FACULTY OF ENGINEERING

B.E. (CSE) VII-Semester (AICTE) (Main & Backlog) Examination, February/March-2023

Subject: Distributed Systems

Time: 3 Hours

Max. Marks: 70

(Missing data, if any, may be suitably assumed)

PART – A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. What is the role of middleware in DS?
2. Define Message passing interface .list the primitive of MPI.
3. Differentiate between Persistent and transient communication.
4. What is Happened - Before relation?
5. What are the different types of failure models in distributed systems?
6. List out any four CORBA services?
7. List of file system operations supported by NFS.
8. Difference between remote access model and upload download model for accessing file Operations.
9. Explain Map-Reduce programming approach.
10. What are Web Server Clusters ?

PART – B

Note: Answer any five questions.

(5 x 10 = 50 Marks)

11. (a) Illustrate various types of DS with neat diagram.
    (b) Explain about the object based style in DS .

12. (a) Explain about Clock-Synchronization algorithms
    (b) List the basic operations of RPC.

13. (a) Explain about 2 Phase Commit Protocol. How does 3 Phase Commit Protocol differ from 2 Phase Commit Protocol?
    (b) compare the services provided by CORBA, DCOM.

14. Draw the architecture of SUN NFS and explain the flow control of SUN NFS .

15. (a) Explain about Service-Oriented Architectures, and REST?
    (b) Explain about Windows AZURE?

16. (a) Explain the basic operations of RPC With Neat Diagram?
    (b) What are the useful requirements for distributed system being fault tolerant?

17. (a) Explain about 2 Phase Commit Protocol.
    (b) Explain about synchronization in Distributed coordination - based systems?

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