JTC
TECHNICAL TRAINING

JAVA LANGUAGE

WorkBook

Master The Content

W.B - 1

AUTHOR

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Jtc 1: Example using Boolean Literals

1) Jtc1.java

```
class Jtc1{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println("-- Boolean --");
boolean b1=true;
boolean b2=false;
if(b1)
System.out.println("If Part True");
else
System.out.println("Else Part");
//boolean b3=0; not ok
//boolean b4=1; not ok
Boolean b5=true;
Boolean b6=false;
if(b5)
System.out.println("b5 is Boolean ref. Type");
else
System.out.println("Else Part");
}
}
```

Jtc 2: Example using Character Literals

1) Jtc2.java

```
class Jtc2{
/*
* @Author : Som Prakash Rai
* @Join     : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
char ch1='A';
//char ch2='';//Error: Empty Char Lit.
//char ch3='AB';//
char ch4='*';
char ch5='7';
System.out.println(ch1);
System.out.println(ch4);
System.out.println(ch5);
char ch6=' ';//One Space
char ch7='    ';//Tab key
//char ch8='      ';//Multiple Spaces
//char ch9='';
char ch10='\'';
//char ch11='\p';
char ch12='\u0045';
System.out.println(ch12);
char ch13='\u00cf';
System.out.println(ch13);
//char ch14=-1;
char ch15=65;
System.out.println(ch15);
char ch16=198;
System.out.println(ch16);
char ch17=65535;
System.out.println("\n-------");
for(char ch=0;ch<=255;ch++){
int x=ch;
System.out.print(x);
System.out.print('\t');
System.out.println(ch);
System.out.println();
```

```
}
}
}
```

Jtc 3: Example using String Literals

1) Jtc3.java

```
class Jtc3{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
String st1="";
String st2="A";
String st3="somabcdef%^(&";
System.out.println(st1);
System.out.println(st2);
System.out.println(st3);
String st4="N65M\u00cfTR";
System.out.println(st4);
String st5="N65M\\u00cfTR";
System.out.println(st5);
String st6="D:\test\b40\new";
System.out.println(st6);
String st7="D:\\test\\b40\\new";
System.out.println(st7);
String st8="HELLO\rUP";
System.out.println(st8);
//String st9="D:\core\pack\java";
String st10="D:\\core\\pack\\java";
System.out.println(st10);
}
}
```

Jtc 4: Example using Integral Literals

1) Jtc4.java

```
class Jtc4{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=2147483647;
System.out.println(ab);
//int bc=2147483648;
//long val=2147483648;
long val2=2147483648L;
System.out.println(2147483647);
//System.out.println(2147483648);
System.out.println(2147483648L);
System.out.println(2147483647+100);
System.out.println(2147483647+100L);
long lVal1=45258;
System.out.println(lVal1);
long lVal2=45258L;
System.out.println(lVal2);
System.out.println(Byte.MIN_VALUE);
System.out.println(Byte.MAX_VALUE);
System.out.println(Short.MIN_VALUE);
System.out.println(Short.MAX_VALUE);
System.out.println(Integer.MIN_VALUE);
System.out.println(Integer.MAX_VALUE);
System.out.println(Long.MIN_VALUE);
System.out.println(Long.MAX_VALUE);
System.out.println(Float.MIN_VALUE);
System.out.println(Float.MAX_VALUE);
System.out.println(Double.MIN_VALUE);
System.out.println(Double.MAX_VALUE);
}
}
```

Jtc 5: Example using Integral Literals

1) Jtc5.java

```
class Jtc5{
/*
* @Author  : Som Prakash Rai
* @Join    : Java Training Center
* @visit   : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println("\n--- OCTAL ----");
byte a=012;
System.out.println(a);
//int b=09;
int c=07676;
System.out.println(c);
int d=7676;
System.out.println(d);
System.out.println("\n--- Decimal ----");
int m=98987789;
System.out.println(m);
byte by2=123;
System.out.println(by2);
System.out.println("\n- HexaDecimal --");
//int rt1=43a65;
int rt=0x43a65;
System.out.println(rt);
byte by3=0xf;
System.out.println(by3);
}
}
```

Jtc 6: Example using Floating & null Literals

1) Jtc6.java

```
class Jtc6{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit         : www.jtcindia.org
* */
public static void main(String arg[]){
double d1=6547.7822;
double d2=65.477822e2;
double d3=654778.22e-2;
System.out.println(d1);
System.out.println(d2);
System.out.println(d3);
double d4=123.456;
double d5=123.456D;
System.out.println(d4);
System.out.println(d5);
//float f1=123.456;
float f2=123.456F;
float f3=1.23456e2F;
System.out.println(f2);
System.out.println(f3);
String st=null;
Jtc6 test=null;
int arr[]=null;
Integer in=null;
System.out.println(st);
System.out.println(test);
System.out.println(arr);
System.out.println(in);
}
}
```

Jtc 7: Example using Literals

1) Jtc7.java

```
class Jtc7{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit         : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=87678;
String bin=Integer.toBinaryString(ab);
String oct=Integer.toOctalString(ab);
String hx=Integer.toHexString(ab);
System.out.println(bin);
System.out.println(oct);
System.out.println(hx);
System.out.printf("\n%d %o %x",ab,ab,ab);//From Java 5
System.out.printf("\n%d %o %X",ab,ab,ab);//From Java 5
System.out.println();
System.out.println(Math.PI);
}
}
```

Jtc 8: Example using Arithmetic Oprtators

1) Jtc8.java

```
class Jtc8{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
int aa=97;
System.out.println(aa);
int a=+aa;
System.out.println(a);
int b=-aa;
System.out.println(b);
int c=-b;
System.out.println(c);
int d=- -aa;
System.out.println(d);
int e=-(-aa);
System.out.println(e);
System.out.println(aa);
int f=--aa;    //Decrement
System.out.println(f);
System.out.println(aa);
int mn=-56;
System.out.println(+mn);
System.out.println(-mn);
System.out.println(- -mn);
System.out.println(-(-mn));
System.out.println(--mn);
char ch='A';
char ch2=ch;
//char ch1=+ch;
int xy=+ch;
System.out.println(xy);
byte by1=46;
byte by2=+46;
```

```
//byte by3=+by1;
int by4=+by1;
System.out.println(by4);
}
}
```

Jtc 9: Example using Arithmetic Operators

1) Jtc9.java

```
class Jtc9{
/*
* @Author  : Som Prakash Rai
* @Join    : Java Training Center
* @visit   : www.jtcindia.org
* */
public static void main(String arg[]){
byte by1=10+20;
System.out.println(by1);
byte by2=10;
byte by3=20;
//byte by4=by2+by3;
int res=by2+by3;
System.out.println(res);
final int by5=10;
final int by6=20;
byte by7=by5+by6;
System.out.println(by7);
char ch1=65;
char ch2=10;
//char ch3=ch1+ch2;
int res2=ch1+ch2;
System.out.println(res2);
final char ch4=65;
final char ch5=10;
char ch6=ch4+ch5;
System.out.println(ch6);
byte b1=10;
int ab1=b1+12;
//int ab2=b1+12L;
```

```
long val=b1+12L;
float f1=10+12.0F;
//int xy=10+12.0F;
float f3=Long.MAX_VALUE;
System.out.println(f3);
System.out.println(Long.MAX_VALUE);
//long val2=12L+10.0F;
float f2=12L+10.0F;
}
}
```

Jtc 10: Example using Arithmetic Operators

1) Jtc10.java

```
class Jtc10{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println(10/3);
System.out.println(10.0F/3);
System.out.println(10.0/3);
System.out.println(0.0 == -0.0);
System.out.println(10.0/0.0);
System.out.println(10.0/-0.0);
System.out.println(0.0/0.0);
System.out.println(Double.POSITIVE_INFINITY);
System.out.println(Double.NEGATIVE_INFINITY);
System.out.println(Double.NaN);
System.out.println(10/0);
}
}
```

Jtc 11: Example using String Concatination Operators

1) Jtc11.java

```
class Jtc11{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
String st1="OK";
String st2="JTC";
String st3=st1+st2;
System.out.println(st3);
int ab=10;
String st4=st1+ab;
System.out.println(st4);
String st5=st1+1245.251;
System.out.println(st5);
String st6=1234.567+st1;
System.out.println(st6);
System.out.println(90+45);
System.out.println("Result is "+90+45);
System.out.println("Result is "+(90+45));
System.out.println(90+45+" is result");
//String st9=st1-st2;
System.out.println(90-45);
//System.out.println("Result is "+90-45);
System.out.println("Result is "+(90-45));
System.out.println(90-45+" is result");
int xy=89;
int mn=67;
System.out.println("Result is "+(xy-mn));
System.out.println("Result is "+xy+(-mn));
System.out.println("Result is "+xy+-mn);
Jtc11 t=null;
String res="OK"+t;
```

```
System.out.println(res);
int cd=10;
//String res2=cd;
//String res3=(String)cd;
String res4=""+cd;
String res5=cd+"";
System.out.println(res4);
System.out.println(res5);
}
}
```

Jtc 12: Example using Assignment Operators

1) Jtc12.java

```
class Jtc12{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=90;
final int mn;
mn=89;
//mn=67;
ab=67;
//78=34;
int res=12+20*2/10;
System.out.println(res);
//int res2=23>34;
boolean b1=23>34;
System.out.println(b1);
char ch='A';
int m=ch;
byte by1=78;
int x=by1;
long val=x;
double d1=12345;
final int a1=12;
final int a2=12;
```

```
byte by3=a1+a2;
System.out.println(a1);
final int RT=110;
byte by4=RT;
final long TY=110;
//byte by5=TY;
byte by6='A';
char ch11='A';
//byte by7=ch11;
final char ch12='A';
byte by8=ch12;
//Display the Value
}
}
```

Jtc 13: Example using Assignment & TypeCasting Operators

1) Jtc13.java

```
class Jtc13{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
public static void main(String arg[]){
int xy=19;
//byte by1=xy;
byte by2=(byte)xy;
System.out.println(by2);
int ab=65;
//char ch=ab;
char ch2=(char)ab;
System.out.println(ch2);
//int mn=123.456;
int res=(int)123.456;
System.out.println(res);
int rt=5476;
byte by4=(byte)rt;
System.out.println(by4);
long val=5476;
```

```
byte by5=(byte)val;
System.out.println(by5);
int bd=300;
byte by6=(byte)bd;
System.out.println(by6);
int de=428;
byte by7=(byte)de;
System.out.println(by7);
byte r1=10;
byte r2=12;
//byte r3=r1+r2;
byte r4=(byte)(r1+r2);
System.out.println(r4);
//String st=(String)10;
//int n1=(int)true;
//boolean bol1=(boolean)0;
}
}
```

Jtc 14: Example using Increment & Decrement Operators

1) Jtc14.java

```
class Jtc14{
/*
* @Author  : Som Prakash Rai
* @Join    : Java Training Center
* @visit   : www.jtcindia.org
* */
public static void main(String arg[]){
//int bc=10++;
int ab=10;
ab++;
System.out.println(ab);
//int xy=(ab++)++;
int m=13;
m++;
System.out.println(m);
int n=13;
++n;
System.out.println(n);
```

```
System.out.println("-----");
int y=13;
int r1=y++;
System.out.println(r1+"\t"+y);
System.out.println("-----");
int z=13;
int r2=++z;
System.out.println(r2+"\t"+z);
System.out.println("-----");
int rt=13;
rt=++rt;
System.out.println("RT\t:"+rt);
System.out.println("-----");
int qw=13;
System.out.println("QW++ "+qw++);
System.out.println("QW\t:"+qw);
System.out.println("-----");
int np=13;
int tmp=np++;
np=tmp;
System.out.println("NP\t:"+np);
System.out.println("-----");
int ad=13;
ad=ad++;
ad=ad++;
ad=ad++;
ad=ad++;
ad=ad++;
System.out.println("AD\t:"+ad);
System.out.println("-----");
int val=12;
int result=val++  + val++  + val++;
System.out.println(result);
System.out.println(val);
}
}
```

Jtc 15: Example using Increment & Decrement Operators

1) Jtc15.java

```
class Jtc15{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
byte by1=15;
//by1=by1+1;
by1++; //by1=(byt1)(by1+1);
System.out.println(by1);
char ch='A';
//ch=ch+1;
ch++; //ch=(char)(ch+1);
System.out.println(ch);
byte by2=127;
by2++; //by2=(byte)(by2+1);
System.out.println(by2);
int res=128;
byte by3=(byte)res;
System.out.println(by3);
}
}
```

Jtc 16: Example using Relational Operators

1) Jtc16.java

```
class Jtc16{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println(10>78);
System.out.println(10>=78);
System.out.println(10>=10);
System.out.println(10<78);
System.out.println(10<=78);
System.out.println(10<=10);
System.out.println(65==65);
System.out.println(65==65L);
System.out.println(65==65.0F);
System.out.println(65==65.0);
System.out.println(65=='A');
//System.out.println(true>=true);
System.out.println(true==true);
System.out.println(false==false);
System.out.println(true==false);
//System.out.println(1==false);
String str="1";
//System.out.println(1==str);
String st1="JTC";
String st2="JTC";
String st3=new String("JTC");
System.out.println(st1+"\t"+st2+"\t"+st3);
System.out.println(st1==st2);
System.out.println(st1==st3);
```

```
}
}
```

Jtc 17: Example using Relational Operators

1) Jtc17.java

```
class Jtc17{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
String str="ABC";
Jtc17 test=new Jtc17 ();
//System.out.println(str==test);
Object obj=str;
System.out.println(obj==test);
System.out.println(obj==str);
obj=test;
System.out.println("------");
System.out.println(obj==test);
System.out.println(obj==str);
}
}
```

Jtc 18: Example using Relational Operators

1) Jtc18.java

```
class Jtc18{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println(20/2 == 40/4);
System.out.println(0.0/0.0 == 0.0/0.0);
System.out.println(Float.NaN == Float.NaN);
System.out.println(0.0/0.0 != 0.0/0.0);
System.out.println(Float.NaN != Float.NaN);
int ab=10;
System.out.println("X="+ab=="X="+ab);
final int xy=10;
System.out.println("X="+xy=="X="+xy);
}
}
```

Jtc 19: Example using Logical Operators

1) Jtc19.java

```
class Jtc19{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println("-- LOGICAL NOT --");
int res=90;
boolean b1= (res==90);
boolean b2= !(res==90);
boolean b3= !b1;
System.out.println(b1);
System.out.println(b2);
System.out.println(b3);
System.out.println("-- LOGICAL AND --");
int ab = 14;
boolean b4=ab < 16 && ab++ < 4;
System.out.println(b4+"\t"+ab);
int xy = 14;
boolean b5=xy > 16 && xy++ < 4;
System.out.println(b5+"\t"+xy);
System.out.println("-- LOGICAL OR --");
int mn = 14;
boolean b6=mn < 16 || mn++ < 4;
System.out.println(b6+"\t"+mn);
int bd = 14;
boolean b7=bd > 16 || bd++ < 4;
System.out.println(b7+"\t"+bd);
}
}
```

Jtc 20: Example using new & instanceof Operators

1) Jtc20.java

```
class Jtc20{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
String st1=new String("JTC");
String st2=new String("JTC");
System.out.println(st1+"\t"+st2);
System.out.println(st1 == st2);
Jtc20 t1=new Jtc20();
Jtc20 t2=new Jtc20();
System.out.println(t1+"\t"+t2);
System.out.println(t1 == t2);
int arr[]=new int[12];
System.out.println(arr);
System.out.println(st1 instanceof String);
//System.out.println(st1 instanceof String);
Object ref=st1;
System.out.println("Ref\t:"+ref);
System.out.println(ref instanceof String);
System.out.println(ref instanceof Jtc20);
System.out.println(ref instanceof Object);
ref=t2;
System.out.println("Ref\t:"+ref);
System.out.println(ref instanceof String);
System.out.println(ref instanceof Jtc20);
System.out.println(ref instanceof Object);
}
}
```

Jtc 21: Example using Conditional Operators

1) Jtc21.java

```
class Jtc21{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=10;
int bc=20;
int res1=true?ab:bc;
int res2=false?ab:bc;
System.out.println(res1);
System.out.println(res2);
int res3=(ab>bc)?ab:bc;
System.out.println(res3);
//int res4=(ab>bc)?"Ten":bc;
//String res5=(ab>bc)?"Ten":bc;
//int res6=(ab>bc)?10.0:bc;
double res7=(ab>bc)?10.0:bc;
System.out.println(res7);
//Valid from Java 5
Object obj=(ab>bc)?ab:"Twenty"; //From Java 5
System.out.println(obj);
int a=90;
int b=456;
int c=34;
int max=(a>b)?((a>c)?a:c):((b>c)?b:c);
System.out.println(max);
}
}
```

Jtc 22: Example using Bitwise NOT Operators

1) Jtc22.java

```
class Jtc22{
/*
* @Author    : Som Prakash Rai
* @Join      : Java Training Center
* @visit     : www.jtcindia.org
* */
int ab=56748763;
int res1=~ab;
String bin1=Integer.toBinaryString(ab);
String bin2=Integer.toBinaryString(res1);
System.out.println(ab);
System.out.println(bin1);
System.out.println(res1);
System.out.println(bin2);
int bc=-723765342;
int res2=~bc;
String bin3=Integer.toBinaryString(bc);
String bin4=Integer.toBinaryString(res2);
System.out.println(bc);
System.out.println(bin3);
System.out.println(res2);
System.out.println(bin4);
}
}
```

Jtc 23: Example using Bitwise AND,OR,XOR Operators

1) Jtc23.java

```
class Jtc23{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=7514; // 01110101011010;
int bc=2967; // 00101110010111;
System.out.println(ab);
System.out.println(bc);
System.out.println(true & true);
System.out.println(false & true);
int res1=ab & bc;
System.out.println(res1);
System.out.println(Integer.toBinaryString(res1));
int m=123;
boolean b1=m < 100 & m++ > 10;
System.out.println(m);
System.out.println(true | false);
System.out.println(false | false);
int res2=ab | bc;
System.out.println(res2);
System.out.println(Integer.toBinaryString(res2));
int n=123;
boolean b2=n > 100 | n++ > 10;
System.out.println(n);
System.out.println(true ^ true);
System.out.println(true ^ false);
System.out.println(false ^ true);
System.out.println(false ^ false);
```

```
int res3=ab ^ bc;
System.out.println(res3);
System.out.println(Integer.toBinaryString(res3));
}
}
```

Jtc 24: Example using Shift Operator Operators

1) Jtc24.java

```
class Jtc24{
/*
* @Author   : Som Prakash Rai
* @Join     : Java Training Center
* @visit    : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=7514; // 01110101011010;
System.out.println(ab);
System.out.println(ab<<0);
System.out.println(ab<<2);
System.out.println(ab<<3);
System.out.println(ab<<20);
System.out.println(ab<<32);
System.out.println(ab<<34);
System.out.println(ab<<35);
System.out.println(ab<<52);
System.out.println(7514L<<34);
System.out.println(7514L<<35);
System.out.println(7514L<<64);
System.out.println(7514L<<98);
System.out.println("--- >> +ve value ---");
System.out.println(746238>>0);
System.out.println(746238>>3);
System.out.println(746238>>6);
System.out.println(746238>>32);
System.out.println(746238>>35);
System.out.println("--- >> -ve Value ---");
System.out.println(-1248547>>0);
System.out.println(-1248547>>3);
System.out.println(-1248547>>6);
```

```
System.out.println(-1248547>>32);
System.out.println(-1248547>>35);
System.out.println("-- >>> +ve value --");
System.out.println(746238>>>0);
System.out.println(746238>>>3);
System.out.println(746238>>>6);
System.out.println(746238>>>32);
System.out.println(746238>>>35);
System.out.println("-- >>> -ve Value --");
System.out.println(-1248547>>>0);
System.out.println(-1248547>>>1);
System.out.println(-1248547>>>3);
System.out.println(-1248547>>>6);
System.out.println(-1248547>>>32);
System.out.println(-1248547>>>35);
}
}
```

Jtc 25: Example using if Statements

1) Jtc25.java

```
class Jtc25{
/*
* @Author  : Som Prakash Rai
* @Join    : Java Training Center
* @visit   : www.jtcindia.org
* */
public static void main(String arg[]){
System.out.println("** SIMPLE IF ***");
if(true){
System.out.println("True Block 1");
}
if(false){
System.out.println("True Block 2");
}
if(false){
System.out.println("True Block 3a");
System.out.println("True Block 3b");
```

```
System.out.println("True Block 3c");
}
if(false)
System.out.println("True Block 4a");
System.out.println("True Block 4b");
System.out.println("True Block 4c");
System.out.println("\n** IF - ELSE ***");
int ab=10;

if(ab==10){
System.out.println("ab value is Ten :"+ab);
}else{
System.out.println("ab value is not Ten :"+ab);
}
ab=90;
if(ab==10){
System.out.println("ab value is Ten :"+ab);
}else{
System.out.println("ab value is not Ten :"+ab);
}
System.out.println("\n** IF - ELSE-IF ***");
int mn=0;
if(mn++==0)
System.out.println("Value is Zero");
else if(mn++==1)
System.out.println("Value is One");
else if(mn++==2)
System.out.println("Value is Two");
else
System.out.println("Value is 3");
System.out.println("mn Value is :"+mn);
int bn=0;
if(++bn==0)
System.out.println("Value is Zero");
else if(++bn==1)
System.out.println("Value is One");
else if(bn++==2)
System.out.println("Value is Two");
else
System.out.println("Value is 3");
System.out.println("bn Value is :"+bn);
int r=0;
//if(r){}
```

```
//if(r=8){}
if(r==8){}
boolean b1=false;
if(b1){
System.out.println(" True Block First");
}

if(b1==true){
System.out.println(" True Block Second");
}
if(b1=true){
System.out.println(" True Block Third");
}
if(b1==true){
System.out.println(" True Block 4th");
}
int rt=10;
if(rt!=10){
System.out.println("OK 1");
}
if(rt!=10){}{
System.out.println("OK 2");
}
if(rt++!=10);{
System.out.println("OK 3");
}
System.out.println("Value of rt :"+rt);
int cd=90;
if(cd==87);
else
System.out.println(" Else ");
}
}
```

Jtc 26: Example using Switch Statements

1) Jtc26.java

```
class Jtc26{
/*
```

```
* @Author  : Som Prakash Rai
* @Join    : Java Training Center
* @visit   : www.jtcindia.org
* */
public static void main(String arg[]){
int ab=89;
switch(ab){
case 56:
System.out.println("Fifty Six");
case 89:
System.out.println("Eighty Nine");
}
System.out.println("\n**********");
int mn=27;
final int xy=98;
final byte BY1=67;
switch(mn){
case xy:
System.out.println("final Variable Value");
case 65:
System.out.println("Twenty three");
case 'B':
System.out.println("Character B");
case BY1:
System.out.println("Byte Value");
case 10+20-3:
System.out.println("Byte Value");
}
System.out.println("\n**********");
byte val=12;
switch(val){
case 88:
System.out.println("Eighty Eight");
case 'A':
System.out.println("Character A");
}
System.out.println("\n**********");
val=65;
switch(val){
default:
System.out.println("Default- Value Not Matching");
case 88:
System.out.println("Eighty Eight");
```

```
case 'A':
System.out.println("Character A");
}
System.out.println("\n**********");
val=67;
switch(val){
default:
System.out.println("Default- Value Not Matching");
case 88:
System.out.println("Eighty Eight");
case 'A':
System.out.println("Character A");
}
System.out.println("\n**********");
val=67;
switch(val){
default:
System.out.println("Default- Value Not Matching");break;
case 88:
System.out.println("Eighty Eight");break
case 'A':
System.out.println("Character A");
}
}
}
```

Jtc 27: Example using for Statement

1) Jtc27.java

```
class Jtc27{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
for(int i=0;i<5;i++){
System.out.println("Value \t:"+i);
}
//System.out.println(i);
for(int i=0,j=100,ch='A';i<5;i++,j-=5,ch++){
```

```
System.out.println(i+"\t"+j+"\t"+ch);
}
//for(int i=0,char ch='A';i<5;i++){}
int mn=0;
String st="OK";
char ch='A';
float f1=0F;
for(mn=10,st="JTC",ch='a',f1=12.21F;mn<15;mn++,ch+=2,f1+=10,st+=ch){
System.out.println(mn+"\t"+ch+"\t"+f1+"\t"+st);
}
System.out.println("After Loop");
System.out.println(mn+"\t"+ch+"\t"+f1+"\t"+st);
int j=10;
int k=90;
for(int i=0;j++<15;k--){
System.out.println(i+"\t"+j+"\t"+k);
}
for(j=0,System.out.println("Begin");j<5;j++,System.out.println("Updating")){
System.out.println("In Block\t:"+j);
}
/*
for(int cd=0,System.out.println("Begin");cd<5;cd++,){}
*/
for(int rt=0;rt<5;rt++,System.out.println("U")){}
System.out.println("-------");
for(int rt=0;rt<5;rt++,System.out.println("U"));
System.out.println("-- MAIN COMPLETED --");
}
}
```

Jtc 28: Example using while & do while Statements

1) Jtc28.java

```
class Jtc28{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
```

```
int ab=0;
while(ab<=25){
if(ab%3==0)
System.out.println(ab);
ab++;
}
System.out.println("-------");
ab=-1;
while(ab++<=25){
if(ab%3==0)
 System.out.println(ab);
}
System.out.println("-------");
int cd=20;
while(true){
System.out.println(cd--);
if(cd==0)break;
}
System.out.println("\n------");
int bn=0;
while(bn++<5){
System.out.println("BN\t:"+bn);
}
System.out.println("\n------");
bn=0;
while(bn++<5){}{
System.out.println("BN\t:"+bn);
}
System.out.println("\n------");
bn=0;
while(bn++<5);{
System.out.println("BN\t:"+bn);
}
System.out.println("\n------");
int res=10;
while(true){
System.out.println(res);
if(res<50)break;
res--;
}
System.out.println("\n------");
res=10;
do{
```

```
System.out.println(res);
res--;
}while(res>50);
System.out.println("\n------");
res=0;
do{
System.out.println(res);
res++;
}while(res<15);
}
}
```

Jtc 29: Example using break Statements

1) Jtc29.java

```
class Jtc29{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
int a=10;
//if(a==10) break;
for(int i=0;i<15;i++){
System.out.println("Value of i\t: "+i);
if(i==5)
  break;
System.out.println("After Break in for Loop");
}
System.out.println("After Looping Statement");
System.out.println("\n*******");
for(int i=0;i<10;i++){
System.out.println("Value\t:"+i);
if(i==3)break;
System.out.println("After");
}
System.out.println("\n*******");
jtc:
for(int i=0;i<10;i++){
System.out.println("Value\t:"+i);
if(i==3)break jtc;
```

```
System.out.println("After");
}
System.out.println("\n*** nested **");
for(int i=0;i<7;i++){
System.out.println("Before in J");
for(int j=0;j<5;j++){
System.out.println(i+"\t"+j);
if(i==3)break;
System.out.println("After in J");
}
System.out.println("After in i");
}
System.out.println("\n___ Jtcled Break __");
jtc:
for(int i=0;i<7;i++){
System.out.println("Before in J");
for(int j=0;j<5;j++){
System.out.println(i+"\t"+j);
if(i==3)break jtc;
System.out.println("After in J");
}
System.out.println("After in i");
}
for(int i=0;i<5;i++){
System.out.println("i value\t:"+i);
break;
//System.out.println("After");
}
}
}
```

Jtc 30: Example using continue Statements

1) Jtc30.java

```
class Jtc30{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
```

```
int ab=90;
//if(ab==90)continue;
for(int i=0;i<5;i++,System.out.println("OK")){
System.out.println(i);
continue;
}
System.out.println("\n---------\n");
for(int i=0;i<12;i++,System.out.println("OK")){
System.out.println(i);
if(i%3==0)continue;
System.out.println("After Continue");
}
System.out.println("\n---------\n");
int mn=-1;
while(++mn<=5){
System.out.println("Value\t:"+mn);
if(mn==3)continue;
System.out.println("After Cont..");
}
System.out.println("\n---------\n");
mn=0;
while(mn<=5){
System.out.println("Value\t:"+mn);
if(mn==3)continue;
mn++;
System.out.println("After Cont..");
}
}
}
```

Jtc 31: Example to read the data from KB

1) Jtc31.java

```
import java.io.*;
class Jtc31{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
```

```
public static void main(String arg[]) throws Exception{
String val="";
DataInputStream dis=new DataInputStream(System.in);
System.out.println("Enter int value");
val=dis.readLine();
int ab=Integer.parseInt(val);
System.out.println("Enter char value");
val=dis.readLine();
char ch=val.charAt(0);
System.out.println("Enter String value");
val=dis.readLine();
System.out.println(ab+"\t"+ch+"\t"+val);
System.out.println(val.length());
}
}
/*
byte by1=Byte.parseByte(val);
short sh=Short.parseShort(val);
int ab=Integer.parseInt(val);
long lVal=Long.parseLong(val);
float f1=Float.parseFloat(val);
double d1=Double.parseDouble(val);
//From Java 5
boolean b1=Boolean.parseBoolean(val);
*/
```

Jtc 32: Example using Arrays

1) Jtc32.java

```
class Jtc32{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
int arr[]=null;
//System.out.println(arr[0]);    //Exc...
//System.out.println(arr.length); //Exc...
//int arr2[12];
```

```
String names[];
boolean bArr[];
//arr=new int[];
//arr=new int[12L];
//arr=new int[12.0F];
int size=5;
arr=new int[size];
names=new String[3];
bArr=new boolean[4];
System.out.println("arr\t:"+arr.length);
System.out.println("names\t:"+names.length);
System.out.println("bArr\t:"+bArr.length);
//arr.length=89;
int len='A';
System.out.println("Len\t:"+len);
String emails[]=new String[len];
System.out.println("emails\t:"+emails.length);
System.out.println(arr[0]);
System.out.println(arr[1]);
System.out.println(names[0]);
System.out.println(bArr[0]);
for(int i=0;i<arr.length;i++){
System.out.println(arr[i]);
}
System.out.println("----------");
for(int i=0;i<names.length;i++){
System.out.println(names[i]);
}
System.out.println("----------");
for(int i=0;i<bArr.length;i++){
System.out.println(bArr[i]);
}
System.out.println("--- after storing data ----");
arr[0]=123;
arr[3]=582;
arr[4]=745;
for(int i=0;i<arr.length;i++){
System.out.println(arr[i]);
}
System.out.println("----------");
names[0]="Som";
names[1]="Manish Rai";
names[2]="Jtcindia";
```

```
}
System.out.println("------");
System.out.println("Length\t:"+other.length);
for(int i=0;i<other.length;i++){
System.out.println(other[i]);
}
System.out.println("\n------");
final int arr3[]=new int[3];
for(int i=0;i<arr3.length;i++){
System.out.println(arr3[i]);
}
arr3[0]=74;
arr3[1]=96;
arr3[2]=25;
System.out.println("--------");
for(int i=0;i<arr3.length;i++){
System.out.println(arr3[i]);
}
//arr3=new int[4];
byte b1=90;
int ab=b1;
//int arr4[]=new byte[2];//No Inheritance
int arr5[]=new int[2];
arr5[0]=b1;
int ref[]=new int[3];
Object obj=ref;
System.out.println(ref==obj);
System.out.println(ref[0]);
//System.out.println(obj[0]);
ref[0]=74;
//int ref2[]=obj;
int ref3[]=(int[])obj;
System.out.println(obj==ref3);
System.out.println(ref==ref3);
System.out.println(ref[0]);
System.out.println(ref3[0]);
}
}
```

Jtc 34: Example using Arrays

1) Jtc34.java

```
class Jtc34{
/*
* @Author : Som Prakash Rai
* @Join : Java Training Center
* @visit          : www.jtcindia.org
* */
public static void main(String arg[]){
int arr[]=null;
arr=new int[4];

byte by1=45;
int ar3[]={10,20,51,'A',by1};
System.out.println("Length\t:"+ar3.length);
int ar4[]=null;
//ar4={10,20,51,'A',by1};
for(int i=0;i<ar3.length;i++){
System.out.println(ar3[i]);
}
int ar5[]={10,20,51,'A',by1,};
System.out.println("Length\t:"+ar5.length);
//int ar6[]={10,20,51,'A',by1,,};
System.out.println("\n-- Anonymous ----");
//ar4=new int[3]{12,34,65,67};
ar4=new int[]{12,34,65,67};
System.out.println("Length\t:"+ar4.length);
for(int i=0;i<ar4.length;i++){
int ab=ar4[i];
System.out.println(ab);
}
System.out.println("\n------");
String names[]={"Som","Prakash","Rai","Manish"};
for(int i=0;i<names.length;i++){
String ab=names[i];
System.out.println(ab);
}
}
}
```

Jtc 36: Example using Arrays

1) Jtc36.java

```
class Jtc36{
/*
* @Author    : Som Prakash Rai
* @Join : Java Training Center
* @visit        : www.jtcindia.org
* */
public static void main(String arg[]){
int arr[][]=null;
arr=new int[2][4];
System.out.println("Len\t:"+arr.length);
System.out.println("Len\t:"+arr[0].length);
System.out.println("Len\t:"+arr[1].length);
//arr[0]=123;
arr[0][2]=123;
System.out.println(arr[0][2]);
System.out.println("------");
for(int i=0;i<arr.length;i++){
for(int j=0;j<arr[i].length;j++){
System.out.print("\t"+arr[i][j]);
}
System.out.println();
}
```

```
System.out.println("*****");
int ref[][]=new int[3][];
for(int j=0;j<ref.length;j++){
System.out.println(ref[j]);
}
//ref[0][1]=123;
ref[0]=new int[4];
ref[1]=new int[]{10,20,15};
ref[2]=new int[6];
System.out.println("------");
for(int i=0;i<ref.length;i++){
for(int j=0;j<ref[i].length;j++){
System.out.print("\t"+ref[i][j]);
}
System.out.println();
}
System.out.println("------");
int values[][]={{12,67,43},{12},{90,80,70,60}};
for(int i=0;i<values.length;i++){
for(int j=0;j<values[i].length;j++){
System.out.print("\t"+values[i][j]);
}
System.out.println();
}
int others[][]=null;
others=new int[][]{{12,67,43},{12},{90,80,70,60}};
System.out.println("------");
for(int i=0;i<others.length;i++){
for(int j=0;j<others[i].length;j++){
System.out.print("\t"+others[i][j]);
}System.out.println();}}
```