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Questions

☒ Show question details**Question**

1 pts

In paging, what is a page frame?

- ☐ A fixed-size unit of physical memory
- ☐ A segment of virtual memory
- ☐ A data structure used for page replacement
- ☐ A hardware component responsible for address translation

**Question**

1 pts

What is the purpose of the page table in a paging system?

- ☐ To store the actual data of a process
- ☐ To store the Heap segment of a process
- ☐ To map virtual page numbers to physical page frame numbers
- ☐ To store the freelist

**Question**

1 pts

Assuming the following segments information is given to you.

MSB Values	Segment
00	Code
01	Heap
11	Stack

Which segment does the virtual address 136 belong to?

- ☐ Code segment
- ☐ Heap segment
- ☐ Stack segment
- ☐ Its not a valid virtual address.

**Question****1 pts**

Assuming the following segments information is given to you.

MSB Values	Segment
00	Code
01	Heap
11	Stack

Which is the value of offset for the virtual address 136 ?

Answer

- ☐ 000010001000
- ☐ 000000100010
- ☐ 1000100000
- ☐ Cannot be determined.

**Question****1 pts**

The main function starts running and the next instruction is being fetched using the program counter. The address of the instruction will be in which segment?

Answer

- ☐ Code segment
- ☐ Data segment
- ☐ Heap segment
- ☐ Stack segment

**Question****1 pts**

What is a potential drawback of paging in memory allocation?

Answer

- ☐ It eliminates external and internal fragmentation
- ☐ It can lead to an increased overhead due to managing page tables.
- ☐ It improves CPU performance.
- ☐ It simplifies memory management for the operating system.

**Question****1 pts**

Assuming a simple memory model with three 10 bytes memory allocations in memory at addresses 0 to 9, 10 to 19 and 20-29 respectively. All addresses are inclusive that means allocation includes the first and last address. The first memory allocation at addresses (0 to 9) is used so the free list contains the two memory allocations at addresses (10 to 19) and (20-29). What will be the total free memory in the free list after coalescing?



Answer

- ☐ 20 bytes

☐ 30 bytes

☐ 10 bytes

☐ Cannot be determined.

Question

1 pts

Assuming you made a call to malloc(200). How many bytes will actually be allocated?

Answer

☐ 208

☐ 200

☐ 204

☐ 308

+ New question

+ New question group

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