B.Tech. SEM -VII (Computer) 2014 Course (CBCS) : WINTER - 2018

SUBJECT: DISTRIBUTED SYSTEMS

Day: Friday
Date: 23/11/2018

W-2018-2536

Time: 02.30 PM TO 05.30 PM
Max Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume **SUITABLE DATA** wherever necessary

Q.1 What is Distributed System? Explain the need of Distributed System. Also discuss the Pros and Cons of Distributed System. **(10)**

OR

What is an IPC? How will you achieve Inter Process Communication in Distributed System? Explain.

Q.2 What is Stub? How are stub generated? Explain how the uses of stubs help in making an RPC mechanism transparent. **(10)**

OR

What was the primary motivation behind the development of the RPC facility? How does RPC facility make the job of a distributed applications programmer simpler?

Q.3 What are the desirable features of a good naming system? Explain in detail. **(10)**

OR

Name the Main Component of a Distributed File System. What might be the reasons for separating the various functions of a Distributed File System into these Components?

Q.4 Differentiate between Internal Synchronization and External Synchronization of a clock in a Distributed System. Externally synchronized clocks are also Internally Synchronized, but the converse is not true? Explain why. **(10)**

OR

What are the main issues involved in the selection of Victims for recovery from a detected Deadlock? Suggest a suitable selection algorithm. How does your algorithm care of a starvation problem?

Q.5 What are the main differences between the Load-Balancing and Load-Sharing approaches for process scheduling in Distributed Systems? Which of the various policies to be used in the implementation of the two approaches are different and which of them are same? **(10)**

OR

What are the main issues involved in freezing a migrant process on its source node and restarting it on its destination node? Give a method for handling each of these issues.

Q.6 Explain in detail main threads and techniques for ensuring Security. **(10)**

OR

Discuss in detail the term "pervasive Computing Environments".

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