1

Consider the following code:

```
public class Code17 {
public static void main(String args[]) {
new Code17();
}
{
System.out.print("Planet ");
}
{
System.out.print("Welcome ");
}
}
```

Which of the following will be the valid output for the above code?

Answer:
○ a. Compilation Error

○ b. Compiles and Executes with no output

○ c. Planet

○ d. Welcome Planet

● e. Planet Welcome

2

Which of the following options will protect the underlying collections from getting modified?

Answer:
○ a. Collections.checked

○ b. unmodifiableCollection(Collection<? extends T> c);

● c. None of the listed options

○ d. synchronizedCollection(Collection<T> c);

3 Consider the following program:

```
class A extends Thread {
public A(Runnable r) {}
public void run() {System.out.print("A");}
}

class B implements Runnable {
public void run() {System.out.print("B");}
}

class C {
public static void main(String[] args) {
new A(new B()).start();
}
}
```

What will be the output of the above program?

Answer:

○ a. Compile-time error

● b. Prints: A

○ c. Prints: BA

○ d. Prints: AB

○ e. Prints: B

4 Which of the following are the valid ways of creating wrapper type objects? (Choose 3)

Answer:

☑ a. Byte bite = new Byte("-128");

□ b. Integer integer = new Integer("false");

☑ c. Boolean b = new Boolean("23.9");

□ d. Character c = new Character("a");

☑ e. Float f = new Float("45.67d");

5 Consider the following code:

```
class Resource1 { }
class Resource2 { }
class ResourceConsumer extends Thread {
Resource1 res1;
Resource2 res2;
ResourceConsumer(Resource1 res1, Resource2 res2) {
this.res1 = res1;
this.res2 = res2;
}

public void run() {
try {
synchronized(res1) {
System.out.println("Planet");
res1.wait(1000);
System.out.println("Earth");
res2.notify();
System.out.println("Welcome");
}
} catch(InterruptedException ie) { }
}
}

public class NeverEnding {
public static void main(String[] args) {
ResourceConsumer rc1 = new ResourceConsumer(
new Resource1(), new Resource2());
rc1.start();
}
}
```

Which of the following gives the valid output for the above given code?

Answer: ○ a. Prints: Planet
(waits for 1000 milli seconds)
Earth
throws IllegalThreadMonitorStateException at runtime

● b. Prints nothing and throws
IllegalThreadMonitorStateException at runtime

○ c. Prints: Planet
(waits for 1000 milli seconds)
Earth
Welcome

○ d. Prints: Planet
(waits for 1000 milli seconds)
Earth
Welcome
throws IllegalThreadMonitorStateException at runtime

○ e. Compile-time Error

6 Consider the following program:

```
public class D extends Thread {
public void run() {
System.out.println("Before start method");
this.stop();
System.out.println("After stop method");
}

public static void main(String[] args) {
D a = new D();
a.start();
}
}
```

What will be the output of the above program?

Answer: ○ a. Runtime exception

○ b. Compilation error

○ c. 'Before start method' and 'After stop method'

● d. 'Before start method' only

7 Null can be used as value for the parameterized INSERT and UPDATE query. State True or False.

Answer: ● True ○ False

8 Consider the following code:

```
public class Pass {
static int j=20;
public static void main(String argv[]) {
int i=10;
Pass p = new Pass();
p.amethod(i);
System.out.println(i);
System.out.println(j);
}

public void amethod(int x) {
x=x*2;
j=j*2;
}
}
```

Which of the following gives the correct output for the above code?

Answer: ● a. Prints: 10, 40

○ b. Prints: 10,20

○ c. Prints: 20, 40

○ d. Compile time Error: Method parameter does not match variable

9 Which of the following options are true about Associations?(choose 2)

Answer:

□ a. Association refers to a class reuses the properties and methods of another class

☑ b. In Associations, cardinality refers to the number of related objects

□ c. Association refers to an object composed of set of other objects

☑ d. Associations are bi-directional

□ e. Association refers to binding of related data and behaviours into a single entity

10 Consider the following program:

```
public class ExceptionType {
public static void main(String args[]) {
String s = null;
try {
System.out.println(s.length());
}
catch(Exception e) {
System.out.println("Exception 1");
}
finally {
try {
generateException();
}
catch(Exception e) {
System.out.println("Exception 2");
}
}
}

static void generateException() throws IllegalArgumentException {
throw new IllegalArgumentException();
}
}
```

Which of the following statements are true regarding the above given program? (Choose 3)

Answer:

☑ a. The output "Exception 2" is because of the exception thrown programmatically

□ b. The output "Exception 2" is because of the Exception thrown by JVM

☑ c. The Exception thrown by generateException() method is an Unchecked Exception

□ d. The output "Exception 1" is because of the Exception thrown programmatically

☑ e. The output "Exception 1" is because of the Exception thrown by JVM

11 Consider the following code snippet:

```
class Thing { }

class GC5 {
public static void main(String args[]) {
Thing h = new Thing();
Thing w = new Thing();

h = new GC5().kill(h, w);
}

public Thing kill(Thing h, Thing w) {
killSecondTime(h);
killSecondTime(w);

return w;
}

public void killSecondTime(Thing killable) {
killable = null;
}
}
```

How many objects are eligible for Garbage Collection?

Answer:

○ a. four

○ b. one

○ c. no objects are eligible

○ d. two

● e. three

12 Which of the following modifiers cannot be used with the abstract modifier in a method declaration?(Choose 3)

Answer:

☑ a. final

☑ b. private

□ c. protected

□ d. public

☑ e. synchronized

13 Consider the following code snippet:

```
interface InterfaceA {
String toString();
}

public class TestInterfaceA {
public static void main(String[] args) {
System.out.println(new InterfaceA() {
public String toString() {
return "test";
}
});
}
}
```

Which of the following option will be the output of the above code snippet?

Answer:

○ a. Runtime Error

○ b. hashCode of the InterfaceA object in Hexa Decimal

● c. test

○ d. Compilation Error

14 Which of the following annotations are defined in java.lang.annotation package? (Choose 2)

Answer:

☑ a. @Target

□ b. @Override

}

☐ c. @Deprecated

☑ d. @Retention

☐ e. @SuppressWarnings

15 Consider the following:

Given that a class Test, declares a member variable named 'Scores' as an array of int as follows:

```
int Scores[];
```

Which of the following code fragments would correctly initialize the member variable Scores as an array of 4 int with the value of zero, if used in the constructor? (Choose 2)

Answer:

☑ a. Scores = new int[4];

☑ b. Scores = new int[4];
for(int i = 0 ; i < 4 ; i++){ Scores[i] = 0 ; }

☐ c. Scores = new Scores[4];

☐ d. Scores = { 0,0,0,0 };

☐ e. int Scores[= {0,0,0,0};

16 Consider the following code:

```
public class Code13 {
public static void main(String... args) {
for(String s:args)
System.out.print(s + ", ");
System.out.println(args.length);
}
}
```

Which of the following will be the output if the above code is attempted to compile and execute?

Answer:
○ a. Compilation Error: var-args cannot be used as arguments for main() method

○ b. variable arguments cannot be used with enhanced for-loop

○ c. Runtime Error: NoSuchMethodError

● d. Program compiles successfully and prints the passed arguments as comma separated values and finally prints the length of the arguments-list

17 Consider the following code snippet:

```
import java.util.*;
class Student {
String studentName;
Student() { }
Student(String studentName) {
this.studentName = studentName;
}

public String toString() {
return this.studentName;
}
}

public class TestCol7 {
public static void main(String args[]){
TreeSet students = new TreeSet();
students.add(new Student("Raju"));
students.add(new Student("Krishna"));
students.add(new Student("Vijay"));

System.out.println(students);
}
```

}

Running the above code, throws Runtime exception.

Which of the following options will make the code run properly?

Answer: ○ a. The Student class should implement Serializable interface

● b. The Student class should implement Comparable interface.

○ c. The Student class should implement Cloneable interface

○ d. The Student class should implement Externalizable interface

○ e. The Student class should implement Comparator interface.

18 Consider the following code snippet:

```
String a = "abc";
```

For the expression a="\""+a+"\""

What will be the output of the above code snippet?

Answer: ○ a. abc

○ b. "a= abc"

○ c. \"abc\"

○ d. ""abc""

● e. "abc"

19 Consider the following code snippet:

```
interface Things {
```

}

```
public static final int SIMPLE = 3;
void work(int t);
}

public class TestThings implements Things {
public static void main(String [] args) {
int x = 5;
new TestThings().work(++x);
}

public void work(int s) {
s += SIMPLE + ++s;
System.out.println("w " + s);
}
}
```

Which of the following will be the output of the above given code snippet?

Answer:

○ a. An exception is thrown at runtime

○ b. w 10

● c. w 16

○ d. w 14

○ e. Compilation fails

20 Consider the following code:

```
public class Code4 {
private int second = first;
private int first = 1000;

public static void main(String args[]) {
System.out.println(new Code4().second);
}
}
```

Which of the following will be the output for the above code?

Answer:

● a. Compiler complains about forward referencing of member variables first and second

○ b. Compiler complains about private memebers is not accessible from main() method

○ c. 1000

○ d. Throws a Runtime error 'Illegal forward reference'

21 Which of the following options are true? (Choose 2)

Answer:

□ a. Error objects are thrown only by JVM

☑ b. Errors can be thrown programmatically

□ c. Errors are handled only by JVM

□ d. Errors cannot be handled programmatically using try-catch blocks.

☑ e. A class can extend Error class and can be used as user-defined Error class

22 From JDK 1.6, which of the following interfaces is also implemented by java.util.TreeMap class?

Answer:

○ a. Deque

○ b. NavigableList

○ c. NavigableSet

● d. NavigableMap

23 Consider the following code:

```
public class ThrowsException {
static void throwMethod() {
  System.out.println("Inside throwMethod.");
    throw new IllegalAccessException("exception");
  }

  public static void main(String args[]) {
  try {
    throwMethod();
    }
    catch (IllegalAccessException e) {
      System.out.println("Caught " + e);
    }
 }
}
```

Which of the following gives the output for the above given code?

Answer: ○ a. Runtime Error

● b. Compilation Error

○ c. Inside showMethod. followed by caught: java.lang.IllegalAccessException: exception

○ d. Compiles successfully, nothing is printed

24 Consider the following scenario:

A CAD application written in Java needs to save and load the drawings prepared using the application. The performance in saving and loading the drawing is the concerned issue.

Which of the following options gives the correct combination of stream classes that can accomplish the above requirement?

Answer:

○ a. FileReader and BufferedReader, Filewriter and BufferedWriter

○ b. Line Input Stream and Buffered Input Stream, Line Output Stream and Buffered Output Stream

● c. File Input Stream and Filter Input Stream, File Output Stream and Filter Output Stream

○ d. File Input Stream and Buffered Input Stream, File Output Stream and Buffered Output Stream

○ e. Input StreamReader and File Input Stream, Output StreamWriter and File Output Stream

25 Which of the following statements are True regarding inner classes? (Choose 3)

Answer:

☑ a. A class defined as a member of a class

□ b. A class defined outside a public class but inside a package

☑ c. Extending an existing class at the time of instatiation

□ d. A class defined inside a package without using class keyword

☑ e. A class defined inside a method

26 Which of the following exhibits the different ways of constructing a String object?(Choose 3)

Answer:

□ a. String s = new String[5];

☑ b. String can be constructed from byte arrays

☑ c. String can be made from character arrays

☑ d. String s = new String("");

□ e. String s = new String(null);

27 Consider the following scenario:

Three threads are running concurrently, fetching the HTML pages from three differnet websites, to show them on three different windows.

Which of the following is true regarding the above scenario?

Answer: ● a. After fetching the HTML pages and displaying it to the corresponding windows, the threads keep running. So that when a link is clicked on those pages, the same thread can fetch the clicked link.

○ b. After fetching the HTML pages and display it to the window, the threads goes to dead state

○ c. All the three thread objects need to be synchronized

○ d. All the three window objects need to be synchronized

28 Which of the following options are true about abstract implementations in Collections?(choose 3)

Answer: ☑ a. It provides static factory class

☑ b. All major interfaces are supported

□ c. They provide hooks for custom implementations

□ d. Map is not supported

☑ e. All major implementations like Hashtable, Vectors are supported

29 Consider the following code segment:

```
public class ExampleTwo {
public static void main(String args[]) {
    int z = 8;
z += --z;
      System.out.println("Value of z : " + z);
   }
}
```

Which of the following gives the valid output for above?

Answer:

○ a. Prints: "Value of z: 16"

○ b. Prints: "Value of z: 14"

○ c. A runtime ArithmeticException will be thrown.

● d. Prints: "Value of z: 15"

30 Consider the following code:

```
1. class ExampleSix {
2. String msg = "Type is ";
3. public void showType(int n) {
4. String tmp;
5. if(n > 0) tmp = "positive";
6. System.out.println(msg + tmp);
7. }
8. }
```

On running the above code it throws the compile-time error- the variable tmp is not initialised.

Which of the following changes to the above code will make the code to compile properly? (Choose 3)

Answer: ☐ a. Declare the variable tmp as static

☐ b. Insert the following line at line 6
else tmp = "not positive";

☑ c. Remove line 4 and insert it at line 2

☑ d. Delcare the variable tmp as StringBuffer type

☑ e. Change line 4 as follows
String tmp = null;

31 Which of the following is the correct syntax for Annotation declaration?

Answer: ○ a. interface author{
@String name(),
String date()
}

● b. @interface author{
String name();
String date();
}

○ c. @interface author{
@String name();
@String date();
}

○ d. interface @author{
String name(),
String date()
}

○ e. interface author{
String name(),

```
String date()
}
```

32 Which of the following are true regarding CallableStatement?(choose 2)

Answer:

☐ a. Used to call a Query and Open ResultSet

☐ b. Used to create a Stored Procedure from a Java application

☑ c. Accepts the SQL datatypes defined in java.sql.Types as the return types from database

☑ d. Used to call a Stored Procedure

☐ e. Accepts only the Java primitive types returned from the database

33 Consider the following code snippet:

```
interface First {
int part();
}

public class Alpha {
class A implements First {
public int part() { return 1; }
}

public int firstpart(First first) { return first.part(); }

public void testFirst() {
class A implements First {
public int part() { return 2; }
}

System.out.println(firstpart(new A()));
}
public static void main(String args[]) {
new Alpha().testFirst();
}
}
```

Which of the following will be the output of the above code snippet?

Answer:

○ a. Compilation fails

● b. 1

○ c. 1 2

○ d. 2

○ e. 2 1

34 Consider the following code snippet:

```
class Vehicle {
String name;

// method definition
}

class TestVehicle {
public static void main(String a[]) {
Vehicle v = new Vehicle();
v.name = "Santro";
System.out.println(v); // Line 1
}
}
```

Which of the following code pieces, when replaced for the comment line (// Code Here), so that (// Line 1) gives the output "Santro"?

Answer: ● a. public String toString() { return name; }

○ b. protected String showString() { return name; }

○ c. public String Vehicle() { return name; }

○ d. protected String toString() { return name; }

○ e. public String showObject() { return name; }

35 Consider the following code snippet:

```
public class TestString8 {
public static void main(String [] args) {
String d = "java ";
d += d;
d += "world of ";
d.concat("programming ");
d.toUpperCase();
System.out.println(d);
}
}
```

What will be the output of the above code snippet?

Answer: ○ a. java java

○ b. java

○ c. JAVA JAVA WORLD OF PROGRAMMING

● d. java java world of

○ e. java java world of programming

36 Consider the following code:

```
public class SwitchCase {
```

```
public static void main(String args[]) {
int x = 10;
switch(x) {
case 10: System.out.println("10");
case 10: System.out.println("10");
case 20: System.out.println("20");
default: System.out.println("30");
}
}
}
```

Which of the following will be the output for the above program?

Answer:

○ a. 10
10
20

○ b. 30

○ c. 10
10

○ d. 10
20

● e. Compilation Error

37 What of the following is the default Scroll type for a ResultSet object?

Answer:

○ a. ResultSet.TYPE_SCROLLABLE

○ b. ResultSet.TYPE_SCROLL_BIDIRECTIONAL

○ c. ResultSet.TYPE_SCROLL_INSENSITIVE

○ d. ResultSet.TYPE_SCROLL_SENSITIVE

● e. ResultSet.TYPE_FORWARD_ONLY

38 Which of the following statements are true?(Choose 2)

Answer:

☐ a. A class is a collection of objects

☑ b. A package is a collection of classes

☐ c. An object is a collection of pacakges

☐ d. A package is a collection of objects

☑ e. An object is a collection of properties and methods

39 Which of the following features are provided by the Iterator, which is not available in for-each construct?(Choose 2)

Answer:

☐ a. to change the order of elements in the collection

☐ b. to insert new elements into the collection while iterating

☑ c. Remove the current element

☑ d. Iterate over multiple collections in parallel

☐ e. to move in backward order

40 Consider the following code:

```
1. public class DartCo {
2. public void getDart(int x) {
3. int cnt = 0;
4. do {
5. if (cnt == 0) {
6. System.out.println("Welcome!");
7. }
8. else {
9. System.out.println(x);
10. x++;
11. }
12. cnt++;
13. } while (cnt < 15);
14. }
15.
16. public static void main(String [] args) {
17. DartCo dc = new DartCo();
18. dc.getDart(25);
19. }
20. }
```

Which of the following gives the value of x at line 9 when the value of cnt equals to 14?

Answer:

○ a. 25

● b. 38

○ c. 10

○ d. 34

○ e. 45

41 Consider the following code snippet:

```
import java.io.*;

public class IOCode6 {
public static void main(String args[]) throws FileNotFoundException,
IOException, ClassNotFoundException {
ObjectOutputStream out = new ObjectOutputStream(new
FileOutputStream("C:/ObjectData"));
out.writeObject(new Serializable() { }); // Line 1
out.close();
ObjectInputStream in = new ObjectInputStream(new
FileInputStream("C:/ObjectData"));
System.out.println(in.readObject()); // Line 2
}
}
```

What will be the output of the above code snippet?

Answer:

○ a. Code does not compile. Shows error 'Unable to create object' at Line 2

○ b. Code does not compile. Shows error 'Cannot create object for Serializable interface' at Line 1

● c. Code compiles but on running throws 'ClassNotFoundException' at Line 1

○ d. Code compiles but on running throws 'ClassNotFoundException' at Line 2

○ e. Code compiles and runs without any error

42 Which of the following algorithms are used for Garbage Collector implementation? (Choose 3)

Answer:

□ a. Sweep and Compact algorithm

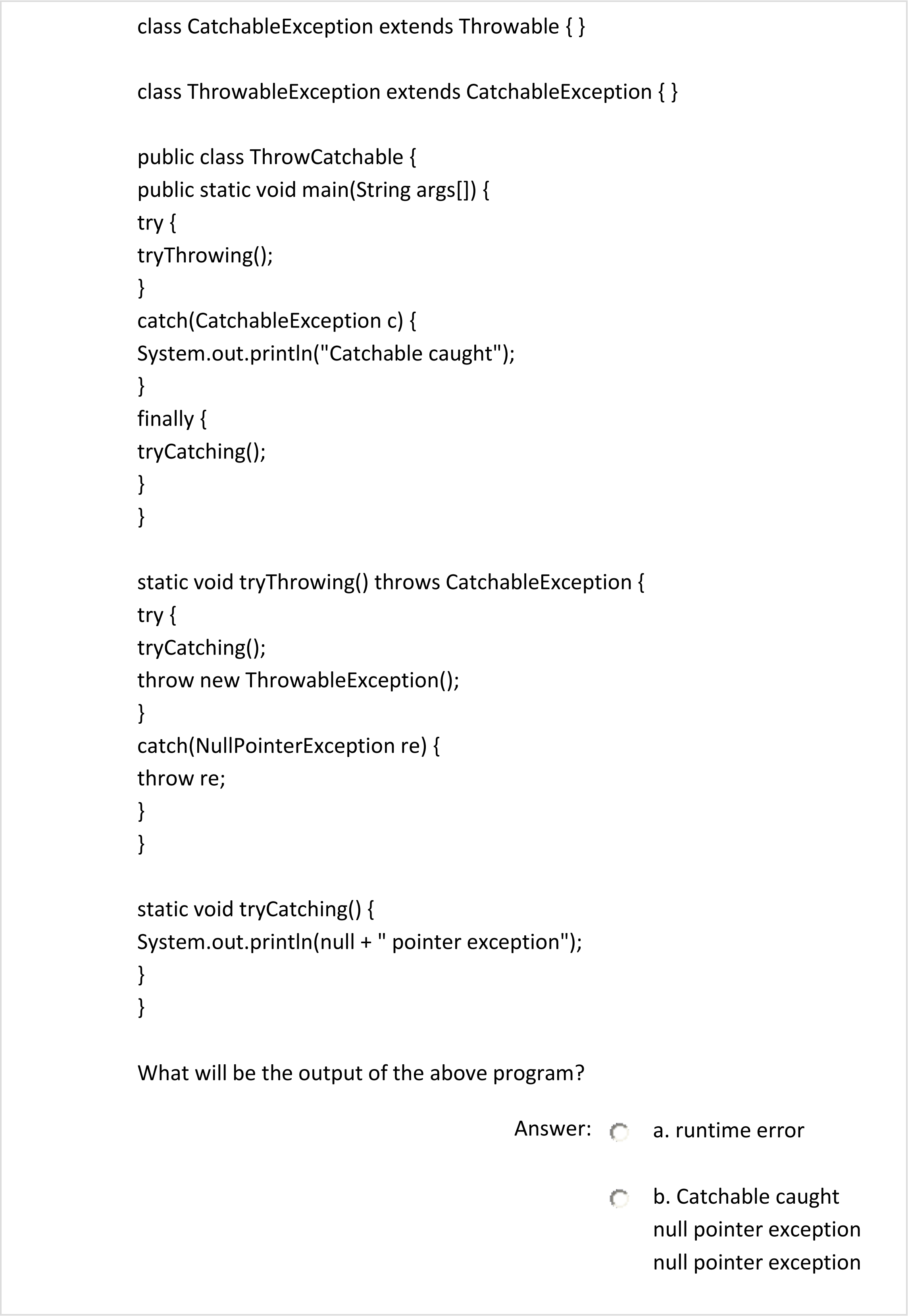
☑ b. Mark and Sweep algorithm

□ c. Deduction algorithm

☑ d. Mark and Compact algorithm

☑ e. Reference Counting algorithm

43 Consider the following program:



```
class CatchableException extends Throwable { }

class ThrowableException extends CatchableException { }

public class ThrowCatchable {
public static void main(String args[]) {
try {
tryThrowing();
}
catch(CatchableException c) {
System.out.println("Catchable caught");
}
finally {
tryCatching();
}
}

static void tryThrowing() throws CatchableException {
try {
tryCatching();
throw new ThrowableException();
}
catch(NullPointerException re) {
throw re;
}
}

static void tryCatching() {
System.out.println(null + " pointer exception");
}
}
```

What will be the output of the above program?

Answer: ○ a. runtime error

○ b. Catchable caught
null pointer exception
null pointer exception

○ c. null pointer exception
null pointer exception
Catchable caught

○ d. compile-time error

● e. null pointer exception
Catchable caught
null pointer exception

44 Which of the following are true about inheritance?(Choose 3)

Answer: □ a. Inheritance is a kind of Encapsulation

☑ b. Inheritance enables adding new features and functionality to an existing class without modifying the existing class

☑ c. In an inheritance hierarchy, a subclass can also act as a super class

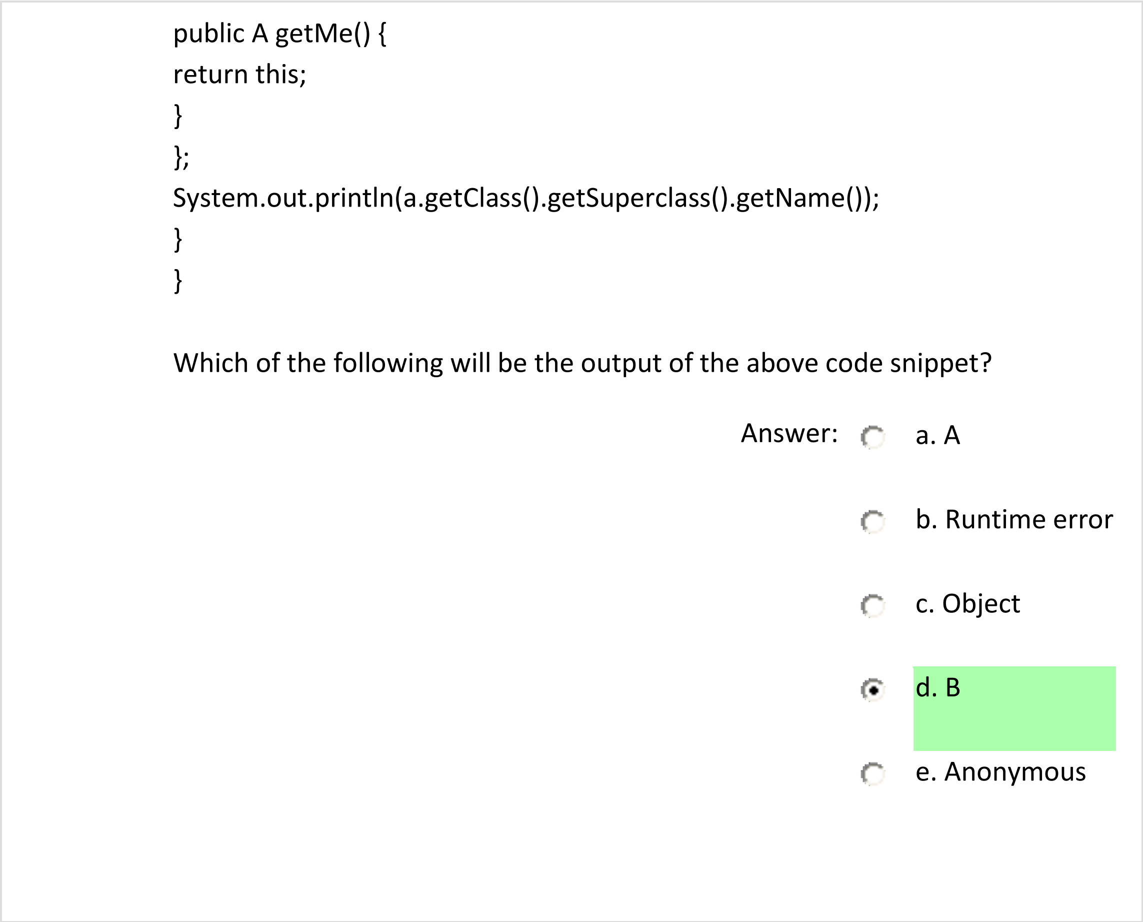
□ d. Inheritance does not allow sharing data and methods among multiple classes

☑ e. In an inheritance hierarchy, a superclass can also act as a sub class

45 Consider the following code:

```
class A {
public A getMe() {
return this;
}
}

class B extends A {
public static void main(String args[]) {
A a = new B() {
```



```
public A getMe() {
return this;
}
};
System.out.println(a.getClass().getSuperclass().getName());
}
}
```

Which of the following will be the output of the above code snippet?

Answer:

○ a. A

○ b. Runtime error

○ c. Object

● d. B

○ e. Anonymous