

TE (I.T)

Distributed Systems

16-05-2016

Sem V - CBSGS

Q.P. Code : 594801

(3 Hours)

[Total Marks : 80

- N.B. :**
- (1) Question 1 is **Compulsory**.
 - (2) Attempt any 3 questions out of the rest
 - (3) Figure to the right indicate **full** marks.
 - (4) All question carry **equal** marks.

1. Attempt the following: 20
 - (a) Explain implementation of sequential consistency with non replicating migrating blocks strategy.
 - (b) Which .Net component makes .NET platform and language independent? Explain how it works.
 - (c) Explain Parameter passing Semantics in RPC
 - (d) Compare Bully election algorithm with Ring based election algorithm.
2. (a) Name four different distributed deadlock detection algorithms. Explain probe-based distributed deadlock detection algorithm (CMH) with example. 10
(b) Explain RPC Communication Protocol 10
3. (a) Define Happened-Before relationship. Explain implementation of logical clocks with an example 10
(b) Describe .NET architecture with neat labeled diagram 10
4. (a) Explain migration in heterogeneous system. 10
(b) Explain desirable features of a good message passing system. 10
5. (a) Explain with respect to EJB -Roles in EJB and types of Beans 10
(b) Explain various distributed computing models. 10
- 6 Write notes on following : 20
 - (a) RMI Execution
 - (b) Components of EJB framework
 - (c) Message Buffering in IPC
 - (d) SOA lifecycle