

CSSE 332 -- OPERATING SYSTEMS

Signals

Name: _____

Question 1. (5 points) When running a program in a shell and you press the `ctrl-c` key combination on your keyboard, which signal is sent to the running process? What is the default behavior of the process upon receiving this signal?

Question 2. Assume that in our system, we have three processes P_1 , P_2 , and P_3 . At one point in time, both P_2 and P_3 send the *stop* signal to P_1 .

- (a) (5 points) Assume that P_2 sends P_1 the signal **before** P_3 sends its signal. In this case, it is guaranteed that P_2 's signal will be delivered before P_3 's signal.
- A. True.
 - B. False.
- (b) (5 points) Assume now that P_1 received P_2 's signal but has not processed (or handled) it yet. Which of the following statements is true when P_3 's signal is received?
- A. P_3 's signal will be queued until P_2 's signal is handled by the receiving process.
 - B. P_3 's signal will be bundled with P_2 's signal since they are of the same type.
 - C. P_3 's signal will be discarded.

Question 3. (5 points) List and explain the five actions that can be taken by default when a process receives a certain signal.

Question 4. (5 points) Explain the main difference between an *ignored* signal and a *masked* signal.