MCKV Institute of Engineering

243 G. T. Road (N), Liluah, Howrah – 711204

Subject: **Object Oriented Programming Lab** Code:**PC-CS592**
Stream: CSE(DS) Credit: 1.5

Assignment: - 07/*Concept of Class, Object, Method Overloading, Recursion & Array of Objects*

A. Create a class Room which will store width, height and breadth of the room in three variables. Create another class Roomdemo which will use earlier class, create instances of rooms, set the values of variables and would calculate volume of the rooms.

B. Write a java program to solve the Tower of Hanoi problem for n disks (n should be taken as keyboard input) using recursion. Create a separate class to define the non-static recursive function TOH(int, char, char, char).

C. Write a java program to display the first n Non-Fibonacci terms using recursion. Create a separate class to define the non-static recursive function Fibo(int n).

D. Declare a class student that represents the following hierarchical information- id, name (First, Middle, Last), Gender, DOB (day, month, year), marks of 3 subjects considering an 1D array (English, Mathematics, Computer Science). To store the name and DOB use the concept aggregation. Write a java program to store and display the database of n students by using array of objects. Also write methods to search a particular student (based on id or name) from array and display his/her details.

E. Write a java program to overload a function rect()
void rect (int, char)- With one integer argument and one-character argument draw a filled square of side n using character stored in ch.
void rect(int, int, char) – With two integer argument and one character argument draw a filled rectangle of length l and width b using characters stored in ch.

1.

2.

…….. ……..
Signatures of the Faculty Members Signatures of HOD (CSE)