QUESTION BANK 3

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?

A. It will produce the output as:
   usi
   ngspli
   tfuncti
   on

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
tfunct
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

B. It will produce the output as:
3d4

C. It will produce the output as:
abc3d4ef

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?

A. It will produce the output as:
   Before:
   Not Transient: Test1
   Transient: Test2
   After:
   Not Transient: Test1
   Transient: null

B. It will not compile.

C. It will produce the output as:
   Before:
   Not Transient: Test1
   Transient: Test2
   After:
   Not Transient: Test1
   Transient: Test2

D. It will throw a runtime exception.

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:

```
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());
}}}
```

QUESTION 3.14

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

C. It will give compilation error.

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

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?

A. It will produce the output as:
one equals one -> true
one equals two -> false
one equals ONE -> true
one equalsIgnoreCase ONE -> true

B. It will produce the output as:
one equals one -> false
one equals two -> false
one equals ONE -> false
one equalsIgnoreCase ONE -> true

C. It will produce the output as:
one equals one -> true
one equals two -> false
one equals ONE -> false
one equalsIgnoreCase ONE -> false

D. It will produce the output as:
one equals one -> true
one equals two -> false
one equals ONE -> false
one equalsIgnoreCase ONE -> true

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?

A. It will produce the output as:
MyString equals MyString is true
MyString == MyString is true

B. It will produce the output as:
MyString equals MyString is false
MyString == MyString is false

C. It will produce the output as:
MyString equals MyString is true
MyString == MyString is false

D. It will produce the output as:
MyString equals MyString is false
MyString == MyString is true

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?

A. It will produce the output as:
s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLLo
Replace 'i' with 'I' in s2: IndIa

B. It will produce the output as:
s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLLo
Replace 'i' with 'I' in s2: inDia

C. It will produce the output as:
s1 = hello
s3 = india
Replace 'l' with 'L' in s1: heLlo
Replace 'i' with 'I' in s2: InDia

D. It will produce the output as:
s1 = hello
s3 = india
Replace 'l' with 'L' in s1: hello
Replace 'i' with 'I' in s2: inDia

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?

A. 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 isflying
The value stored in StringBuilder class is : A bird isflying

B. It will produce the output as:
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

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

B. It will give compilation error.

C. It will produce the output as:
300
10

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);                    //1
        String s2=Double.toHexString(65);                 //2
        System.out.println(s1+" "+s2);
        }
}
```

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 bl;
                bl=(num instanceof Integer);
                System.out.println(bl);
                bl=(num instanceof Number);
                System.out.println(bl);
}}
```

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 bl1=new Boolean("true");              //1
                boolean bl2=true;
                if(bl1.equals(bl2))                                                    //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> arrl=new ArrayList <Double>();
for(double d=0.0; d<10.0;d++)
{
arrl.add(d);
}
for(double d2:arrl)
{
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 AllienSoftTech 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;                                                    //1
                System.out.println(f2);
                Double d1=f1;                                          //2
                double d2=d1;                                            //3
                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.