If-Else Statement Assignment

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Instructions:

1. **This assignment is supposed to be done in 24 Hrs after you receive it.**
2. **Ask leaders for help if needed.**
3. **While submitting this assignment attach screenshot of terminal & description/explanation of the code's/program's behaviour**

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Question 1. Try out following code snippet & explain the output.

```
int num=20;
if(num >20){
        printf(" num is greater than 20");
}
printf(" num : %d \n" num);
```

Question 2. Try out following code snippet & explain the output.

```
int a=10,b=20;

if((a && b++) && (a++ || ++b)){
        printf("a : %d\n",a);
        printf("b : %d\n",b);
}
printf("out of if");
```

Question 3. Try out following code snippet & explain the output.

```
int ilc=15, olc= 25;

if(olc >ilc){
        printf("olc : %d\n",olc);
}


if(ilc<olc);{
        printf("ilc : %d\n",ilc);

}
        printf("olc : %d\n",olc);
        printf("ilc : %d\n",ilc);
```

Question 4. Try out following code snippet & explain the output.

```
bool val=false, var=true;

if(val);{
        printf("true");
}

if(var){
        printf("false");
}
```

Question 5. Try out following code snippet & explain the output.

```
float x=5.2, y=10.5;

if(x == 5.2){
        printf("x : %d\n",x);

if(y == 10.5);{
        printf("y : %d\n",y);
}
```

Question 6. Try out following code snippet & explain the output.

```
int subVal=15;

if(subVal++ && subVal--){
        printf("SubVal : %d\n",subVal);
}


if(subVal-- || ++subVal){
        printf("SubVal : %d\n",subVal);
}

if(subVal > subVal);{
        printf("SubVal : %d\n",subVal);
}
```

Question 7. Try out following code snippet & explain the output.

```c
int weight=50;

if(weight<50 && weight >30){
        printf("You are under weight");
}

if(weight>=50 && weight <= 70){
        printf("you are well maintained");
}

if(weight > 70);{
        printf("you are overweight you have to work hard");
}
```

Question 8. Try out following code snippet & explain the output.

```c
int year=2020;

if(year%4==0  &&  year%100 != 0  ||  year %400 ==0 ){
        printf("%d year is leap year");
}
```

Question 9. Try out following code snippet & explain the output.

```c
int number=10;

if(number!=0 && number>0){
        printf("%d is a positive no",number);

        number=-5;
}

if(number<0 ){
        printf("%d is a negtive no",number);
        number=0;
}

if(number==0){
        printf("number is zero");
        number=15;
        }

if(number%4==0);{
        printf("%d is divisible by 4",number);
}
```

Question 10. Try out following code snippet & explain the output.

```c
#include<stdio.h>

void main(void) {
        int aNum = 0;
        char aChar;
        if(!aNum){
                printf("Inside First If...\n");
                aNum += 20;
                aChar = "T";
        }
        if(aNum % 4 != 0){
                printf("Inside Second If...\n");
                aNum -= 20;
                aChar = "F";
        }
        if(aNum == 0) {
                printf("Inside Third If...\n");
                aChar = "T";
        }
        printf("After all IF, Values Are..., %d & %c\n", aNum, aChar);
}
```

Question 11. Try out following code snippet & explain the output.

```c
int number1, number2;
printf("Enter two integers: ");
scanf("%d %d", &number1, &number2);

if (number1 >= number2) {
        if (number1 == number2) {
                printf(" %d = %d",number1,number2);
        }
        else {
                printf(" %d > %d", number1, number2);
        }
}
else {
        printf(" %d < %d",number1, number2);
}
```

Question 12. Try out following code snippet With different values of *num*.

```
int num=120;

if(num%2 ==0){
        printf("%d is divisible by 2",num);

        if(num%3 == 0){
                printf("%d is divisible by 3",num);

                if(num%5==0){
                        printf("%d is divisible by 5",num);
                }else {
                        printf("%d is not divisible by 5",num);
                }
        }else{
                printf("%d is not divisible by 3",num);
        }
}
else{
        printf("%d is not divisible by 2",num);
}
```

Other Values: num = 30; num=120; num =76; num =36;

Question 13. Try out following code snippet, take value of *f1, f2 & f3* from User.

```
float n1, n2, n3;

if(n1 >= n2 && n1 >= n3){
        printf("Largest number: %d",n1);
}

if(n2 >= n1 && n2 >= n3){
        printf("Largest number: %d",n2);
}

if(n3 >= n1 && n3 >= n2) {
        printf("Largest number: %d",n3);
}
```

Question 14. Write a Program to check whether the number *N* Entered by ranges between 25 to 50, Print the appropriate statements.

Input: 15
Output: 15 Doesn't belong in the range of 25 to 50.

Question 15. Write a Program that check whether the entered character by user is vowel or Consonant.
Input: A
Output: A is Vowel.

Question 16. Write a Program that detects whether the entered character is UPPER CASE, lower case or a Special Character.
Input: *
Output: * is a Special Character.

Question 17. Write a Program that accepts three Integers from user then finds largest number amongst them as well as it should print whether the largest number amongst them is odd or even.
Input:
　　　Number One: 20
　　　Number Two: 21
　　　Number Three: 12
Output: The largest Number amongst 20, 21 & 12 is 21 & 21 is an Odd Number