CSC 222: Systems Programming **Fall 2019**

Quiz 3 **10 points**

Student Name:_____

"Being a student of a higher standard, I pledge to embody the principles of academic integrity."

Student Signature:_____

1. (2 pts) When this symbol is placed **in front of a pointer variable**, it returns the actual variable content (dereferences the pointer):
   ~~a. ampersand (&)~~
   ~~b. conditional operator~~
   ~~c. semicolon (;)~~
   d. asterisk (*)

2. (2 pts) What is wrong with the following C code?

```
#include <stdio.h>
int arr[10]
int i;
for(i=0; i <= 10; i++)
{
   arr[i] = 1;
}
```

missing semicolon

Out of boundry index, when i = 10, indices go from 0 to 9 for array "arr"

3. (3 pts) Step through the following code segment and select the correct output:

```
int nNumber = 2;
while (nNumber <= 10)
{
     printf("%d ", nNumber++);
     nNumber++;
}
nNumber--;
```

Step through the code…

~~A)~~	~~5 6 7 8 9 10~~
~~B)~~	~~3 4 5 6 7 8 9~~
~~C)~~	~~1 2 3 4 5 6 7 8 9~~
D)	2 4 6 8 10
~~E)~~	~~None of these~~

4. (3 pts) What is the output of the following segment of code if 5 is input by the user when asked to enter a number ? (Hint: Remember the behavior of `switch` without the `break` statement).

```
int nNum = 0;
int nTotal = 0;
printf("Enter a number from 1 to 10: ");
scanf("%d", &nNum);
switch (nNum)
{
case 2: nTotal = 5;
case 3: nTotal = 10;
case 4: nTotal = nTotal + 4;
case 5: nTotal = nTotal + 6;
case 6: nTotal = nTotal + 10;
default: nTotal = nTotal + 12;
}
printf("%d \n", nTotal);
```

Because we are missing the break statements after cases, the first case that matches is 5, and the switch "falls through" because no breaks..

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