

**Operating System Laboratory**  
**Fall 2018**  
**Final**  
**18 Dec 2018**  
**Time Limit: 30 Minutes**

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**Name:** \_\_\_\_\_  
**Student Number:** \_\_\_\_\_

This exam contains 3 pages (including this cover page) and 10 questions.  
Total of points is 10.

Keep clam and take your exam. Please consider C programming language and Linux operating system. This exam has only 5 points.

Grade Table (for teacher use only)

Question	Points	Score
1	2	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
10	0	
Total:	10	

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1. (2 points) What is the difference between interrupt and trap?

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2. (1 point) A hardware device wishes to transfer information to the main memory of the computer for access by an application. Which of the following mechanisms **cannot** be used to this purpose?
    - A. direct memory access
    - B. polled mode operation
    - C. programmed I/O
    - D. zombie processes
  3. (1 point) Which one of the following system calls is related to process creation?
    - A. execl
    - B. read
    - C. write
    - D. send
  4. (1 point) Which one of the following functions can be used as a thread handler?
    - A. void \*handler(void \*)
    - B. int handler(int, int)
    - C. void \*handler(char \*, int \*)
    - D. boolean handler(string, string)
  5. (1 point) Which choice is not a way for thread synchronization?
    - A. mutex
    - B. semaphore
    - C. spinlock
    - D. pipe
  6. (1 point) Is there any way to have a shared value in multiple process?
    - A. Yes
    - B. Yes but it works only after the value is changed
    - C. Yes but it does not reflect the changing
    - D. No
  7. (1 point) Which relationship is meaningful?
    - A. pipe and threads
    - B. fifo and threads
    - C. sockets and processes
    - D. sockets and threads
  8. (1 point) Linux only supports IP in network layer?

- A. true
  - B. false
9. (1 point) POSIX is a standard that defines how network protocol works?
- A. true
  - B. false
10. (0 points) What do you think about our class and this exam? Do you consider our class and topics useful?

