Code No: 07A60501 **R07** **Set No. 4**

III B.Tech II Semester Regular/Supplementary Examinations,May 2010
Operating Systems
Computer Science And Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain about the following:
   (a) Process Control block.
   (b) Task switching. [8+8]
2. Describe the physical structure of Magnetic Disks and Magnetic Tapes with its merits and demerits. [16]
3. Write short notes on the following:
   (a) Viruses
   (b) Worms
   (c) Logic bomb
   (d) Trap door. [4+4+4+4]
4. (a) Explain the monitor solution to the Dining philosopher problem
   (b) Define Bounded Buffer problem. [12+4]
5. Explain system components of operating system. [16]
6. Explain File allocation method in unix. [8+8]
7. Briefly explain about deadlock prevention methods with examples of each. [16]
8. Consider the following page reference string:
   1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6.
   How many page faults would occur for the filling replacement algorithms, assuming three or five,frames?Initiallyallframesare empty,so
   the first unique pages will also cost one fault each.
   LRU replacement
   FIFO replacement
   Optimal replacement
   Second chance replacement. [16]

⋆ ⋆ ⋆ ⋆ ⋆