

FACULTY OF ENGINEERING
B.E. 4/4 (CSE) I - Semester (Suppl.) Examination, June 2016

Subject :Distributed Systems

Time : 3 Hours**Max. Marks: 75**

Note: Answer all questions from Part-A and answer any five questions from Part-B.

PART – A (25 Marks)

- 1 Define distributed systems. What are the main objectives of distributed systems? (3)
- 2 What are the design requirements to the distributed system Architecture? (3)
- 3 Define Execution Environment. What are the variables? (3)
- 4 Define IPC. Characteristics of IPC. (2)
- 5 What is global State? (2)
- 6 Explain Berkely Algorithm. (3)
- 7 Define deadlock and phantom Dead Lock. (2)
- 8 Difference between Flat and nested transactions. (2)
- 9 Define DSM. List out the implementation issues of DSM. (2)
- 10 Explain about Locks. Drawbacks of Locks. (3)

PART – B (50 Marks)

- 11 (a) Explain about the Design Issues of Distributed Systems. (7)
(b) Explain about multithreading. (3)
- 12 (a) Explain about the remote invocation steps in RPC. (8)
(b) Define DNS and give examples of DNS. (2)
- 13 (a) What is the goal of election Algorithms? Explain about election algorithms. (7)
(b) Explain about any one algorithm for achieving distributed mutual exclusion. (3)
- 14 (a) Explain about optimistic concurrency control in distributed transactions. (8)
(b) Define Time stamp ordering. (2)
- 15 Explain in detail about SUN NFS. (10)
- 16 Explain about dead lock detection Algorithms in distributed systems. (10)
- 17 Write short notes on the following:
(a) Lamport Logical clocks (5)
(b) Group Communication (5)
