

# CENG328 Operating Systems

## Spring 2010

### Laboratory Quiz IV

May 17, 2010

#### (Section 1)

1. Assume you have the following file:

```
ceng328@quiz-server:~$ ls -l
total 4
----- 1 ceng328 ceng328 512 2010-05-14 13:47 foo
ceng328@quiz-server:~$
```

- Using the chmod flags, complete the following C program code to set the file rights to **rwxr-xr-**.

```
if (chmod(/* Fill in here */) < 0)
    printf("chmod error");
```

- Available flags: S\_IRGRP S\_IROTH S\_IRUSR S\_IWGRP S\_IWOTH S\_IWUSR S\_IXGRP S\_IXOTH S\_IXUSR

2. What are the differences between malloc(), calloc() and alloca() functions?

#### (Section 2)

1. Write a short C program code segment to dynamically allocate and initialize a memory block for holding 30 double type variables and then decrease its size to hold 17 variables.

2. Describe the following stat structure fields, flags and POSIX macros:

- S\_ISREG()
- S\_IWOTH
- S\_IXGRP
- st\_uid
- st\_atime