1 Which of these statements are incorrect?
   a) The left shift operator, <<, shifts all of the bits in a value to the left s
   b) The right shift operator, >>, shifts all of the bits in a value to the rig
   c) The left shift operator can be used as an alternative to multiplying by
   d) The right shift operator automatically fills the higher order bits with (

   Answer

2   What will be the output of the following Java program?

       1.   class bitwise_operator
       2.   {
       3.   public static void main(String args[])
       4.   {
       5.   int var1 = 42;
       6.   int var2 = ~var1;
       7.   System.out.print(var1 + " " + var2);
       8.   }
       9.   }
   a) 42 42
   b) 43 43
   c) 42 -43
   d) 42 43
   Ans

3 What will be the output of the following Java program?

       1.   class bitwise_operator
       2.   {
       3.   public static void main(String args[])
       4.   {
       5.   int a = 3;
       6.   int b = 6;
       7.   int c = a | b;
       8.   int d = a & b;
       9.   System.out.println(c + " " + d);
       10.   }

4 What will be the output of the following Java program?

```
1.    class leftshift_operator
2.    {
3.        public static void main(String args[])
4.        {
5.            byte x = 64;
6.            int i;
7.            byte y;
8.            i = x << 2;
9.            y = (byte) (x << 2)
10.            System.out.print(i + " " + y);
11.        }
12.    }
```

5

int b=45;
String str="";
while(b > 0)
{
str = str + b%2;
b = b/2;
}
StringBuilder sb = new StringBuilder(str);
sb.reverse();
System.out.println(sb.toString());

A) Prints the remainder of a number
B) Prints Binary representation of a number
C) Prints Octal representation of a number
D) Prints Hexadecimal representation of a number

Ans

6 What will be the output of the following Java program?

```
1.    class rightshift_operator
```

```
2.    {
3.        public static void main(String args[])
4.        {
5.            int x;
6.            x = 10;
7.            x = x >> 1;
8.            System.out.println(x);
9.        }
10.   }
```

a) 10
b) 5
c) 2
d) 20
Answer

7 What will be the output of the following Java program?

```
1.    class Output
2.    {
3.        public static void main(String args[])
4.        {
5.            int a = 1;
6.            int b = 2;
7.            int c = 3;
8.            a |= 4;
9.            b >>= 1;
10.           c <<= 1;
11.           a ^= c;
12.           System.out.println(a + " " + b + " " + c);
13.       }
14.   }
```

a) 3 1 6
b) 2 2 3
c) 2 3 4
d) 3 3 6
Ans

8 Find the output of the code below

9 Find the output of the code below

Ans: [d]

10 .Which of the following for loop declaration is not valid?_x000B_

_x000B_B. for (int i = 7; i <= 77; i += 7)
_x000B_C. for (int i = 20; i >= 2; - -i)_x000B_
D. for (int i = 2; i <= 20; i = 2* i)
Ans:A

11 Which of the following is used with the switch statement?

Ans:a

12 What will be the output of the following Java program?

Ans:b

13 Predict the time complexity for the given below code snippet
   int fun()
   {

   }
   A) O(n)
   B) O(log n)
   C) O (sqrt n)
   D) O(n * n)
   Ans:A

14 Predict the time complexity for the given below code snippet
   int fun()
   {

   }

   A) O(n)
   B) O(log n)
   C) O (sqrt n)
   D) O(n * n)
   Ans:b

15 Predict the time complexity for the given below code snippet

```
int fun()
{
for(i = 1; i < n; i++)
{
for(j = 1; j < n; j++)
{
cout << "SMART";
}
}
return 0;
}
```

16 which of these NOT a strobogrammatic number

a

b

c

d

Ans

17 Fastst algoritham to find Prime numbers

a.sieve

b.segmented seive

c.quick sort

d.none of the above

Ans:b

18 Which algorithm will give the result in 2's complement

Booths

seive

kadans

none of the above

Ans

19   GCD(a,b)=GCD(b,r).

/

b.

c

d

19   Karatsuba Algorithm

Time Complexicty of Karatsuba Algorithm

a.
b.
c.
d

20 inary representation of 1775

a
b
c
d
Ans

Swap nipples on : 01100100
21
A
B
C

Ans

22 //Predict the output
```java
import java.util.*;
public class Main{
   public static void main(String[] args){
      int[] arr = {5,6,7,8};
      for (int i = 0; i < arr.length; i++){
         if((arr[i])==arr[i])
         {
            int temp = arr[0];
            arr[0] = arr[i];
            arr[i] = temp;
         }
      }
      for (int t = 0; t < arr.length-3; t++){
         System.out.print((arr[t]) + " ");
      }
   }
}
```
a
b
c
d
Ans

23 //Predict the output
```java
import java.util.*;
public class Main
{
    public static void main(String args[])
    {
        int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
        int n = 6;
        n = arr[arr[n] / 2];
        System.out.println(arr[n] / 2);
    }
}
```
a
b
c
d

Ans

24 Which of the following case does not exist in complexity theory?
a) Best case
b) Worst case
c) Average case
d) Null case

Ans

25 Which of these selection statements test only for equality?
a) if
b) switch
c) if & switch
d) none of the mentioned
Ans

26 Which of these are selection statements in Java?
a) if()
b) for()
c) continue
d) break
Ans

27 What will be the output of the following Java program?

```
1.  class comma_operator
2.  {
3.     public static void main(String args[])
4.     {
5.        int sum = 0;
6.        for (int i = 0, j = 0; i < 5 & j < 5; ++i, j = i + 1)
7.           sum += i;
8.        System.out.println(sum);
9.     }
10. }
```

a) 5
b) 6
c) 14
d) compilation error
Ans

28 What will be the output of the following Java program?

```
1.  class jump_statments
2.  {
3.     public static void main(String args[])
4.     {
5.        int x = 2;
6.        int y = 0;
7.        for ( ; y < 10; ++y)
8.        {
9.           if (y % x == 0)
10.              continue;
11.           else if (y == 8)
12.              break;
13.           else
14.              System.out.print(y + " ");
15.        }
16.     }
17. }
```

a) 1 3 5 7

b) 2 4 6 8

c) 1 3 5 7 9

d) 1 2 3 4 5 6 7 8 9

Ans

29 Which of these method of class String is used to obtain length of String

A. get()

B. Sizeof()

C. lengthof()

D. length()

Ans

29 Which of these method of class String is used to extract a single charac

A. CHARAT()

B. charat()

C. charAt()

D. ChatAt()

Ans

30 What will this code print?

```
int arr[] = new int [5];
System.out.print(arr);
```

OPTION
a) 0
b) value stored in arr[0].
c) 00000
d) Class name@ hashcode in hexadecimal form

Ans

31   1.In Java arrays are
                    a)Objects
                    b)Objects References
                    c)Primitive data type

d)None of the above
                         Ans
32 What will be the output of the following Java program?

```
1.    class Output
2.    {
3.        public static void main(String args[])
4.        {
5.            int a = 5;
6.            int b = 10;
7.            first:
8.            {
9.              second:
10.               {
11.                 third:
12.                 {
13.                     if (a ==  b >> 1)
14.                         break second;
15.                 }
16.                 System.out.println(a);
17.               }
18.               System.out.println(b);
19.            }
20.        }
21.    }
```

a) 5 10
b) 10 5
c) 5
d) 10
Ans

33 String class belongs to _____ package

A java.awt

B java.lang

C java.applet

D java.string

34 What is the output of the following code?
```
public class Main{
public static void main(String args[]){
StringBuffer s = new StringBuffer("Bob");
s.deleteCharAt(0);
System.out.println(s);
}
}
```
a

b

c

d

Ans

35 public class CompareToExample2{
```
public static void main(String args[]){
String s1="hello";
String s2="";
String s3="me";
System.out.println(s1.compareTo(s2));
System.out.println(s2.compareTo(s3));
}}
```
a

b

c

d

Ans

36   13. What would be the output of the following codesnippet if var

        {

}

Ans

37 . What is the output of this program ?

{

a)5,6,7,9

Ans

38 . What would be the output of the following code snippet if varia

Ans

39 Which of these is not a bitwise operator?
   a) &
   b) &=
   c) |=
   d) <=
   Ans
40 Which operator is used to invert all the digits in a binary representatio
   a) ~
   b) <<<
   c) >>>
   d) ^
   Ans

41 What will be the output of the following Java program?

```
1.    class Output
2.    {
3.        public static void main(String args[])
4.        {
5.            int a = 1;
6.            int b = 2;
7.            int c = 3;
8.            a |= 4;
9.            b >>= 1;
10.           c <<= 1;
11.           a ^= c;
12.           System.out.println(a + " " + b + " " + c);
13.       }
14.   }
```
   a) 3 1 6
   b) 2 2 3
   c) 2 3 4
   d) 3 3 6
   Ans
42 Which of these operators is used to allocate memory to array variable i
   a) malloc
   b) alloc
   c) new
   d) new malloc
   Ans

43 What is the output of the below Java program with arrays?

       A) RED
       B) YELLOW
       C) WHITE
       D) Compiler error
       Ans

44 What is the output of the below Java program with arrays?

       A) RAM
       B) HDD
       C) MOUSE
       D) Compiler error
       Ans

45

  Ans

46 What is the output of the Java code snippet?

       A) 0b0000_1000
       B) 1000
       C) 8
       D) 9
       Ans

47

48

Ans

49

Ans

50

Ans

specified number of times
ht specified number of times
y 2
0

 d

 C

a) 7 2
b) 7 7
c) 7 5
d) 5 2
Ans   a

a) 0 64
b) 64 0
c) 0 256
d) 256 0
Ans   d

B

b

a

```
int x, y;
x=15; y=20;
if (x>15)
```

```java
if(y>15)
{
System.out.println("y is  "+y);
}
else
{
System.out.println("x is "+x); }
```
(a) No output
(b) Exception
(c) 15
(d) 20
Ans: [a]


```java
int a=10;
String name=(a>13)?"Raja":"Rani";  //ternary operator
System.out.print(name);
```
(a) Rani
(b) Raja
(c) RajaRani
(d) RaniRaja

A. for (int i = 99; i >= 0; i / 9)

a) break
b)do
c)Exit
d)Continue


```java
class selection_statements
{
public static void main(String args[])
```

```
{
int var1 = 5;
int var2 = 6;
if ((var2 = 1) == var1)
System.out.print(var2);
else
System.out.print(++var2);
}
}
```

a) 1   b) 2

```
for(i = 1; i < n; i++)
{
```
                                                                                              cout << "!
```
}
return 0;
```

```
for(i = 1; i <= n; i=i*2)
{
```
                                                                                              cout << "!
```
}
return 0;
```

11
101
1691
10701

d

a

seive
eculidesanm
kadans
None of the above

O (log n)
On log n
   O(n^1.585)),
O(N*N)

1000010000
10000
1111000
11011101111
d

69
80
90
70
d

                                                    5
                                                    7
                                              8 5 6 7
                                                    8

d

0
3
1
compilation errror

c

d

b

a

b

c

ɔ object?

d

cter from a String object?

C

d

a

d

b

A Bo
B ob
C Bob
D B
B ob

5 2
0 2
2 2
1 1
a

iable p=20?

```
public class Result

public static void main(String args[])
{
                                                    int
                                                    if(p
                                                    {
```

```
                    }
                    Sys

            }

                                        a)10
c

    public class jump_statment_Example

    public static void main(String args[])
    {
                                        int
                                        for
                                        {
```

b)1,2,3,4,5   c)2,3,4,5
a

ble a=10?
    if(a<=0)
    {
                                        if(a
                                        {

                                        }
                                        else
                                        {

                                        }
    }
System.out.println("3 ");

a)1,3   b)1,

d

d

n of a number?

a

a

in Java?

c

```
String[] colors = {"RED";"YELLOW";"WHITE"};
System.out.print(colors[2]);
```

d

```
public class Polo {
public static void main(String args[])
{
String[] computer = {"RAM","HDD","MOUSE"};
String[] parts = {computer[0],computer[2]};
System.out.print(parts[1]);
}
}
```

c

If an index of an element is N, what is its actual position in the array?
    A) N-1
    B) N
    C) N+1
    D) N+2
    c

```
System.out.println(0b0000_1000);
```

c

Which of the following option leads to the portability and security of Java?

1. Bytecode is executed by JVM
2. The applet makes the Java code secure and portable

3. Use of exception handling
4. Dynamic binding between objects
Ans   a

 Evaluate the following Java expression, if x=3, y=5, and z=10:

++z + y - y + z + x++
1. 24
2. 23
3. 20
4. 25
d

In which memory a String is stored, when we create a string using new operator?

1. Stack
2. String memory
3. Heap memory
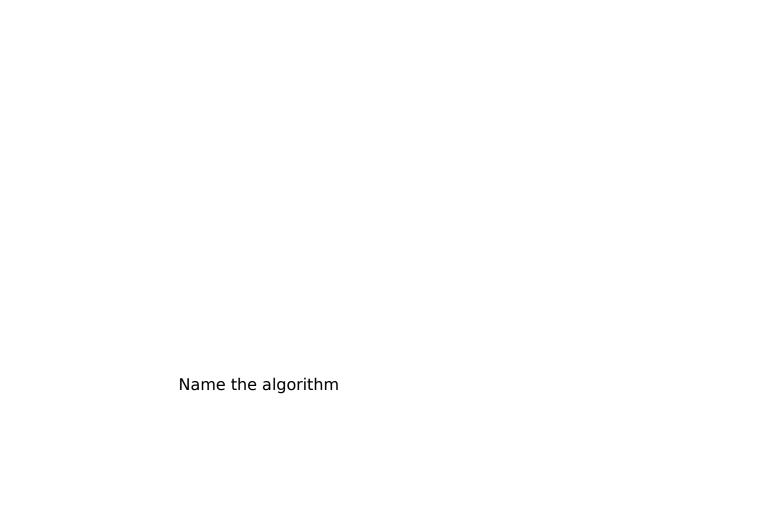4. Random storage space
c

Which of the following is a mutable class in java?

1. java.lang.String
2. java.lang.Byte
3. java.lang.Short
4. java.lang.StringBuilder
d

c) 3   d) 4

SMART”;

SMART”;

Name the algorithm

Ans   d

```
p=20;
<=0)

        if(p==0)
        {
                    System.out.println("5 ");
        }
        else
        {
                    System.out.println("10 ");
```

```
        }
```

tem.out.println("15 ");

      b)50   c)15   d)20

```
p = 4,q = 5;
( ; q < 10; ++q)
        if (q % p == 0)
        {
                        continue;
        }
        else if (q == 10)
        {
                        break;
        }
        else
        {
                        System.out.print(q + " ");
        }}}}
        d)6,7,8,9
```

==0)

      System.out.println("1 ");

ə

      System.out.println("2 ");

c)2,3   d)3

1 **Exception Handling is a mechanism to handle runtime errors**

   a. True
   b. False

   Ans   a

   The following exceptions:

   NullPointerException,
   ArrayIndexOutOfBoundsException,
   ArithmeticException,
   NumberFormatException

   are seen in _____

   a. Checked exception
   b. Unchecked exception
   c. Both A & B
   d. None of the above

   Ans   b

2 **Where are these five keywords try, catch, finally, throw, and throws used**

   a. Exception Handling
   b. String Handling
   c. Event Handling
   d. None of the above

   Ans   a

3 **In object-oriented programming, new classes can be defined by extendin**

   (a)
   Encapsula
   tion (b)
   Interface

(c)
Compositi
on (d)
Inheritanc
e (e)
Aggregati
on.

Ans) d

4 What will be the output of the following Java program?

```java
1.    class exception_handling
2.    {
3.        public static void main(String args[])
4.        {
5.            try
6.            {
7.                int a, b;
8.                b = 0;
9.                a = 5 / b;
10.                System.out.print("A");
11.            }
12.            catch(ArithmeticException e)
13.            {
14.            System.out.print("B");
15.            }
16.        }
17.    }
```

a) A
b) B

c)
Compilatio
n Error

d) Runtime
Error

Ans   B

5 1.Find the output of the code below
        int a=5, b=7;
        if ((a = 3) == b)
        System.out.print(b);
        else
        System.out.print(++b);

(a) 7
(b) 8
(c) 3
(d) 5
Ans: [b]
6 2.Find the output of the code below

```
int x, y;
x=15; y=20;
if (x>15)
if(y>15)
{
System.out.println("y is  "+y);
}
else
{
System.out.println("x is "+x); }
```

(a) No output
(b) Exception
(c) 15
(d) 20
Ans: [a]
7 3.Find the output of the code below.

```
String state;
float temp=125.5f;
if (0<temp<100) {
 state = "LIQUID";
 System.out.println(state);
}
```

(a) LIQUID
(b) Compile time error
(c) Run time error
(d) No output
8 Ans: [b]
4.Find the output of the code below

```
int a=10;
String name=(a>13)?"Raja":"Rani";  //ternary operator
System.out.print(name);
```

(a) Rani
(b) Raja
(c) RajaRani
(d) RaniRaja
Ans: [d]
9 5.Which of the following loops will execute the body of loop even when cond
a) do-while_x000B_
b) while

_x000B_c) for_x000B_
d) none of the mentioned
Ans:a)
6.Which of the following for loop declaration is not valid?_x000B_
A. for (int i = 99; i >= 0; i / 9)
_x000B_B. for (int i = 7; i <= 77; i += 7)
_x000B_C. for (int i = 20; i >= 2; - -i)_x000B_
D. for (int i = 2; i <= 20; i = 2* i)
Ans:A

10 7.. What is the output of this program ?

```
public static void main(String args[])
        {
                        int p = 4,q = 5;
                        for ( ; q < 10; ++q)
                        {           if (q % p == 0)
                            {
                                    continue;
                            }
                            else if (q == 10)
                            {
                                    break;
                            }
                            else
                            {
                                    System.out.print(q + " ");
                            }}}}
```

a)5,6,7,9 b)1,2,3,4,5c)2,3,4,5 d)6,7,8,9
Ans:a

11 8.. Which of the following is used with the switch statement?

a) break
b)do
c)Exit
d)Continue
Ans:a

12 9. What would be the output of the following code snippet if variable a=10?

```
if(a<=0)
        {
                        if(a==0)
                        {
                                    System.out.println("1 ");
                        }
                        else
```

```
                {
                        System.out.println("2 ");
                }
        }
        System.out.println("3 ");
}
```
  a)1,3   b)1,2   c)2,3   d)3

Ans:D

13 10.What will be the output of the following Java program?

```
class selection_statements
{
public static void main(String args[])
{
int var1 = 5;
int var2 = 6;
if ((var2 = 1) == var1)
System.out.print(var2);
else
System.out.print(++var2);
}
}
```
        a) 1   b) 2   c) 3   d) 4

Ans:b

14 Which of these selection statements test only for equality?
   a) if
   b) switch
   c) if & switch
   d) none of the mentioned
   Ans   b

15 Which of these are selection statements in Java?
   a) if()
   b) for()
   c) continue
   d) break
   Ans   a

16 Which of these keywords is not a part of exception handling?
   a) try
   b) finally
   c) thrown
   d) catch

Ans   C

17 Which of these operators can be used to concatenate two or more String objects?

  a) +
  b) +=
  c) &
  d) ||
  Ans   a

18 Which of this method of class String is used to obtain a length of String object?

  a) get()
  b) Sizeof()
  c) lengthof()
  d) length()
  Ans   d

19 Which of these is an incorrect statement?

  a) String objects are immutable, they cannot be changed
  b) String object can point to some other reference of String variable
  c) StringBuffer class is used to store string in a buffer for later use
  d) None of the mentioned
  Ans   c

20 What will be the output of the following Java program?

```
1.     class String_demo
2.     {
3.         public static void main(String args[])
4.         {
5.             char chars[] = {'a', 'b', 'c'};
6.             String s = new String(chars);
7.             System.out.println(s);
8.         }
9.     }
```

  a) a
  b) b
  c) c
  d) abc
  Ans   d

21 What will be the output of the following Java program?

```
1.     class String_demo
2.     {
3.         public static void main(String args[])
4.         {
5.             int ascii[] = { 65, 66, 67, 68};
6.             String s = new String(ascii, 1, 3);
```

```
7.              System.out.println(s);
8.          }
9.      }
```

a) ABC

b) BCD

c) CDA

d) ABCD

Ans   b

22 Which of these keywords is used to make a class?

a) class

b) struct

c) int

d) none of the mentioned

Ans   a

23 Which of these operators is used to allocate memory for an object?

a) malloc

b) alloc

c) new

d) give

Ans   c

24 Which of these statement is incorrect?

a) Every class must contain a main() method

b) Applets do not require a main() method at all

c) There can be only one main() method in a program

d) main() method must be made public

Ans   a

25 What is true about a break?

a) Break stops the execution of entire program

b) Break halts the execution and forces the control out of the loop

c) Break forces the control out of the loop and starts the execution of next iteration

d) Break halts the execution of the loop for certain time frame

Ans   b

26 Which of the following is used with the switch statement?

a) Continue

b) Exit

c) break

d) do

Ans   c

27 Which of these selection statements test only for equality?

a) if

b) switch

c) if & switch

d) none of the mentioned

Ans   b

28 Which of the following loops will execute the body of loop even when condition control

    a) do-while

    b) while

    c) for

    d) none of the mentioned

Ans   a

29 Which of the following is not OOPS concept in Java?

    a) Inheritance

    b) Encapsulation

    c) Polymorphism

    d) Compilation

Ans   d

30 Which of the following keywords is used for throwing exception manually?

    a) finally

    b) try

    c) throw

    d) catch

31 Which of the following can be operands of arithmetic operators?

    a) Numeric

    b) Boolean

    c) Characters

    d) Both Numeric & Characters

Ans   d

32 Modulus operator, %, can be applied to which of these?

    a) Integers

    b) Floating – point numbers

    c) Both Integers and floating – point numbers

    d) None of the mentioned

Ans   c

33
```
1. x++;
2. x = x + 1;
3. x += 1;
4. x =+ 1;
```

    a) 1, 2 & 3

    b) 1 & 4

    c) 1, 2, 3 &
4

    d) 3 & 2

Ans   c

34 . Decrement operator, −−, decreases the value of variable by what number?

    a) 1

    b) 2

c) 3

d) 4

Ans   a

35 What is the output of relational operators?

a) Integer

b) Boolean

c) Characters

d) Double

Ans   b

36 Which of these is returned by "greater than", "less than" and "equal to" operators?

a) Integers

b) Floating – point numbers

c) Boolean

d) None of the mentioned

Ans   c

37 Which of the following operators can operate on a boolean variable?

```
1. &&
   2. ==
   3. ?:
   4. +=
```

a) 3 & 2

b) 1 & 4

c) 1, 2 & 4

d) 1, 2 & 3

Ans   d

38 Which of these statements is correct?

a) true and false are numeric values 1 and 0

b) true and false are numeric values 0 and 1

c) true is any non zero value and false is 0

d) true and false are non numeric values

Ans   d

39 Which component is used to compile, debug and execute java program?

a) JVM

b) JDK

c) JIT

d) JRE

Ans   b

40 Which component is responsible for converting bytecode into machine specific code?

a) JVM

b) JDK

c) JIT

d) JRE

Ans   a

41 Which component is responsible to run java program?
   a) JVM
   b) JDK
   c) JIT
   d) JRE
   Ans   d

42 Which statement is true about java?
   a) Platform independent programming language
   b) Platform dependent programming language
   c) Code dependent programming language
   d) Sequence dependent programming language
   Ans   a

43 Which of the below is invalid identifier with the main method?
   a) public
   b) static
   c) private
   d) final
   Ans   d

44 What is the extension of java code files?
   a) .class
   b) .java
   c) .txt
   d) .js
   Ans   b

45 What is the stored in the object obj in following lines of Java code?

```
    box obj;
```
   a) Memory address of allocated memory of object
   b) NULL
   c) Any arbitrary pointer
   d) Garbage
   Ans   b

46 Which of these keywords is used to make a class?
   a) class
   b) struct
   c) int
   d) none of the mentioned
   Ans   a

47 Which of the following is a valid declaration of an object of class Box?
   a) Box obj = new Box();
   b) Box obj = new Box;
   c) obj = new Box();

d) new Box obj;

Ans   a

48 Which of these statement is incorrect?

a) Every class must contain a main() method

b) Applets do not require a main() method at all

c) There can be only one main() method in a program
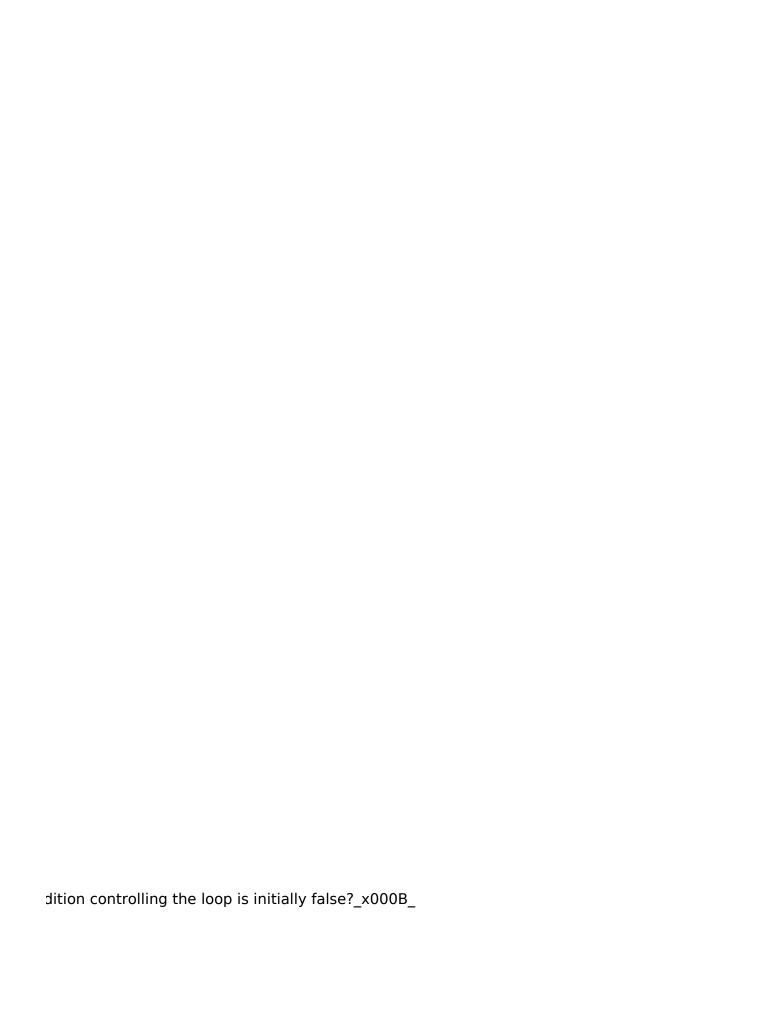
d) main() method must be made public

Ans   a

49 What is the return type of a method that does not return any value?

a) int

b) float

c) void

d) double

Ans   c

50 What will be the output of the following Java program?

```
1.      class jump_statments
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 2;
6.              int y = 0;
7.              for ( ; y < 10; ++y)
8.              {
9.                  if (y % x == 0)
10.                     continue;
11.                 else if (y == 8)
12.                     break;
13.                 else
14.                     System.out.print(y + " ");               1
15.             }
16.         }
17.     }
```

a) 1 3 5 7

b) 2 4 6 8

c) 1 3 5 7 9

d) 1 2 3 4 5 6 7 8 9

Ans   c

in?

g existing classes. This is an example of:

dition controlling the loop is initially false?_x000B_

ling the loop is initially false?