

Roll No. 

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M.Tech.(IT)E1 (2015 & Onwards)/(CSE Engg.)EI-I (2015 to 2017)  
(Sem.-2)

**ADVANCED OPERATING SYSTEM**

Subject Code : MTCS-205

M.Code : 72889

Time : 3 Hrs.

Max. Marks : 100

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. a. Explain the basic concepts of distributed Mutual Exclusion.  
b. Write a short note on SUN Network File System.
2. What are deadlocks? How deadlock handling in distributed environment is different from conventional operating System?
3. Write a short note on following :
  - a. Lamport's Algorithm
  - b. Distributed shared memory
4. a. Explain the implementation of RPC in a distributed system.  
b. Explain various features of a good distributed file system.
5. Define following :
  - a. Markov Process
  - b. Voting Protocols
6. a. Define failures in operating system. Explain the classification of failures.  
b. What are fault tolerant issues? Discuss Nonblocking commit protocol.
7. a. Classify the characteristics of Multiprocessor Systems.  
b. Discuss the design and implementation issues of Multiprocessor Systems.
8. a. Compare real time systems with traditional systems in terms of Task assignment and Scheduling.  
b. Write a short note on Embedded Applications.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**