

National University of Computer and Emerging Sciences, Lahore Campus



Course:	Operating System	Course Code:	CS 2006
Program:	BS (CS)	Semester:	Spring 2023
Duration:	25 Minutes	Total Marks:	10
Paper Date:	15-Feb-2023	Weight	5 %
Section:	4H	Page(s):	2
Exam:	Quiz 1	Roll-No:	

Instruction/Notes: Honesty always gives fruit and Dishonesty is always harmful.

Question # 1:

Consider a parent process P that has forked a child process C. Now, P terminates while C is still running. Answer yes/no, and provide a brief explanation.

(a) Will C immediately become a zombie?

No, it will be adopted by init.

(b) Will P immediately become a zombie, until reaped by its parent?

Yes.

Question # 2:

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

int value = 5;

int main()
{
    pid_t pid;

    pid = fork();

    if (pid == 0) { /* child process */
        value += 15;
        return 0;
    }
    else if (pid > 0) { /* parent process */
        wait(NULL);
        printf("PARENT: value = %d",value); /* LINE A */
        return 0;
    }
}
```

What output will be at Line A? (Support your answer with a valid reason)

PARENT: value = 5



BEST OF LUCK!