CPE 308 Assignment 1

1. What is a process? What is a "zombie" process?

A process is a program in execution that needs resources to accomplish its task. It needs address space and register values.

A "zombie" process is a process that has completed execution but still has an entry in the process table. This allows the parent process to read its child's exit status.

2.

Monolithic Kernel	Micro Kernel
- runs as a single program	- split up into modules
- better performance	- more secure
- everything relies on each other	- User mode and Kernel mode
- less secure	- If one service dies the rest still continues to operate
	- less performance

3.

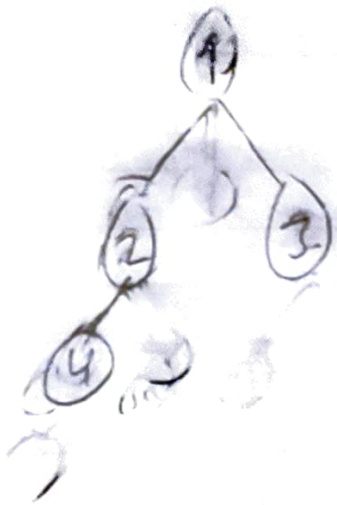
```
int main(){
    f(12)
    return 1
}

int f(int n){
    if(n<=0)
        return 0;
    else
        return f(n-1) + 2 * f(n-4)
}
```

f(12) = (10+4) + (4+1) = 19;

f(12) + 1 = 20

Maximum frame stacks = 20

4



4

5. Zpossibilities

"I am the parent\n"
"I am the child"

↓

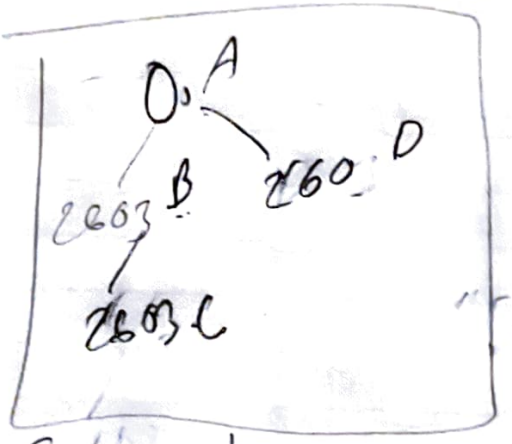
compiled

"Error!\n"

↓

No fork was possible

6.



A = 0
B = 2603
C = 2603
D = 2600

↓

wait(NULL);
"Fork failed";