CSC 139 Operating System Principles

9/16/2019 In-class Group Assignment

1. Consider the code:

pid\_t pid1, pid2; int status;

struct rusage usage;

if ((pid1=fork())) {

printf("I am parent %d; child is %d\n",getpid(),pid1);

pid2=wait3(&status, 0, &usage);

printf("exit code for %d is %d\n", pid2, status);

} else {

execl("/bin/cat", "/bin/cat", "/csc/139/news/0001.txt", NULL);

printf("we should never get here!\n");

}

1. Explain exactly when the “if” statement is true.
2. What would the output of this code look like?
3. Consider the following code. It has several fork() and printf(). How many A, B, and C will be printed?

#include <stdio.h>

#include <unistd.h>

int main(int argc,char \*argv[]){

printf("A\n");

fork();

printf("B\n");

fork();

printf("C\n");

return 0;

}

1. Can a process's children see what it prints? Why or why not?