1.What is java?

language and platform

2.Applications of Java- WebBased Application, Mobile Application, Desktop Applications, Gaming, etc.

3.Features of Java-Simple,Object-Oriented, Portable,Platform Independent,Secure,High performance,Multithreaded etc.

4.What is JVM, jre and JDK?

4.1 How to install Java

https://www.guru99.com/install-java.html

4.2 How to iunstall Eclipse

https://www.guru99.com/install-eclipse-java.html

5. Data types

Primitive data types: The primitive data types include boolean, char, byte, short, int, long, float and double.

Non-primitive data types: The non-primitive data types include Classes, Strings, Interfaces, and Arrays.

6.what is Class, Object and Method?

class has -Modifiers,Class name,Superclass(if any),Interfaces(if any),Body

Method has- Modifiers,static or nothing, return type,arguments and Body

Object has- state/properties and Behaviour

7.Naming Convention in Java.

• Class name Should always start with Uppercase.

• Method should start with lower case.

• Package name should always be lowercase.

• Constant should be in uppercase.

8.Types of Veriables (static keyword)

local veriables

instance veriables

static veriables

9. Operators in Java

Arithmatic operator

+,-,\*,/,%

Relational operator

<,>,<=,>=,==,!=

Unary operator

exp++,exp--,++exp,--exp,~,!

Bitwise Operators

&,^,|

Logical operators

&& , ||

Shift Operators

<<,>>

Assignment Operators

= ,+= ,-= ,\*= ,/= ,%= , <<= ,>>=

Ternery Operators (if-then-else)

? :

10. Decision Making/Control statements in Java

If statements-

if, if-else, if-else-ladder, nested-if

method with parameter

Switch statement- switch fall through, switch, nested switch

Arrays in Java---int a[] = new int[5];

for loops- for loop, nested for loop, Labeled for loop ,for each loop

while loops- while, do-while

java break and continue

10.2 Scope of veriable

11. return types in java

11.2 Scanner in java

12. Constructors in java- default constructor, parameterized constructor

How constructors are different from methods in Java?

• Constructor(s) must have the same name as the class within which it defined while it is not necessary for the method in java.

• Constructor(s) do not return any type while method(s) have the return type or void if does not return any value.

• Constructor is called only once at the time of Object creation while method(s) can be called any numbers of time

13. "this" key word in java

Usage of java this keyword

1. this can be used to refer current class instance variable.

2. this can be used to invoke current class method

3. this() can be used to invoke current class constructor.

4. this can be passed as an argument in the method call.

5. this can be passed as argument in the constructor call.

OOPS

14. Inheritance in Java

Polymorphism

15. Method overloading in java-- compile time polymorphism

16. method Overriding in java-- run time polymorphism

17. Super keywork in java

18. Interface-cannot instantiate

19. Abstract class-cannot instantiate, contructor

20 Abstraction in java

21. Access modifiers private, default, protected and public

22. Enum data type

23. final keyword

24. Encapsulation in java

25. Wrapper classes in java

26. String in java, String buffer-synchronised & String builder

// charAt(), length(),endsWith(" "),startsWith(),replace(),trim(),split(" "),subString(),contains(),equals(),

//concate(),equalsIgnoreCase(String another),toLowerCase(),toUpperCase()

27.Exceptions in java

exception handaling try-catch, try-multiple catch, nested try catch

28. throw and throws in java

29. Collection in java

ArrayList- duplicate , LinkedList-duplicate, Hashset-no duplucate,no incertion order,LinkedhashSet-no duplucate,incertion order,

treeSet-no duplucate, acending order, null value

30.Iterator in collection

31. HashMap- No incertion order