

Exam.Code:0922
Sub. Code: 6841

1058
B.E. (Information Technology)
Fourth Semester
ITE-474: Operating System

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What do you mean by Process Synchronization?
- b) What are deadlocks? How it can be prevented?
- c) Define the term thrashing.
- d) How PCB works?
- e) Define mutual exclusion with a suitable example. (5x2)

UNIT - I

- II. Explain the concept of process and its states. Also explain the concurrent processes with suitable examples along with the operations that can be performed on processes. (10)
- III. Define paging and demand paging. Why do we need to replace a page? Explain different page replacement algorithm with neat representation. (10)
- IV. Explain different types of operating systems and also explain the **general** system architecture. (10)

UNIT - II

- V. a) What are file access methods? Describe different **file allocation** methods.
b) Explain different Disk scheduling and disk management techniques. (5,5)
- VI. Differentiate between Network operating systems and distributed operating systems- How remote services are useful? (10)
- VII. Write down and explain the case study on Unix O.S. Architecture. (10)

x-x-x