

8. Differentiate between the following : 15

- (i) Backward recovery and forward recovery
- (ii) Unordered multicasts and Causal multicasts.

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Roll No.

G-18

B. Tech. EXAMINATION, Dec. 2017

(Seventh Semester)

(B. Scheme) (Main & Re-appear)

DISTRIBUTED OPERATING SYSTEMS

CSE-461-B

(Common for All Branches)

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. Describe the following issues in reference to a client-server model : **15**
 - (i) Addressing
 - (ii) Blocking and non-blocking message passing
 - (iii) Buffered and non-buffered message passing.
2. (a) Why are transport level communication services often inappropriate for building distributed systems ? **7.5**
(b) List and *five* challenges being faced during resource sharing through web. **7.5**

Unit II

3. (a) List at least three sources of delay that can be introduced between WWW broadcasting the time and the processors in a distributed system setting their internal clocks. **9**

- (b) List six characteristics of realtime distributed systems. **6**

4. Define distributed deadlocks. Explain the methodologies used to handle the distributed deadlocks. **15**

Unit III

5. (a) NFS does not provide a global shared name space. Is there a way to mimic such a name space. If yes, explain, it not why ? **10**
(b) Write a short note on log structured file system. **5**
6. Explain any *three* approaches used in the implementation of file and directory service in a distributed system. Write *two* advantages and *two* disadvantages of each. **15**

Unit IV

7. (a) List and briefly discuss any *four* security threats faced by distributed systems. **6**
(b) Write and explain the DES algorithm. **9**