

**Exam.Code:0922**  
**Sub. Code: 6841**

**1019**  
**B.E. (Information Technology)**  
**Fourth Semester**  
**ITE-474: Operating Systems**

**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:-
- What is demand paging?
  - State and explain logical and physical address space.
  - Define system calls and system programs.
  - Explain different file access methods.
  - Why do we use network operating system? (5x2)

**UNIT – I**

- II. Describe the concept of process and PCB. Also explain different scheduling algorithms with suitable examples. (10)
- III. State and explain virtual storage management strategies. Also mention the reasons for swapping and segmentation. (10)
- IV. a) Write and explain the technique for process synchronization,  
b) Explain batch systems, multi-programmed and parallel systems along with their suitable real life applications. (5,5)

**UNIT – II**

- V. Define directory structure. How can we provide protection to file system structure? Also explain different file allocation methods. (10)
- VI. Explain the concept of distributed file systems. How can we get remote file access? Also explain the various properties as: event ordering, mutual exclusion & atomicity with suitable examples. (10)
- VII. Write down and explain the case study on operating system services and input-output system. (10)

x-x-x