Code No. : 6215/O/S

FACULTY OF ENGINEERING B.E. 4/4 (CSE) I Sem. (Old) Examination, July 2014 DISTRIBUTED SYSTEMS

Time: 3 Hours] [Max. Marks: 75 **Note** : Answer all questions from Part – A, and any five questions from Part – B. PART-A 25 1. What is the role of firewall in distributed system? 3 2. What is an intranet? 2 3. Differentiate between RPC and LRPC. 3 2 4. What is XML name space ? Give example. 5. Give the difference between stub and skeleton. 3 6. Define distributed debugging. Give example. 3 7. A reliable multicast is one that satisfies the following properties (choose any one). 2 a) Integrity, validity b) Integrity, validity, agreement c) Integrity, validity, agreement and delivery d) Integrity, recoverability and durability. 8. What is dirty read? 2 9. List any three rules for committing nested transactions. 3 10. Define distributed shared memory. 2 PART - B(5×10=50) 11. What is distributed system ? Discuss about the challenges for constructing

- distributed system.
- 12. What is interprocess communication ? Discuss general characteristics of IP communication with example.
- 13. List out the pitfalls of Christian's algorithm and explain how Berkley's algorithm tries to resolve the issue.

(This paper contains 2 pages)

- 14. Explain how the time stamp approach helps in overcoming the lost update problem, with an example.
- 15. What is sequential consistency ? Describe various methods for implementing sequential consistency.
- 16. a) What is arbitrary failure ? Write its classification affects and description.
 - b) Compare monolithic and micro kernel design.
- 17. a) Discuss briefly about gossip architecture.
 - b) Discuss the architecture of NFS.