Assg.1

1. Explain about the main method in java?

Java main method is the entry point of any java program.

Public : Access modifier of the main method. It has to be public so that Java runtime can excute this method

Static : this method has to be static so that JVM can load the class into memory & call the main method.

void : Java main method doesnt return anything, thats if it's return type is void

main : this is the name of java main method.

String [ ] args : Accepts a single argument of type string array. its also as java command line arguments.

2. Java control flow statements?

1. Decision making statements.
   If statements
   switch statements.

2. Loop statements.
   Do while loop.
   while loop.
   For loop
   For - each loop.

3. Jump statements.
   break statement
   continue statement.

3. Break	continue.
→ is used to break loop or iteration	continues the loop or iteration
→ used with switch case loop	Not used with switch case
→ Breaks loops & allows coming out from it	Allows iterating in the loop.
→ control is transferred outside the loop	control remains in the same loop
→ keyword used is "break"	keyword used is "continue".

4. What is an Array? How will you declare an Array.

Array is a container to store data of multiple datatypes.
We declare an array in Java as we do other variables, by providing a type and name.
Int [ ] myArray;

5. When will you get Array Index Outof Bounds Exception?

Occurs whenever we are trying to access any item of an array at an index which is not present in the array. (whenever the index may be negative or exceed the size of an array)

6. Define the syntax to create an object for a class.

className Object = new classname();

→ What are the naming conventions to be followed while creating a class, method & variable. Explain with eg's

class: → should be nouns.

→ Interfaces names should also be capitalized.

→ Acronyms & abbre. should be avoided

class Student { }
class Scanner { }
class S = Integers { }

methods: → should be verbs.

→ first letter lowercase

& first letter of each internal word capitalized

public static void main (String[] args){

Variable: → One-character names should be avoided

int [ ] marks;
double double answer.

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7. Variable? How will you declare a variable in Java?

Represents the information or data. Variable is a container to store value of different data types.

Declare a variable:

Will specify the type, leave at least one space, then the name for the variable & end the line with a semicolon.

type VariableName = value;

8. What is string in java? It is a data type?

sequence of Character non primitive datatype.

String is generally considered a datatype & is often implemented as an array data structure of bytes.

9. Diff. ways to create string object in java?

① using String literal.

   String str = "Hello!";

② using new keyword.

   String str1 = new String ("Hello!");

③ using character Array:

   char ch[] = {'H', 'e', 'l', 'o', '!'};
   String str1 = new String(ch);

10. Equals and ==?

==	equals()
checks whether two strings are pointing to same location or not	checks whether the strings are same or not

11. Why is Java a platform independent language?

Because it does not depend on any type of platform. In Java, programs are compiled into byte and that byte code is platform-independent.

12.

Instance variable	Local variable
→ A variable that is bounded to the object itself	→ A variable that is typically used in a method or constructor
→ can have default values	→ Do not have default values.

13. Can we overload main method in Java?

Yes, but JVM only calls the original main method. It will never call our overloaded main method.

14. Access modifiers available in Java?
→ private
→ defaut or package private
→ protected
→ public

15. How will you call a non static method from main method in Java. put your main code in the class and then from main create a new object of your newly created class.

16. Why string is immutable on Java?
The string is immutable in Java be caue of the Security, Synchronization & concurrency, coaching & class loadity

17. What is the difference between concat() and concatenation operator "+"
concat() method takes only a argument of string and concatenates it with other string.
+ operator takes any number of arguments and concatenates all the strings

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18. What is inheritance?
inheritance is one of the key features of OOP that allows us to create a new class from an existing class.

19. Types of inheritance?
Single
multiple
multilevel

20. Advantages of inheritance?
→ code reusability.
→ Easy maintenance
→ Effective memory management

21. Inheritance example in selenium
   chromedriver
   ChromiumDriver
   Remote WebDriver.

22. method Overriding.
   → occurs in two classes and 1·l
   → used to provide the specific
   implementation of the method that
   is already provided by the
   super class.
   → eg: run time poly morphysm.

23. method Overloading.
               is used to increase
   the readability of the program.
            of compile time polymorphism.

24. Java constructor   Java method.

   A constructor is used   A method is used to
   to initialize the state   expose the
   of an object.   behaviour of the
                          object.

   A constructor must not   A method must
   have a return type   have a return type.

   the constructor is invoked   the method is
   implicitly   invoked explicitly

   It provides a default   the method is
   constructor if you   not provided by
   dont have any construc   the compiler in
   in a class.   any class.

The constructor name must be same as the class name

The method name may or may not be same as class name.

→ this Keyword represent the current class's instance.

constructor chainning: → using this(); keyword we call from one class to another class. this(); keyword is initialized in the start of the paramatrized constructor to
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25. OOPS stands for?
Object oriented programming system. It is a method used for designing a program using classes and objects.

26. What is polymorphism & its types?
Polymorphism in Java is the ability of an object to take many forms.

1. Method overloading: This is an example of compile time (or static) polymorphism

2. Method overriding: This is an example of runtime (or dynamic) polymorphism.

27. What is interface & explain in selenium, Java?
Interface is a design, it has no implementation only.
public & default modifiers are the only two modifiers that can be used in the interface.
Eg: ChromeDriver = new chromeDriver();

28. What is abstract class & eg?

A class which is declared with the abstract keyword is known as an abstract class in Java.

29. Multiple Inheritance — Multilevel inheritance.

Multiple inheritance is an inheritance type where a class inherits from more than one base class.

Multilevel inheritance. It is an inheritance type the inherit from a derived class, making that derived class a base class for a new class.

30. Is multiple inheritance possible in Java

The java programming language supports multiple inheritance of type, where curria is the ability of a class to implement more than one interface.

31. What is the keyword for using inheritance?

To inherit from a class, use the extends keywords.

32. What is the keyword to connect Interface & class?

To access the interface, the interface must be 'implemented' by another class with the implements keyword.

33.

CLASS	INTERFACE.
A class describes the attributes and behaviours of an object.	An interface contains behaviour that a class implements.
A class may contain abstract methods, concrete methods.	An Interface contains only abstract methods.

34. Selenium, its components?

Selenium is a free automated testing framework used to validate web applications across different browsers and platforms.

Components:-
1. Selenium IDE.
2. Selenium RC
3. WebDriver
4. Selenium Grid.

35. How does selenium communicate with the web browsers?

To communicate with the web browsers, Selenium WebDriver uses JSON.

36. What are the locators to find an element using selenium?

ID, Name, ClassName, TagName, LinkText, PartialLinkText, CSS Selector, XPath

37. Why ID is preferable than x-path?

ID is considered as unique key so there cannot be more than 1 element for same ID.

38. How to select dropdown?

1. Import the package.
2. Instantiate the dropdown box as an object, select in selenium WebDriver.

39.

Absolute path	Relative path
→ Specifies the location related to the from the root directory	related to the location from current directory
→ Begins with a delimiting character	Never begins with a delimiting char
→ content from other domain	content from same down
→ uses absolute URL	uses relative URL

40. System setProperty Web DriverManager
managed the Automated the
initialization of the chrome browser setup in
driver in the first step. the Selenium
code.

41. Syntax for following & preceding.

Following:

→ Elder sibling xpath / following-sibling::
young tagname.

→ Elder cousin xpath) following:: your
tagname

Preceding:

→ young sibling xpath /preceding-sibling
:: Elder tag Name

→ younger cousin xpath) preceding::
elder tagname.

42. How do get an attribute value
using Selenium webDriver?
The get Attribute() method helps to
get the value of any attribute of
a web elemt.