Progress Test 2

Total points 19/19

The respondent's email [redacted] was recorded on submission of this form.

✓ Q1. A computer with 32 bits virtual address uses a two-level page table. Virtual addresses are split into a 9 bits top-level page table field, a 10 bits second-level page table field, and an offset. How many are there in the address space? 1/1

- ○ 10 bits
- ○ 11 bits
- ○ 12 bits
- ◉ 13 bits ✓

Feedback

13 bits

✓ Q2. Suppose that a computer with 16 bits virtual address use a single level page table and 15 bits physical memory address is given by the following page table. Which is the physical address that the MMU will map with the virtual address 0010 0000 0000 0100 onto? 1/1

Virtual page	Page frame number	P/A
0	010	1
1	011	1
2	100	1
3	000	0
4	000	0
5	000	0
6	001	1
7	000	1
8	101	1
9	000	0
10	000	0
11	110	1
12	000	0
13	000	0
14	000	0
15	111	1

- (●) 100 0000 0000 0100 ✓
- ( ) 011 0000 0000 0100
- ( ) 110 0000 0000 0000
- ( ) Page fault.

Feedback

100 0000 0000 0100

✓ Q3. Consider that a TLB (Translation Lookaside Buffer) is given by the following table. What will be happened if the instruction is trying to write on the virtual page number 25th? 1/1

Valid	Virtual page	Modified	Protection	Page frame number
1	144	1	RW	35
1	25	0	R X	45
1	130	1	RW	52
1	129	1	RW	55
1	29	0	R X	44
1	30	0	R X	33
1	890	1	RW	75
1	891	1	RW	15

- ○ A page fault occurs.
- ◉ A prorection fault is generated. ✓
- ○ The page frame 45 will be referenced.
- ○ The page frame 45 will be modified.

Feedback

A prorection fault is generated.

✓ Q4. A computer with 32 bits virtual address uses a two-level page table. Virtual addresses are split into a 10 bits top-level page table field (PT1), a 10 bits second-level page table field (PT2), and an offset. How many PT1, PT2, and offset with virtual address 0x00403008? 1/1

- ○ PT1=4; PT2=3; offset=8
- ○ PT1=4; PT2=1; offset=8
- ○ PT1=1; PT2=1; offset=8
- ◉ PT1=1; PT2=3; offset=8 ✓

Feedback

PT1=1; PT2=3; offset=8

○ Option 1

✓ Q5. Which file is a sequence of bytes organized into blocks understandable by the system's linker? 1/1

- (●) object file ✓
- ( ) source file
- ( ) executable file
- ( ) text file

Feedback

object file

✓ Q6. Which of these statements about binary file is not true? 1/1

- ( ) Binary file is not an ASCII file.
- (●) Binary file is a special file. ✓
- ( ) Binary file has five sections: header, text, data, relocation bits, and symbol table.
- ( ) Binary file is an executable file.

✓ Q7. What is the Linux command to list files and folders on a disk? 1/1

- ○ lsdir
- ○ chdir
- ◉ ls ✓
- ○ list

Feedback

ls

✓ Q9. Consider that a disk partition using FAT-32 file system, 4-KB block size. How many disk-partition sizes up to? 1/1

- ◉ 1 TB. ✓
- ○ 2 TB.
- ○ 3 TB.
- ○ 4 TB.

Feedback

1 TB.

✓ Q10. What is the Linux command to change attribute of file? 1/1

- ○ chmode
- ◉ chmod ✓
- ○ cmode
- ○ chdir

Feedback

chmod

✓ Q11. Purppose of DMA (Direct Memory Access) controller applying for block devices to _____ 1/1

- ◉ do not waste the CPU's time transfer data from/to disk and memory. ✓
- ○ increate Input/Output speed.
- ○ connect the CPU, memory, and the I/O devices.
- ○ connect the CPU, memory, and disk devices.

Feedback

do not waste the CPU's time transfer data from/to disk and memory.

✓ Q12. The physical disk of the original IBM PC have 65535 cylinders, 16 heads, 63 sectors per track, and 512 bytes per sector, the largest posible disk is _____. 1/1

- ○ 63 GB
- ○ 64 GB
- ◉ 31.5 GB ✓
- ○ 33.5 GB

Feedback

31.5 GB

✓ Q13. Which of these statements about binary file is not true? 1/1

- ○ Binary file is not ASCII file.
- ○ Binary file has five sections: header, text, data, relocation bits, and symbol table.
- ◉ Binary file is special file. ✓
- ○ Binary file is an executable file.

Feedback

Binary file is special file.

✓ Q14. Consider that a disk partition using FAT-32 file system, 8-KB block size. How many disk-partition sizes up to? 1/1

- ○ 4 TB
- ○ 8 TB
- ○ 16 TB
- ◉ 32 TB ✓

Feedback

32 TB

✓ Q15. Which of these statements about i-node is not true? 1/1

- ○ I-node contains some attributes of file such as: the file size, creation time, last access time, last modification time, owner, group, protection information.
- ○ I-node contains a count of number of directory entries that point to the i-node.
- ○ I-node contains disk addresses.
- ◉ I-node is a node on the binary tree. ✓

Feedback

I-node is a node on the binary tree.

✓ Q16. The time for the disk arm to move the heads to the cylinder containing the desired sector is called _____. 1/1

- ○ disk time
- ◉ seek time ✓
- ○ arm time
- ○ sector time

Feedback

seek time

✓ Q17. DMA (Direct Memory Access) controller is equiped two registers are _____. 1/1

- ○ genneral register and count register
- ◉ address register and count register ✓
- ○ base register and lmit register
- ○ All of the others.

Feedback

address register and count register

✓ Q18. What will be done the File system management of Operating System when the system call Open is called? 1/1

- (●) The system fetch the attributes and list of disk addresses into main memory for rapid access on later calls. ✓
- ( ) The system read a file.
- ( ) The system write a file.
- ( ) The system seek a file.

Feedback

The system fetch the attributes and list of disk addresses into main memory for rapid access on later calls.

✓ Q19. The request and release of resources are _____ . 1/1

- ( ) command line statements
- ( ) interrupts
- ( ) special programs
- (●) system calls ✓

Feedback

system calls

✓ Q20. A disk queue with requests for I/O blocks on cylinders in orders: 10, 22, 20, 2, 40, 6, 38. Assume that the disk head is initially at cylinder 9. Which the ordering cylinder in progress do using a slight modification of SSF (Shortest Seek First) algorithm? 1/1

- ○ 9, 6, 2, 10, 20, 22, 38, 40
- ○ 9, 10, 20, 22, 38, 40, 6, 2
- ○ 9, 6, 10, 2, 20, 22, 38, 40
- ◉ 9, 10, 6, 2, 20, 22, 38, 40 ✓

Feedback

9, 10, 6, 2, 20, 22, 38, 40