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

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.

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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