AA584

M. Tech. EXAMINATION, May 2019

(First Semester)

(B. Scheme) (Re-appear)

(CSE)

CSE507B

ADVANCED OPERATING SYSTEM

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. Explain the architecture of distributed operating systems. List the issues in distributing operating systems. **15**

2. (a) Explain advantages of distributed systems over centralized systems and independent PCs. **5**

   (b) Explain various communication primitives. **10**

Unit II

3. What do you mean by clock synchronization ? Explain the various types of clocks. **15**

4. Write short notes on the following : **15**

   (a) Bully election algorithm

   (b) Timestamps.

Unit III

5. Explain the following : **15**

   (a) Various issues in deadlock detection

   (b) Hierarchical deadlock detection.

6. What are the different strategies for handling deadlock ? **15**

Unit IV

7. (a) What is distributed file system ? Explain its various features. **8**

   (b) Explain agreement protocols for handling processor failure. **7**

8. (a) What do you mean by concurrency control ? Explain how timestamps are used for concurrency control. **8**

   (b) Explain the concept of shared variable distributed shared memory. **7**