Code: 9F00405a

MCA IV Semester Supplementary Examinations May 2019
DISTRIBUTED SYSTEMS
(For 2009, 2010, 2011, 2012 (LC), 2013, 2014, 2015 & 2016 admitted batches only)

Time: 3 hours   Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1 (a) Discuss the challenges of distributed systems.
   (b) Describe the main features of the TCP/IP suite of protocols.

2 (a) What are the three alternative approaches to external data representation & marshalling?
   (b) Discuss the concept of request/reply message handling using HTTP protocol and its limitation & advantages.

3 (a) Explain the design issues of RMI.
   (b) Briefly explain the events and notifications mechanism in a distributed system.

4 (a) With neat sketch, explain the operating system layer and core OS functionality.
   (b) Compare thread versus multiple processes.

5 (a) Explain sun network file system.
   (b) With neat diagram, explain the file service architecture.

6 (a) Explain name space and name resolution.
   (b) Write an algorithm for mutual exclusion.
   (c) List out use of locks in strict two phase locking.

7 (a) Describe two phase commit protocol and its operations.
   (b) Illustrate digital signatures with public keys.

8 (a) Discuss system model for page-based distribute shared memory.
   (b) Explain release consistency.

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