CH. 6 - SELECTION STRUCTURE-I-EXERCISE

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Q.6.1 Differentiate:

if	else
It is decision making structure that consists of expressions followed b y one or more statements.	It is decision making structure in which if statement can b e followed by an optional else statement that executes when the expression is false.

Relational operators	Logical operators
1. Used to compare two values.	1. It performs logical expressions. Used for decision making.
2. Some operators are: <,>,>=,<=,==,!=	2. Some operators are: &&,||,!

AND operator	OR operator
1. True result when all operands are true.	1. True even if one operand is true.
2. Explanation:	2. Explanation:

a	b	a&&b
0	0	0
0	1	0
1	0	0
1	1	1

a	b	a||b
0	0	0
0	1	1
1	0	1
1	1	1

Q.6.2 WAP to find largest of two no

.

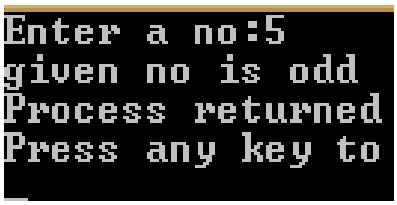
```
#include <bits/stdc++.h>
using namespace std;
int main()
{int a,b,c;
cout<<"enter three no:\n";
cin>>a>>b>>c;
if(a>b)
    if(a>c)
        cout<<"greatest no is: "<<a;
    else
        cout<<"greatest no is: "<<c;
if(b>a)
    if (b>c)
        cout<<"greatest no is: "<<b;
    else
        cout<<"greatest no is: "<<c;
return 0;
}
```

Output:

```
enter three no:
2
3
4
greatest no is: 4
Process returned 0 (0x0)
Press any key to continue.
```

Q6.3 WAP to check whether a given no is even or odd.

```
#include <bits/stdc++.h>
#include <math.h>
using namespace std;
int main()
{int a;
cout<<"Enter a no:";
cin>>a;
if(a%2==0)
    cout<<"given no is even";
else
    cout<<"given no is odd";
return 0;
}
```



Q.6.4 Evaluate the following expressions:

(x>=y)||(!z==y)&&(z<x)

(a) x=5,y=8,z=9
Output: 0
(b) x=7,y=10,z=2
Output: 0
(c) x=9,y=9,z=9
Output: 1

Q.6.5 Give the output:

```
{int i=0;
if (i=5)
    cout<<i;
cout<<i;
return 0;
}
```
Output: 5

CH. 7 - SELECTION STRUCTURE-II-EXERCISE

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Q.7.1 Differentiate:

Conditional operator	if-else

1. Syntax:
Expression1?expression2:expression3;
	1. Syntax:
	If(exprssion1)
	Expression2;
	Else
	Expression3;

2. Provides more concise and compact code.	2.It is more obvious code and have much applicability.

Switch	if-else
1. It can test equality only.	1. It can check logical and relational expression as well.
2. It can only test a set of variable only.	2.It can involve unrelated variables.
3. Case label can include only char and integer.	3.It can handle floating-point tests as well.

Q.7.2 WAP to print largest no using conditional operator.

```
#include <bits/stdc++.h>
#include <math.h>
using namespace std;
int main()
{int a,b,c;
cout<<"enter three no:\n";
cin>>a>>b>>c;
((a>b)&&(a>c))?cout<<a<<" is largest no":((b>c)&&(b>a)?cout<<b<<" is largest no":cout<<c<<" is largest no");
return 0;
}
```

Output

```
enter three no:
4
5
6
6 is largest no
Process returned
Press any key to
```

Q.7.3 WAP to check whether given no is odd/even.

```
#include <bits/stdc++.h>
#include <math.h>
using namespace std;
int main()
{int a;
cout<<"Enter a no";
cin>>a;
(a%2==0)?cout<<"EVEN":cout<<"ODD";
return 0;
}
```

Output

```
Enter a no7
ODD
Process returned 0 (0x0)
Press any key to continue.
```

Q.7.5 Give the output:

```
{int i,j=5;
i=(j!=5)?5:0;
cout<<i<<j;
return 0;
}
```

Output: 0, 5

Q.7.4 Write a menu driven program using “switch”. Choices are

(A) Largest of two no
(B)Largest of three no
(C)Number is even or odd

```
#include <bits/stdc++.h>
#include <math.h>
using namespace std;
int main()
{char a,b,c,ch;
int x,y,z;
cout<<"CHOICES AVAILABLE:\n";
cout<<"\n(A)Largest of two no\n(B)Largest of three no\n(C)Number is even or odd";
cout<<"\nEnter your choice";
cin>>ch;
switch(ch)
{
    case 'a':cout<<"\n(A)Largest of two no\n";
             cout<<"\nEnter two no: ";
             cin>>x>>y;
             if (x>y)
                 cout<<x<<" is greater than "<<y;
             else
                 cout<<y<<" is greater than "<<x;
             break;
    case 'b':cout<<"(B)Largest of three no";
             cout<<"Enter three no: ";
             cin>>x>>y>>z;
             ((x>y)&&(x>y))?cout<<x<<" is largest no":((y>z)&&(y>x)?cout<<y<<" is largest no":cout<<z<<" is largest no";
             break;
    case 'c':"(C)Number is even or odd";
             cout<<"Enter a no";
             cin>>x;
             (x%2==0)?cout<<"EVEN":cout<<"ODD";
             break;
    case 'd':cout<<"\nENTER A VALID VALUE!!\n";
             break;
return 0;
}
}
```

Output

```
CHOICES AVAILABLE:

(A)Largest of two no
(B)Largest of three no
(C)Number is even or odd
Enter your choice b
(B)Largest of three no
Enter three no:
4
5
6
6 is largest no
```