

Code: 9F00405a

MCA IV Semester Regular & Supplementary Examinations, July 2013

DISTRIBUTED SYSTEMS

Time: 3 hours

Max Marks: 60

Answer any FIVE questions
All questions carry equal marks

- 1 (a) List and describe the challenges of distributed systems.
(b) Explain in detail the network principles.
- 2 (a) Discuss the general characteristics of inter process communication.
(b) Give a detailed note on group communication.
- 3 Explain about the communication between distributed objects by means of RMI.
- 4 (a) Explain how multi-threading enables servers to maximize their throughput.
(b) Describe the architecture of a Kernel suitable for a distributed system.
- 5 (a) Discuss the requirements and pitfalls in design of distributed services.
(b) With a neat diagram, explain NFS architecture.
- 6 (a) Discuss the role of DNS name servers.
(b) Explain time stamp ordering based concurrency control scheme.
- 7 (a) What is distributed deadlock? Explain with an example.
(b) Define authentication. Explain the logics of authentication and also describe technic of how a user is authenticated to the system.
- 8 (a) Compare and contrast DSM and message passing approaches.
(b) Enumerate the features of Mach.
