

6E7136

Total No. of Questions : 22

Total No. of Pages : 04

Roll No. :

6E7136

B.Tech. VI-Sem. (Main/Back) Exam., May-2025

Computer Science and Engineering

6CS5-11/-Distributed System (EI-I)

CS,IT

Time : 3 Hours

Maximum Marks : 70

Instructions to Candidates :

Attempt all ten questions from Part-A, five questions out of seven questions from Part-B and three questions out of five questions from Part-C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used / calculated must be stated clearly.

Use of following supporting material is permitted during examination.

(Mentioned in Form No. 205)

1.

ersahilkagyan.com

2.

PART-A

[10×2=20]

(Answer should be given up to 25 words only)

All questions are compulsory

Q.1. What is distributed system?

Q.2. What are the key features of distributed system?

- Q.3. Differentiate between the RPC and RMI.
- Q.4. Define Load Balancing in distributed system.
- Q.5. Differentiate between the process and thread.
- Q.6. List two advantages of dynamic load sharing.
- Q.7. What is distributed shared memory?
- Q.8. How does distributed shared memory improve system performance?
- Q.9. What is concept of Faults?
- Q.10. What are the key issues in managing replicated data?

PART-B

[5×4=20]

(Analytical/Problem Solving Questions)

Attempt any five questions

- Q.1. Discuss different types of operating systems used in distributed system.
- Q.2. Explain the role of distributed computing environment.
- Q.3. Explain Inter-Process Communication Mechanism.
- Q.4. What is distributed deadlock handling? Explain it.
- Q.5. Explain the distributed process implementation.
- Q.6. Explain the concept of memory consistency models. Why are they important?
- Q.7. Discuss the randomized distributed agreement approach and its advantages.

PART-C

[3×10=30]

(Descriptive/Analytical/Problem-Solving/Design Questions)

Attempt any three questions

- Q.1. Explain the Architecture Models. How design issue affect the system performance?
- Q.2. Explain the language mechanisms for synchronization.
- Q.3. Discuss the design and implementation of a distributed file system.
- Q.4. Explain the implementation of distributed shared memory systems.
- Q.5. What is the Byzantine Agreement? Explain different approaches to solve it.

----- x -----