

23071

M.Tech 2nd Semester (CSE) Examination,

May-2017

RESOURCE MANAGEMENT IN COMPUTER  
SYSTEMS

Paper-MTCE-604-A

*Time allowed : 3 hours]*

*[Maximum marks : 100*

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

1. What is an operating system and its function ? Also discuss services of operating system. 20
2. What types of roles play by system call ? Explain different types of system calls in operating system. 20
3. Write short note on following : 20
  - (a) Virtual Memory
  - (b) Context Switching
4. Discuss the necessary and sufficient condition for deadlock and deadlock prevention. 20
5. What is distributed system ? Explain various design issues for this, also explain briefly architecture of distributed system. 20

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6. Distinguish among following :
- (a) Compare Mutual exclusion in single computer system and distributed system. 10
  - (b) How rechart Algorithm is better than lampart algorithm toward achieving a critical section ?  
Take two state S1 and S2 to explain the concepts. 10
7. Discuss briefly distributed file system. Also explain the mechanism for building distributed file system. 20
8. Explain the following : 5×4=20
- (a) Bell LaPadula Method
  - (b) Case studies of linux and window operating system
  - (c) Access matrix model
  - (d) Logical clock