G18

B. Tech. EXAMINATION, 2020

(Seventh Semester)

(B Scheme)

(Re-appear Only)

CSE461B

DISTRIBUTED OPERATING SYSTEMS

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. All questions carry equal marks.

Unit I

1. Write and explain any *five* characteristics of a true distributed system. **15**

2. Explain the remote procedure call mechanism in detail with the help of a suitable diagram. **15**

Unit II

3. Differentiate between internal synchronization clocks and external synchronization clocks in distributed systems. Externally synchronized clocks are also internally synchronized, but the converse is not true. Explain, why ? **15**

4. Explain why the advance knowledge of the resource requirement of processes is essential for dead lock avoidance ? Why the deadlock avoidance approach is never used in distributed systems for deadlock problem. **15**

Unit III

5. Define the term 'Stable Storage'. Why is it important in a distributed system. **15**

6. Network File System (NFS) does not provide a global, shared name space. Is there a way to mimic such a name space ? Explain. **15**

Unit IV

7. Define a highly dependable system. Dependable systems are often required to provide a high degree of security and fault tolerance. Explain why ? **15**

8. List and explain any *five* security threats and attacks generally encountered by a distributed system. Also suggest some approach to handle these threats. **15**