Roll No ....

CS - 702

B.E. VII Semester　　rgpvonline.com

Examination, December 2015

Distributed Systems

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) What is Distributed System?
   b) Write the disadvantages of Distributed System.
   c) Write the difference between loosely coupled and tightly coupled system.
   d) Why architectural model is important in the distributed system design? Also discuss the resource sharing and its importance.

OR

How distributed system can be scaled? What problems arise during the scaling of the systems?

Unit - II

2. a) What do you understand by Transparency?
   b) Define thrashing.
   c) Write in detail about distributed file system requirements.
   d) In what aspects is the design of distributed file system different from that of a file system for a centralized time sharing system?

OR

What are the design issues of DSM systems? Write the various types of distributed shared memory systems.

Unit - III

3. a) What do you understand by stub generation.
   b) Define Mutual Exclusion.
   c) What is API for internet protocol?
   d) What is remote method invocation? What are the commonalities and differences between RPC and RMI?

OR

Why are election algorithms normally needed in a distributed system? A LAN based distributed system has broadcast facility. Suggest a simple election algorithm for use in this system.

Unit - IV

4. a) What do you understand by Deadlock?
   b) What are the major differences between safe, unsafe and deadlock states?
   c) What are the requirements for distributed mutual exclusion algorithms?
   d) Write a brief notes on different types of load distributing algorithms.

OR

Write a brief notes on task migration and its issues.

Unit - V

5. a) Define Homogeneous and Heterogeneous DDBMS.
   b) Write the characteristics of multimedia data.
   c) Define the terms Data Partitioning.
   d) What is a middleware? What do we expect it to solve? Illustrate with CORBA?　　rgpvonline.com

OR

What are the advantages of DDBMS over a centralized DBMS?

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