Exam.Code:0923
Sub. Code: 6848

1079
B.E. (Information Technology)
Fifth Semester
ITE-543/533: Operating System

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt _five_ questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

    a) What is the role of multiprogramming and time sharing?

    b) Define the concept of thrashing.

    c) What is the dirty bit?

    d) Define the purpose of identifying swap space.

    e) What is telnet?

    f) Define stateful and stateless service.

    g) What is the critical section of a program?

    h) State the principle of locality in programs.

    i) What is meant by 'pipe' in Unix?

    j) Define a context switch.   (10x1)

UNIT – I

II. How is process synchronization carried out using semaphores? Elaborate.   (10)

III. Describe the different deadlock management techniques.   (10)

IV. Describe paging and segmentation techniques for memory management.   (10)

UNIT – II

V. What are different file allocation methods? List their advantages and disadvantages.   (10)

VI. What are various design issues in distributed operating systems?   (10)

VII. Write short notes on:-   (2x5)
    a) Mutual Exclusion in distributed systems
    b) Unix I/O system

x-x-x