Assignment 2

The due date for submitting this assignment has passed. As per our course rules, you are not submitted for this assignment.

1. Match the Following
   - Present: 1. Current contents of page in page table
   - Buffer: 2. Virtual Memory
   - Page: 3. Memory pages from OS to Memory
   - Segment: 4. Page table in kernel
   - Hardware: 5. 0
   - OS: 6. Memory address
   - System: 7. 0

   a. 1 - 2 - 3 - 4 - 5 - 6 - 7
   b. 2 - 3 - 4 - 5 - 6 - 7 - 1
   c. 3 - 2 - 4 - 5 - 6 - 7 - 1
   d. 4 - 2 - 3 - 5 - 6 - 7 - 1
   e. 5 - 2 - 3 - 4 - 6 - 7 - 1

   No, the answer is incorrect.

2. Consider a system using 2-level paging and the virtual address is 38 bits. The most significant 10 bits are used to index the page directory and next 10 bits index the page table. Each entry in each level is 4 Byte. What is the maximum size of a page table in KB?

   a. 1024
   b. 2048
   c. 3072
   d. 4096
   e. None of these

   No, the answer is incorrect.

3. Consider a system using 2-level paging and the virtual address is 38 bits. The most significant 10 bits are used to index the page directory and next 10 bits index the page table. Each entry in each level is 4 Byte. What is the maximum number of page tables that a process can have?

   a. 1024
   b. 2048
   c. 3072
   d. 4096
   e. None of these

   No, the answer is incorrect.

4. Consider a system with total memory available is 24GB bytes. A user writes a program on this system that uses the entire address space. What would the size of a process (in bytes) defined in the C program?

   a. 1024
   b. 2048
   c. 3072
   d. 4096
   e. None of these

   No, the answer is incorrect.

5. Consider the following memory map using multiprogramming with partition model. Blue represents memory in use while white represents free memory as shown in the figure.

   a. 60k 123k 150k 175k 150k
   b. 120k 151k 152k 150k 15k
   c. 60k 123k 150k 175k 150k
   d. 60k 123k 150k 175k 150k
   e. 60k 123k 150k 175k 150k

   No, the answer is incorrect.

6. Match the following

   a. 60k 123k 150k 175k
   b. 120k 151k 152k 150k
   c. 60k 123k 150k 175k
   d. 60k 123k 150k
   e. None of these

   No, the answer is incorrect.

7. State True or False

   a. True
   b. False
   c. None of these
   d. None of these

   No, the answer is incorrect.

8. Sector 0 of __________ bytes, which is backed into the location __________

   a. 512, 20MB
   b. 128, 20MB
   c. 512, 30MB
   d. 128, 30MB
   e. None of these

   No, the answer is incorrect.

9. The bootstrap initializes the OS at __________

   a. Protected mode, Real mode
   b. User mode, kernel mode
   c. Processor-specific mode
   d. Protected mode
   e. None of these

   No, the answer is incorrect.

10. Consider the following memory map using the partition model, with Blue representing memory in use and White representing free memory.

    a. 60k 123k 150k 175k
    b. 120k 151k 152k 150k
    c. 60k 123k 150k 175k
    d. 60k 123k 150k
    e. None of these

    No, the answer is incorrect.

11. Consider a process of size 10K, in which partition is Free, placed for

    a. a new process
    b. Other process
    c. New Process
    d. Old Process
    e. None of these

    No, the answer is incorrect.