Assignment 26

Q1] What is difference b/w inheritance in C++ & inheritance in Java ?

C++ : Supports multiple inheritance (a class can inherit from more than one base class)

Java: Supports single inheritance only (multiple Inheritance is achieved using interfaces)

Q2] What are different types of inheritance in java ?

~~Explain concept of this~~

1> Single Inheritance : One class inherits from another
2> Multilevel :- A class inherits from another class, which in turn inherits from a third class
3> Hirarchical : Multiple classes inherit from a single class (base class)

Q3] Explain concept of this keyword in java

It refers to the current instance of the class
Used to differential instance variables from local variables when they have the same name
Can be used to invoke the current class constructor or method.

Q4] Explain the concept of super keyword

Refers to the parent class object

Used to access parent class variables, methods & constructors

Helps in method overriding by calling the superclass version of the method

Q5] How we can call one constructor from another constructor of same class

Using this() keyword to call another constructor within same class

```
public class Demo{
    Demo(){
        this(10);
        Sout("Default Constructor");
    }
    Demo(int x){
        Sout("Parametrized Constructor"+x);
    }
}
```

Q6] How we can call constructor from the constructor of derived class?

use of super() to call base class constructor from the derived class constructor

```
class Base{
    Base(){
        sout ("Base Constructor");
    }
}

class Derived extends Base {
    Derived () {
        super();
        sout ("Derived Constructor");
    }
}
```

Q7] Explain Scenario in which we have to call the base class constructor from the derived class explicitly?

When the base class constructor requires parameters it must be explicitly called using super() in derived class constructor

Ex:- class Base {

```
Base(int x){
        sout("Base Constructor with value:"+x);
    }
}

class Derived extends Base {
        Derived(){
         super(10);
         sout("Derived constructor");
    }
}
```

Q8]

```
public class WordLength {
public static void main(String[] args) {
    if(args.length > 0) {
    String word = args[0];
    sout("Length is:" + word.length());
} else{
    sout("No word entered");
    }
}
}
```

Q9] public class LargestWordLength {

```
psvm {
  int maxLength = 0;
  String largestWord = "";
  for (String word : args) {
    if(word.length() > maxLength) {
      maxLength = word.length();
      largestWord = word;
    }
  }
  SOUT ("Length of largest word is:" + maxLength);
}}
```

Q10] What is use of classpath for java programs

It is a command line option that tells the Java compiler & JVM where to find compiled classes & packages

It is use to specify the location of external libraries & compiled class files.