Code :R7311506

R7

III B.Tech I Semester(R07) Supplementary Examinations, May 2011
OPERATING SYSTEMS
(Common to Computer Science & Systems Engineering, Electronics & Computer
Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) Give a brief note on the operating system structure.

   (b) Explain operating-system generation.

2. (a) What are the different states a process can be in? Explain process state diagram in detail.

   (b) State the criteria for evaluating CPU scheduling algorithms. Also state whether the criteria is to be optimized for minimal or maximum value.

3. (a) What is critical section? Give the general structure of a typical process sharing logical address space with other process and explain.

   (b) Explain locking protocol to ensure serializability.

4. (a) What is meant by memory protection? Explain how memory is protected by using base register and limit register.

   (b) Discuss the hardware support required to support demand paging.

5. Explain deadlock in the context of client-server environment.

6. (a) What are the various operations that can be performed on the file?

   (b) What are the various pieces of information associated with an open file?

7. (a) What are the different times associated with a magnetic disk?

   (b) What are the different types of disks that are used in computer systems? Explain them?

8. How access matrix can be used for providing protection?

⋆ ⋆ ⋆ ⋆ ⋆