

Consider a database for storing the details of students currently pursuing courses in National Institute of Technology Calicut. The database maintains the lists of students opting each elective course. The details of students taking an elective are recorded in a **B-Tree with student roll number as the index**. The B-Tree has the following functionalities:

1. **INSERT** – A new record (i.e., roll number) should be inserted.
2. **DELETE** – The specified record should be deleted. If a record that is not already present in the tree is asked to be deleted, return INVALID.
3. **SEARCH** – If the record is present in the tree, return TRUE. Else, return FALSE.
4. **PRINT** – All the records currently present in the tree should be displayed.

Write a **C/C++ program** to implement the above tree. Note that the program should interactively accept any value as the order  $m$  of the tree. Also, the **roll numbers may be taken to be integers**.