Code No. : 6211

FACULTY OF ENGINEERING
B.E. 2/4 (CSE) II Semester (Supple.) Examination, December 2009
OPERATING SYSTEMS

Time: 3 Hours] [Max. Marks: 75

*Note : Answer **all** questions from Part A. Answer **any five** questions from Part **B**.*

PART – A **(25 Marks)**

1. What are two events can cause a process to loose control of the processor ? **2**
2. Differentiate between preemptive and non-preemptive scheduling. **2**
3. What elements are typically found in a page table entry ? Briefly define each element. **3**
4. Discuss the criteria for choosing a file organization. **2**
5. What is binary semaphore ? Where binary semaphore is used ? **3**
6. Give the necessary conditions for occurrence of deadlock. **3**
7. What is I/O buffering ? Explain different types of buffers. **3**
8. What is the advantage of SSTF algorithm over simple scan algorithm ? **3**
9. List the different types of I/O in UNIX. **2**
10. List the objects of windows concurrency. **2**

PART – B **(50 Marks)**

11. a) Describe the concept of Process and Process Control Block (PCB). **4**
    b) Discuss the short term, medium term, long term scheduling process. **6**
12. a) Describe various file allocation methods. **5**
    b) Write short notes on inverted page table. **5**
13. a) How the deadlocks can be avoided ? Explain with the help of necessary algorithm. **6**
    b) What are the necessary requirements for mutual exclusion ? **4**

14. a) Distinguish between STREAMS driver and STREAMS module. 4

    b) Write about any two file allocation methods. 6

15. a) Explain about process management in Linux. 5

    b) Explain about Windows XP labeled architecture. 5

16. Write short notes on **any two** : (5+5)

    a) Distributed operating system.

    b) Swap-space management in disks.

    c) Segmentation with paging.

17. a) Explain different ways of recovery from deadlocks. 6

    b) Differentiate between system call and library routine. 4