PRS/KS/24/2779

Faculty of Science & Technology

Sixth Semester B.Tech. (Computer Science Engineering) (C.B.C.S.) Examination

DISTRIBUTED OPERATING SYSTEMS

Elective–III

Time : Three Hours] [Maximum Marks : 70

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.
(2) Solve Question 1 **OR** Question No. 2.
(3) Solve Question 3 **OR** Question No. 4.
(4) Solve Question 5 **OR** Question No. 6.
(5) Solve Question 7 **OR** Question No. 8.
(6) Solve Question 9 **OR** Question No. 10.

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 are the limitation of distributed system ? 7
   (B) Explain the architecture of Distributed Operating System. 7
3. (A) State & explain Lamport's algorithm for mutual inclusion. 7
   (B) What are the requirements of mutual exclusion algorithms ? Explain. 7

OR

4. (A) State & explain comparative performance analysis of all token-based and Non-token based algorithm. 7
   (B) State how to analyze performance of mutual exclusion algorithm ? 7
5. (A) What is deadlock ? Explain with an example. 7
   (B) Explain Ho-Ramamurthy centralized deadlock detection algorithm. 6

OR

6. (A) Discuss deadlock handling strategies in distributed system. 8
   (B) Explain Chandy - Mishra - Haas's Edge chasing algorithm for distributed deadlock detection with the help of example. 7
7. (A) Explain architecture of distributed file system. 7
   (B) Explain memory coherence with example. 7

OR

8. (A) Explain coherence protocols. 7
   (B) List and explain various algorithm for implementing distributed shared memory. 8
9. (A) State & explain receiver-initiated algorithm for load distributing. 6
   (B) Explain adaptive algorithm for load distribution. 8

OR

10. (A) Explain how task migration effects the performance of load sharing algorithm ? 6
    (B) Explain the issues in load distributing. 10