Total No. of Questions : 8]   *[Total No. of Printed Pages : 2*

Roll No ....

MCA-505(A)

M.C.A. V Semester

Examination, June 2020

Distributed Systems

(Elective-III)

Time : Three Hours

Maximum Marks : 70

Note: i)   Attempt any five questions.

ii)   All questions carry equal marks.

1. a)   What are Distributed Systems? Write advantages and disadvantages of Distributed System over centralized systems.   7

   b)   What are the different ways to inter connect hardware in Distributed Systems?   7

2. a)   How physical clocks are different from logical clocks? Why clock synchronization is necessary in Distributed Systems?   7

   b)   Describe various communication protocols used for remote procedure calls.   7

3. a)   What are the requirements of distributed mutual exclusion? Explain.   7

   b)   Explain Ring Algorithm with example.   7

4. a)   Describe user threads and Kernel threads. Explain multithreading models with examples.   7

   b)   Explain distributed transactions.   7

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5. a) Compare Data Centric Consistency Model and client centric consistency model.   7

    b) What are the various approaches used in security of Distributed Systems?   7

6. a) Explain various types of distributed file systems.   7

    b) Explain goals and design issues of distributed file system.7

7. a) Discuss the SUN network file system.   7

    b) What is shared memory consistency model? Explain.   7

8. Write short notes on the following :   2×7=14

    a) DSM servers

    b) JAVA RMI

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