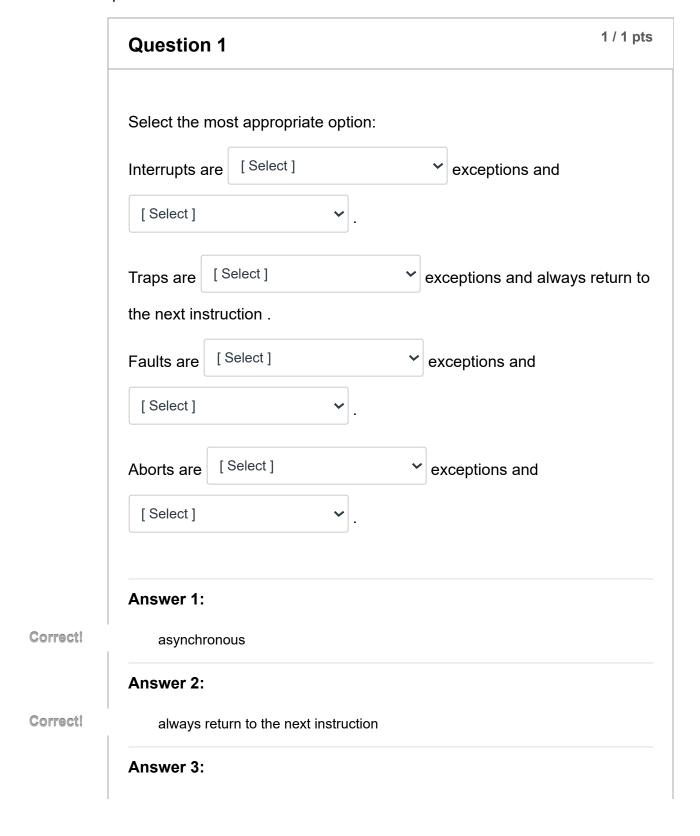
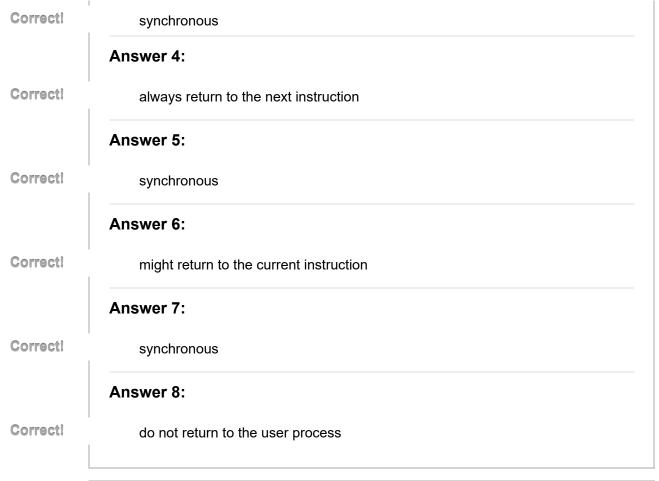
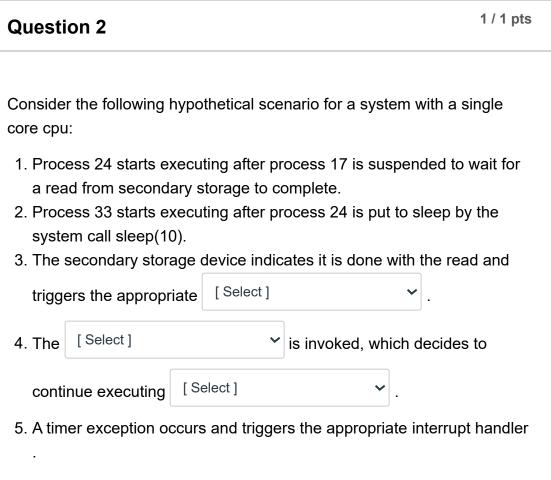
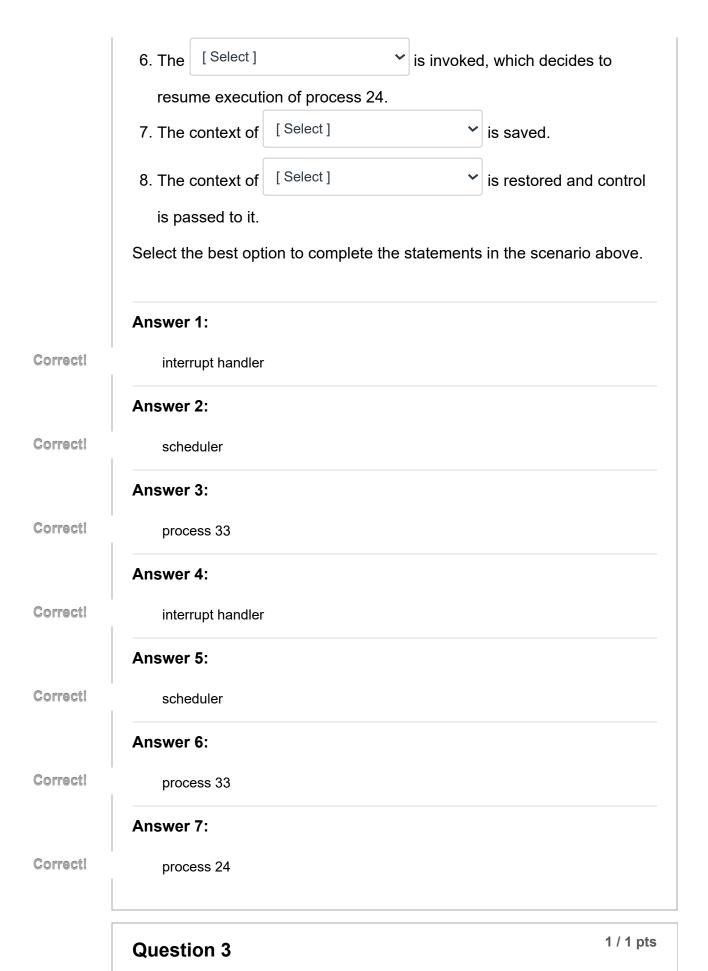
## hw8: Exceptional Control Flow Results for VARDAAN KAPOOR (He/him)

Score for this attempt: **7** out of 8 Submitted May 1 at 6:28pm This attempt took 5 minutes.









	Which of the below allow a user process to request the kernel to do work on its behalf?				
	○ Faults				
Correct!	Traps				
	Aborts				
	Signals				
	O Interrupts				
	Question 4	pts			
	Suppose Process A is currently running, and it doesn't have any programmer specified signal handlers. Which option corresponds to the correct ordering of steps if A divides by zero?  1. Process A exits. 2. Process A resumes execution from next instruction. 3. Process A resumes execution from current instruction. 4. Exception handler sends SIGSEGV signal to process A. 5. Exception handler sends SIGFPE signal to process A. 6. Exception handler detects divide-by-zero error.	9			
	O 5, 6, 2				
	O 3, 6, 5				
	O 5, 6, 1				
Correct!	6, 5, 1				
	O 6, 5, 2				

Correct!	Question 5	
	Suppose a user enters kill -9 1008 at the command prompt. This is communicated to the user process with pid 1008 via:	
	SIGSTOP	
Correct!	SIGKILL	
	SIGALRM	
	SIGINT	
	SIGTSTP	

	Question 6	0 / 1 pts
	mov1 \$27, %eax mov1 \$10, %ebx int \$0x80  In Linux, the assembly code above could correspond to:	
ı Answered	<ul><li>□ alarm(27)</li><li>□ exit(0)</li></ul>	
	exit(10)	
rect Answer	○ kill(27, 10)  ○ alarm(10)	

Question 7

```
#include ...
void sig_handler(){
    static int i = 1;
   printf("Beep\n");
   alarm(i);
   ++i;
}
int main(){
   struct sigaction sa;
    sa.sa_flags = 0;
    sa.sa_handler = sig_handler;
    if(sigaction(SIGALRM, &sa, NULL) != 0){
        printf("Failed to bind handler.\n");
        exit(1);
    printf("Going into an infinite loop.\n");
    alarm(1);
    while(1);
    return 0;
}
```

Suppose the above program is run for 7.5 seconds after it prints "Going into an infinite loop". The program is run multiple times where the "system load" from other processes sharing the cpu will vary from none to many other processes. Which best characterizes how many times "Beep" is printed?

## Correct!

- "Beep" is printed <= 4 times (less than or equal to).</p>
- "Beep" is printed >= 4 times (greater than or equal to).
- "Beep" is printed < 4 times (strictly less than).</p>
- "Beep" is printed > 4 times (strictly greater than).
- "Beep" is printed always 4 times (exactly equal to).

Question 8

	Identify the kind of exception that occurs in each of the following scenarios:			
Correct!	A user process tries to divide a number by zero.	Fault	~	
Correct!	A user process closes a file.	Trap	~	
Correct!	A user types Ctrl-C on keyboard.	Interrupt	~	
Correct!	The system's peripheral bus malfunctions.	Abort	<b>~</b>	
	Other Incorrect Match Options:  • Error			

Quiz Score: 7 out of 8