Started on	Wednesday, 9 February 2022, 7:02:13 PM
State	Finished
Completed on	Wednesday, 9 February 2022, 7:53:24 PM
Time taken	51 mins 11 secs
Grade	**4.00** out of 11.00 (**36**%)

Question **1**

Complete

Mark 0.00 out of 0.50

Match the pairs of which action is taken by whom

Answer: bios loads the bootloader in memory

The correct answer is: kernel

Question **2**

Not answered

Marked out of 0.50

code line, MMU setting: Match the line of xv6 code with the MMU setup employed

Answer:

The correct answer is: inb $0x64,%al

Question **3**

Complete

Mark 1.00 out of 1.00

The kernel is loaded at Physical Address

- a. 0x0010000
- b. 0x00100000
- c. 0x80100000
- d. 0x80000000

The correct answer is: 0x00100000

Question **4**

Complete

Mark 0.00 out of 1.00

The number of GDT entries setup during boot process of xv6 is

- a. 2
- b. 3
- c. 0
- d. 255
- e. 256
- f. 4

The correct answer is: 3

Question **5**

Complete

Mark 0.00 out of 1.00

ELF Magic number is

- a. 0xELF
- b. 0xFFFFFFFFF
- c. 0xELFELFELF
- d. 0x0x464CELF
- e. 0x464C457FU
- f. 0
- g. 0x464C457FL

The correct answer is: 0x464C457FU

Question **6**

Complete

Mark 0.00 out of 1.00

which of the following is not a difference between real mode and protected mode

- a. in real mode general purpose registers are 16 bit, in protected mode they are 32 bit
- b. in real mode the addressable memory is less than in protected mode
- c. in real mode the segment is multiplied by 16, in protected mode segment is used as index in GDT
- d. in real mode the addressable memory is more than in protected mode
- e. processor starts in real mode

The correct answer is: in real mode the addressable memory is more than in protected mode

Question **7**

Complete

Mark 1.00 out of 1.00

x86 provides which of the following type of memory management options?

- a. segmentation or paging
- b. segmentation and one level paging
- c. segmentation or one or two level paging
- d. segmentation and two level paging
- e. segmentation only
- f. segmentation and one or two level paging

The correct answer is: segmentation and one or two level paging

Question **8**

Complete

Mark 1.00 out of 1.00

The kernel ELF file contains how many Program headers?

- a. 3
- b. 10
- c. 2
- d. 9
- e. 4

The correct answer is: 3

Question **9**

Complete

Mark 0.00 out of 1.00

Why is the code of entry() in Assembly and not in C?

- a. Because the kernel code must begin in assembly
- b. Because it needs to setup paging
- c. There is no particular reason, it could also be in C
- d. Because the symbol entry() is inside the ELF file

The correct answer is: Because it needs to setup paging

Question **10**

Complete

Mark 1.00 out of 1.00

The ljmp instruction in general does

- a. change the CS and EIP to 32 bit mode
- b. change the CS and EIP to 32 bit mode, and jumps to next line of code
- c. change the CS and EIP to 32 bit mode, and jumps to new value of EIP
- d. change the CS and EIP to 32 bit mode, and jumps to kernel code

The correct answer is: change the CS and EIP to 32 bit mode, and jumps to new value of EIP

Question **11**

Complete

Mark 0.00 out of 1.00

The right side of line of code "entry = (void(*)(void))(elf->entry)" means

- a. Convert the "entry" in ELF structure into void
- b. Get the "entry" in ELF structure and convert it into a void pointer
- c. Get the "entry" in ELF structure and convert it into a function void pointer
- d. Get the "entry" in ELF structure and convert it into a function pointer accepting no arguments and returning nothing

The correct answer is: Get the "entry" in ELF structure and convert it into a function pointer accepting no arguments and returning nothing

Question **12**

Complete

Mark 0.00 out of 1.00

The variable $stack in entry.S is

- a. a memory region allocated as a part of entry.S
- b. located at the value given by %esp as setup by bootmain()
- c. located at less than 0x7c00
- d. located at 0x7c00
- e. located at 0

The correct answer is: a memory region allocated as a part of entry.S

◄ Homework questions: Basics of MM, xv6 booting

Jump to...

(Code) Files, redirection, dup, (IPC)pipe ►