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**IT-601****B.E. VI Semester**

Examination, June 2017

**Distributed System****Time : Three Hours****Maximum Marks : 70**

**Note:** i) Attempt any five questions out of eight.  
 ii) All questions carry equal marks.

1. a) State and explain the challenges of distributed system.  
 b) What are the main differences between a network and distributed operating system.
2. a) What are logical clocks? Why does a logical clock need to be implemented in Distributed systems? Explain with an example what are the impacts of absence of global clock and shared memory.  
 b) What do you mean by problem of mutual exclusion in Distributed system? Explain mutual exclusion theorem.
3. a) Explain the deadlock handling strategies in distributed system.  
 b) How do clock synchronization issues differ in centralized and distributed systems.
4. a) Describe the method for implementation of RPC in distributed systems.  
 b) Explain the features of Andrew File system?

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5. a) Give the architecture of sun network file system.  
 b) Explain the distributed concurrences control techniques.
6. a) What are Wave and Traversal algorithm? Discuss the usage and application of wave algorithm.  
 b) Explain CORBA and its services.
7. a) Explain the file server interface and the directory server interface in a distributed file system design.  
 b) Explain the different kinds of transparencies in a distributed system in detail.
8. Write short notes on the following:-  
 a) Election algorithm  
 b) Assignment problem in parallel  
 c) Flat and nested transaction  
 d) Atomic commit protocols

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