Code: CS7T4C

IV B.Tech - I Semester – Regular Examinations – November 2015

DISTRIBUTED SYSTEMS
(COMPUTER SCIENCE AND ENGINEERING)

Duration: 3 hours   Max. Marks: 70

Answer any FIVE questions.   All questions carry equal marks

1. a) What is a distributed system and describe the goals of a
      Distributed System.   7 M

   b) Briefly describe the Architectural Styles of DS.   7 M

2. a) Describe how Threads are used in distributed systems? 7 M

   b) Describe various issues and choices available in doing code
      migration in heterogeneous systems.   7 M

3. a) Describe how parameters can be *passed by value*, and *by
      reference* in a remote procedure call (RPC).   7 M

   b) Describe how the Quality of Service can be supported
      when using *stream* oriented communication.   7 M

4. a) Describe how the naming is done in DS with an example.
                                                                7 M

b) Explain any two election Algorithms. 7 M

5. a) Briefly describe *consistency models*. 7 M

b) Write a short note on Content Replication. 7 M

6. a) Describe various design issues in implementing *process resilience*. 7 M

b) Discuss various failures that can take place when making RPC calls and suggest how these failures can be handled. 7 M

7. a) Describe various *security threats* and the *mechanisms* to address those threats. 7 M

b) Describe various techniques used for checking the *message integrity* and *confidentiality*. 7 M

8. a) Explain the Architecture of Distributed Object Based Architecture. 7 M

b) Explain what can go wrong when performing Replicated Invocations. Suggest a way to solve the problem. 7 M