

PRELAB #8 - CSE 1310

Objectives:

The purpose of this PRELAB is to help you in:

- Selection Control Structures.
- Repetition Control Structures.

1. True or False:

- In a sentinel-controlled loop, repetition continues until a special data value (sentinel value) is scanned.
- Not all 'for' loops can be rewritten using a 'while' loop.
- The increment or decrement operators can be applied to variables, but not to constants or ordinary expressions.

2. Fill in the blank:

- The body of a 'do-while' loop is executed _____ or more times.
- _____ is a unique data value that signals no more data.

3. Identify these three steps in the pseudo code that follows: the initialization of the loop control variable, the loop repetition condition and the update of the loop control variable.

- Get a value for n
- Give p the value 1
- While n is positive
 - Multiply p by n
 - Subtract 1 from n
- Print p with a label

4. Translate the above pseudo code (in Q3) using a while loop. Which of these three labels would it make sense to print along with the value of p?

n*i= n!= n to the ith power=

4. What is the displayed by this program fragment for an input of 10?

```
scanf("%d", &n);
ev=0;
while(ev < n){
    printf("%3d", ev);
    ev = ev+2;
}
printf("\n");
```

5. Correct the syntax and logic of the code that follows so that it prints all multiples of 5 from 0 through 100:

```
for sum=0;
    sum < 100;
    sum += 5;
printf(“%d\n”,sum);
```

6. Rewrite the following code using a while statement:

```
sum=0;
for(odd=1;odd<n;odd=odd+2)
    sum=sum+odd;
printf(“Sum of the positive odd numbers less than %d is %d\n”,n,sum);
```