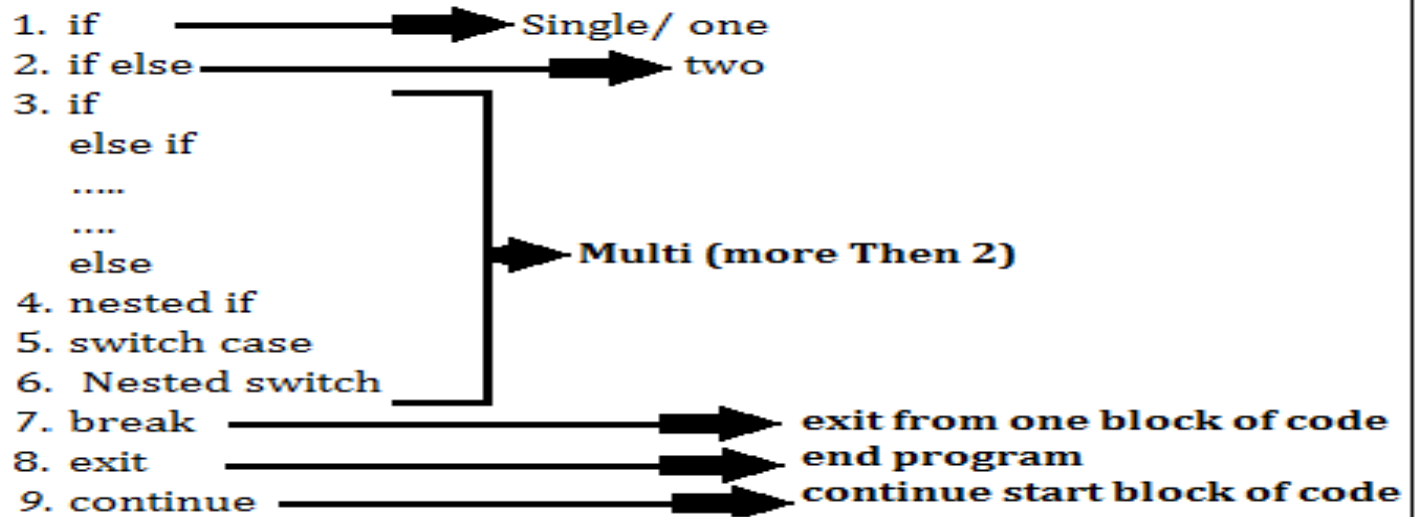
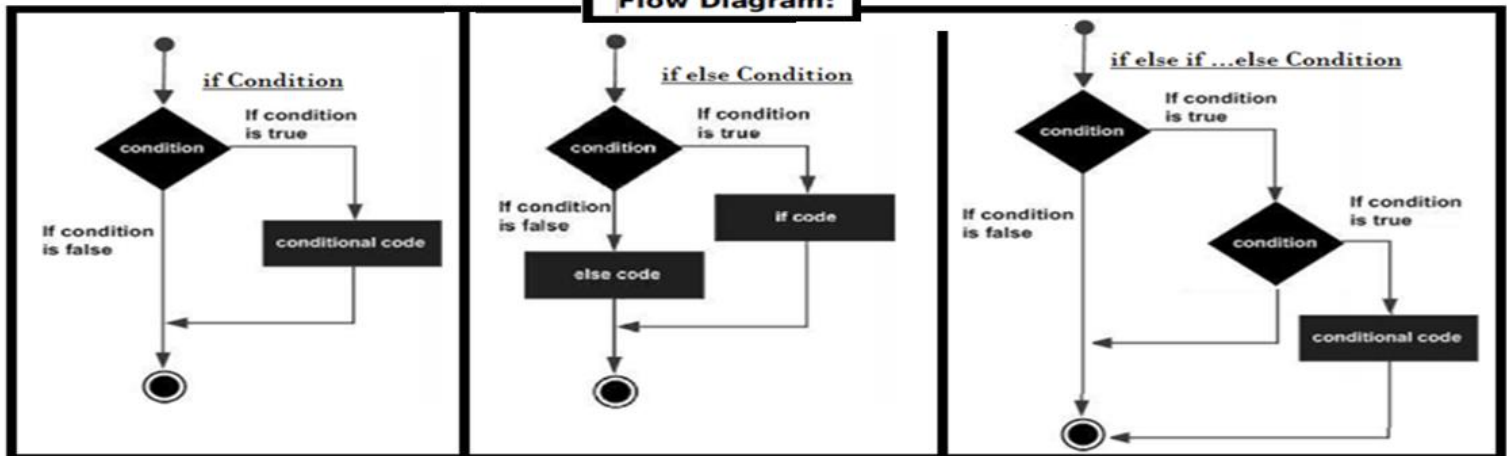


Conditions

RO: <, >, <=, >=, !=, ==

(Check / Compare)Value, Date, Information, Variable, Identifier**Flow Diagram:**

if **F/T**
Syntax: **if(cond)**
 {
 With if 1
 }
 CL/GS 2
 F->2 **T->1,2**

if else **F/T**
Syntax: **if(cond)**
 {
 With if 1
 }
 else
 {
 With else 2
 }
 T:- 1,3
 F:- 2,3
 CL/GS 3

Case 1: **F/T**
 if(cond)
 {
 With if 1..
 2..
 }
 else
 {
 T:- 1,2,5,6
 F:- 3,4,5,6
 3..
 4... With else
 }
 CL/GS 5....
 6....

Case 1: **F/T**
 if(cond)
 {
 With if 1..
 2..
 }
 CL/GS 3..
 4..
 T:- 1,2,3,4
 F:- 3,4

Case 2 **F/T**
 if(cond)
 With if 1..
 2..
 CL/GS 3..
 4..
 T:- 1,2,3,4
 F:- 2,3,4

Case 3 **if(cond);**
 1..
 CL/GS 2..
 3..
 4..
 T:- 1,2,3,4
 F:- 1,2,3,4

Case 2 : **F/T**
 if(cond)
 1..
 2..
 else
 {
 3..
 4..
 }
 5....
 6....

ERROR

Case 3: **F/T**
 if(cond)
 With if 1..
 else
 {
 2..
 3..
 4... With else
 }
 T:- 1,5,6
 F:- 2,3,4,5,6
 CL/GS 5....
 6....

Value	1	2	3	4	5	6	7	8	9	10	11
X	2	4	9	3	6	1	3	7	5	4	1
Y	7	5	7	8	9	3	3	5	1	6	9

Q1.	Q2.	Q3.	Q4.	Q5.
if(x>y) { x+=2; y+=4; } x*=3; y=y+x;	if(x>y) { x*=2; y+=2; } x*=2; y=y*x;	if(x<y); { x+=3; y+=2; } x*=2; y=y-x;	if(x!=y) { x+=2; y+=4; x++; y+=x;	if(x==y) { x-=2; y+=2; y++; x+=y;

Value	1	2	3	4	5	6	7	8	9	10
X	2	4	9	3	6	1	3	7	5	4
Y	7	5	7	8	9	3	3	5	1	6
Q1.	Q2.		Q3.		Q4.					
if(x>= y)	if(x<= y)		if(x!= y)		if(x!=y)					
x+=2;	x*=2;		{ x*=2;		x+=2;					
else	else		x+=3 }		else					
{	x-=3;		else		y+=4;					
x*=3;	x=x*4;		x=x+4;		x++;					
y=y+x;	y=y+x;		y=y+x;		y+=x;					
}										

		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
Q1.	X	6	12	33	9	18	3	9	18	21	12	3
	Y	13	17	44	17	27	6	12	27	26	18	12
Q2.	X	4	8	36	6	12	2	6	28	20	8	2
	Y	28	40	324	48	108	6	18	196	60	48	18
Q3.	X	10	14	18	12	18	8	12	14	10	14	8
	Y	-1	-7	-11	-2	-7	-3	-7	-9	-9	-6	-3
Q4.	X	5	7	12	6	9	4	4	10	8	7	4
	Y	16	16	23	18	22	11	11	19	13	17	17
Q5.	X	12	12	19	14	18	7	7	15	9	13	13
	Y	10	8	10	11	12	6	6	8	4	9	12

		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Q1.	X	6	12	11	9	18	3	5	9	7	12
	Y	13	17	18	17	27	6	8	14	8	18
Q2.	X	16	32	24	24	48	8	24	16	8	48
	Y	23	37	31	32	57	11	27	21	9	54
Q3.	X	7	11	21	9	15	5	7	17	13	11
	Y	14	16	28	17	24	8	10	22	14	17
Q4.	X	5	7	12	6	9	4	4	10	8	7
	Y	12	12	19	14	18	7	11	15	9	13

if

else if

else

Syntax:

1

2

3

5

n

F/T

if(cond1)

{

}

F/T

else if(cond2)

{

}

F/T

else if(cond3)

{

}

else

{

}

Example:

if value of n is :

1 Amit

3 Ravi

5 Raman

8 Rajeev

others Hari

if(n==1)

{

display : Amit

}

else if(n==3)

{

display : Ravi

}

else if(n==5)

{

display : Raman

}

else if(n==8)

{

display : Rajeev

}

else

{

display : hari

}

Nested if /if with LO Syntax:-

if(cond1)

{

if(cond2)

{

if(cond3)

{

//statements 4

}

else

{

//statements 3

}

else

{

//statements 2

}

else

{

//statements 1

}

}

Example:-

per>=60 First

60 to 50 Sec

50 to 40 Third

<40 Failed

if(per<60)

{

if(per<50)

{

if(per<40)

{

//faild

}

else

{

//third

}

}

else

{

//second

}

else

{

//first

}

if with LO &&

if(per>=60)

//first

if((per<60)&&(per>=50))

//second

else if(per<50&&per>40)

//third

else

//faild

if with LO(&&,||):-

&& for range like

1 to 7 same result

9 to 20

// for value like

1,4,7 same result

Syntax:-

if((cond1)LO(cond2)LO(cond3))

//statements

else

//statements

Example || operator:-**Q1 if n is**

1,4,7 Amit

5,2 Ravi

others OM

if((n==1)||(n==4)||(n==7))

print:-Amit

else if((n==5)||(n==2))

print:-Ravi

else

print:-OM**Example && operator:-****Q2 if n is**

1 to 7 Amit

8 to 15 Ravi

others OM

if((n>=1)&&(n<=7))

print:-Amit

else if((n>7)&&(n<=15))

print:-Ravi

else

print:-OM

switch(n)

{

case 1: Display A **break;**

case 2: Display B

case 3: Display C **break;**case 4: Display D **break;**

case 5: Display E

case 6: Display F **break;**case 7: Display G **break;**

case 8: Display H

case 9: Display I **break;**

default : Display J

}

if value of n is:

Input Output

1=

2=

3=

4=

5=

6=

7=

8=

9=

10=

12=

13=

Switch Case:

switch(VN)

{

like if case value 1:

//Statements

break;

case value 1:

else if //Statements**break;**

case value 1:

//Statements

break;

else default: //Statements**break;**

}

Example:

if value of n is :

1 Amit

3 Ravi

5 Raman

8 Rajeev

others Hari

switch(n)

{

case 1:

display: Amit

break;

case 3:

display: Ravi

break;

case 5:

display: Raman

break;

case 8:

display: Rajeev

break;

default:

display: hari

break;

}

Nested Switch Case:-

switch(VN)

{

case Value:

switch(VN)

{

case Value: //Statements

break;

case Value: //Statements

break;

case Value: //Statements

break;

.

.

default: //Statements

}

break;

case Value: //Statements

break;

case Value: //Statements

break;

default: //Statements

}

Comparison between Switch & If-ElseCondition (If, Switch and Nested)

1. WAP to find no is -ve or +ve
2. WAP to find no is even and odd
3. WAP to find elder person in 2 persons
4. WAP to find given year is leap year or not
5. WAP to display age is grater then 18 or not
6. WAP to display allow to vote or note
7. WAP to find Person is senior citizen or not, input age
8. WAP to find which no is grater no in 2 numbers
9. WAP to find which no is lowest no in 2 numbers
10. WAP to find which no is grater no in 3 numbers
11. WAP to find which no is grater no in 4 numbers
12. WAP to find which no is lowest no in 3 numbers
13. WAP to find which no is lowest no in 4 numbers
14. WAP to display Day by given Number
15. WAP to display Month by given Number
16. WAP to display Digit in text (0 to 9)
17. WAP to Check given character is vowel or not.
18. WAP to calculate the fare of the following:

Age	Journey	Fare in Rs.
-----	---------	-------------

21. WAP to Assign a stream to student according :

Marks obtained in diff. subject	Stream
Eng., Maths and Science $\geq 80\%$	Pure Science
Eng., and Science $\geq 80\%$, Maths $\geq 60\%$	Bio. Science
Eng., Maths and Science $\geq 60\%$	Commerce

23. WAP to print the **Discount** in Rupees for a salesman. The Discount is based on the following conditions

Sales	Dis %
< Rs. 5000	5%
Rs. 5000 to Rs. 10000	8%
Above Rs. 10000	10%

[Dis=Sales*<Dis_percentage>)/100] , [Total Amount=Sales-Dis]

24. WAP to print the **Income, Tax & Surcharge** of Employ. The **Tax and Surcharge** based on the following conditions

Income	Tax %	Surcharge
< Rs. 15000	15%	7%
Rs. 15001 to Rs. 20000	18%	11%
Above Rs. 21000	20%	13%

[Total Income =Income- Tax-Surcharge][Tax=Income<Tax_percentage>)/100]display all information like Income, Tax & Surcharge .

25. WAP to print the Division :

Per	Division
< 40	Failed
40 to 50	Third
50 to 60	Second
≥ 60	First

26. WAP to get input distance and print fare for the passenger according to:

DISTANCE	FARE (in Rs.)
Upto 20km	10 P/K
Next 20km	7 P/K

<8	<50 Km	10
	50 to 100 Km	15
	Above 100Km	20
8 to 60	<50 Km	20
	50 to 100 Km	30
	Above 100Km	40
Above 60	<50 Km	15
	50 to 100 Km	20
	Above 100Km	25

19. Write a menu drivin program to calculate :

- a. Area of circle [$A=\pi r^2$]
- b. Area of squire [$A=a*a$]
- c. Area of rectangle [$A=l*b$]

20. Write a menu drivin program to calculate :

- d. Volume of cube [$V=s^3$]
- e. Volume of sphere [$V=\frac{4}{3}\pi r^3$]
- f. Volume of cuboid [$V=l*b*h$]

22. Write a menu drivin program to calculate :

- ‘+’ for Add two numbers.
 ‘-’ for subtract two numbers
 ‘*’ for two numbers

Above 6 P/K

27. WAP to for library charges a fine for books returned late. Following are the fines :

First five days	:	40 paisa per day.
Six to ten day	:	65 paisa per day.
Above ten days	:	80 paisa per day

28. WAP to for Electric Bill charges according to charges. Following are the fines :

First 100 Units	:	1 Rs per day.
Next 200 Units	:	2 Rs per day.
Above 300 Units	:	4 Rs per day.

C programming IF ELSE

Q1. Detect errors if any in each of the following statement and rewrite correctly.

- if(2x+5=10 &x<0)
- if(!a>a+b);
- if a>0&&a<b
- if a<0||a>-10)
- if(b)a++;a*=2;
else a--;

Q2. Give the output of the following code fragment:

when i) opn = 'b' ii) opn = 'x' iii) opn = 'a'
switch(opn)
{

```
case 'a': printf("Platform Independent");
        break;
case 'b': printf ("Object Oriented");
case 'c': printf ("Robust and Secure");
        break;
default: printf ("Wrong Input");
}
```

Q4. Differentiate between using examples :

- if..else and if ..else if...else
- break and continue
- if and switch

Paper Set1

1. what is difference between these codes

if(x==1) x+=1;	if(x==1) x+=1;
if(x==2) x+=2;	else if(x==2) x+=2;
if(x==4) x+=4;	else if(x==4) x+=4;
if(x==5) x+=5;	else if(x==5) x+=5;
else x+=3;	else x+=3;

2. convert the given statement into if statement

- int ans = res > 365 ? 500 / 10 : 300 / 10
- comm = amount >= 200 ? amount * .40 : amount * .20

- int k = x <= 100 ? 101 : 11;
- int y = res >= 500 ? 12 * 2 : 22 + 3;
- int res = x >= 110 ? 20 * 2 : 30 + 2;

Convert the following code into switch case

- if(x=='a')m*=2;
if(x=='c')m/=2;
if(x=='d')m+=3;
- if(ch == 'a')
printf("a");
else if(ch == 'z' || ch == 'Z')
printf ("z");
else
printf ("invalid");
- if(code == 'A')
printf ("Account");
else if (code == 'C' || code == 'G')

```
printf ("Grade IV");
else
printf ("Grade I");
d. if(inpu==5){
    col=col+1; printf ("%d",col);}
else if(inpu==10){
    col=col+2; printf ("%d",col);}
else printf ("%d,%d",col,input);
```

- if (a==1){a=a*a; printf("%d",a)}
else if(a==3||a==4||a==5){a=a*3; printf("%d",a);}
else if(a==6||a==7||a==8){a=a*4; printf("%d",a);}
else printf("%d",a);

Convert the following code into "if"

- switch(x)
{
case 0: x+=2; printf("%d",x);break;
case 2: x-=3; printf("%d",x);break;
case 3: x*=1; printf("%d",x);break;
case 6: x/=6; printf("%d",x);break;
default: x++; printf("%d",x);break;
}
- switch(m)
{
case 'a': printf("MY C++ a");break;
case 'b': printf("MY C++ b");break;

```
case 'c': printf("MY C++ c");break;
case 'd': printf("MY C++ d");break;
default: printf("MY C++ e");break;
}
```

```
c. char choice='c';
switch(m)
{
case 'a': printf("MY C++ a");break;
case 'b': printf("MY C++ b");
case 'c': printf("MY C++ c");
case 'd': printf("MY C++ d");break;
default: printf("MY C++ e");break;
```



```

    }
    d. switch(m)
    {
    case 0: x+=2; printf("%d",x);break;
    case 2: x=3; printf("%d",x);

```

```

    case 3: x*=1; printf("%d",x);
    case 6: x/=6; printf("%d",x);break;
    default: x++; printf("%d",x);break;
    }

```

What will the output of the following program

```

    e. int a=10,b=20;
    if((a<b)||((a>5)>10))
    printf("%d",a);
    else
    printf("%d",b);
    f. int x=15,y=10;
    if(x>5)
    {
    if (y>5)
    printf("%d",y);
    }
    else
    printf("%d",x);
    g. int p=-1;
    if(p>0)
    printf("That is Negative");
    else printf("OK P=%d",p);
    h. int x=5;
    if(x<0)
    printf("Neg. Value");
    else
    printf("Pos. Value %d",x);
    i. int i=2;
    printf("%d",i); i+=2;
    if(i<51) printf("\n Thanks");
    j. int a=300,b=100,c=9;
    if(a>=400)
    b=300;
    c=200;

```

```

    printf("%d, %d",b,c);
    k. int a=500,b,c;
    if(a>=400)
    b=300;
    c=200;
    printf("%d %d", b,c);
    l. int x=10,y=22;
    if(x==y)
    printf("%d\n%d", x++,y++);
    else
    printf("%d\n%d", --y,--x);
    m. int x=12,y=20;
    if(x==y||x==y)
    printf("%d\n%d", ++x,++y);
    else
    printf("%d\n%d", --y,--x);
    n. int i=4,z=12;
    if(i==5||z>50)
    printf("\n Student 1");
    printf("\n Student 2");
    3. int i=4,z=12;
    if(i==5||z>50)
    printf("\n Student 1");
    printf("\n Student 2");
    4. int i=4,z=12;
    if(i==5||z<50)
    printf("\n Student 1");
    printf("\n Student 2");

```

Rewrite the following code using ternary operator.

```

    a. int age =20;
    boolean res;
    if(age>=18) res=1;
    else res=0;
    b. if(x>5) int y=x+2;
    else int y=x-2;
    c. if (sales>25000)
    double amt=sales*20.0/100.0;
    else

```

```

    double amt=sales*10.0/100.0;
    d. if(marks>200)char res= 'p';
    else char res= 'f';
    e. if(c>100) c+=2;r=c;
    else c*=3;r=c;
    f. if(c=='a') res= 'v';
    else res= 'n';

```

Q9 Find value of x after execution this program: if x is: 4,6,9,12,34,51,11,10,15,21

if(x>=5); x+=2; x*=3; x=x-4;	if(x>5) { x+=2; x*=3; x=x-4;	if(x<=10) x/=2; x-=3; x=x*4;	if(x!=15) x*=2; x+=3; x=x+4;	if(x>=5) x+=2; else { x*=3; x=x-4;	if(x<=10) x*=2; else x-=3; x=x*4;	if(x!=15) { x*=2; x+=3 }; x=x+4;
---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---	---	---

C++ Programming Question Set 1

Q1. Detect errors if any in each of the following statement and rewrite correctly.

f. `if(2x+5=10 &x<0)`

g. `if(!a>a+b);`

h. `if a>0&&a<b`

i. `if a<0||a>-10)`

j. `if(b)a++;a*=2;
else a--;`

Q2. Write a program to find :

k. Grater no in 3 numbers

l. Smaller no in 3 numbers

m. Second Grater no in 3 numbers

n. Second Smaller no in 3 numbers

Q3. Give the output of the following code fragment: when i) `opn = 'b'` ii) `opn = 'x'` iii) `opn = 'a'`

`switch(opn)`

`{`

`case 'a': cout<<"Platform Independent";`

`break;`

`case 'b': cout<<"Object Oriented";`

`case 'c': cout<<"Robust and Secure";`

`break;`

`default: cout<<"Wrong Input";`

`}`

Question Set2

5. what is difference between these cods

`if(x==1) x+=1;`

`if(x==2) x+=2;`

`if(x==4) x+=4;`

`if(x==5) x+=5;`

`else x+=3;`

`if(x==1) x+=1;`

`else if(x==2) x+=2;`

`else if(x==4) x+=4;`

`else if(x==5) x+=5;`

`else x+=3;`

6. convert the given statement into if statement

vi. `int ans=res>365?500/10:300/10`

vii. `comm=amount>=200?amount*.40:amoun
t*.20`

viii. `int k=x<=100?101:11;`

ix. `int y=res>=500?12*2:22+3;`

x. `int res=x>=110?20*2:30+2;`

7. convert the following code into switch case

a. `if(x=='a')m*=2;`

`if(x=='c')m/=2;`

`if(x=='d')m+=3;`

b. `if(ch== 'a')`

`cout<<"a";`

`else if(ch== 'z'||ch=='Z')`

`cout<<"z";`

`else`

`cout<<"invalid";`

c. `if(code=='A')`

`cout<<"Account";`

`else if (code=='C')||code=='G')`

8. convert the following code into "if"

a. `switch(m)`

`{case 0: x+=2; cout<<"x="<<x;break;`

`case 2: x-=3; cout<<"x="<<x;break;`

`case 3: x*=1;`

`case 6: x/=6; cout<<"x="<<x;break;`

`default: x++; cout<<"x="<<x;break;}`

b.

`switch(m)`

`{case 'a':`

`case 'b': cout<<"MY C++ b";break;`

`case 'c':`

`case 'd': cout<<"MY C++ c, d";break;`

`default: cout<<"MY C++ e";break;}`

`cout<<"Grade IV";`

`else`

`cout<<"Grade I";`

d. `if(inpu==5){`

`cal=cal+1; cout<<col}`

`else if(inpu==10){`

`col=col+2; cout<<col;}`

`else cout<<col<<inpu;`

e. `if (a==1){a=a*a; cout<<a;}`

`else if(a==3||a==4||a==5){a=a*3;cout<<a;}`

`else if(a==6||a==7||a==8){a=a*4;cout<<a;}`

`else cout<<a;`

c.

`switch(m)`

`{case 'a': cout<<"MY C++ a";break;`

`case 'b':`

`case 'c':`

`case 'd': cout<<"MY C++ b, c, d";break;`

`default: cout<<"MY C++ e";break;}`

d.

`switch(m){`

`case 0: x+=2; cout<<"x="<<x;break;`

`case 2: x-=3;`

`case 3: x*=1; cout<<"x="<<x;`

`case 6: x/=6; cout<<"x="<<x;break;`

```
default: x++; cout<< "x="<<x;break;
```

```
}
```

9. What will the output of the following program

```
a. int a=10,b=20;
   if((a<b)||((a>5)>10))
   cout<<a;
   else
   cout<<b;

b. int x=15,y=10;
   if(x>5)
   {
       if (y>5)
       cout<<"y="<<y;
   }
   else
   cout<<"x="<<x;

c. int p=-1;
   if(P>0) cout<< "That is Negative";
   else cout<< "OK P="<<p<<endl;

d. int x=5;
   if(x<0)
   cout<< "Neg. Value";
   cin>>x;
   else
   cout<< "Pos. Value";<<x<<endl;

e. int i=2;
   cout<<i; i+=2;
   if(i<51) cout<<"\n Thanks";

f. int a=300,b=100,c=9;
   if(a>=400)
   b=300;
   c=200;
```

```
cout<<"\n"<< b<<c;

g. int a=500,b,c;
   if(a>=400)
   b=300;
   c=200;
   cout<<"\n"<< b<<c;

h. int x=10,y=22;
   if(x==y)
   cout<<"\n"<< x++<<y++;
   else
   cout<<"\n"<< --y<<--x;

i. int x=12,y=20;
   if(x==y||x==y)
   cout<<"\n"<< ++x<<++y;
   else
   cout<<"\n"<< --y<<--x;

j. int i=4,z=12;
   if(i==5||z>50)
   cout<<"\n Student 1";
   cout<<"\n Student 2";
```

```
10. int i=4,z=12;
    if(i==5||z>50)
    cout<<"\n Student 1";
    cout<<"\n Student 2";
```

```
11. int i=4,z=12;
    if(i==5||z<50)
    cout<<"\n Student 1";
    cout<<"\n Student 2";
```

12. Rewrite the following code using ternary operator.

```
a. int age =20;
   boolean res;
   if(age>=18) res=1;
   else res=0;

b. if(x>5) int y=x+2;
   else int y=x-2;

c. if (sales>25000)
   double amt=sales*20.0/100.0;
   else
```

```
double amt=sales*10.0/100.0;

d. if(marks>200)char res= 'p';
   else char res= 'f';

e. if(c>100) c+=2;r=c;
   else c*=3;r=c;

f. if(c=='a') res= 'v';
   else res= 'n';
```

Q9 Find value of x after execution this program: if x is: 4,6,9,12,34,51,11,10,15,21

if(x>=5); x+=2; x*=3; x=x-4;	if(x<=10) x/=2; x-=3; x=x*4;	if(x!=15) x*=2; x+=3; x=x+4;	if(x>=5) x+=2; else { x*=3; x=x-4;}	if(x<=10); x*=2; else x-=3; x=x*4;	if(x!=15) { x*=2; x+=3 }; x=x+4;
---------------------------------------	---------------------------------------	---------------------------------------	--	--	---

JAVA Programming Paper Set1 "if else" Assignment Paper

1. what is difference between these cods

if(x==1) x+=1;	if(x==1) x+=1;
if(x==2) x+=2;	else if(x==2) x+=2;
if(x==4) x+=4;	else if(x==4) x+=4;
if(x==5) x+=5;	else if(x==5) x+=5;
else x+=3;	else x+=3;

2. convert the given statement into if statement

- int ans = res > 365 ? 500 / 10 : 300 / 10
- comm = amount >= 200 ? amount * .40 : amount * .20
- int k = x <= 100 ? 101 : 11;
- int y = res >= 500 ? 12 * 2 : 22 + 3;
- int res = x >= 110 ? 20 * 2 : 30 + 2;
- char res = x > 32 ? 'A' : 'C';

3. convert the following code into switch case

a. char x; int m=0;

if(x=='a') m*=2;

if(x=='c') m/=2;

if(x=='d') m+=3;

else m=7;

b. char ch= 'a'

if(ch == 'a')

System.out.println(" a");

else if(ch == 'z' || ch == 'Z')

System.out.println(" z, Z");

else

System.out.println("invalid");

c. if(code == 'A')

System.out.println("Grad I");

else if (code == 'B' || code == 'C')

System.out.println("Grade II");

else

System.out.println("Grade III");

d. if(code == 'A' || code == 'a')

System.out.println("Grad I");

else if (code == 'B' || code == 'C' || code == 'b' || code == 'c')

System.out.println("Grade II");

else

System.out.println("Grade III");

e. if(inpu==5){

cal=cal+1; System.out.println(col);}

else if(inpu==10){

col=col+2; System.out.println(col);}

else System.out.println(col+" "+inpu);;

f. if (a==1){ a=a*a; System.out.println(a);}

else if(a==3 || a==4 || a==5){ a=a*3; System.out.println(a);}

else if(a==6 || a==7 || a==8){ a=a*4; System.out.println(a);}

else System.out.println(a);

4. convert the following code into "if"

a. switch(m)

{

case 0: x+=2; System.out.println(" x="+x);break;

case 2: x-=3; System.out.println(" x="+x);break;

case 3:

case 6: x/=6; System.out.println(" x="+x);break;

default: x++; System.out.println(" x="+x);break;}

b. char choice='c';

switch(m)

{

case 'a': System.out.println(" JAVA a");break;

case 'b': System.out.println(" JAVA b");break;

case 'c':

case 'd': System.out.println(" JAVA C, d");break;

default: System.out.println(" JAVA e");break;

}

c. char choice='c';

switch(m)

{

case 'a': System.out.println(" JAVA a");break;

case 'b':

case 'c':

case 'd': System.out.println(" JAVA d");break;

default: System.out.println(" JAVA e");break;

}

d. convert the following code into "if"

int m, x=0;

switch(m)

{

case 0:

case 2:

case 3: x*=1; System.out.println(" x="+x);break;

case 6: x/=3; System.out.println(" x="+x);break;

default: x++; System.out.println(" x="+x);break;}

5. what will the output of the following program

a. int a=10, b=20;

if((a<b) || (a>5)>10)

System.out.println(a);

else

System.out.println(b);

b. int x=15, y=10;

if(x>5)

{

if (y>5)

System.out.println("y="+y);

}

else

System.out.println("x="+x);

c. int p=6;

if(P>0) System.out.println("That is Negative");

```

else System.out.println("OK P="+P);
d. x=3;
   if(x<0)
       System.out.println("Neg. Value");

   else
       System.out.println("Pos. Value");
e.  int i=2;
   System.out.println(i+=2);
   if(i<51) System.out.println("\n Thanks");
f.  int a=300,b=100,c=100;
   if(a>=400)
       b=300;
       c=200;
   System.out.println("Res: "+ b+ " "+c);
g.  int a=500,b=300;
   if(a>=400)
       b=300;
       c=200;
   System.out.println("Res: " + b+ " "+c);
h.  int a=10,b=20;
   if(a==b) System.out.println("Res: "+ a+ " "+b);
   else System.out.println("Res: "+ b+ " "+a);
i.  int x=10,y=20;
   if(x==y||x!=y)
       System.out.println("Res: "+ x+ " "+y);
   else
       System.out.println("Res: "+ y+ " "+x);
j.  int i=4,z=12;

```

```

if(i==5||z>50) System.out.println("\n Student 1");
System.out.println("\n Student 2");
6.  int i=4,z=12;
   if(i==5||z>50)
       System.out.println("\n Student 1");
       System.out.println("\n Student 2");
7.  int i=4,z=12;
   if(i==5||z<50)
       System.out.println("\n Student 1");
       System.out.println("\n Student 2");
8.  rewrite the following code using ternary operator.
a.  int age =20;
   boolean res;
   if(age>=18) res=true;
   else res=false;
b.  if(x>5) int y=x+2;
   else int y=x-2;
c.  if (sales>25000)
   double amt=sales*20.0/100.0;
   else
   double amt=sales*10.0/100.0;
d.  if(marks>200) char res= 'p';
   else char res= 'f';
e.  if(c>100) c+=2;r=c;
   else c*=3;r=c;
f.  if(c=='a') res= 'v';
   else res= 'n';

```

Q9 Find value of x after execution this program:

if x is: 4,6,9,12,34,51,11,10,15,21

<pre> if(x>=5); x+=2; x*=3; x=x-4; </pre>	<pre> if(x>5) { x+=2; x*=3; x=x-4; } </pre>	<pre> if(x<=10) x/=2; x-=3; x=x*4; </pre>	<pre> if(x!=15) x*=2; x+=3; x=x+4; </pre>	<pre> if(x>=5) x+=2; else { x*=3; x=x-4; } </pre>	<pre> if(x<=10) x*=2; else x-=3; x=x*4; </pre>	<pre> if(x!=15) { x*=2; x+=3; }; x=x+4; </pre>
--	--	--	---	--	---	--

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
X	6	12	33	9	18	3	9	18	21	12	3
Y	13	17	44	17	27	6	12	27	26	18	12
X	4	8	36	6	12	2	6	28	20	8	2
Y	28	40	324	48	108	6	18	196	60	48	18
X	10	14	18	12	18	8	12	14	10	14	8
Y	-1	-7	-11	-2	-7	-3	-7	-9	-9	-6	-3
X	5	7	12	6	9	4	4	10	8	7	4
Y	16	16	23	18	22	11	11	19	13	17	17
X	12	12	19	14	18	7	7	15	9	13	13
Y	10	8	10	11	12	6	6	8	4	9	12

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
X	6	12	11	9	18	3	5	9	7	12
Y	13	17	18	17	27	6	8	14	8	18
X	16	32	24	24	48	8	24	16	8	48
Y	23	37	31	32	57	11	27	21	9	54
X	7	11	21	9	15	5	7	17	13	11
Y	14	16	28	17	24	8	10	22	14	17
X	5	7	12	6	9	4	4	10	8	7
Y	12	12	19	14	18	7	11	15	9	13

Q1.

```
if(x>7)
{
x*=2;
x+=5;
}
else
{
x-=2;
x+=2;
}
x*=3;
cout<<x;
```

if the value of :

	Input Values	Answer
1.	x=8	x=63
2.	x=19	x=129
3.	x=7	x=30

Q2.

```
if(a>b)
{
a+=(++b);
b=b*a;
}
else
{
b*=a++;
a=a+(++b);
}
cout<<a;
cout<<b;
```

if the value of :

	Input Values		Answer	
1.	a=3	b=17	a=56	b=51

2.	a=15	b=6	a=22	b=154
3.	a=17	b=9	a=27	b=270
4.	a=27	b=19	a=47	b=940
5.	a=18	b=18	a=344	b=324