


National University of Computer and Emerging Sciences, Lahore Campus

	Course:	Operating Systems	Course Code:	CS205
	Program:	BS(Computer Science)	Semester:	Spring 2019
	Due Date:	12-2-2019	Total Marks:	5
	Section:	D	Weight:	5
	Exam:	Quiz 1	Page(s):	1
	Name:		Roll #:	

1. Calculate number of times hello is printed. (3 marks)

```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>

void forkexample()
{
    int x = 1;

    if (fork() == 0)
        printf("Child has x = %d\n", ++x);
    else
        printf("Parent has x = %d\n", --x);
}

int main()
{
    forkexample();
    return 0;
}
```

Write all possible outputs of the code in the left box.

Parent has x = 0
Child has x = 2

(or)

Child has x = 2
Parent has x = 0

2. What is the argument and return value for the wait() system call? (2 marks)

Argument: exit status of the child process.

Return value: the process ID of the child process that exited.