**Module- 4(Automation Core Testing)**

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

* Components of load runner are :
  + Vuser Generator
  + Controller
  + Analyzer
  + Load Generator

1. **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.

1. **What is Correlation?**

* Correlation is used to obtain data which is unique for each run of your test script (ex: session ids). While recording, these dynamic values are hard-coded in your script causing the script to fail during playback. Correlation is a technique where dynamic values are not hard-coded in your script but are extracted at run-time to avoid failure.

1. **What is the process for developing a vuser script?**

* There are four steps for developing a vuser script.
  + Record the Vuser Script.
  + Playback / Enhance the recorded vuser script.
  + Define the various run-time settings & check
  + Incorporate the script in a LoadRunner scenario

1. **How load runner interacts with the application?**

* Protocol is used in Load Runner to interact with the application.

1. **How many Vusers are required for load testing?**

* The number of VUsers required depends on your system under test, network configurations, hardware settings, memory, operating system, software applications objective of a performance test. There can not be any generic value for Vuser.

1. **What is the relationship between response time and throughput?**

* The Throughput shows the amount of data in bytes that the Vusers received from the server in a second. When It is compared with transaction response time, throughput and response time get decreased.
* The peak throughput and highest response time would occur approximately at the same time.

1. **What is the difference between hits/second and requests/second?**

* Hits per second mean 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.

1. **What is automation testing?**

* **Automation Testing** is a software testing technique that performs using special automated testing software tools to execute a test case suite. On the contrary, Manual Testing is performed by a human sitting in front of a computer carefully executing the test steps.

1. **Which are the browsers supported by selenium IDE?**

* Browsers supported by selenium IDE are
  + Google Chrome
  + Internet Explorer
  + Safari
  + Opera
  + Firefox

1. **What are the benefits of automation testing?**

* Benefits of automation testing are
  + 70% faster than the manual testing
  + Wider test coverage of application features
  + Reliable in results
  + Ensure Consistency
  + Saves Time and Cost
  + Improves accuracy
  + Human Intervention is not required while execution
  + Increases Efficiency
  + Better speed in executing tests
  + Re-usable test scripts
  + Test Frequently and thoroughly
  + More cycle of execution can be achieved through automation
  + Early time to market

1. **What are the advantages of selenium?**

* Selenium is pure open source, freeware and portable tool.
* Selenium supports variety of languages that include Java, Perl, Python, C#, Ruby, Groovy, Java Script, and VB Script. etc.
* Selenium supports many operating systems like Windows, Macintosh, Linux, Unix etc.
* Selenium supports many browsers like Internet explorer, Chrome, Firefox, Opera, Safari etc.
* Selenium can be integrated with ANT or Maven kind of framework for source code compilation.
* Selenium can be integrated with TestNG testing framework for testing our applications and generating reports.
* Selenium can be integrated with other open source tools for supporting other features.
* Selenium can be used for Android, IPhone, Blackberry etc. based application testing.
* Selenium supports very less CPU and RAM consumption for script execution.

1. **Why testers should opt for selenium and not QTP?**

* Selenium is an open source whereas QTP is a commercial tool
* Selenium is used specially for testing web based applications while QTP can be used for testing client server application also
* Selenium supports Firefox, IE, Opera, Safari on operating systems like Windows, Mac, Linux etc. however QTP is limited to Internet Explorer on Windows.
* Selenium supports many programming languages like Ruby, Perl, Python whereas QTP supports only VB script.