Code No: NR-22001-MCA

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA-II Semester Supplementary Examinations, February 2010
OPERATING SYSTEMS

Time: 3hours   Max.Marks:60

Answer any Five questions
All questions carry equal marks

- - -

1.a) Describe the structure of Unix system.
  b) What are the advantages and disadvantages of Multiprocessor systems?

2.a) Explain about process control block.
  b) Describe about the SJF scheduling algorithm with an example.

3.a) Explain the implementation of a Monitor using semaphore.
  b) Describe about the synchronization in Windows XP.

4.a) Explain about the Resource – Allocation – Graph algorithm.
  b) Explain the methods for handling deadlocks.

5.a) Explain about contiguous memory allocation.
  b) Explain the performance of Demand paging.

6.a) What is Swapping? Explain the swapping of two processes using a disk as a
     backing store.
  b) Explain about optimal page replacement algorithm with an example.

7.a) Explain about the indexed allocation of disk space.
  b) Describe the different types of file operations that are used in file system.

8. Describe how cryptography is behaving as a security tool.

--o0o--