United International University
Course: Operating Systems (CSE 4509), Spring 2025
Class Test 1, Section F
Total Marks: 20, Time: 30 minutes

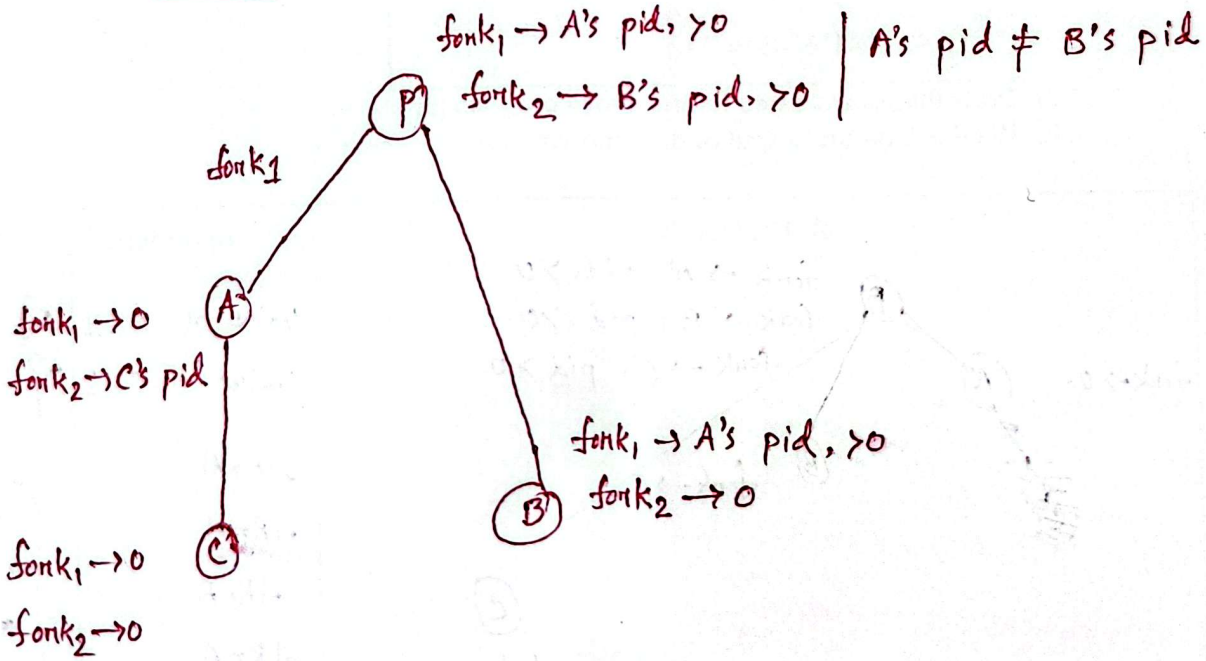
Name		ID	

1) Consider the following program

```
1.    if(fork() == fork())
2.    {
3.        printf("We're equal!\n");
4.    }else
5.    {
6.        printf("We're not equal!\n");
7.    }
```

a) Draw the process tree for the above program [5]
b) What will be the output of the program? [3]

1(a)



1(b)

We're not equal (P)
We're not equal (A)
We're equal (C)
We're not equal (B)

} order does not matter

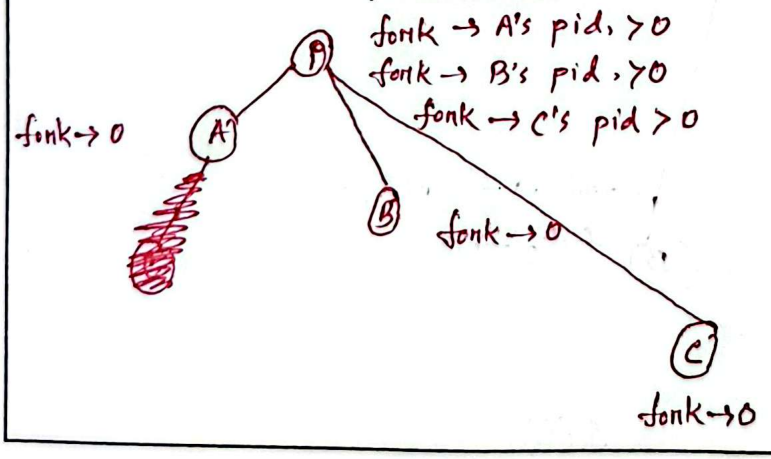
2) Differentiate between the two methods of loading a program: Eagerly loading & Lazy loading. [4]

3) Consider the following program:

```
1.    int c = 0;
2.    while(fork() && c < 2) {
3.        c++;
4.        printf("Value of c = %d\n",c);
5.    }
6.    printf("ARnA\n");
```

a) Draw the process tree for the above program [5]
b) What will be the output of the program? [3]

a) Process Tree



b) output

Value of c = 1
Value of c = 2
ARnA
ARnA
ARnA
ARnA

Order does not matter