

長庚大學113學年度第一學期 作業系統 第一次小考 滿分110

系級:

姓名:

學號:

1. Assume that the fork() function is always successful, please provide the output of the following program. (50%)

```
#include<sys/types.h>
#include<stdio.h>
#include<unistd.h>
int main()
{
    pid_t pid, pid2;
    printf("Quiz\n");
    pid = fork();
    if (pid > 0)
    {
        wait(NULL);
    }
    else
    {
        pid2 = fork();
        if (pid2 == 0)
        {
            printf("One\n");
        }
        else
        {
            wait(NULL);
            printf("Easy\n");
        }
        printf("Is\n");
    }
    printf("So\n");
    return 0;
}
```

Quiz  
One  
Is  
So  
Easy  
Is  
So  
So

2. Assume that the fork() function is always successful, please provide the output of the following program. (60%)

```
#include<sys/types.h>
#include<stdio.h>
#include<unistd.h>
int main()
{
    pid_t pid, pid2;
    pid = fork();
    if (pid == 0)
    {
        printf("1");
        pid2 = fork();
        if (pid2 == 0)
        {
            printf("2");
        }
        else
        {
            wait(NULL);
            printf("3");
        }
        printf("4");
    }
    else
    {
        wait(NULL);
        printf("5");
    }
    printf("6");
    return 0;
}
```

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or

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Both are correct