**MODULE - 4 (Automation and selenium ide)**

**1) Which components have you used in Load Runner?**

* Load Generator - generates the load against the application by following scripts.
* VuGen (Virtual User Generator) - for generating and editing scripts.
* Controller - controls, launches and sequences instances of Load Generator - specifying which script to use, for how long etc

**2)** **How can you set the number of Vusers in Load Runner?**

**-** You can set the number of Vusers in the controller section while creating your scenarios. Many other advanced options like ramp-up, ramp-down of Vusers are also available in the Controller section.

**3) What is Correlation?**

**-** Correlation is the capturing of dynamic values passed from the server to the client and back. We save this captured value into a LoadRunner parameter, and then use this parameter in the script in place of the original value.

**4) What is the process for developing a Vuser Script?**

* Step 1- Record the Vuser Script.
* Step 2- Playback and improve the recorded vuser script.
* Step 3- Define and test the different run-time parameters.
* Step 4- Use the script in a LoadRunner scenario.

**5) How Load Runner interacts with the application**

- LoadRunner simulates user activity by generating messages between application components or by simulating interactions with the user interface such as key presses or mouse movements. The messages and interactions to be generated are stored in scripts.

**6) How many VUsers are required for load testing?**

-  virtual user calculation  
  
For example, if you run a load test with 10,000 virtual users, each making a request every 20 seconds (3 requests per minute), then you're making 30,000 requests per minute, which equals 500 requests per second.

**7) What is the relationship between Response Time and Throughput?**

- The response time for an average transaction tends to decrease as you increase overall throughput.

**8) What is the difference between hits/second and requests/second?**

- Hits per second means the number of hits the server receives in one second from the vuser. Request per second is the number of request the vuser will request from the server.

**9) What is Automation Testing?**

- Automation testing is the process of testing software and other tech products to ensure it meets strict requirements. Essentially, it’s a test to double-check that the equipment or software does exactly what it was designed to do. It tests for bugs, defects, and any other issues that can arise with product development.

**10) Which Are The Browsers Supported By Selenium Ide?**

**- firefox and google chrome**

**11) What are the benefits of Automation Testing?**

* Automated Testing Saves Time and Money.
* Vastly Increases Your Test Coverage.
* Testing Improves Accuracy.
* Automation Does What Manual Testing Cannot.
* Automated Testing Helps Developers and Testers.
* QA and Dev Team Morale Improves.
* Ease of Test Creation.
* Automate in Your CI/CD.

**12) What are the advantages of Selenium?**

* Provides you the capability of automatically recording your test cases based upon the interactions with the browser
* Gives developers greater flexibility in executing the test cases. Either the test developer can run the entire test suite consisting of multiple test cases or execute a single test case
* Operates on the basis of the rich set of Selene commands, which helps the IDE understand what needs to be done
* Allows the test developers to set breakpoints for the purpose of debugging particular test cases
* Test cases can be re-used using the run command.

**13) Why testers should opt for Selenium and not QTP?**

**-** Selenium, however, supports a wide range of programming languages. QTP/UFT test scripts run only on the Windows environment. They cannot be run across all browsers. On the other hand, Selenium is OS independent and allows test scripts to run across all browsers.