

Name (PRINTED): _____

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name and time) _____

CMSC 106

Quiz #5

Fall 2007

1. [18 pts.] Write a function which would be used with the following main so that the character passed as the first parameter is printed the number of times indicated by the second parameter. If the integer passed is non-positive, the function should do nothing.

```
#include <stdio.h>
```

```
void writechars(char c, int i){  
    int cnt;  
    if (i > 0){  
        for(cnt = 0; cnt < i; cnt++){  
            printf("%c", c);  
        }  
        printf("\n");  
    }  
    return;  
}
```

```
int main(){  
    writechars('a',4); //output would be    aaaa  
    writechars('b',3); //output would be    bbb  
    writechars('x',6); //output would be    xxxxxx  
    return 0;  
}
```

(over)

2. [11 pts.] Write a function that takes in no parameters but prompts for and reads integers (one at a time) from the user until a value between 1 and 9 (inclusive) is given. The single digit integer is then returned to the caller of the program.

It is called like this:

```
int retvalue;
retvalue = getOneDigit();
```

It looks like this when run:

```
Give a single integer: 12
Error - Give a single integer: -55
Error - Give a single integer: -3
Error - Give a single Integer: 4
```

```
int getVal(){
    int i;
    do{
        printf("Give a single Integer:");
        scanf("%d", &i);
        if(i > 9 || i < 1){
            printf("Error - ");
        }
    }while(i > 9 || i < 1);
    return i;
}
```

3. [11 pts.] Tell the output of the following C code:

```
#include <stdio.h>
void f1(int a, int b){
    int x = 99;
    a = x - b++;
    printf("f1: %d, %d, %d\n",a,b,x);
    return;
}
int f2(){
    int x = 5, y = 9;
    return x * y;
}
int main(){
    int x = 1, y = 2, z = 3;
    f1(x,y);
    x = f2();
    printf("main: %d, %d, and %d\n",x,y,z);
}
```

f1: 97, 3, 99

main: 45, 2, and 3