

**Distributed Operating System**

P. Pages : 2

Time : Three Hours



**KNT/KW/16/7608**

Max. Marks : 80

- Notes :
1. Solve Question 1 OR Questions No. 2.
  2. Solve Question 3 OR Questions No. 4.
  3. Solve Question 5 OR Questions No. 6.
  4. Solve Question 7 OR Questions No. 8.
  5. Solve Question 9 OR Questions No. 10.
  6. Solve Question 11 OR Questions No. 12.
  7. Assume suitable data whenever necessary.
  8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Define Distributed operating system and what are the advantages of Distributed system. **6**
- b) Discuss the designing issues of Distributed operating system. **8**

**OR**

2. a) What is the necessity of logical clock? Explain working principle of lamports logical clock. **8**
- b) What is meant by cuts of distributed computation? What is consistent cut? **6**
3. a) Explain Lamport's Algorithm. **7**
- b) What are the requirements of mutual exclusion algorithm. **6**

**OR**

4. a) Explain Raymond's tree-based Algorithm. **7**
- b) Discuss comparative performance analysis among various mutual Exclusion algorithm. **6**
5. a) Discuss deadlock handling strategies in Distributed system. **7**
- b) What are Agreement protocols? Explain. **6**

**OR**

6. a) Show that Byzantine agreement cannot always be reached among four processors if two processors are faulty. **7**
- b) What is deadlock Explain with an example. **6**
7. a) What are mechanisms for building Distributed file system. **7**
- b) Explain memory coherence with an example. **7**

**OR**

8. a) What is meant by distributed file system. 7  
b) Explain coherence protocols. 7
9. a) What are the issues in load Distributing? 6  
b) Explain the concept of load distributing along with Receiver initiated algorithm. 7

**OR**

10. a) Discuss the various policies of load Distributing algorithm. 8  
b) What are the requirements for load distributing? 5
11. a) What is commit protocol? Explain two phase commit protocol. 7  
b) What is Orphan message? Explain. 6

**OR**

12. a) Explain dynamic voting protocols. 7  
b) What are the lost messages? 6

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