Ceng230 Review

1- Correct the following program.

```c
#include <stdio.h>
int main( )
{
    int a;
    scanf("%d", a);
    printf("%f", a * 2);
    return 0;
}
```

2- Correct the following program.

```c
#include <stdio.h>
int main( );
{
    int a;
    int b;
    scanf("%d %f", &a, &b);
    printf("%d", a + b);
    return;
}
```

3- Fill in the gaps to complete the program that calculates the area and the perimeter of a square.

```c
#include <stdio.h>
int main( )
{
    scanf("%d", ...);
    printf("%d %d", ... , 4 * r);
    ...
}
```

4- What is the output of the below program?

```c
#include <stdio.h>
int main()
{
    int a = 3;
    printf("a");
    return 0;
}
```

5- What is the output of the below program?

```c
#include <stdio.h>
int main()
{
    int n = 12;
    printf("%d", n / 10 + n % 10);
    return 0;
}
```

6- Circle the mistakes and correct them.

```c
#include <stdio.h>
int main()
{
    int _number;
    _number = 5;
    float _number2 = 3.;
    void main( )
    {
        float number3 = 5.2;
        printf("%c", _number2 + number3);
        return 0;
    }
```

7- What is the output of the below program?

```c
#include <stdio.h>
int main()
{
    printf("/ "Hello\t/-\tWorld!!\n***");
    return 0;
}
```

8- What is the output of the below program?

```c
#include <stdio.h>
int main( )
{
    int a = 5;
    if(a > 5)
        printf("aa");
    else if(a == 5)
        printf("a");
    else
        printf("aaaa");
    return 0;
}
```
9- What is the output of the below program?

```c
#include <stdio.h>

int main()
{
    int a = 5;
    if(a > 5)
        printf("aa");
    else if(a == 5)
        printf("a");
    else;
        printf("bbb");
    return 0;
}
```

A) aa  B) a  C) bbb  D) abbb  E) aabbb

10- The syntax of ? operator in C is;
    (Condition) ? Truevalue : Falsevalue

What will be the value of x and y after execution of the following program?

```c
int x, y = 3;
x = ++y < 4 ? y++ : y--;
```

11- What will be the output after execution of the following program segment?

```c
int x;
float y;
x = 5 / 2;
y = 10.0 / x * 2.5;
printf("%d %.2f", x, y);
```

12- What will be the output after execution of the following program segment?

```c
char c = 'a';
printf("%c%c%d%c%c", c, 99, 65, 65, 'A');
```

A) c996565A  B) a996565A  C) ac65AA  D) acAAA

13- What will be the output after execution of the following program?

```c
#include <stdio.h>

int main()
{
    int x = 5;
double y, z;
x += x + x++;
y = (double) x / 2;
z = x++ / y--;
printf( "%d %.1lf %.1lf", ++x, y++, --z );
return 0;
}
```

14- What will be the value of n after execution of the following program segment?

```c
int n = 2;
n = ( double ) n;
```

A) 2  B) 2.0  C) 2.000  D) 0

15- What will be the output after execution of the following program?

```c
int main()
{
    int n = 2;
    int x = 3;
    switch( n ){
    case 1: x += x;
    case 2: x *= x;
    default: x *= 2;
    }
    printf("%d", x);
    return 0;
}
```

16- What will be the value of n after execution of the following program segment?

```c
int n = 1;
switch( 0 ){
    case 2: n += 1; break;
    case 0: n += 2;
    case 1: n += 3; break;
    default: n += 4; }
```