

**QUESTION
BANK 3**

API CONTENTS**CERTIFICATION OBJECTIVES**

- 3.1 Develop code that uses the primitive wrapper classes (such as Boolean, Character, Double, Integer, etc.), and/or autoboxing & unboxing. Discuss the differences between the String, StringBuilder, and StringBuffer classes.
- 3.2 Given a scenario involving navigating file systems, reading from files, writing to files, or interacting with the user, develop the correct solution using the following classes (sometimes in combination), from java.io: BufferedReader, BufferedWriter, File, FileReader, FileWriter, PrintWriter, and Console.
- 3.3 Develop code that serializes and/or de-serializes objects using the following APIs from java.io: DataInputStream, DataOutputStream, FileInputStream, FileOutputStream, ObjectInputStream, ObjectOutputStream and Serializable.
- 3.4 Use standard J2SE APIs in the java.text package to correctly format or parse dates, numbers, and currency values for a specific locale; and, given a scenario, determine the appropriate methods to use if you want to use the default locale or a specific locale. Describe the purpose and use of the java.util.Locale class.

**QUESTION 3.1**

Q 1: Maria works as a Programmer for BlueMoon Inc. She writes the following program:

```
import java.util.*;
public class TryQuestion {
    public static void main(String str[]) {
        System.out.format("Total=%d\nPercent=%d%%", 300, 40);
    }
}
```

What is the result of attempting to compile and run the program?

- A. The program will not compile.
- B. The program will display:
Total=300
Percent=40%
- C. The program will compile successfully but throw a runtime exception.
- D. The program will display:
Total=300%nPercent=40%

**QUESTION 3.2**

Q 2: Which of the following statements about the regex API are true?

- A. The package java.util.regex contains classes for matching character sequences against patterns specified by regular expressions.
- B. The package java.util.regex includes an exception called PatternSyntaxException.
- C. Instances of Matcher class are used to represent regular expressions in the form of String type.
- D. Instances of the Pattern class are used to match character sequences against a given pattern.

Q 3: Neha works as a Programmer for SoftNet Inc. She writes the following program:

```
public class TryQuestion {
    public static void main(String str[]) {
        String s="usingsplitfunction";
```

**QUESTION 3.3**

```
        String[] ex=s.split("i");
        for(int i=0;i<ex.length;i++) {
            System.out.println(ex[i]);
        }
    }
}
```

What will happen when Neha attempts to compile and execute the preceding program?

- | | |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> A. It will produce the output as:
usi
ngspli
tfuncti
on | <ul style="list-style-type: none"> B. It will produce the output as:
us
ingspl
itfunct
ion |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|

C. It will produce the output as:
us

D. It will produce the output as:
us
ngspl
tfunc
on

Q 4: John Smith works as a Programmer for BlueMoon Inc. He writes the following program:

**QUESTION 3.4**

```
public class TryQuestion {  
    public static void main(String str[]) {  
        String s1="a1b2c3d4ef";  
        String[]ex=s1.split("\\d",3);  
        for(String s2:ex) {  
            System.out.print(s2);  
        }  
    }  
}
```

What will happen when he tries to compile and execute the preceding program?

A. It will produce the output as:
abcdef
C. It will produce the output as:
abc3d4ef

B. It will produce the output as:
3d4
D. It will produce the output as:
a1b2c3d4ef

Q 5: Imagine you work as a Programmer in SoftTech Inc. You write the following program:



QUESTION 3.5

```
import java.util.regex.*; //1
public class TryQuestion { //2
    public static void main(String str[]){ //3
        String s="Preparing 4 SCJP exam"; //4
        //put the code here //5
        System.out.println(c.length); //6
    } //7
}
```

Which of the following statements will you insert in line 5, so that the program will compile and execute successfully and produce the output as 2?

- A. String[] fc=s.split("\\w");
- B. String[] c=s.split("\\d");
- C. String[] c=s.split("\\s");
- D. String[] c=s.split("\\S");



QUESTION 3.6

Q 6: Sam works as a Programmer for BlueMoon Inc. He writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String str[]) {
        try {
            FileWriter fw = new FileWriter("filereadwrite.txt");
            BufferedWriter bw=new BufferedWriter(fw);
            bw.write("have a good day");
            bw.close();
            FileReader fr = new FileReader("filereadwrite.txt");
            BufferedReader br = new BufferedReader(fr);
            br.read();
            br.read();
            br.skip(8);
            System.out.println((char)br.read());
            br.close();
        }
        catch(IOException e) {
            System.out.println("IOException : "+e.toString());
        }
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- A. It will produce the output as "o".
- B. It will produce the output as "d".
- C. It will produce the output as "g".
- D. It will throw a runtime exception- IOException.



QUESTION 3.7

Q 7: Mr. Paul works as a Programmer for BlueMoon Inc. He writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String str[]) {
        try {
            Square sq=new Square(10);
            Circle ci=new Circle(7);
            System.out.println("Before Serialization");
            sq.drawShape();
            ci.drawShape();
            ObjectOutputStream oos=new ObjectOutputStream(new FileOutputStream
            ("shapes.txt"));
            oos.writeObject(sq);
            oos.writeObject(ci);
            oos.close();
            ObjectInputStream ois=new ObjectInputStream(new FileInputStream
            ("shapes.txt"));
            sq=((Square)ois.readObject());
            ci=((Circle)ois.readObject());
            System.out.println("After Serialization");
            sq.drawShape();
            ci.drawShape();
        } catch (Exception e) { e.printStackTrace(); }
    }
}
abstract class DrawObject {
    public abstract void drawShape();
}
```

```
class Square extends DrawObject {
    private int x;
    public Square (int x) {
        this.x=x;
    }
    public void drawShape() {
        System.out.println("The side of a square is : "+x);
    }
}
class Circle extends DrawObject {
    private int rad;
    public Circle(int rad) {
        this.rad=rad;
    }
    public void drawShape() {
        System.out.println("The radius of a circle is : "+rad);
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- A. It will produce the output as:
Before Serialization
The side of a square is : 10
The radius of a circle is : 7
After Serialization
The side of a square is : 0
The radius of a circle is : 0
- B. It will produce the output as:
Before Serialization
The side of a square is : 10
The radius of a circle is : 7
After Serialization
The side of a square is : 10
The radius of a circle is : 7
- C. It will produce the output as:
Before Serialization
The side of a square is : 10
The radius of a circle is : 7
After Serialization
The side of a square is : 0
The radius of a circle is : 7
- D. It will display the output as:
Before Serialization
The side of a square is : 10
The radius of a circle is : 7

QUESTION 3.8

Q 8: John works as a Java Programmer for BlueMoon Inc. His computer system does not have any instance of 'LabManualTest.txt' file. John writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String str[]) {
        File file = new File ("LabManualTest.txt");
        System.out.println("The existence of file is : "+file.exists());
    }
}
```

What will happen when he attempts to compile and execute the preceding program?

- | | |
|----------------------------------------------------------------------|-----------------------------------------------------------------------|
| A. It will produce the output as:
The existence of file is : true | B. It will produce the output as:
The existence of file is : false |
| C. It will not compile. | D. It will throw a runtime exception- IOException. |

QUESTION 3.9

Q 9: Mehtab works as a Programmer for Kogent Solutions Inc. He writes the following program:

```
import java.text.*;
public class TryQuestion {
    public static void main(String str[]) {
        try {
            String num="one23456.789";
            NumberFormat form = NumberFormat.getInstance();
            System.out.println("Before parse the number is : "+form.parse(num));
            form.setParseIntegerOnly(true);
            System.out.println("After parse the number is : "+form.parse(num));
        }catch(ParseException pe)
        {
            System.out.println("Parse Exception thrown");
        }
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| A. It will produce the output as:
Before parse the number is :
23456.789
After parse the number is : 23456 | B. It will produce the output as:
Before parse the number is : 23456
After parse the number is : 23456.789 |
| C. It will not compile successfully. | D. It will compile successfully, but throw a runtime exception ParseException |

Q 10: Smith works as a Software Developer for BlueMoon Inc. He writes the following program:

QUESTION 3.10

```
import java.util.regex.*;
import java.util.*;
public class TryQuestion {
    public static void main(String str[]) {
        Pattern pat=Pattern.compile("[1-9&[^468]]*");
        Matcher mat=null;
        mat=pat.matcher("12345");
        System.out.println(mat.matches());
        mat=pat.matcher("12579");
        System.out.println(mat.matches());
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|---------------------------------------------------|----------------------------------------------------|
| A. It will produce the output as:
true
true | B. It will produce the output as:
true
false |
| C. It will produce the output as:false
true | |

QUESTION 3.11

Q 11: Kabir works as a Software Developer for SoftSample Inc. He writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String[] args) throws IOException,
        ClassNotFoundException {
        MyBean sc = new MyBean("Test1", "Test2");
        System.out.println("Before:\n" + sc);
        FileOutputStream fos = new FileOutputStream("abc.txt");
    }
}
```

```

        ObjectOutputStream o = new ObjectOutputStream(fos);
        o.writeObject(sc);
        o.close();
        FileInputStream fis = new FileInputStream("abc.txt");
        ObjectInputStream in = new ObjectInputStream(fis);
        MyBean sc2 = (MyBean) in.readObject();
        System.out.println("After:\n" + sc2);
    }
}

```

```

}
class MyBean implements Serializable {
    private String a;
    private transient String b;
    public MyBean(String aa, String bb) {
        a = "Not Transient: " + aa;
        b = "Transient: " + bb;
    }
    public String toString() {
        return a + "\n" + b;
    }
    private void writeObject(ObjectOutputStream stream) throws IOException {
        stream.defaultWriteObject();
        stream.writeObject(b);
    }
    private void readObject(ObjectInputStream stream) throws IOException,
        ClassNotFoundException {
        stream.defaultReadObject();
        b = (String) stream.readObject();
    }
}

```

What will happen when he attempts to compile and execute the above program?

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A. It will produce the output as:</p> <p>Before:</p> <p>Not Transient: Test1</p> <p>Transient: Test2</p> <p>After:</p> <p>Not Transient: Test1</p> <p>Transient: null</p> | <p>C. It will produce the output as:</p> <p>Before:</p> <p>Not Transient: Test1</p> <p>Transient: Test2</p> <p>After:</p> <p>Not Transient: Test1</p> <p>Transient: Test2</p> |
| <p>B. It will not compile.</p> | <p>D. It will throw a runtime exception.</p> |

**QUESTION 3.12**

Q 12: Vandana works as a Software Developer for SoftSample Inc. She writes the following program:

```
import java.io.*;
class X implements Externalizable {
    public X() {
        System.out.println("X Constructor invoking");
    }
    public void writeExternal(ObjectOutput out) throws IOException {
        System.out.println("X.writeExternal calling");
    }
    public void readExternal(ObjectInput in) throws IOException,
        ClassNotFoundException {
        System.out.println("X.readExternal calling");
    }
}
class Y implements Externalizable {
    Y() {
        System.out.println("Y Constructor invoking");
    }
    public void writeExternal(ObjectOutput out) throws IOException {
        System.out.println("Y.writeExternal calling");
    }
    public void readExternal(ObjectInput in) throws IOException,
        ClassNotFoundException {
        System.out.println("Y.readExternal calling");
    }
}
public class TryQuestion {
    public static void main(String[] args) throws IOException,
        ClassNotFoundException {
        System.out.println("Constructing objects b1 and b2:");
        X b1 = new X();
        Y b2 = new Y();
        ObjectOutputStream o = new ObjectOutputStream(new FileOutputStream(
            "File.out"));
        System.out.println("Saving objects b1 and b2:");
        o.writeObject(b1);
        o.writeObject(b2);
        o.close();
        ObjectInputStream in = new ObjectInputStream(new FileInputStream(
            "File.out"));
        System.out.println("Recovering object b1:");
        b1 = (X) in.readObject();
    }
}
```

What will happen when she tries to compile and execute the preceding program?

- | | |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| A. It will produce the output as:
Constructing objects b1 and b2:
X Constructor invoking
Y Constructor invoking | B. It will produce the output as:
Constructing objects b1 and b2:
X Constructor invoking
Y Constructor invoking |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|

Saving objects b1 and b2:
 X.writeExternal calling
 Y.writeExternal calling
 Recovering object b1:
 X.readExternal calling

- C. It will produce the output as:
 Constructing objects b1 and b2:
 X Constructor invoking
 Y Constructor invoking
 Saving objects b1 and b2:
 X.writeExternal calling
 Y.writeExternal calling
 Recovering object b1:
 X Constructor invoking

Saving objects b1 and b2:
 X.writeExternal calling
 Y.writeExternal calling
 Recovering object b1:
 X Constructor invoking
 X.readExternal calling

- D. It will throw a runtime exception.

QUESTION 3.13

Q 13: Hemant works as a Programmer for SoftSample Inc. His computer system has no instance of file1.txt and file2.txt files. Hemant writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String[] args) {
        File file1 = new File("file1.txt");
        File file2 = new File("file2.txt");
        if (!file1.exists() || !file2.exists()) {
            System.out.println("One or both files do not exist");
        }
        try {
            FileInputStream fis1 = new FileInputStream(file1);
            FileInputStream fis2 = new FileInputStream(file2);
            int i1 = fis1.read();
            int i2 = fis2.read();
            fis1.close();
            fis2.close();
        } catch (IOException e) {
            System.out.println("IO exception");
        }
    }
}
```

What will happen when he tries to compile and execute the preceding program, first time?

- A. It will produce the output as:
 One or both files do not exist
- B. It will give compilation error.
- C. It will produce the output as:
 One or both files do not exist
 IO exception
- D. It will throw a runtime exception.

Q 14: Hemani works as an Application Developer for SoftSample Inc. She writes the following program:

→ **QUESTION 3.14**

```
import java.io.*;
public class TryQuestion{
    public static void main(String[] args) {
        try {
            FileReader file = new FileReader("SourceReader.java"); //1
            BufferedReader buff = new BufferedReader(file); //2
            boolean eof = false;
            while (!eof) {
                String line = file.readLine(); //3
                if (line == null)
                    eof = true;
                else
                    System.out.println(line);
            }
            buff.close();
        } catch (IOException e) {
            System.out.println("Error - " + e.toString());
        }
    }
}
```

What will happen when she tries to compile and execute the above program (assume that the SourceReader.java file already exists on Hemani's computer system)?

- A. It will produce compile error at line 1.
 - B. It will produce compile error at line 2.
 - C. It will produce compile error at line 3.
 - D. It will compile and execute successfully.
-

→ **QUESTION 3.15**

Q 15: Sumit works as a Programmer for SoftSample Inc. He writes the following program:

```
import java.io.*;
public class TryQuestion {
    public static void main(String[] args) {
        try {
            PrintWriter pw = new PrintWriter("PrintWriterOutput.txt"); //1
            pw.println("PrintWriter class is easy to use."); //2
            pw.println(1234);
            pw.close(); //3
        } catch (IOException e) {
        }
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- A. It will produce compile error at line 1.
- B. It will produce compile error at line 2.
- C. It will produce compile error at line 3.
- D. It will compile and execute successfully.

Q 16: Mohit works as a Programmer for SoftTech Inc. He writes the following program:

**QUESTION 3.16**

```
import java.text.*;
public class TryQuestion {
    public static void main(String[] args) {
        double d=1234.56789;
        NumberFormat myFormat = NumberFormat.getInstance();
        myFormat.setMaximumIntegerDigits(3);
        String radianString = myFormat.format(d);
        myFormat.setMaximumFractionDigits(3);
        String gradString =myFormat.format(d);
        myFormat.setMinimumFractionDigits(2);
        String degreeString = myFormat.format(d);
        System.out.println(gradString);
        System.out.println(radianString);
        System.out.println(degreeString);
    } }
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-----------------------------------------------------------------------|----------------------------------------------------------------------|
| A. It will produce the output as:
1234.568
234.56789
1234.57 | B. It will produce the output as:
234.568
234.568
234.568 |
| C. It will produce the output as:
234.56789
1234.568
1234.57 | D. It will produce the output as:
123.568
234.56789
1234.57 |

**QUESTION 3.17**

Q 17: Dheeraj works as a Programmer for Kogent Solutions Inc. He writes the following program:

```
public class TryQuestion {
    public static void main( String args[] ) {
        String s1 = new String( "hello" );
        String s2 = new String( "GOODBYE" );
        System.out.printf( "s1 = %s\ns2 = %s\n", s1, s2);
        System.out.printf( "s1 in uppercase = %s\n", s1.toUpperCase() );
        System.out.printf( "s2 in lowercase = %s\n\n", s2.toLowerCase() );
    } }
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-------------------------------------------------|-------------------------------------------------|
| A. It will produce the output as:
s1 = hello | B. It will produce the output as:
s1 = hello |
|-------------------------------------------------|-------------------------------------------------|

s2 = GOODBYE
 s1 in uppercase = HELLO
 s2 in lowercase = goodbye

s2 = GOODBYE
 s1 in uppercase = hello
 s2 in lowercase = GOODBYE

C. It will give compilation error.

D. It will throw a runtime exception.

QUESTION 3.18

Q 18: Shilpa works as a Programmer for Kogent Solutions Inc. She writes the following program:

```
public class TryQuestion {
    public static void main(String args[]) {
        String str1 = "First String";
        String str2 = "Second String";
        String str3 = str1;
        System.out.println("Length of str1: " + str1.length());
        System.out.println("Char at index 2 in str1: " + str1.charAt(2));
        if(str1.equals(str2))
            System.out.println("str1 == str2");
        else
            System.out.println("str1 != str2");
        if(str1.equals(str3))
            System.out.println("str1 == str3");
        else
            System.out.println("str1 != str3");
    }
}
```

What will happen when she tries to compile and execute the preceding program?

- A. It will produce the output as: Length of str1: 12
 Char at index 2 in str1: istr1 != str2
 str1 == str3
- C. It will produce the output as: Length of str1: 11
 Char at index 2 in str1: rstr1 != str2
 str1 == str3

QUESTION 3.19

Q 19: Shivam works as a Programmer for Kogent Solutions Inc. He writes the following program:

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

```

        String s1 = "one";
        String s2 = "one";
        String s3 = "two";
        String s4 = "ONE";
        System.out.println(s1 + " equals " + s2 + " -> " + s1.equals(s2));
        System.out.println(s1 + " equals " + s3 + " -> " + s1.equals(s3));
        System.out.println(s1 + " equals " + s4 + " -> " + s1.equals(s4));
        System.out.println(s1 + " equalsIgnoreCase " + s4 + " -> " +
        s1.equalsIgnoreCase(s4));
    }
}

```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A. It will produce the output as:
 one equals one -> true
 one equals two -> false
 one equals ONE -> true
 one equalsIgnoreCase ONE -> true</p> <p>C. It will produce the output as:
 one equals one -> true
 one equals two -> false
 one equals ONE -> false
 one equalsIgnoreCase ONE -> false</p> | <p>B. It will produce the output as:
 one equals one -> false
 one equals two -> false
 one equals ONE -> false
 one equalsIgnoreCase ONE -> true</p> <p>D. It will produce the output as:
 one equals one -> true
 one equals two -> false
 one equals ONE -> false
 one equalsIgnoreCase ONE -> true</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

QUESTION 3.20

Q 20: Nirmal works as a Programmer for Kogent Solutions Inc. He writes the following program:

```

public class TryQuestion {
    public static void main(String args[]) {
        String s1 = "MyString";
        String s2 = new String(s1);
        System.out.println(s1 + " equals " + s2 + " is " + s1.equals(s2));
        System.out.println(s1 + " == " + s2 + " is " + (s1 == s2));
    }
}

```

What will happen when he attempts to compile and execute the preceding program?

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A. It will produce the output as:
 MyString equals MyString is true
 MyString == MyString is true</p> <p>C. It will produce the output as:
 MyString equals MyString is true
 MyString == MyString is false</p> | <p>B. It will produce the output as:
 MyString equals MyString is false
 MyString == MyString is false</p> <p>D. It will produce the output as:
 MyString equals MyString is false
 MyString == MyString is true</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

compares the two objects s1 and s2, but not their values, and returns false. As a result, the program will give the output as given in option C.

QUESTION 3.21

Q 21: Sanjay works as a Software Developer for HighNet Inc. He writes the following program:

```
public class TryQuestion {
    public static void main( String args[] ) {
        String s1 = new String( "hello" );
        String s2 = new String( "india" );
        System.out.printf( "s1 = %s\ns3 = %s\n", s1, s2 );
        System.out.printf("Replace 'l' with 'L' in s1: %s\n", s1.replace('l','L'));
        System.out.printf("Replace 'i' with 'I' in s2: %s", s2.replace('d','D'));
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A. It will produce the output as:</p> <p>s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLLo
Replace 'i' with 'I' in s2: IndIa</p> | <p>B. It will produce the output as:</p> <p>s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLLo
Replace 'i' with 'I' in s2: inDia</p> |
| <p>C. It will produce the output as:</p> <p>s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLlo
Replace 'i' with 'I' in s2: InDia</p> | <p>D. It will produce the output as:</p> <p>s1 = hello
s3 = india
Replace 'l' with 'L' in s1: hello
Replace 'i' with 'I' in s2: inDia</p> |

QUESTION 3.22

Q 22: Mahima works as a Programmer in SoftTech Inc. She writes the following program:

```
public class TryQuestion {
    public static void main(String str[]) {
        String s = new String("A bird is");
        s.append("flying");
        System.out.println("The value stored in String class is : "+s);
        StringBuffer sb = new StringBuffer("A bird is");
        sb.append("flying");
        System.out.println("The value stored in StringBuffer class is : "+sb);
        StringBuilder sbi = new StringBuilder("A bird is");
        sbi.append("flying");
        System.out.println("The value stored in StringBuilder class is : "+sbi);
    }
}
```

What will happen when she tries to compile and execute the preceding program?

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A. It will produce the output as:</p> <p>The value stored in String class is : A bird is
The value stored in StringBuffer class is : A bird isflying
The value stored in StringBuilder class is : A bird isflying</p> | <p>B. It will produce the output as:</p> <p>The value stored in String class is : A bird isflying
The value stored in StringBuffer class is : A bird isflying
The value stored in StringBuilder class is : A bird isflying</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- C. It will produce the output as:
 The value stored in String class is : A bird
 is
 The value stored in StringBuffer class is :
 A bird is
 The value stored in StringBuilder class is :
 A bird isflying
- D. It will give compilation error.



Q 23: Manish works as a Programmer for SoftTech Inc. He writes the following program:

```
import java.util.*;
import java.io.*;
public class TryQuestion {
    public static void main(String str[]) {
        Console cns=System.console(); //1
        if(cns!=null) {
            Scanner scan=new Scanner(cns.reader()); //2
            double value=0.0;
            while(value!=1) {
                cns.printf("Please enter your salary\n");
                value=cns.nextDouble(); //3
                if(value>10000) {
                    cns.printf("You do not require increment");
                    System.exit(0);
                }
            }
        }
        else {
            throw new RuntimeException("No console is available");
        }
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- A. It will give compilation error at line 1.
 B. It will give compilation error at line 2.
 C. It will give compilation error at line 3.
 D. It will throw a runtime exception and prints "No console is available".

Q 24: Maria works as a Programmer for SoftTech Inc. She writes the following program:

```
import java.util.*;
import java.text.*;
public class TryQuestion {
    public static void main(String str[]) {
        Date date = new Date();
        DateFormat df;
        df = DateFormat.getDateInstance(DateFormat.MEDIUM, Locale.US);
        System.out.println("United States: " + df.format(date));
        df = DateFormat.getDateInstance(DateFormat.FULL, Locale.US);
```

```

        system.out.println("United States: " + df.format(date));
    }
}

```

What will happen when she tries to compile and execute the preceding program? (Assume that the current date is 5th August 2008)

- | | |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| A. It will produce the output as:
United States: Aug 5, 2008
United States: Tuesday, August 5, 2008 | B. It will produce the output as:
United States: 8/5/08
United States: August 5, 2008 |
| C. It will give compilation error. | D. It will throw a runtime exception. |

Q 25: Mary works as a Programmer for SoftTech Inc. She writes the following program:

```

public class TryQuestion {
    public static void main(String[] str) {
        system.out.println("\\");
        System.out.println("\\\\\\"");
    }
}

```

What will happen when she tries to compile and execute the preceding program?

- | | |
|---------------------------------------------------------------------------|----------------------------------------------|
| A. It will compile and execute successfully, but no output will be shown. | B. It will produce the output as:
\
\\ |
| C. It will produce the output as:
\
\\ | D. It will produce the output as:
\
\\ |

Q 26: Vikash works as a Programmer for DreamTech Inc. He writes the following program:

```

public class TryQuestion {
    public static void main(String[] str) {
        System.out.println(Integer.toString('A',10));
    }
}

```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-----------------------------------------|----------------------------------------|
| A. It will produce the output as:
65 | B. It will produce the output as:
A |
| C. It will produce the output as:
K | D. It will give compilation error. |

Q 27: Kabir works as a Programmer for SoftTech Inc. He writes the following program:

```
public class TryQuestion {  
    public static void main(String[] str) {  
        System.out.println(400+Integer.valueOf("200"));  
    }  
}
```

What will happen when he tries to compile and execute the above program?

- | | |
|------------------------------------------|----------------------------------------------|
| A. It will produce the output as:
600 | B. It will produce the output as:
400+200 |
| C. It will give compilation error. | D. It will throw a runtime exception. |

Q 28: Suchita works as a Programmer for DreamTech Inc. She writes the following program:

```
public class TryQuestion {  
    public static void main(String[] str) {  
        char[] ch = {'a','b','c','d'};  
        System.out.println(Character.valueOf(ch));  
    }  
}
```

What will happen when she tries to compile and execute the preceding program?

- | | |
|-------------------------------------------|----------------------------------------|
| A. It will produce the output as:
abcd | B. It will produce the output as:
a |
| C. It will produce the output as:
65 | D. It will give compilation error. |

Q 29: Which of the following statements are true about the metacharacters?

- | | |
|--------------------------------------------------|----------------------------------------------|
| A. \s: It is used for a non-whitespace character | B. \S: It is used for a whitespace character |
| C. \w: It is used for a word character | D. \W: It is used for a non- word character |

Q 30: Manisha works as a Programmer for SoftTech Inc. She writes the following program:

```
public class TryQuestion {
    public static void main(String[] str) {
        int x=10;
        int y=20;
        System.out.println("Total is: "+x+y);
        String s="10";
        s=s.concat("20");
        System.out.println("Total is: "+s);
    }
}
```

What will happen when she tries to compile and execute the preceding program?

- | | |
|---------------------------------------------------------------------|-----------------------------------------------------------------------|
| A. It will produce the output as:
Total is: 30
Total is: 10 | B. It will produce the output as:
Total is: 1020
Total is: 1020 |
| C. It will produce the output as:
Total is: 30
Total is: 1020 | D. It will produce the output as:
Total is: 1020
Total is: 10 |

Q 31: Ritu works as a Programmer for Kogent Solutions Inc. She writes the following program:

```
public class TryQuestion {
    public static void main(String[] str) {
        String s1 = "hello world";
        System.out.println(s1);
        int x=s1.length();
        for(int i=0;i<x;i+=2)
            System.out.print(s1.charAt(i));
    }
}
```

What will happen when she tries to compile and execute the preceding program?

- | | |
|------------------------------------------------------------|-----------------------------------------------------------|
| A. It will produce the output as:
hello world
hlowrd | B. It will produce the output as:
hello world
el ol |
| C. It will give compilation error at line 1. | D. It will give compilation error at line 2. |

Q 32: Mehtab works as a Programmer for Kogent Solutions Inc. He writes the following program:

```
import java.util.regex.*;
import java.util.*;
public class TryQuestion {
    public static void main(String s[]) {
        Pattern pat=Pattern.compile("(hello){1}-(world){2}");
        Matcher mat=null;
        mat=pat.matcher("hello-worldworld");
        System.out.println(mat.matches());
        mat=pat.matcher("(hello){1}-(world){2}");
```

```

system.out.println(mat.matches());
}
}

```

What will happen when he tries to compile and execute the preceding program?

- | | |
|----------------------------------------------------|----------------------------------------------------|
| A. It will produce the output as:
true
true | B. It will produce the output as:
true
false |
| C. It will produce the output as:
false
true | D. It will produce the output as:
null
null |

Q 33: Deepak works as a Programmer for Kogent Solutions Inc. He writes the following program:

```

public class TryQuestion {
public static void main(String sr[]) {
Integer i=null;
i=new Integer(100);
int j=200;
i=j;
i=300;
system.out.println(i++);
short s=10;
i=s;
System.out.println(i--);
}
}

```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-----------------------------------------------|------------------------------------------------|
| A. It will produce the output as:
301
9 | C. It will produce the output as:
300
10 |
| B. It will give compilation error. | D. It will throw a runtime exception. |

Q 34: Rajeev works as a Programmer for SoftTech Inc. He writes the following program:

```

public class TryQuestion {
public static void main(String str[]) {
String s1=Double.toString(65);
String s2=Double.toHexString(65);
System.out.println(s1+" "+s2);
}
}

```

//2 //1

What will happen when he tries to compile and execute the preceding program?

- | | |
|--------------------------------------------------------|--------------------------------------------------------|
| A. It will produce the output as:
65.0 0x1.04p6 | B. It will produce the output as:
0x1.04p6 |
| C. It will give compilation error at line marked as 1. | D. It will give compilation error at line marked as 2. |

Q 35: Mala works as a Programmer for EasySoftTech Inc. She writes the following program:

```
public class TryQuestion {  
    public static void main(String str[]) {  
        String str1="ClassAndObject";  
        String str1="ObjectAndClass";           //1  
        String str2="ObjectAndClass";           //2  
        if(str2.equals(str1))                     //3  
        {  
            System.out.println("They are equal");  
        }  
        else {  
            System.out.println("They are not equal");  
        }  
    }  
}
```

What will happen when she tries to compile and execute the preceding program?

- A. It will produce the output as:
They are equal
- B. It will produce the output as:
They are not equal
- C. It will give compilation error at line marked as 1.
- D. It will give compilation error at line marked as 3.

Q 36: Manish works as a Software Developer for NewTech Inc. He writes the following program:

```
public class TryQuestion {  
    public static void main(String str[]) {  
        Integer num=10;  
        Boolean b1;  
        b1=(num instanceof Integer);  
        System.out.println(b1);  
        b1=(num instanceof Number);  
        System.out.println(b1);  
    }  
}
```

What will happen when he tries to compile and execute the preceding program?

- A. It will produce the output as:
true
true
- C. It will produce the output as:
false
true

**QUESTION 3.37**

Q 37: Vineet works as an Application Developer for AllienSoftTech Inc. He writes the following program:

```
public class TryQuestion {
    public static void main(String str[]) {
        Boolean b1=new Boolean("true");           //1
        boolean b12=true;
        if(b11.equals(b12))                         //2
            System.out.println("They are equal");
        else
            System.out.println("They are not equal");
    }
}
```

What will happen when he attempts to compile and execute the preceding program?

- | | |
|-----------------------------------------------------------|-----------------------------------------------------------|
| A. It will produce the output as:
They are equal | B. It will produce the output as:
They are not equal |
| C. It will give compilation error at line
marked as 1. | D. It will give compilation error at line marked as
2. |

Q 38: Vineet works as a Software Developer for AllienSoftTech Inc. He writes the following program:

```
import java.util.*;
public class TryQuestion {
    public static void main(String str[]){
        int total=0;
        ArrayList <Double> arr1=new ArrayList <Double>();
        for(double d=0.0; d<10.0;d++)
        {
            arr1.add(d);
        }
        for(double d2:arr1)
        {
            total+=d2;
        }
        System.out.println("Total = "+total);
    }
}
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|----------------------------------------------|-------------------------------------------------|
| A. It will produce the output as:
Total=0 | B. It will produce the output as:
Total = 45 |
| C. It will give compilation error. | D. It will throw a runtime exception. |

Q 39: Aditya works as a Programmer for AllienSoftTech Inc. He writes the following program:

```
public class TryQuestion {
    static public void display(Integer num) {
        system.out.println("Integer");
    }
}
```

```
    }  
    static public void display(float num) {  
        System.out.println("Float");  
    }  
    static public void display(double num) {  
        System.out.println("Double");  
    }  
    public static void main(String str[]) {  
        display(50);  
        display(50.5);  
    }  
}
```

What will happen when Aditya tries to compile and execute the preceding program?

- | | |
|-------------------------------------------------------|--------------------------------------------------------|
| A. It will produce the output as:
Float
Double | B. It will produce the output as:
Integer
Double |
| C. It will produce the output as:
Integer
Float | D. It will throw a runtime exception. |

Q 40: Sumit works as a Programmer in AllienSoftTech Inc. He writes the following program:

```
public class TryQuestion {  
    static public void display(Integer num) {  
        System.out.println("Integer");  
    }  
    static public void display(Float num) {  
        System.out.println("Float");  
    }  
    static public void display(Double num) {  
        System.out.println("Double");  
    }  
    public static void main(String str[]) {  
        display(50);  
        display(50.5);  
    }  
}
```

What will happen when he tries to compile and execute the preceding program?

- | | |
|-------------------------------------------------------|--------------------------------------------------------|
| A. It will produce the output as:
Float
Double | B. It will produce the output as:
Integer
Double |
| C. It will produce the output as:
Integer
Float | D. It will throw a runtime exception. |

Q 41: Renu works as a Java Programmer for AllienSoffTech Inc. She writes the following program:

```
public class TryQuestion {  
    static public void display(Integer num) {  
        System.out.println("Integer");  
    }  
    static public void display(float num) {  
        System.out.println("Float");  
    }  
    static public void display(double num) {  
        System.out.println("Double");  
    }  
    public static void main(String str[]) {  
        display(50);  
    }  
}
```

What will happen when Renu tries to compile and execute the preceding program?

- | | |
|---------------------------------------------|----------------------------------------------|
| A. It will produce the output as:
Double | B. It will produce the output as:
Integer |
| C. It will produce the output as:
Float | D. It will throw a runtime exception. |

Q 42: Kabir works as a Programmer for AllienSoftTech Inc. He writes the following program:

```
public class TryQuestion {
    public static void main(String str[]) {
        float f1=3.14f;
        float f2;
        f2=f1;
        System.out.println(f2);
        double d1=f1;
        double d2=d1;
        System.out.println(d2);
    }
}
```

What will happen when Kabir tries to compile and execute the preceding program?

- A. It will produce the output as:
3.14
3.14
- B. It will throw a runtime exception.
- C. It will give compilation error at the line marked as 1.
- D. It will give compilation error at the line marked as 2.

Q 43: Charu works as a Programmer for AllienSoftTech Inc. She writes the following program:

```
import java.util.regex.*;
public class TryQuestion {
    public static void main(String str[]){
        Pattern p = Pattern.compile("Charu");
        String nameString = "My name is Charu. Charu Verma.";
        Matcher matcher = p.matcher(nameString);
        matcher.find();
        System.out.println(matcher.group());
    }
}
```

What will happen when Charu attempts to compile and execute the preceding program?

- A. It will produce the output as:
Charu
- B. It will produce the output as:
CharuCharu
- C. It will give compilation error.
- D. It will throw a runtime exception.