Started on	Monday, 21 February 2022, 7:01:12 PM
State	Finished
Completed on	Monday, 21 February 2022, 7:55:19 PM
Time taken	54 mins 7 secs
Grade	**5.87** out of 10.00 (**59**%)

Question **1**

Complete

Mark 0.50 out of 0.50

Match the names of PCB structures with kernel

xv6	struct proc
linux	struct task_struct

The correct answer is: xv6 → struct proc, linux → struct task_struct

Question **2**

Complete

Mark 0.00 out of 1.00

What will be the output of this program

```
int main() {
  int fd;
  printf("%d ",   open("/etc/passwd", O_RDONLY));
  close(1);
  fd = printf("%d ", open("/etc/passwd", O_RDONLY));
  close(fd);
   fd = printf("%d ", open("/etc/passwd", O_RDONLY));
}
```

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

The correct answer is: 3 1 1

Question **3**

Complete

Mark 0.00 out of 1.00

The "push 0" in vectors.S is

- a. To be filled in as the return value of the system call
- b. A placeholder to match the size of struct trapframe
- c. Place for the error number value
- d. To indicate that it's a system call and not a hardware interrupt

The correct answer is: Place for the error number value

Question **4**

Complete

Mark 0.50 out of 1.00

Arrange in correct order, the files involved in execution of system call

vectors.S	4
usys.S	1
trap.c	2
trapasm.S	3

The correct answer is: vectors.S → 2, usys.S → 1, trap.c → 4, trapasm.S → 3

Question **5**

Complete

Mark 1.00 out of 1.00

A process blocks itself means

- a. The kernel code of an interrupt handler, moves the process to a waiting queue and calls scheduler
- b. The application code calls the scheduler
- c. The kernel code of system call calls scheduler
- d. The kernel code of system call, called by the process, moves the process to a waiting queue and calls scheduler

The correct answer is: The kernel code of system call, called by the process, moves the process to a waiting queue and calls scheduler

Question **6**

Complete

Mark 0.00 out of 0.50

Which of the following state transitions are not possible?

- a. Running -> Waiting
- b. Ready -> Waiting
- c. Ready -> Terminated
- d. Waiting -> Terminated

The correct answers are: Ready -> Terminated, Waiting -> Terminated, Ready -> Waiting

Question **7**

Complete

Mark 0.17 out of 0.50

Match the MACRO with it's meaning

PHYSTOP	2 GB
KERNBASE	2 GB
KERNLINK	2 MB

The correct answer is: PHYSTOP → 224 MB, KERNBASE → 2 GB, KERNLINK → 2.224 GB

Question **8**

Complete

Mark 0.70 out of 1.00

Match the elements of C program to their place in memory

Malloced Memory	Heap
Local Static variables	Data
Function code	Code
Global variables	Data
#define MACROS	No Memory needed
Arguments	No Memory needed
Global Static variables	Data
#include files	No Memory needed
Local Variables	Stack
Code of main()	Stack

The correct answer is: Malloced Memory → Heap, Local Static variables → Data, Function code → Code, Global variables → Data, #define MACROS → No Memory needed, Arguments → Stack, Global Static variables → Data, #include files → No memory needed, Local Variables → Stack, Code of main() → Code

Question **9**

Complete

Mark 0.50 out of 0.50

Match the File descriptors to their meaning

0	Standard Input
2	Standard error
1	Standard output

The correct answer is: 0 → Standard Input, 2 → Standard error, 1 → Standard output

Question **10**

Complete

Mark 1.00 out of 1.00

The trapframe, in xv6, is built by the

- a. hardware, vectors.S, trapasm.S
- b. hardware, vectors.S
- c. hardware, vectors.S, trapasm.S, trap()
- d. vectors.S, trapasm.S
- e. hardware, trapasm.S

The correct answer is: hardware, vectors.S, trapasm.S

Question **11**

Complete

Mark 0.50 out of 1.00

Which of the following is not a task of the code of swtch() function

- a. Save the old context
- b. Save the return value of the old context code
- c. Jump to next context EIP
- d. Load the new context
- e. Change the kernel stack location
- f. Switch stacks

The correct answers are: Save the return value of the old context code, Change the kernel stack location

Question **12**

Complete

Mark 1.00 out of 1.00

Select the odd one out

- a. Process stack of running process to kernel stack of running process
- b. Kernel stack of new process to kernel stack of scheduler
- c. Kernel stack of running process to kernel stack of scheduler
- d. Kernel stack of scheduler to kernel stack of new process
- e. Kernel stack of new process to Process stack of new process

The correct answer is: Kernel stack of new process to kernel stack of scheduler

◄ Description of some possible course mini projects

Jump to...

(Code) mmap related programs ►