Roll No....................................

MCA - 505(A)

MCA. V Semester

Examination, December 2015

Distributed Systems

(Elective - III)

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) Define Degree of transparency.
   b) What is the role of middle wave in a distributed system?
   c) Explain about interceptors. Also centres its uses.
   d) Discuss about different architectural styles briefly.

OR

Explain different types of distributed systems.

Unit - II

2. a) Would it make sense to limit the number of threads in a server processes?
   b) Define mutual exclusion in distributed system.
   c) Differentiate between logical clocks and physical clocks.

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d) Describe Bell algorithm with example.

OR

Explain ring algorithm with the help of example.

Unit - III

3. a) Define sequential consistency.
   b) Define fault tolerance.
   c) To what extent is scalability of atomic multicasting important?
   d) Explain about secure socket layer.

OR

Explain different types of consistency protocols.

Unit - IV

4. a) What is difference between remote objects and distributed objects.
   b) Explain whether or not MFS is to be considered a distributed file system.
   c) What is file locking?
   d) Explain about CORBA.

OR

Discuss design issues of distributed file systems.

Unit - V

5. a) What is MIME?
   b) What is Orbix?
   c) Differentiate static and dynamic RMI.
   d) Explain general organization of Java space in jini.

OR

Describe about replication for web hosting systems.

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