Java basics

Q1-1. The following numbered list of Java class components is not in any particular order:

1. comments

2. import statement

3. package statement

4. methods

5. class declaration

6. variables

Select the correct order of their occurrence in a Java class (choose all that apply):

a. 1, 3, 2, 5, 6, 4

b. 3, 1, 2, 5, 4, 6

c. 3, 2, 1, 4, 5, 6

d. 3, 2, 1, 5, 6, 4

Q1-2. Given the following definition of the class EJavaGuru,

```
class EJavaGuru {
public static void main(String[] args) {
System.out.println(args[1]+":"+ args[2]+":"+ args[3]);
}
}
```

What is the output of the previous class, if it is executed using the following command?

java EJavaGuru one two three four

a. one:two:three

b. EJavaGuru:one:two

c. java:EJavaGuru:one

d. two:three:four

Q1-3. Which of the following options, when inserted at //INSERT CODE HERE, will print out EJavaGuru?

```
public class EJavaGuru {
```

```
// INSERT CODE HERE
{
System.out.println("EJavaGuru");
}
}
```

Choose all acceptable

a. public void main (String[] args)

b. public void main(String args[])

c. static public void main (String[] array)

d. public static void main (String args)

e. static public main (String args[])

Q1-4. A class Course is defined in a package com.ejavaguru.

```
// INSERT CODE HERE
class MyCourse {
Course c;
}
```

Given that the physical location of the corresponding class file is /mycode/com/ejavaguru/Course.class and execution takes place within the mycode directory, which of the following lines of code, when inserted at // INSERT CODE HERE, will import the Course class into the class MyCourse?

a. import mycode.com.ejavaguru.Course;

b. import com.ejavaguru.Course;

c. import mycode.com.ejavaguru;

d. import com.ejavaguru;

e. import mycode.com.ejavaguru*;

f. import com.ejavaguru*;

Q1-5. Given:

```
int myChar = 97;
```

```
int yourChar = 98;
System.out.print((char)myChar + (char)yourChar);
int age = 20;
System.out.print(" ");
System.out.print((float)age);
```

What is the output?

a. 195 20.0

b. 195 20

c. ab 20.0

d. ab 20

e. Compilation error

f. Runtime exception

Q1-6. Which of the options are correct for the following code?

```
public class Prim { // line 1
public static void main(String[] args) { // line 2
char a = 'a'; // line 3
char b = -10; // line 4
char c = '1'; // line 5
integer d = 1000; // line 6
System.out.println (++a + b++ * c - d); // line 7
} // line 8
} // line 9
```

a. Code at line 4 fails to compile.

b. Code at line 5 fails to compile.

c. Code at line 6 fails to compile.

d. Code at line 7 fails to compile.

Q1-7. Choose all valid identifiers

a. int falsetrue;
b. int javaseminar, javaSeminar;
c. int DATA-COUNT;
d. int DATA_COUNT;
e. int car.count;
f. int %ctr;
g. int ¥to£And$¢;

Q1-8. What would be the output after the execution of the following code:

```
int a = 10;

a = a++ + a + a-- - a-- + ++a;

System.out.println(a);
```

Q1-9. Which three options are correct in terms of Data Types and their syntax:

a. int value = "ToolsQA";
b. int intValue = 67;
c. boolean booleanValue = 67;
d. char charValue = 45;
e. boolean trueValue = "true";
f. boolean falseValue = false;

Q1-10. What would be the output after the execution of the following code:

```
int a = 10;

int b = 20;

boolean b1 = false;

System.out.print(a = b);

System.out.print(a != b);

System.out.print(b1 = true);
```

Q1-11. Given:

```
boolean myBool = false; // line 1

int yourInt = 10; // line 2
```

```
float hisFloat = 19.54f; // line 3
System.out.println(hisFloat = yourInt); // line 4
System.out.println(yourInt > 10); // line 5
System.out.println(myBool = false); // line 6
```

What is the result?

a. true
   true
   false

b. 10.0
   false
   false

c. false
   false
   false

d. Compilation error

Q1-12. What's the output of the following code?

```
class Loop2 {
public static void main(String[] args) {
int i = 10;
do
while (i++ < 15)
i = i + 20;
while (i < 2);
System.out.println(i);
}
}
```

a. 10

b. 30

c. 31

d. 32

Q1-13. What's the output of the following code?

```
int a = 10;
if (a++ > 10) {
System.out.println("true");
}
{
System.out.println("false");
}
System.out.println("ABC");
```

a. true

false

ABC

b. false

ABC

c. true

ABC

d. Compilation error

Q1-14. What's the output of the following code?

```
class EJavaGuru {
public static void main(String args[]) {
int num = 20;
final int num2;
num2 = 20;
```

```
switch (num) {
default: System.out.println("default");
case num2: System.out.println(4);
break;
}
}
}
```

a. default

b. default

4

c. 4

d. Compilation error

Q1-15. What's the output of the following code?

```
class EJavaGuru3 {
public static void main(String args[]) {
byte foo = 120;
switch (foo) {
default: System.out.println("ejavaguru"); break;
case 2: System.out.println("e"); break;
case 120: System.out.println("ejava");
case 121: System.out.println("enum");
case 127: System.out.println("guru"); break;
}
}
}
```

a. ejava

enum

guru

b. ejava

c. ejavaguru

e

d. ejava

enum

guru

ejavaguru

Q1-16. What's the output of the following code?

```
class EJavaGuru5 {
public static void main(String args[]) {
int i = 0;
for (; i < 2; i=i+5) {
if (i < 5) continue;
System.out.println(i);
}
System.out.println(i);
}
}
```

a. Compilation error

b. 0

5

c. 0

5

10

d. 10

e. 0

1

5

f. 5

Q1-17. What's the output of the following code?

```
String[] programmers = {"Paul", "Shreya", "Selvan", "Harry"};
for (String name : programmers) {
if (name.equals("Shreya"))
break;
System.out.println(name);
}
```

Q1-18. What's the output of the following code?

```
String[] programmers = {"Paul", "Shreya", "Selvan", "Harry"};
for (String name : programmers) {
if (name.equals("Shreya")) {
continue;
}
System.out.println(name);
}
```

Q1-19. **What's the output of the following code?**

```
byte i=120;
while (i>0) {
 i++;
 System.out.println(i);
}
```

String, Array

Q2-1. What is the output of the following code?

```
class EJavaGuruString2 {
public static void main(String args[]) {
String ejg = "game".replace('a', 'Z').trim().concat("Aa");
ejg.substring(0, 2);
System.out.println(ejg);
}
}
```

a. gZmeAZ

b. gZmeAa

c. gZm

d. gZ

e. game

Q2-2. What is the output of the following code?

```
class EJavaGuruStringBuilder2 {
public static void main(String args[]) {
StringBuilder sb1 = new StringBuilder("123456");
sb1.subSequence(2, 4);
sb1.deleteCharAt(3);
sb1.reverse();
System.out.println(sb1);
}
}
```

a. 521

b. Runtime exception

c. 65321

d. 65431

Q2-3. What is the output of the following piece of code?

```
int []arr = {1, 2, 3, 4, 5};
System.out.println(arr[5]);
```

a. 4

b. 5

c. ArrayIndexOutOfBoundsException

d. InavlidInputException

Q2-4. What is the output of the following code?

```
import java.util.*; // line 1
class EJavaGuruArrayList { // line 2
public static void main(String args[]) { // line 3
ArrayList<String> ejg = new ArrayList<>(); // line 4
ejg.add("One"); // line 5
ejg.add("Two"); // line 6
System.out.println(ejg.contains(new String("One"))); // line 7
System.out.println(ejg.indexOf("Two")); // line 8
ejg.clear(); // line 9
System.out.println(ejg); // line 10
System.out.println(ejg.get(1)); // line 11
} // line 12
} // line 13
```

Choose all correct:

a. Line 7 prints true.

b. Line 7 prints false.

c. Line 8 prints -1.

d. Line 8 prints 1.

e. Line 9 removes all elements of the list ejg.

f. Line 9 sets ejg to null.

g. Line 10 prints null.

h. Line 10 prints [].

i. Line 10 prints a value similar to ArrayList@16356.

j. Line 11 throws an exception.

k. Line 11 prints null.

Q2-5. Which of these array declarations is not legal? (Choose all that apply)

a. int[][] scores = new int[5][];

b. Object[][][] cubbies = new Object[3][0][5];

c. String beans[] = new beans[6];

d. Date[] dates[] = new Date[2][];

e. int[][] types = new int[];

f. int[][] java = new int[][];

Q2-6. What is the output of the following code?

```
ArrayList<String> numbers = new ArrayList<>();
String one = "One";
String two = new String("Two");
numbers.add(one);
numbers.add(two);
ArrayList<String> copy = numbers;
one.replace("O", "B");
for (String val : numbers)
System.out.print(val + ":");
for (String val : copy)
System.out.print(val + ":");
```

a. One:Two:One:Two:

b. Bne:Two:Bne:Two:

c. One:Two:Bne:Two:

d. Bne:Two:One:Two:

Q2-7. Which of these compile when replacing line 8?(Choose all that apply)

ArrayList l = new ArrayList();

8: // INSERT CODE HERE

a. int length = l.capacity;

b. int length = l.capacity();

c. int length = l.length;

d. int length = l.length();

e. int length = l.size;

f. int length = l.size();

g. None of the above.

Q2-8. Which of the following statements are correct?

a. An ArrayList offers a resizable array, which is easily managed using the methods it provides. You can add and remove elements from an ArrayList.

b. Values stored by an ArrayList can be modified.

c. You can iterate through elements of an ArrayList using a for loop, Iterator, ListIterator.

d. An ArrayList requires you to specify the total number of elements before you can store any elements in it.

e. An ArrayList can store any type of object.

Q2-9. Fill in the blanks so that the list is printed.

class TestClass {

```
public static void main(String[] args) {
ArrayList<String> list = new ArrayList<String>() ;
list.add("Andy");
list.add("Bart");
Iterator iter = list._____;
while (iter._____)
System.out.println(iter._____);
}
}
```

a. iterator() hasNext() next()

b. iterator() next() nextElement()

c. elements() empty() next()

d. iterator() more() get()

Q2-10. What is the output of the following code?

```
MyPerson julia = new MyPerson("Julia");
MyPerson paul = new MyPerson("Paul");
ArrayList<MyPerson> people = new ArrayList<>();
people.add(julia);
people.add(paul);
people.add(paul);
System.out.println(people.contains(julia));
System.out.print(people.indexOf(paul));
System.out.print(people.lastIndexOf(paul));
```

POO

Q3-1. Examine the following code:

```
class Course {
String courseName;
```

```
}
class EJavaGuru {
public static void main(String args[]) {
Course c = new Course();
c.courseName = "Java";
System.out.println(c.courseName);
}
}
```

Which of the following statements will be true if the variable courseName is defined as a private variable?

a. The class EJavaGuru will print Java.

b. The class EJavaGuru will print null.

c. The class EJavaGuru won't compile.

d. The class EJavaGuru will throw an exception at runtime.

Q3-2. Given the following definition of the class Course:

```
package com.ejavaguru.courses;
class Course {
public String courseName;
}
```

what's the output of the following code?

```
package com.ejavaguru;
import com.ejavaguru.courses.Course;
class EJavaGuru {
public static void main(String args[]) {
Course c = new Course();
c.courseName = "Java";
System.out.println(c.courseName);
}
```

}

a. The class EJavaGuru will print Java.

b. The class EJavaGuru will print null.

c. The class EJavaGuru will not compile.

d. The class EJavaGuru will throw an exception at runtime.