Exam Number: _____

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B.E. 7th (ATKT) EXAMINATION APRIL- 2025

Subject Name : Distributed Systems | Subject Code: CT704A-N

Date: 02/04/2025(Wednesday) Time: 12.30 pm to 03.30 pm | Total marks: 70

Instructions:

1. Answer each section in separate Answer sheet.
2. All questions are compulsory.
3. Indicate clearly, the options you attempt along with its respective question number.
4. Use the last page of main supplementary for rough work.

Section-I

Q.1 (A) What is Distributed System? Explain various issues related to Distributed System design. (5)

(B) Explain RSA algorithm in details. (5)

(C) Explain Bully Election algorithm in details. (5)

OR

(C) What is deadlock? How it can be handled in Distributed System. (5)

Q.2 (A) What is DSM?Explain DSM architecture using nodes. (5)

(B) What is Process Migration? Explain advantage of Process Migration. (5)

OR

Q.2 (A) Describe type of File Sharing semantic. (5)

(B) Define WWW and describe working of WWW. (5)

Q.3 (A) Give the different between FLIP and VMTP Protocols. (5)

(B) List and describe three cloud computing services. (5)

OR

Q.3 (A) Write and explain algorithm of constructing a DFS Spanning tree with a Specified root. (5)

(B) Explain Digital Signature in details. (5)

Section-II

Q.4 (A) Give the different between Grid Computing and Cloud Computing. (5)

(B) Explain SOA in details. (5)

(C) What is IPC? Explain message Passing and Shared Memory System. (5)

OR

(C) Define Load Balancing Approach in DS. (5)

Q.5 (A) List out Various election algorithms. Explain Token Ring Algorithm in details. (5)

(B) Discuss Various issue in designing the DSM (Distributed Shared Memory) System. (5)

OR

Q.5 (A) Explain Client-Server Model with suitable figure. (5)

(B) Explain RPC Communication Protocols with suitable figure. (5)

Q.6 (A) Write Short note on RMI Architecture. (5)

(B) Give the different between Centralize and Distributed System. (5)

OR

Q.6 (A) Discuss about ATM reference Model with its Functionality. (5)

(B) Explain strict consistency in context of Distributed shared memory. (5)