

1. What are the various access specifiers for Java classes?

ANS

- Public
 - Private
 - Protected
 - Default
-

2. What is an infinite Loop? How is the infinite loop declared?

ANS

Infinite loop is a loop in which a loop is repeated infinite number of iterations is called infinite loop . In other words There is no end of the loop it will continues its iterations for infinite times.

EXAMPLE::

```
for(i=1;i>0;i++)  
{  
    System.out.println(i);  
}
```

3. What is the difference between continue and break statement? Give an example to explain

ANS

CONTINUE

It will stops the current(or) particular iteration,then it will starts its execution after that continue statement.

Example:

```
for(i=0;i<5;i++)  
{  
    if(i==3){  
        continue;  
    }  
    System.out.println(i);
```

```
}
```

Output:

0

1

2

4

Break:

The break statement that is used to break loop or switch statement . It breaks the current flow of program for some specified condition.

Example:

```
for(i=0;i<=5;i++)
```

```
{
```

```
    if(i==3)
```

```
        break;
```

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

```
}
```

Output:

0

1

2

4.what will be the output of the following piece of code?

```
public class operatorExample {  
    public static void main(String args[]) {  
        int x = 4;  
        system.out.println(x++);  
    }  
}
```

ANS

Output:

Error

Reason:

First letter for system should be capital. "System".

5. Can a class be a super class and a sub-class at the same time? Give an example.

ANS

Yes, a class can be a super class and a sub-class at the same time by using **multilevel inheritance**

Example

```
class A{  
  
}  
class B extends A{  
  
}  
class C extends B{  
  
}
```

Here, Class B be a super class of class C and subclass of class A.

6. In the below example, what will be the output?

```
public class superclass {  
    public void displayResult() {  
        System.out.println("Printing from superclass");  
    }  
}  
  
public class subclass extends superclass {  
    public void displayResult() {  
        System.out.println("Displaying from subClass");  
        super.displayResult();  
    }  
  
    public static void main(String args[]) {  
        subclass obj = new subclass();  
        obj.displayResult();  
    }  
}
```

ANS

Output:

Displaying from subclass

Printing from superclass

7. What are the Four main principles of OOPS Concepts?

- Inheritance
 - Polymorphism
 - Abstraction
 - Encapsulation
-

8. What are the ways to declare an array? Give examples

ANS

There are three ways to declare an array.

Example:

`datatype[] arr=new datatype[];`

`datatype []arr=new datatype[];`

`datatype arr[]=new datatype[];`

9. What is the difference between a local variable and an instance variable?
Explain with an example.

ANS

LOCAL VARIABLE	INSTANCE VARIABLE
It is defined inside the class and inside the method	It is defined inside the class but outside the method only
It doesn't include any access modifiers	It includes access modiefiers such as public ,private etc..
It cannot be instantiated	It can only be instantiated

The scope of the variable is within the method only	The scope of the variable is within the class , In other words it is visible to both methods and outside the methods
Local variables destroyed when existing from the method	It is destroyed when the object is destroyed
Example <pre>public static void main(String[] args) { int a; }</pre>	Example <pre>public class A{ int g; public static void main(String[] args){ } }</pre>

10. Write a Java method to count all vowels in a string. Provide an input and show the output.

eclipse-workspace - sua/src/sua/VowelsCount.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Priv.java TestOverrid... VowelsCount... VowelsCount... X 20

```
1 package sua;
2
3 import java.util.Scanner;
4
5 public class VowelsCount {
6     public static void main(String[] args) {
7         String s;
8         Scanner get=new Scanner(System.in);
9         System.out.println("Enter a sentence to find out a vowels in a sentence");
10        s=get.nextLine();
11        int count=0;
12        int i;
13        for(i=0;i<s.length();i++) {
14            char c=s.charAt(i);
15            if(((c=='a')||(c=='e')||(c=='i')||(c=='o')||(c=='u')) {
16                count=count+1;
17            }
18        }
19        System.out.println("The total no.of vowels present in a sentence:"+count);
20    }
21 }
22 }
```

<terminated> VowelsCount [Java Application] C:\Users\SUGANTHAN\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full...
Enter a sentence to find out a vowels in a sentence
hi,hello,how are you
The total no.of vowels present in a sentence:8

Type here to search 25°C Partly cloudy 1:44 PM 1/27/2023