

6E1557

Roll No. _____

[Total No. of Pages : 27] **22****6E1557**

B.Tech. VI Sem. (Main Back) Examination June - 2022
Computer Sc. and Engg.
6CS5-11 Distribution System

Time : 2 Hours**Maximum Marks : 80****Min. Passing Marks : 28****ersahilkagyan.com****Instructions to Candidates:**

Attempt all five questions from Part A, four questions out of six questions from Part B and two questions out of three 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)

Part - A

(Answer should be given up to 25 words only)

All questions are compulsory.

(5×2=10)

1. What are the main characteristics of Distributed system? ①
2. What are the different models of Distributed system? ①
3. Define Distributed File system (DFS) with its requirements. ①
4. What is the need of multicast communication in Distributed system?
5. Define replication. What are the needs of replication? ①

Part - B

(Analytical/Problem solving questions)

Attempt any four questions.

(4×10=40)

1. "Transparency is one the most important feature of Distributed system", Justify the statement with example. ② ③
2. Give the reason for "Access transparency is not maintained by conventional Remote procedure call (RPC)" ② ④
3. How does Distributed file system (DFS) encourage sharing a storage device, explain with the help of DFS architecture. ② ④

4. Define Distributed mutual exclusion. In how many ways the mutual exclusion can be achieved in Distributed system?
 5. In which situations, the following election algorithms are suitable
 - i. Bully.
 - ii. Ring.
 6. Explain transaction recovery techniques with example. ~~AND~~ (4)
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Part - C

(Descriptive/Analytical/Problem Solving/Design Questions)

Attempt any **two** questions.

(2×15=30)

1. Why do we need a Distributed system? What are the challenges in achieving the requirements of Distributed system? Explain. (10)
2. Define distributed objects. What are the needs of event notification during the communication among distributed system? Explain the distributed event notification architecture in detail.
3. Define fault tolerance. Explain how fault tolerance is ensured in distributed system. What are the different fault tolerance techniques?