

## Instruction Sheet for the Candidate

|                                  |  |
|----------------------------------|--|
| <b>Qualification</b>             | Full Stack Developer ( <b>Mobile App, Web and Game Development</b> )   |
| <b>Competency Standard</b>       | Perform Testing of Application   |
| <b>Purpose of Assessment</b>     | Formative Assessment   |
| <b>Candidate Details</b>         | Name_____  |
|                                  | Registration/Roll Number_____  |
| <b>Guidance for Candidate</b>    | <p><b>To meet this standard, you are required to complete the following within 03 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ul style="list-style-type: none"> <li>• Perform User Interface Testing</li> <li>• Perform Unit Testing</li> <li>• Perform integration testing</li> <li>• Perform Compatibility Testing</li> <li>• Perform Security Testing</li> <li>• Apply performance Testing</li> </ul>  |
| <b>Time: 03 Hrs.</b>             | During a practical assessment, under observation by an assessor, you are required to   |
| <b>Minimum Evidence Required</b> | <p><b>Perform User Interface Testing</b></p> <ol style="list-style-type: none"> <li>1. Check the responsiveness of application</li> <li>2. Check the flow of application</li> <li>3. Check non-functional requirements</li> </ol> <p><b>Perform Unit Testing</b></p> <ol style="list-style-type: none"> <li>1. Identify test cases for unit testing</li> <li>2. Write test cases for unit testing</li> <li>3. Perform unit testing using testing tools</li> </ol> <p><b>Perform integration testing</b></p> <ol style="list-style-type: none"> <li>1. Identify scenarios for integration</li> <li>2. Perform integration testing</li> </ol> <p><b>Perform Compatibility Testing</b></p> <ol style="list-style-type: none"> <li>1. Test application on different desktop browsers</li> <li>2. Test application on different mobile/devices browsers</li> <li>3. Check compatibility tests with different operating systems</li> </ol> <p><b>Perform Security Testing</b></p> <ol style="list-style-type: none"> <li>1. Identify the application security needs (OS,Hardware,Frameworks</li> </ol> |

|  |  |
|--|--|
|  | <p>etc. )</p> <ol style="list-style-type: none"><li>2. Identify all potential threats and vulnerabilities</li><li>3. Prepare the threat profile based on different vulnerabilities/risks</li><li>4. Prepare the test plan</li><li>5. Automate testing on top of the manual testing</li><li>6. Prepare the security tests case document</li></ol> <p><b>Apply performance Testing</b></p> <ol style="list-style-type: none"><li>1. Select tool for performance testing</li><li>2. Check performance under a heavy load using selected tool</li><li>3. Perform Stress testing to determine the breaking point of the application</li></ol> |
|--|--|

## Self-Assessment Checklist

|                              |   |
|------------------------------|---|
| <b>Candidate Name</b>        |   |
| <b>Registration No.</b>      |   |
| <b>Qualification</b>         | Full Stack Developer ( <b>Mobile App, Web and Game Development</b> )  |
| <b>Competency Standard</b>   | Perform Testing of Application  |
| <b>Purpose of Assessment</b> | Formative Assessment  |
| <b>Assessment Task</b>       | <ul style="list-style-type: none"> <li>• Perform User Interface Testing</li> <li>• Perform Unit Testing</li> <li>• Perform integration testing</li> <li>• Perform Compatibility Testing</li> <li>• Perform Security Testing</li> <li>• Apply performance Testing</li> </ul> |

I can.....

| <b>Performance Criteria</b>   | <b>Yes</b>               | <b>No</b>                |
|---|--------------------------|--------------------------|
| 1. Check non-functional requirements  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Identify test cases for unit testing                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Write test cases for unit testing  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Perform unit testing using testing tools                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Identify scenarios for integration   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Perform integration testing  | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Test application on different desktop browsers                             | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Test application on different mobile/devices browsers                      | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Check compatibility tests with different operating systems                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Identify the application security needs<br>(OS,Hardware,Frameworks etc. ) | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Identify all potential threats and vulnerabilities                        | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Prepare the threat profile based on different vulnerabilities/risks       | <input type="checkbox"/> | <input type="checkbox"/> |

|   |                          |                          |
|---|--------------------------|--------------------------|
| 13. Prepare the test plan   | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Automate testing on top of the manual testing                             | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Prepare the security tests case document                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Select tool for performance testing                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Check performance under a heavy load using selected tool                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Perform Stress testing to determine the breaking point of the application | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Identify scenarios for integration  | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Perform integration testing   | <input type="checkbox"/> | <input type="checkbox"/> |

Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

## Assessors Judgment Guide

|                              |   |
|------------------------------|---|
| <b>Qualification</b>         | Full Stack Developer ( <b>Mobile App, Web and Game Development</b> )  |
| <b>Competency Standard</b>   | Perform Testing of Application  |
| <b>Purpose of Assessment</b> | Formative Assessment  |
| <b>Candidate Details</b>     | Name: _____<br>Registration/Roll Number: _____ Signature: _____   |
| <b>Assessment Outcome</b>    | <p style="text-align: center;"> <b>COMPETENT</b> <input type="checkbox"/> <span style="margin-left: 200px;"><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> </p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____</p> <p>Signature: _____</p> |

| <b>Assessment Summary (to be filled by the assessor)</b> |         |      |             |           |           |           |                   |
|--|---------|------|-------------|-----------|-----------|-----------|-------------------|
| Activity   | Method  |      |             |           |           | Result    |                   |
|  | Written | Oral | Observation | Portfolio | Role Play | Competent | Not Yet Competent |
| Nature of Activity                                       |         |      |             |           |           |           |                   |
| Practical Skill Demonstration                            |         |      | ✓           |           |           |           |                   |
| Knowledge Assessment                                     |         | ✓    |             |           |           |           |                   |
| Other Requirement  |         |      |             |           |           |           |                   |

## Observation Checklist

| <b>Assessment Task</b>  | <ul style="list-style-type: none"> <li>• Perform User Interface Testing</li> <li>• Perform Unit Testing</li> <li>• Perform integration testing</li> <li>• Perform Compatibility Testing</li> <li>• Perform Security Testing</li> <li>• Apply performance Testing</li> </ul> |            |           |                |
|---|---|------------|-----------|----------------|
| <b>During the practical assessment, candidate demonstrated the following:</b> |   | <b>Yes</b> | <b>No</b> | <b>Remarks</b> |
| 1.  | Check the responsiveness of application   |            |           |                |
| 2.  | Check the flow of application   |            |           |                |
| 3.  | Check non-functional requirements   |            |           |                |
| 4.  | Identify test cases for unit testing  |            |           |                |
| 5.  | Write test cases for unit testing   |            |           |                |
| 6.  | Perform unit testing using testing tools  |            |           |                |
| 7.  | Identify scenarios for integration  |            |           |                |
| 8.  | Perform integration testing   |            |           |                |
| 9.  | Test application on different desktop browsers  |            |           |                |
| 10.   | Test application on different mobile/devices browsers   |            |           |                |
| 11.   | Check compatibility tests with different operating systems  |            |           |                |
| 12.   | Identify the application security needs (OS,Hardware,Frameworks etc. )  |            |           |                |
| 13.   | Identify all potential threats and vulnerabilities  |            |           |                |
| 14.   | Prepare the threat profile based on different vulnerabilities/risks   |            |           |                |
| 15.   | Prepare the test plan   |            |           |                |
| 16.   | Automate testing on top of the manual testing   |            |           |                |
| 17.   | Prepare the security tests case document  |            |           |                |
| 18.   | Select tool for performance testing   |            |           |                |

|   |   |   |  |  |
|---|---|---|--|--|
| 19.                                       | Check performance under a heavy load using selected tool                  |   |  |  |
| 20.                                       | Perform Stress testing to determine the breaking point of the application |   |  |  |
| <b>Competent</b> <input type="checkbox"/> |   | <b>Not Yet Competent</b> <input type="checkbox"/> |  |  |

# Knowledge Assessment

|                              |  |
|------------------------------|--|
| <b>Qualification</b>         | Full Stack Developer ( <b>Mobile App, Web and Game Development</b> )   |
| <b>Competency Standard</b>   | Perform Testing of Application   |
| <b>Purpose of Assessment</b> | Formative Assessment   |
| <b>Candidate Details</b>     | Name: _____<br>Registration/Roll Number: _____ Candidate Signature: _____  |
| <b>Assessment Outcome</b>    | <p><b>COMPETENT</b> <input type="checkbox"/>                      <b>NOT YET COMPETENT</b> <input type="checkbox"/></p> <p>Name of the Assessor: _____</p> <p>Assessor's code: _____</p> <p>Signature of the Assessor: _____</p> |

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

|    | <b>Questions</b> (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application) | <b>Satisfactory</b> | <b>Not Satisfactory</b> |
|----|--|---------------------|-------------------------|
| 1. | Define testing.<br><br><br><br><br>  |                     |                         |
| 2. | Name any two unit-testing techniques.<br><br><br><br><br>  |                     |                         |
| 3. | What is the concept of testing automation?   |                     |                         |

