B.E. Eighth Semester (Information Technology) (C.B.S.)

Distributed Systems

P. Pages : 2 **KNT/KW/16/7618**

Time : Three Hours * 0 2 4 0 * Max. Marks : 80

Notes :
1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What is mean by Distributed System? Explain different types of Distributed System in detail. **7**

b) What is middleware in a Distributed System? Also explain. What is the role of middleware in Distributed System? **7**

OR

2. a) What is mean by (Distribution) transparency? Explain different types of transparency with the help of example of each one. **7**

b) Describe precisely what is meant by a Scalable System? **7**

3. a) What is mean by Communication? Explain different types of Communication in detail. **6**

b) What are Stub and Skeleton and why are they needed in remote procedure Calls? **7**

OR

4. a) What is mean by Message Communication? Explain different types of Message Communication. **6**

b) What are the differences between Local Procedure Call (LPC) and Remote Procedure Call (RPC)? Explain in detailed with example. **7**

5. a) Explain threads in Distributed System with the help of diagram. **7**

b) Why code migration is required? What are the different methods available to achieve it? **6**

OR

6. a) What is clock Synchronization? Also explain the terms Global Clock and Physical clock. **7**

b) Explain different Mutual exclusion algorithms with example. **6**

7.	a)	Explain what is mean by Deadlock in Distributed System?	**7**
	b)	What are the different methods used to handle the deadlock?	**6**

OR

8.	a)	Explain Path Pushing algorithm with example.	**6**
	b)	Explain Edge Chasing algorithm with example.	**7**
9.	a)	Explain Distributed Shared Memory (DSM) Architecture with help of diagram.	**7**
	b)	What are the different issues should be consider while designing Distributed Shared Memory (DSM) System? Explain each one.	**6**

OR

10.	a)	Give the different advantages of DSM System.	**6**
	b)	What is Thrashing? Explain.	**7**
11.	a)	Explain Architecture of Distributed File System (DFS) with the help of diagram.	**7**
	b)	How file Sharing done with the help of Distributed File System (DFS) like Coda?	**7**

OR

12.	a)	What is fault tolerance? How it can be handled in Distributed System?	**7**
	b)	Write short note on CORBA.	**7**

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