Assignment-3 (Decision Control Statement)

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(1) W.A.P to check whether a give No is Positive or Non Positive.

```
IF( n >=0)
PrintF(" Positive");
 Else
PrintF(" Non Positive");
```

(2) W.A.P to check whether a given No is divisible by 5 or not

```
IF( n%5==0)
PrintF(" Divisible by 5");
 Else
PrintF( Not);
```

(3) W.A.P to check whether a given number is an even number or an odd number

```
IF( n%2==0)
PrintF(" even number");
Else
PrintF(" odd number");
```

(4) W.A.P to check whether a given no is even or odd number without using % operator.

```
If(n & 1)
printf("odd number");
Else
printf("Even number");
```

(5) Write a program check whether a given no is a three digit number or not.

```
If(n>=100 && n<=999)
printf("Three digit number");
Else
printf("Not");
```

(6) W.A.P to print greater between two number. Print one number of both are the Same.

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(7) W.A.P check whether roots of a given quadratic equation are real & distinct, real & equal or imaginary roots.

ax^2+bx+c (scanf ("%d %d %d", &a, &b, &c)

$D = b^2 - 4ac$

D > 0 real & distinct.

D = 0 real & equal

D < 0 imaginary root.

```
IF ( D>=0 )
PrintF ( " real & distinct " );
else IF ( D=0 )
 PrintF ( " real & equal );
else IF ( D<0 )
 PrintF ( " imaginary root " );
```

(8) Write a Program whether year is leap Year or Not

(9)

(10) W.A.P takes the cost price and selling price of a product from the user. Now calculate and print profit and loss percentage.

```
Result = ((sell - cost) * 100) / cost;

IF('Result > 0)
 PrintF (" Profit %d", result);

 else if
  PrintF(" Loss %d", Result);
```

(11) W.A.P to take marks of 5 subject from the user. Assume marks are given out of hundred and passing mark is 33. Now display whether the candidate passed the examination or faid.

```
Total = ((Math + Chem + Phy + Eng + Sans) * 100) / 500;
IF( Total >= 33 && ( Phy >= 33 || math >= 33 || Chem >= 33
                     Eng >= 33 || Sans >= 33 );

PrintF( " Pass");
else
PrintF ( " Fail" );
```

(12) W.A.P to check whether a given alphabet is Upper case or lower case.

```
Char c;
Scanf("%c", &c)
IF(c>='A' && c<='Z')
PrintF("Upper case");
else
PrintF("lower case");
```

(13) W.A.P to check whether A given no is divisible by 3 and divisible by 2

```
IF(n%.3==0)
PrintF("Divisible by 3);
else IF("n%.2==0);
PrintF("Divisible by 2");
```

```
IF(n%.3==0 && n%.2==0)
PrintF("Divisible by 3 and divisible by 2");
```

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(14) W.A.P to check whether a given is divisible by 7 or divisible by 3.

```
IF( n%.7==0 || n%.3==0)
PrintF(" Divisible by 7 or divisible by 3");
  else
  PrintF(" Not Divisible by 7 or 3");
```

(15) W.A.P to check whether a given number is Positive, negative, zero

```
  IF(n>0)
  PrintF(" Positive)
else IF(n==0)
  PrintF(" zero")
  else
  PrintF("Negative");
```

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(16) W.A.P to check whether a given character is alphabet (Uppercase), an alphabet (lowercase), a digit or a special character.

```
Char C;
IF(C>='A' && C<='Z')
PrintF(" Upparcase Alphabet");
else if(C>='a' && C<='z');
PrintF(" lowercase alphabet");
else if(C>='0' && C<='9')
PrintF("a digit");
else
PrintF("a special symbol");
```

(17) Write a Program which takes the length of the side of a triangle as an input. Display whether the triangle is valid or Not?

```
Scanf("%d %d %d", &a, &b, &c);
IF(a+b>=c && a+c>=b && b+c>=a)
PrintF("Triangle is Valid");
elsePrintf("Triangle is not valid");
```

(18) W.A.P which take the month number as an input and display number of days in that month.

```
int n;
Scanf("%d", &n);
IF(n==1 || n==3 || n==5 || n==7 || n==8
    || n==10 || n==12)
{ PrintF("31 Days"); }
else rF( n==4 || n==6 || n==9 || n==11)
 PrintF("30 Days");
else iF ( n==2) {
  PrintF("28/29 Days");
   else
  PrintF("Invalid moth");
```