**Questions & Answers**

**1) Explain about your Company’s Automation Framework?**

**2) What are the important factors in test tool selection?**

a. Technical factors:  
i. Nature of the AUT (Application Under Test)  
ii. Tool Features (Facilities available)  
iii. Availability of Skilled professionals  
iv. Organizations experience  
v. Technical support from vendor  
b. Business factors:   
i. Budget  
ii. Vendor’s Reputation  
iii. Client’s Interest

3**) What test cases can be automated?**

Test cases that we want to execute on number of versions of the software  
Ex: Regression test cases  
Test cases that we want to execute with multiple sets of data  
Ex: Data driven test cases  
Test cases having complex functionality

**4) What test cases cannot be automated?**

o Dynamically changing functionality  
o Test cases that require more Human interaction   
o CUI (command user interface) based test cases

**5) Explain about the Testing process in QTP?**

Planning:   
o Analyzing the Application  
o Automation Framework Implementation  
o Selecting/Generating Test cases for Automation  
o Collecting Test Data  
o Configuring Tool Settings  
Generating the basic tests   
Using Object Repository method or using Descriptive Programming, we can generate Tests  
Enhancing Tests  
With respect to our project requirements, we have to enhance our tests. For enhancing tests QTP is providing various features like:  
o Inserting Transaction points  
o Synchronization  
o Parameterization  
o Inserting VB script Flow Control statements  
o Adding comments  
o Calling Functions/ calling Actions  
o Using Environment variables  
o Entering Regular Expressions  
o Inserting Checkpoints   
o Inserting Output values  
Etc..  
Note: For any Test all enhancement methods not required.  
  
Debugging Tests (if required)  
It is optional; basically scripting languages are Light weight languages, no need to compile them separately. During execution Scripts can be compiled and Run.   
If we have any doubts about some scripts, then we can execute them step by step with the support of VBScript Debug commands and Break points  
  
Running tests  
Generally, many companies are using Framework feature for Running Tests.  
QTP Supports Individual Test execution, Batch execution, Tests execution through AOM Scripting, and Scheduled execution with the support of Windows Operating system.  
  
Analyzing Results  
It is not the Responsibility of QTP; Test engineer has to do this manually.  
QTP is providing Result window in XML format.  
QTP is providing Result deletion tool also.  
QTP is providing Test results exporting facility. It supports HTML, Word document and PDF (portable document format) formats.  
  
Reporting defects  
Reporting defects also not a QTP responsibility that we have to do manually after analyzing the results, but if we are using Quality Center, from QTP result window we can send defects directly.

**6) Explain about the object identification configuration process in QuickTest?**

**7) What types of License available for QTP?**

a) Seat License or Node locked:   
Fixed for one System (Machine), we can use from that System only  
b) Concurrent License or Floating License:   
This License, we can use from different Systems but one at a time

**8) How to generate Basic scripts/tests from Manual Test cases in QTP?**

For generating basic tests QTP is providing 1) Object repository 2) Descriptive Programming  
  
a) Object repository:  
Recording (Local Repository)  
And/or Shared object Repository   
  
b) Descriptive programming or Programmatic Descriptions

**9) What is the difference between Local and Shared object Repository?**

Local: QTP creates a Local Repository for every Action during Recording automatically  
It can’t be shared among other tests  
It’s a QTP internal file  
Users no need to maintain separately (auto save)  
Extension is .mtr – (mercury test repository/module test repository)  
  
Shared: User creates shared repository by adding objects  
That can be shared among number of tests  
User has to maintain shared object repository files  
Extension is .tsr – (test shared repository)

**10) How to maintain objects in Object Repository?**

Same as above 9th

**11) What is Synchronization?**

It is a process of matching the speeds of both QTP and AUT in order to get proper execution and results  
  
**12) How to synchronize QTP and AUT?**  
  
For synchronizing QTP and AUT, QTP is providing below methods (features)  
o Wait statements  
o Synchronizations points  
o Increasing tool default synchronization time (Increase timeout)  
o Sync method (Only for web)  
o Using Exit property also we can use (GUI and web) – Limited usage

**13) How to parametrize tests?**

It is a process of passing parameters for replacing constant values. In QTP several methods are available  
a. Through Looping : Here some limitations are there :   
We can use Looping for sequential numbers and logical numbers only, if it is a string we can’t use.  
b. Through Data table   
c. Fetching test data directly from external files (excel, flat files)  
d. Fetching test data directly from databases  
e. Fetching data from AUT objects (front-end objects)

**14) How to Generate Non-recordable steps?**

Using Step Generator, we can generate non recordable steps  
  
1**5) What are the benefits of Step Generator?**  
  
It’s a library of functions and utility objects. Through this we can generate recordable and non recordable steps, utility statements and built in functions.

**16) How to count Links in a web page without using page checkpoint?**

Using Description object and Childobjects method

**17) How to count all available objects in a dialog box /a window/a web page?**

Using Childobjects method

**18) What are the major disadvantages in record tests?**

Recording disadvantages:   
o It occupies a lot of memory space due to this, QTP performance will be reduced  
o Modifications are very difficult   
o User may not have command on the script, if any modifications are there user may not understand properly  
o Recorded scripts are QTP internal files, they may corrupt.

**19) What are the disadvantages in using of checkpoints?**

o They are QTP internal files we can’t use in external functions  
o As they are QTP internal files they may corrupt  
o As it is ready made feature, that has limited usage

**20) In QuickTest Pro can we insert Checkpoints programmatically? How?**

Yes. We can insert checkpoints programmatically with the help of GetRoProperty method

**21) What are the differences between Actions and Functions and which are better?**

**Actions:**   
o It’s a QTP feature and Local feature (not a global feature)  
o We can use check points in Actions  
o As it is QTP feature it may corrupt  
o Actions are slow execution  
  
**Functions:**   
o It’s a VB script feature and global concept  
o We can’t use checkpoints in functions, instead of checkpoints we can use validation points (Loops and Conditional statements)  
o It doesn’t corrupt  
o Functions are faster in execution than Actions

**22) How create methods in QTP?**

By associating procedures to test objects.

**23) How to enhance tests with windows API functions?**

With the help of WSH (It is a Windows administration tool), we can use Windows API functions for enhancing Tests.

**24) What are the major differences between functions and actions in QTP? What advantages there in functions than actions?**

Read 21st question and answer.

**25) What is Automation Object Model?**

It’s a process of Automating the Quick test operations. To do this we can use java script, VC++ and .NET Apart from VBscript.  
26) What is Windows Script Host?  
WSH is a windows administration tool, it provides hosting environment for running VBscript, Jscript scripts.

**27) What is exception handling?**

Handling expected and unexpected errors during execution  
  
2**8) What is the difference between constants and variables in VB Script?**  
  
We use constants for replacing literal values and constants never change.   
We use variables for storing values that returned by the program, functions, etc.  
Variable values may vary through out the script.

**29) How test engineer identifies when programmatic descriptions are useful?**

o If application is not ready (using screenshots and documents we can prepare descriptive programming)  
o If we want to make our scripts global  
o If lengthy tests are there and that we want to execute fast

**30) How to retrieve data from application objects?**

Using loop statements and GetROProperty method

**31) How to build scripts that access data from external resources?**

We can fetch test data directly from external files and databases by creating automation objects  
Ex:ADODB, Filesystemobject

**32) What is object spy used for?**

It is a feature of QTP, used for getting the object’s information (all properties and values) .It is available in QTP tool main window, in Local repository and in object Repository Manager

**33) What is the purpose of input parameters?**

For Passing values

**34) What is an Action? How many types of Actions are there in QTP?**

Set of statements to perform a task or tasks is called an Action.  
Three types of actions are there.   
1. non reusable actions  
2. reusable actions  
3. External actions  
In QTP 9.2 default action is: Non reusable  
In QTP 10.0 default action is: Reusable  
Example:  
Let there are two tests : test:1 and test:2  
In test:1 let there are two actions  
a.login (reusable)and b. insert order(nonreusable)  
in test:2 let there are two actions  
a.open order(reusable) and b. fax order(non reusable)  
If we call login action from test:1 in test :2 then login action is called External action.  
In test :2 login is reusable but calling point of view its external action

**35) What is a virtual object? How to configure virtual objects?**

Whenever QTP is not recognizing an area or user defined object as an object that we can make as a virtual object.   
For making virtual objects QTP is providing a feature called Virtual object manager. Through this we can configure virtual objects.

**36) What are dynamic objects?**

The object, which properties change dynamically (frequently). We can use Regular Expressions to handle dynamic objects.

**37) What is the purpose of description object?**

The purpose of description object is to store multiple properties values of a test object.

**38) What is the advantage of associating a procedure to a test object?**

By associating a procedure to a test object we can use this as a method on that test object.

**39) How to create a Library File?**

Open an Editor (Ex: Notepad),  
Generate some script statements and save with .vbs extension.  
In a library file we can put more than one function also

**40) What are the disadvantages of using actions?**

o Action is a QTP tool feature that occupies QTP’s more memory space.   
o It may be corrupted.   
o It is not a global feature. Test engineer may not have the control on action.

**41) What are the extensions of QTP files?**

o QTP Test / Test Script(.mts){.mts=module/mercury test script}  
o Local Repository file (.mtr){.mtr=module/mercury test repository}  
o Shared repository files(.tsr){Test shared repository}  
o Library files (.vbs)  
o Environmental files (.xml)  
o Test batch file (.mtb){module test batch}  
o QTP result file (xml) optional: pdf, doc, xml-for reporting  
o Recovery scenario file (.qrs){quick recovery scenario}

**42) How to handle dynamic objects?**

By using Regular expressions we can handle dynamic objects.

**43) What are the differences between checkpoint and output value?**

Both are same in insertion but different in purpose.  
Checkpoint is a verification point, it takes expected results from the user and compare with the actual results during execution and provides test results.  
Output value captures object properties values, database content and xml elements values and stores in run time data table.  
Checkpoints compare actual results with expected results, output values captures values and stores.

**44) How to handle Repositories dynamically?**

With Repositoriescollection utility object, we can handle shared object repositories dynamically.  
Note: on Repositoriescollection object, we can use Add, Find, Remove, and Removeall like methods.

**45) What is the use of environment variables?**

Environment variables are global variables that we can use from number of tests commonly.   
Whenever we want to use some variables from number of tests, instead of declaring as local variables, if we use environment variables concept then maintenance will be easy.

**46) What is a Regular Expression, where we use this feature in QTP?**

Regular expression is nothing but matching patterns.  
In QTP, we use this feature for identifying dynamic objects

**47) What is the advantage of Dynamic Descriptive Programming than Static?**

Incase of dynamic programming Tests generation is easy and maintenance also very easy.

**48) What are the limitations of QuickTest?**

a. It supports MS Windows operating environment only  
b. It doesn’t support CLI Applications (Command line interface)  
c. It supports IE only for generating scripts but it does not support Mozilla and other browsers. For executing tests it supports Mozilla like other browsers.  
d. It has limited support for web services testing.

**49) How to capture a moving image in QTP?**

**50) What is Smart Identification in QTP and explain it?**

**51) How many folders are created in one Test creation in QTP?**

Two folders and six files.

**52) What is Description object in QTP?**

**53) What are the Properties you use for identifying a Browser, a Page when using descriptive programming?**

title property for Browser  
title property for Page

**54) How do you measure Transaction Time in QTP other than Using of Start and End Transaction Points?**

By using ‘**Timer**’ function we can measure transaction times.