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K – 5416

Reg. No



Name :

Eighth Semester B.Tech. Degree Examination, February 2021

08.806 B : DISTRIBUTED SYSTEMS (F)

(2008 Scheme)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer all questions. Each question carries 4 marks.

1. What are the main challenges faced in the construction of distributed systems?
2. Explain the four different types of switching techniques used in computer networks?
3. List out the various devices used for internetworking?
4. How does the programming with distributed objects differ from object oriented programming?
5. What are the disadvantages of locks that are used in distributed systems?
6. What is the function of a distributed garbage collector?
7. List out the rules for committing nested transactions?
8. Define transaction. What is the goal of a transaction?
9. Compare monolithic kernels and micro kernels?
10. What do you mean by null invocation?

(10 × 4 = 40 Marks)

P.T.O.



PART – B

Answer **one** question from each module. Each question carries **20** marks.

Module – I

11. (a) What is the significance of MTU in data transmission? 5
(b) Define cloud computing. How is it implemented? 6
(c) How is packed delivery done by the network layer? 9

OR

12. (a) What are the major networking issues for distributed systems design? Explain. 10
(b) Explain the use of architectural models in distributed system design with examples. 10

Module – II

13. (a) Define external data representation and marshalling. 5
(b) Explain the different approaches for external data representation and marshalling. 8
(c) Illustrate the working of request- reply protocol with an example. 7

OR

14. (a) How do you perform the activation of remote objects? Explain. 6
(b) Explain how RMI and RPC are implemented in a distributed environment. 14



Module – III

15. (a) Define deadlock. Discuss different methods to handle deadlocks in distributed systems. 10
- (b) Explain file service architecture of a distributed system, with a neat diagram. 10

OR

16. (a) Describe the optimistic concurrency control approach to avoid the disadvantages of use of locks in serialization of transactions. 10
- (b) With a neat sketch, explain the system model for replica management in distributed systems. 10



(3 × 20 = 60 Marks)

