Total No. of Questions :5] *[Total No. of Printed Pages :2*

Roll No .....

CS-702

B.E. VII Semester

Examination, December 2016

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.

1. a) Define the goals of distributed system.
   b) What do you mean by software? Give the name of two software's which is use to operate distributed system.
   c) Give the advantages and disadvantages of distributed system.
   d) Define a scalable distributed system and what are the challenges we face in designing of a scalable distributed systems?

   OR

   Discuss the general organization of a distributed computing system and explain their characteristic features.

2. a) Why do some distributed systems use two-level naming?
   b) Differentiate transient faults and intermittent faults.
   c) What is Distributed Shared Memory?
   d) During the discussion of memory consistency models, we often referred to the contract between software and memory. Why such a contract needed?

OR

Differentiate between weak consistency and release consistency. Which of the consistency you will prefer to use in the design of a DSM system?

3. a) What are the differences between unicast, multicast and broadcast communication?
   b) What is RPC? Explain it.
   c) Compare three mutual exclusion algorithms.
   d) What are the main issues in designing a transparent RPC mechanism? Is it possible to achieve complete transparency of an RPC mechanism? If Yes or No, explain it.

   OR

   "The two processes detect the demise of co-ordinator simultaneously and both decide to hold an election" How bully algorithms support this?

4. a) What do you mean by task migration?
   b) What are the components for load distributing algorithms?
   c) What are the reasons of deadlock?
   d) Explain the Banker's algorithm.

   OR

   What are the different deadlock handling strategies? Explain a distributed deadlock detection algorithm.

5. a) What do you mean by distributed multimedia?
   b) What are the types of distributed database?
   c) MACH supports two messages: simple and complex. Are the complex message actually required.
   d) Define and explain briefly homogeneous and heterogeneous DDBMS.

   OR

   Write a short note on Amoeba and Chorus.

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