***Core Java***

1. What is Default constructor, Package?

Ans: Default Constructor: If we don’t define any constructor for our class, the compiler will supply a constructor which is called default constructor.

Package: A Package is a collection of classes and interfaces that provides a high-level layer of access protection and name space management. It is a Java mechanism for organizing (related) classes.

1. Write about the Advantage of Package:
2. Packages can contain hidden classes that are used by the package but are

not visible or accessible outside the package.

1. Classes in packages can have fields and methods that are visible by all

classes inside the package, but not outside.

1. Different packages can have classes with the same name. For example,

java.awt.Frame and photo.Frame.

1. Define default value of datatype.

Ans:

|  |  |  |  |
| --- | --- | --- | --- |
| Data Type | Default Value | Data Type | Default Value |
| boolean | false | short | 0 |
| byte | 0 | int | 0 |
| char | ‘\u0000’ | long | 0 |
| float | 0.0f | double | 0.0d |

1. Write 10 keywords of java.

Ans: Abstract, assert, boolean, break, byte, case, catch, char, class, const

1. Define Constructor, constructor overloading

Ans: Constructor: A constructor is a set of instruction designed to initialize an instance . It has no return type and is named as the class name.

Constructor Overloading: When a class has more than one constructor then it is called constructor overloading.

1. What is primitive datatype?
2. Ans: A primitive type is predefined by the language and is named by a reserved keyword.
3. Basic Syntax of Method?

Return\_type mehodname(){ Method Body}

1. Difference between Static and Dynamic View?

Ans: In static binding, the method or variable version that is going to be called is resolved at compile time, while in dynamic binding the compiler could not resolve which version of a method or variable is going to bind.

1. Write some rules of naming variables.

Ans: i) All variable names must begin with a letter of the alphabet, an underscore,

or ( \_ ), or a dollar sign ($). The convention is to always use a letter of the alphabet. The dollar sign and the underscore are discouraged.

ii) After the first initial letter, variable names may also contain letters and the digits 0 to 9. No spaces or special characters are allowed.

1. What is wrapper class?

Ans: Java provides specialized classes corresponding to each of the primitive data types. These are called wrapper classes. They are e.g. Integer, Character, Double etc.

1. Default value and range of primitive data type?

Ans:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Datatype | Default Value | Category | Integer or Float Length | Range |
| 1. boolean | false | Logical | Not Applicable | true, false |
| 1. char | ‘\u0000’ | Textual | 16 bits | 0 to 216-1 |
| 1. byte | 0 | Integral | 8 bits | -27 to 27 -1 |
| 1. short | 0 | Integral | 16 bits | -215 to 215 -1 |
| 1. integer | 0 | Integral | 32 bits | -231 to 231 -1 |
| 1. long | 0L | Integral | 64 bits | -263 to 263 -1 |
| 1. float | 0.0f | Floating point | 32 bits |  |
| 1. double | 0.0d | Floating point | 64 bits |  |
| 1. Any class type | null |  |  |  |

1. How many types of primitive data types?

Ans: There are 8 primitive datatypes. They are: boolean, char, byte, short, integer, long, float, double.

1. Write the basic syntax of class declaration?

Ans: class classname{ }

1. What is class and object?

Ans: Class: A Class is nothing but a blue print for creating different objects which defines the shape and nature of an object. It is a Template for an object that defines a new data type.

Object: An object is an instance of a class. An Object is a module that has both state and behaviour.

1. What is JVM?

Ans: JVM stands for Java Virtual Machine. The JVM is the environment in which Java programs execute. It is a software that is implemented on top of real hardware and operating system.

1. Why is JAVA called platform independent?

Ans: Java is platform independent as JVM compiles source code to its byte code which is then interpreted to object code. Thus any machine having a java compiler can execute that byte code. This does not depend on the hardware or the OS of the system.

1. What is the difference between compile time and runtime error?

Ans:

|  |  |
| --- | --- |
| Compile Time Error | Runtime Error |
| i) When an error is occurred during the compilation then it is called compiled time error. | i) an error appeared during the execution time then the error is called runtime error. |
| ii) It is a syntax based error | ii) It is a logical based error. |

1. Write the java Library in details.

Ans:

|  |  |  |
| --- | --- | --- |
| Library Name | Sample Classes in Library | Purpose |
| Java.lang | Enum,Float,String.Object | Fundamental classes of the java programming language. |
| java.util | ArrayList, Calendar, Date | Utility classes |
| java.io | File, Reader, Writer | Input and output support classes |
| java.math | BigDecimal, BigInteger | Arbitrary precision maths support classes |
| java.text | DateFormat, Collator | Text handling and formation support classes |
| Javax.crypto | Cipher,, KeyGenerator | Cryptography support classes |
| java.net | Socket, Url, InetAddres | Networking support class |
| java.sql | Resultset,Date, Timestamp | Structured query Language support classes. |
| java.swing | JFrame, JPanel | Graphical user interface (GUI) classes |
| Javax.xml.parsers | DocumentBuilder, SaxParser | Extensible Markup Language (XML) support classes |

1. What is the difference java hotspot Client and Hotspot?

Ans:

|  |  |
| --- | --- |
| Client HotSpot JVM | Server HotSpot JVM |
| On platforms typically used for client applications, the JDK software comes with a virtual machine (VM) implementation called the Java Hotspot Client VM (client VM). The client VM is tuned for reducing start-up time and memory footprint. | On all platforms, the JDK software comes with an implementation of the Java virtual machine called the Java Hotspot Server VM (server VM). The server VM is designed for maximum program execution speed. |

1. How does JVM load the application?

Ans: The three main tasks performed by the JVM implementation:

1. Loads code ii) Verifies code iii) Executes code
2. What is UML?

Ans: A UML class diagram defines a set of notations to represent object technology abstractions, such as class, object, and so on.

1. What are the JDK consist of?

Ans: The JDK consist of the following component:

1. The Java programming language.
2. Tools and tools API.
3. Deployment Technologies.
4. Java Platform, Standard Edition(Java SE) Libraries.
5. What is JRETM?

Ans: JRE stands for Java Runtime Environment. The JRETM software is a subset of the JDK software and contains all the components of the JDK that are required to execute of Java technology application.

For MCQ