ASSESSMENT QUESTIONS

1. Write a program to check if a list of integers contain odd numbers.

ANS

```
import java.util.*;
public class ArrayF {
	public static boolean isOdd(ArrayList<Integer> arr) {
		for(int i:arr) {
			if(i%2==0) {
				return false;
			}
		}
		return true;
	}
	public static void main(String[] args) {
		ArrayList<Integer> arr=new ArrayList<Integer>();
		arr.add(3);
		arr.add(45);
		arr.add(55);
		arr.add(43);

		boolean c=isOdd(arr);
		System.out.println(c);
	}


}
```

Output:

true

---

2. Define default switch case with example

ANS

Default switch case

It specifies some code to run if there is no case match in the switch.

For example:

```
int a=4;
switch(a){
case 1:
   sout("1");
```

case 2:

sout(“2”);

default:

sout(“it is an integer”);

}

Here there is no satisfying case condition so default statement will execute.

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3. Write a program to swap 2 numbers without using the third variable

ANS

```
public class SwapTwoWithoutThirdVar {
	public static void main(String[] args) {
		int a=5,b=8;
		a=a+b;
		b=a-b;
		a=a-b;
		System.out.println("A="+a+"\nB="+b);
	}

}
```

Output:

```
A=8
B=5
```

---

4. Write a Java Program to find Length/Size of Integer ArrayList - Add and remove elements from the list and print the size before each process

ANS

```
import java.util.ArrayList;
import java.util.*;
public class ArrayF {
	public static void main(String[] args) {
		ArrayList<Integer> arr=new ArrayList<Integer>();
		arr.add(3);
		arr.add(45);
		arr.add(55);
		arr.add(43);
		System.out.println("The actual length="+arr.size());
		arr.remove(3);
```

```
                System.out.println("The length after removing the element in an
array:"+arr.size());
                arr.add(6);
                arr.add(44);
                System.out.println("The length after adding the elements in an
array:"+arr.size());

        }


}
```

Output:

```
The actual length=4
The length after removing the element in an array:3
The length after adding the elements in an array:5
```

---

5. **What are the various access specifiers for Java classes?**

ANS

- **Public**
- **Private**
- **Protected**
- **Default**

---

6. **How can an exception be thrown manually by a programmer? Explain with an example**

Ans:

An exception can be manually thrown using throw and throws class.

Example for throw:

```
public class ThrowsDem {
        void numcheck(int n)throws Exception{
                if(n==0) {
                        throw new Exception("0 is not valid");
                }
                else {
                        System.out.println("Valid");
                }
        }
```

```
	public static void main(String[] args) {
		ThrowsDem o=new ThrowsDem();
		try {
			o.numcheck(0);
		}
		catch(Exception e) {
			System.out.println(e);
		}
	}
}
```

Output:
java.lang.Exception: 0 is not valid

---

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

```
public class Test
 {
 public static void main(String[] args)
       {
        int count = 1;
           while (count <= 15)
           {
             System.out.println(count % 2 == 1 ? "***" :
"+++++");
            ++count;
                }       // end while
       }        // end main
 }
```

a. 15 times ***

b. 15 times +++++

c. 8 times *** and 7 times +++++

d. Both will print only once

ANS

c. 8 times *** and 7 times +++++
