contact details
      haider : syedhyder@ineuron.ai
      nitin   : nitin@ineuron.ai

Q>
```
int x=10 , y=15 ;
 if(++x < 10 & ++y > 15) {   //11<10(false)  & 16>15(true)
      x++;
 }
 else {
      y++;//17
 }
 System.out.println(x+"----"+y);
```

predict x and y value by replacting the operators with
   || => x and y value ?
   || -> it is called as "Short circuit OR operator"
           second operand evaluation will happen only if the first operand result is false
      x = 12
      y = 16

   && => x and y value
   && -> it is called as "Short circuit AND operator"
           second operand evaluation will happen only if the first operand result is true
      x = 11
      y = 16

    | => x and y value
     |=> It is called as "Logical OR operator"
          both the operands result will be evaluated.
      x = 12
      y = 16

   &   => x and y value ?
   & -> It is called as "Logical AND operator"
          both the operands result will be evaulated
      x =11
      y =17

Q>
```
int x=10 ;
 if(++x < 10 && ((x/0)>10) ) { //11<10===> if(false)
       System.out.println("Hello");
 }
 else {
      System.out.println("Hi");
 }
```

A. Hello
B. Hi
C. Compile Time Error
D. Exception
E. None of the above.

Answer : B

Q>
Give
```
int i=10;//10
int j=20;//30
int k= (j+=i)/5;//  k = (j= j+i)/5
                        k= (j=20+10)/5
                        k = (j=30)/5
                        k= 30/5
                        k= 6
System.out.println(i+":"+j+":"+k);
```

A.10:30:6
B.10:22:22
C.10:22:20
D.10:22:6
Answer : A

Q>
Syntax of if

```
 if(boolean){
      stmt-1;
      stmt-2;
 }else{
      stmt-3;
      stmt-4;
}
```

```
 int x =10;
 if(x){//CE: unexpected type required: boolean,found:int
      System.out.println("hello");
 }else{
      System.out.println("hiee");
}
```
A. hello
B. hiee
C. CompileTime Error
D. Some problem by jvm at the execution
E. None of the above

Answer: C

Q>
```
int x =10;
if(x=20){//CE: unexpected type required: boolean,found:int
      System.out.println("hello");
 }else{
      System.out.println("hiee");
}
```
A. hello
B. hiee
C. CompileTime Error
D. Some problem by jvm at the execution
E. None of the above

Answer: C

Q>

```
int x =10;
if(x==20){//operator used is Equality operator   ==, !=  output is boolean
      System.out.println("hello");
 }else{
      System.out.println("hiee");
}
```
A. hello
B. hiee
C. CompileTime Error
D. Some problem by jvm at the execution
E. None of the above

Anser: B

Q>
```
boolean b= false;
if(b=true){//assignment operator is evaluted on boolean data type, JVM if(true)
      System.out.println("hello");
 }else{
      System.out.println("hiee");
}
```
A. hello
B. hiee
C. CompileTime Error
D. Some problem by jvm at the execution
E. None of the above

Answer : A

Q>
```
boolean b= false;
if(b==true){//Equality operator result is boolean type , JVM if(false == true) ----
> if(false)
      System.out.println("hello");
 }else{
      System.out.println("hiee");
}
```
A. hello
B. hiee
C. CompileTime Error
D. Some problem by jvm at the execution
E. None of the above

Answer: B

Q>
```
if(boolean)
      stmt-1;
```
Note: if there is only statement which needs to be a part of if, then {} is optional.
```
if(true)
      System.out.println("hello");
```

A. Compile Time Error
B. hello
C. Some problem by jvm at the execution
D. None of the above

Answer : B

Q>
```
public class Test{
      public static void main(String args[]){
            if(true);
      }
}
```
A. Compile Time Error
B. hello
C. Some problem by jvm at the execution
D. No Output

Answer : D(becoz ; is also valid java statement)

Q>
Note: if there is only statement which needs to be a part of if, then {} is optional,but that statement should not
be a declarative statement.

```
public class Test{
      public static void main(String args[]){
            if(true)
            int x=10; //CE: declaration not allowed here
      }
}
```
A. Compile Time Error
B. hello
C. Some problem by jvm at the execution
D. No Output

Answer: A

Q>
```
public class Test{
      public static void main(String args[]){
            if(true) {
                  int x=10; //valid for compiler becoz of {}
            }
      }
}
```
A. Compile Time Error
B. hello
C. Some problem by jvm at the execution
D. No Output

Answer: D

Q>
```
public class Test{
      public static void main(String args[]){
            if(true)
            System.out.println("hello");//Dependent of if statement
            System.out.println("hiee");//Independent of if statement
      }
}
```
How many statements are independent of if?
A. 0-stmt
B. 1-stmt
C. 2-stmt

D. 3-stmt

Answer: B