

Roll No.

23071

**M.Tech. 2nd Semester (Computer
Engg.) Examination–May, 2014**

RESOURCE MGT. IN COMPUTER SYSTEMS

Paper MTCE-604-A

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt any **five** questions. All questions carry equal marks.

1. (a) Explain, what do you mean by operating system. Also explain the components of operating system. 10

- (b) What do you mean by multithreading ? Explain various multithreading models in detail. 10

2. (a) What do you mean by system calls. Explain different types of system calls in operating system. 10
- (b) Differentiate between : 10
- (i) Spooling and Buffering
- (ii) Virtual Time and Physical Time.
3. What do you mean by deadlock ? Explain in detail : 20
- (i) Deadlock detection
- (ii) Deadlock prevention
- (iii) Deadlock avoidance
4. What do you mean by distributed file system ? Explain in detail the various design issues of DFS. 20
5. (a) Give a brief discription about Lamport's Logical Clocks. 10
- (b) What do you mean by token and non token based algorithm ? Explain. 10
6. Explain in detail the Bell La Padula model. 20

7. Explain in detail the case study of Window's NT operating system. 20

8. Explain : 20

(i) Paging

(ii) Access Control List

(iii) State Process Diagram

(iv) Take Grant Method.