**Software testing assignment**

**Module 4 : Automation Core Testing**

Q-1 Which components have you used in Load Runner?

Ans :

* Virtual User Generator (VuGen) :
* Controller
* Analysis

Q-2 How can you set the number of Vusers in Load Runner?

Ans :

Basic Schedule :

In the Performance Test Designer window, in the Groups grid, select a group, and in the Vusers column, enter the number of Vusers to allocate to that group.

Q-3 What is Correlation?

Ans : ‘Correlation’ term refers to the handling of dynamic values coming from the server. These dynamic values are the unique values that are generated by the server for security purposes like the session ID, authorization token etc. In some cases, dynamic values also refer to the web content like values in a drop-down list, calendar date, item ID, product ID, order number etc. Through correlation, you can capture these dynamic values and pass them in the subsequent requests. This is the basic concept of ‘Correlation’ in LoadRunner.

Q-4 What is the process for developing a Vuser Script?

Ans : The first step in developing a new Vuser script is to create a blank script.

The contents and structure of the blank Vuser script vary slightly based on the protocol of the script. Therefore, before you create a blank Vuser script, you must know the protocol to use for the script. After you create a blank Vuser script, you are ready to perform the next step in the script creation workflow - recording user actions into the script.

Q-5 How Load Runner interacts with the application?

Ans : 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.

Q-6 How many VUsers are required for load testing?

Ans: Data is fundamental to a successful load test. The database of the system under test needs to have enough data in it to ensure queries executed during the test force the database query optimizer to use the same explain plan as it would in production.

Q-7 What isthe relationship between Response Time and Throughput?

Ans: Response time and throughput are related. The response time for an average transaction tends to decrease as you increase overall throughput.

However, you can decrease the response time for a specific query, at the expense of overall throughput, by allocating a disproportionate amount of resources to that query. Conversely, you can maintain overall throughput by restricting the resources that the database allocates to a large query.

The trade-off between throughput and response time becomes evident when you try to balance the ongoing need for high transaction throughput with an immediate need to perform a large decision-support query. The more resources that you apply to the query, the fewer you have available to process transactions, and the larger the impact your query can have on transaction throughput. Conversely, the fewer resources you allow the query, the longer the query takes.