① What is Selenium? What are the different Selenium Components? Explain about Selenium Webdrivers.

Selenium :

It is an open source tool that is used for automating the tests out on web browsers.

Components of Selenium :

* Selenium IDE
* Selenium RC
* Selenium Web driver
* Selenium Grid

Selenium Web driver

It is a Collection of open source API's which are used to automate the testing of a web application. It supports browser like Chrome, Safari, Firefox.

② How does Selenium Communicate with the web browsers?

To Communicate between servers and client (browser) Selenium web driver uses JSON. JSON wire protocol is a REST API that transfers the information between HTTP servers. Each browser drivers has its own HTTP server.

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

* Id locator (By.id)
* Name locator (By.name)
* link Test & Partial linktest (By.linktest)
* Xpath (By.xpath)
* Classname (By.classname)
* tagname (By.tagname)
* css selectors

4.) Why ID is preferable than Xpath?

* Because ID's is the unique identifies for the element and It does not change. This make id's a very explicit and reliable way to locate elements on the page.
* Also all browsers also have highly efficient methods to get an object on the page using their ids. This makes id locators the fastest type of locators in selenium.

5.) How to Verify if the given checkbox is checked or not?

We can use isSelected() method over the checkbox Element. It returns a boolean value for the true if it is checked and false, if its is unchecked.

6.) What is the difference between absolute path and relative path?

An absolute path contains the full path from the root of the file system down to the file or directly it points to. A relative path contains the path to the file or directory relative to some other path.

10.) How to get an attribute value using Selenium Webdriver?

The get Attribute?() method helps to get the value of any attribute of a web element, which is returned as a String. If an attribute has a boolean value, the method returns either True or null. Also if there is no attribute, the method will return null.

8.) Syntax for proceeding and Following ~~proceeding~~ xpaths:

Following : // p[@id='Levi'] / following :: button

Preceding : // p[@id='Sam Sun'] / Succeeding :: button

9.)   System . set property:
                It is used to set the path of the drives for the respective browser.
      Web drives Manager :
                We set the corresponding executable path explicitly, after that we can use the driver instance.