

Roll No.

BCA/D-13
OPERATING SYSTEMS
Paper: BCA-352

989

Time: Three Hours]

[Maximum Marks; 90

Note: Attempt five questions in all, selecting one question from each unit in addition to compulsory question. All questions carry equal marks.

Compulsory Question

1. (a) Define Thread.
(b) Briefly explain the purpose of PCB.
(c) What are the conditions that cause deadlock?
(d) What is Safe state?
(e) What is Thrashing?
(f) Name the operations that can be performed on Files. (6x3=18)

UNIT—I

2. What is a Virtual machine ? Explain how an operating system helps in converting a computer system into a virtual machine. (18)
3. (a) What is System call ? Explain the various types of system calls.
(b) Explain the components of Operating system. (9,9)

UNIT—II

4. What is a Process? Explain the various states of a Process. (18)
5. Explain Deadlock detection giving an algorithm. (18)

UNIT—III

6. What is Semaphore? Explain its role in Process synchronization. (18)
7. Explain Segmentation with example. (18)

UNIT—IV

8. Explain Directory structure of files in detail. (18)
9. What is Disk scheduling? Explain various Disk scheduling methods. (18)