ICS Assignment 6

Name: _____ ID: _____

1. (   )A program becomes a _____ when it is selected by the operating system and brought to the hold state.

   (A) process   (B) partition   (C) job   (D) deadlock

2. (   )In _____, only one program can reside in memory for execution.

   (A) multi-programming   (B) paging   (C) mono-programming
   (D) partitioning

3. (   )The _____ manager is responsible for archiving and backup.

   (A) device   (B) file   (C) memory   (D) process

4. (   )_____ is a program that facilitates the execution of other programs.

   (A) An operating system   (B) A queue   (C) Hardware
   (D) An application program

5. (   )A process in the _____ state can go to either the ready, terminated or waiting states.

   (A) hold or running   (B) virtual   (C) hold   (D) running

6. How is a program related to a job? How is a job related to a process? How is a program related to a process?

7. A multi-programming operating system uses paging. The available memory is 60 MB divided into 15 frames, each of 4 MB. The first program needs 13 MB. The second program needs 12 MB. The third program needs 27 MB.

   (a) How many frames are unused?

   (b) What percentage of memory is wasted?

8. How is paging different from partitioning?

9. A mono-programming operating system runs programs that on average need 10 microseconds access to the CPU and 70 microseconds access to the I/O devices. What percentage of time is the CPU idle?

10. Three processes (A, B, and C) are running concurrently. Process A has acquired File1, but needs File2. Process B has acquired File3, but needs File1. Process C has acquired File2, but needs File3. Draw a diagram for these processes. Is this a deadlock situation?