**CORE JAVA CONCEPT QUESTIONS**

1. **Why java is Platform Independent?**

**Ans.Because of JVM**

1. **State the Difference Between JVM,JDK and JRE?**

**OOPS**

1. **What is OOPS?**

**Ans.OOPS is object oriented programming concept**

**Which includes four pillars**

**Encapsulation**

**Inheritance**

**Polymorphism**

**abstraction**

1. **What is Array?**

**Ans.it stores the same data types in a single entity.**

1. **What are Object Class?And What are methods of Object Class?**

**Ans.**equals()

To string()

Hash code()

Get class()

Finalize()

Clone()

Wait()

Notify()

Notify all()

1. **What is Scanner and how to declare it?**

**Ans.scanner is used to get inputs from the end user**

**Scanner sc = new scanner**

1. **About system.out.print?**

**Ans.System is class which calls out method with print statement.**

1. **What is nested loops?**

**Ans.loops inside the loop is known as nested loops.**

1. **How OOPS are Important?**

**Ans.code re usability**

**Security**

**Enhancement**

**readability**

1. **What is Encapsulation?**

**Ans.encapsulation is the mechanism of binding of variables and methods in the same class.**

1. **What are Encapsulation types and Method Flow?**

**Ans tightly encapsulation and loosely encapsulation**

1. no parameter with no return type
2. Parameter with no return type
3. Parameter with return type
4. No parameter with return type.
5. **What is Inheritance?**

**Ans.inheritance is the process of acquiring the properties of super class by sub class.**

1. **What is Polymorphism and define its types?**

**Ans.polymorphism is many forms from a single entity**

**Compile time polymorphism**

**Run time polymorphism.**

1. **What is overloading?**

**Ans.overloading can be happen in same class and can have same method name and with different parameters and may or may not be same return type.**

1. **What is overriding?**

**Ans.overriding can be happen in different class, same method name,same return type.**

1. **What is Abstraction?**

**Ans.abstraction is the process of hiding unnecessary details from the end user.**

1. **Define IS-A relation and HAS-A relation?**

**Ans. HAS A relation can be defined by creating object**

**IS A relation is created by using inheritance.**

**CONSTRUCTORS**

1. **What is Constructor?**

**Ans.constructor is a method which is called when object is created.**

1. **Explain about This and super keyword?**

**Ans.This keyword:it is used to point to the instance variable**

**Super keyword:it is used to point to the super class variable and method**

1. **How many ways we can create a constructor?**

**Ans.we can create a construtor from object creation**

1. **Types of Constructor?**

**Ans.two types of constructors**

1. default constructor.
2. Parameterized constructor
3. **How to declare a Constructor?**

**Ans.we can declare constructor name as same as class name**

1. **What is copy constructor?**

**Ans.copy constructor is same constructor which is copy from method calling**

1. **How can we access a constructor?**

**Ans.we can access constructor by onject creation.**

**STATIC**

1. **What is Static Keyword?**

**Ans.static is a keyword which is used to not modify and remains constant.**

1. **How to declare static variables and methods?**

**Ans.we can declare static variables and methods by class name.variable name and class name.method name**

1. **What is static block?**
2. **Ans.static block initialize first Whenever class loads into jvm,static block will initialize first.**

**It used for mainly db connections**

**FINAL**

1. **What is Final keyword?**

**Ans.final keyword is used to declare to not modify the variable, method or class**

**It remains constant.**

1. **Can we use Extends keyword in final method?**

**Ans.Yes we can use extends keyword in a final method but we cannot override the method.**

1. **can we override the methods in final methods?**

**Ans.no we cant override methods in final methods.**

**STRINGS**

1. **What is String?**

**Ans.string is a a sequence of character.**

1. **How to declare String?**

**Ans. There are two methods**

**1:Using with new keyword**

**String S=new string(“hello”);**

**2:Using with literals**

**String S=”hello”;**

1. **What is String class?**

**Ans.String class is final**

**String class is immutable**

**String class have methods**

**String class is non synchronized**

1. **Why Strings are immutable?**

**Ans.when ever strings created with a new keyword it stores in a heap memory,in which the string remains constant memory location ,when ever we try to change the existing string it stores in a different location.**

1. **Explain about String class methods?**

**Ans.string class methods such as length,to lower case,to upper case,trim**

1. **Is string class is non-synchronized?**

**Ans. Yes, string class is non synchronized.**

1. **What is string buffer?**

**Ans.string buffer is final**

**String buffer have methods**

**String buffer is mutable**

**String buffer is synchronized**

1. **Is string buffer is mutable?**

**Ans.yes,string buffer is mutable**

1. **What is other name for synchronized?**

**Ans. Synchronized other name is thread safe.**

1. **What is string builder?**

**Ans.string builder is final**

**String builder have methods**

**String builder is mutable**

**String builder is non synchronized.**

1. **What is the version where string builder starts?**

**Ans.the version of the string builder is JDK 1.5**

1. **Explain about string buffer methods?**

**Ans.string buffer methods are**

**Append()**

**Insert()**

**Delete()**

**Replace()**

**Reverse()**

**Length()**

**Capacity()**

1. **Explain about string builder methods?**

**Ans.**

**Append()**

**Insert()**

**Delete()**

**Replace()**

**Reverse()**

1. **Explain the difference between string class, string builder and string buffer?**

String class

1. final class
2. Immutable
3. Non synchronized
4. Have methods

String Builder

1. final class
2. Mutable
3. Synchronized(thread safe)
4. Have methods

String builder

1. final class
2. mutable
3. Non ynchronized
4. Have methods
5. **Where string variables will store?**

**Ans.there are two different places to store strings**

**1.Heap memory:the strings which declare with a new keyword stores in a heap memory , which remains as a constant string memory location.**

**2.Constant memory pool:strings which declare with literals will store in constant pool area.**

1. **Can we make class as immutable?**

**Ans.Yes we can make class as immutable by declaring class as final and variables as private and final.**

1. **State the difference between split and trim in strings?**

**Ans. Both are used to clear the over spaces in a word**

**Trim():which cuts the left side blank space**

**Split():which cuts the both side blank space of a word.**

**INTERFACE**

1. **What is interface?**

**Ans.Interface is a keyword in which method signature is declared.**

1. **How to implement interface in a class?**

**Ans.we can implement interface by using implements keyword.**

1. **Can we create object to interface?**

**Ans.no we cannot create object to the interface, but we can create reference to the interface**

1. **Will java support multiple inheritance through interface?**

**Ans.Yes, java will support multiple inheritance through interface.**

1. **Can one interface extends other interface?**

**Ans.Yes we can extends one interface with other by using extends keyword.**

1. **Can one class implements more than one interface?**

**Ans.Yes one class can implements more than one interface by separating with” ,”**

**ABSTRACT**

1. **What is abstract?**
2. **What methods does abstract class holds?**
3. **What rules should be added if a class is having abstract methods?**