



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

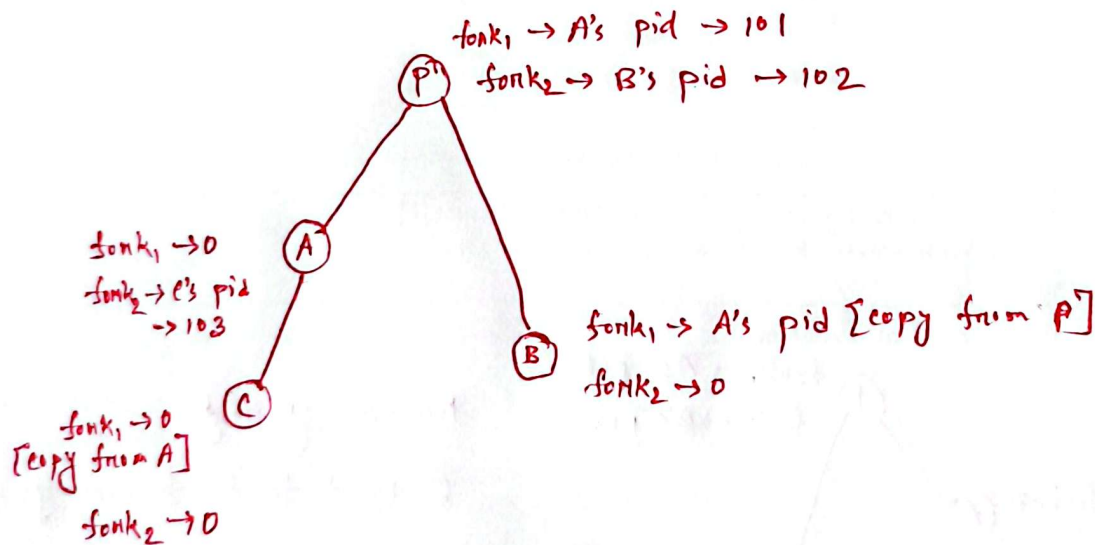
Name	ID
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1) Consider the following program

```
1.  if(fork() <= fork())
2.  {
3.      printf("We're less than or equal!\n");
4.  }else
5.  {
6.      printf("Greater!\n");
7.  }
```

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

say, P's pid = 100



Output

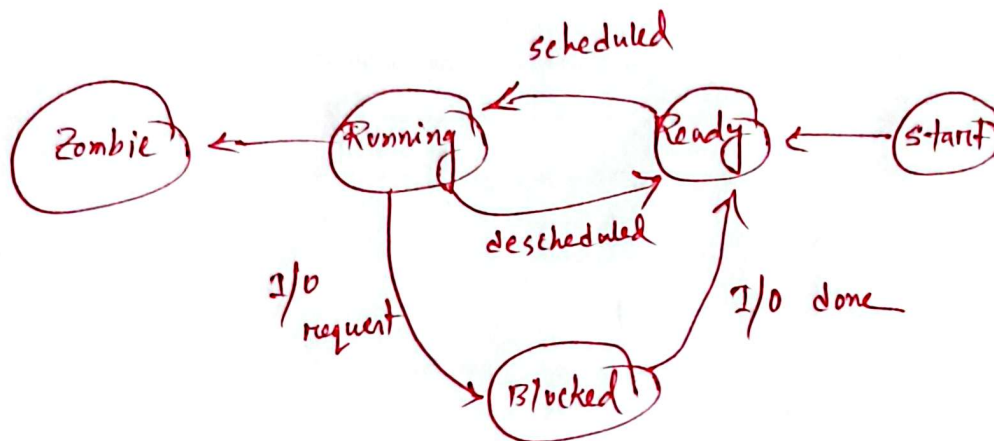
We're less than or equal [P]

We're less than or equal [A]

Greater [B]

We're less than or equal [C]

2) Draw the state diagram of a process showing necessary transitions. [4]



3) Consider the following program:

```

1. while(fork () && fork())
2. {
3.     printf("Forever young\n");
4.     break;
5. }
6. printf("I want to be forever young\n");
  
```

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

