1) What is Selenium? What are the different Selenium components? Explain about Selenium Web driver.

Selenium is an automation testing tool used to test web-based applications. Selenium is not a single tool but a suite of tools. There are four components of Selenium – Selenium IDE, RC, Web Driver, and Grid. Selenium Web Driver is a browser automation framework that accepts commands and sends them to a browser. It is implemented through a browser-specific driver. It controls the browser by directly communicating with it. Selenium Web Driver supports Java, C#, PHP, Python, Perl, Ruby.

2) How does Selenium communicate with the Web browsers?

To communicate between server and client (browser), selenium web driver uses JSON. JSON Wire Protocol is a REST API that transfers the information between HTTP servers. Each Browser Driver has its own HTTP server.

3) What are the locators available to find an element using Selenium?

* Id
* Class name
* Tag Name
* Link Text
* Class Partial
* Link text
* Xpath
* CSS Selector

4. Why ID is preferable than X-Path?

ID is considered as unique key so there cannot be more than 1 elements for same ID while Xpath is created using relative path/position of elements, so there can be cases when we can get two or more elements for same Xpath.

5. How to select value in dropdown?

* Select the dropdown using find element
* Create a object for selected class
* Select by index
* Select by value select by visible Text
* getoptions()
* getfirstselectoption()
* getallselectoption()
* deselect by value( )
* deselect by index( )
* deselect by visible text( )
* deselect All( )

6) What is the difference between Absolute Path and Relative Path?

An absolute path is a complete path from start of actual file system from / directory. Relative path is defined as the path related to the present working directly

7) How to verify if the given check box is checked or not (it is not taught but you can explore) Try here: http://leafground.com/pages/checkbox.html

8) Difference between System. set Property and Web Driver Manager

 The property Name represents the name of the browser-specific driver, and the value points to the path of that browser driver. Example: System.

Web Driver Manager automates the browser setup in the Selenium code.

9) Write the syntax for preceding and following x-paths.

Following

Xpath =/ / \*[@attribute='value']/ / following::input

Preceding

Xpath =/ / \*[@attribute='value']/ / preceding::input

10) How to get an attribute value using Selenium Web Driver?

The get Attribute () method of the Element interface returns the value of a specified attribute on the element. If the given attribute does not exist, the value returned will either be null or "" (the empty string).