



IT - ITeS SSC
NASSCOM



Model Curriculum

QP Name: TEST ENGINEER

QP Code: SSC/Q1301

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 1.0

IT-ITeS Sector Skills Council NASSCOM | Plot No – 7, 8, 9 & 10, Sector 126, Noida, UP.
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Training Parameters

Sector	IT-ITeS
Sub-Sector	IT Services
Occupation	Testing and QA
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/ 2511.0103
Minimum Educational Qualification and Experience	Graduate with 1 year of relevant experience in testing and quality assurance OR 12th Class with 4 years of relevant experience OR ITI with 4 years of relevant experience
Pre-Requisite License or Training	Certifications in TQM, ISO, etc. quality process, software testing techniques, test writing plans, ISTQB, CSTE, CSQA, Windows, UNIX, Networking
Minimum Job Entry Age	18 Years
Last Reviewed On	13-09-2021
Next Review Date	13-09-2024
NSQC Approval Date	27-01-2022
QP Version	2.0
Model Curriculum Creation Date	13-09-2021
Model Curriculum Valid Up to Date	13-09-2024
Model Curriculum Version	1.0
Minimum Duration of the Course	400 hours
Maximum Duration of the Course	400 hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Categorize the key elements of quality testing vs quality control.
- Examine the process to modify test cases relevant to the requirements.
- Maintain reports on checks carried out, data/information collected, and risks identified.
- Identify the nature of testing to be carried out and the test management tool to be used.
- Examine the process of functional, usability, compatibility, performance, and regression testing on applications.
- Identify the primary sources of key indicators for quality testing, including impact indicator, efficiency indicator, etc.
- Examine the purpose of data/ information provided to management reviewers and internal auditors.
- Evaluate the use of adhering conformance to usability guidelines in case of usability testing.
- Examine the purpose of source coding standards, and utilities/tools for handling quality assurance.
- Demonstrate effective communication and collaboration with colleagues.
- Apply measures to maintain standards of health and safety at the workplace.
- Use different approaches to effectively manage and share data and information.
- Develop strong relationships at the workplace through effective communication and conflict management.
- Identify best practices to maintain an inclusive, environmentally sustainable workplace.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration (In Hours)	Practical Duration (In Hours)	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration (In Hours)
Module 1 (Bridge Module): IT-ITeS/IT services industry – An Introduction	02:00	02:00	00:00	00:00	04:00
SSC/N1301 Design tests for software products/ applications/ modules NOS Version No. 2 NSQF Level 5	20:00	60:00	00:00	00:00	80:00
Module 2: Concept and principle of quality testing	10:00	30:00	00:00	00:00	40:00



Module 3: Design tests for software products/ applications/modules	10:00	30:00	00:00	00:00	40:00
SSC/N1302 Carry out automated tests on software products /applications/modules NOS Version No. 2 NSQF Level 5	22:00	49:00	00:00	00:00	71:00
Module 4: Contribute to quality assurance of projects	09:00	20:00	00:00	00:00	29:00
Module 5: Carry out automated tests on software products/ applications/modules	13:00	29:00	00:00	00:00	42:00
SSC/N1303 Carry out manual tests on software products/ applications/modules NOS Version No. 2 NSQF Level 5	25:00	55:00	00:00	00:00	80:00
Module 6: Key indicators for software applications	07:00	15:00	00:00	00:00	22:00
Module 7: Carry out manual tests on software products/ applications/modules	10:00	30:00	00:00	00:00	40:00
Module 8: Technical skills for manual tests	08:00	10:00	00:00	00:00	18:00
SSC/N9001 Manage your work to meet requirements NOS Version No. 2 NSQF Level 4	08:00	32:00	00:00	00:00	40:00
Module 9: Manage your work to meet requirements	08:00	32:00	00:00	00:00	40:00
SSC/N9002 Work effectively with colleagues NOS Version No. 2 NSQF Level 4	08:00	32:00	00:00	00:00	40:00
Module 10: Work effectively with colleagues	08:00	32:00	00:00	00:00	40:00
SSC/N9003 Maintain a healthy, safe and secure working environment NOS Version No. 2 NSQF Level 4	05:00	25:00	00:00	00:00	30:00
Module 11: Managing Health and Safety	05:00	25:00	00:00	00:00	30:00



SSC/N9004 Provide data/information in standard formats NOS Version No. 2 NSQF Level 4	05:00	25:00	00:00	00:00	30:00
Module 12: Workplace Data Management	05:00	25:00	00:00	00:00	30:00
SSC/N9014 Implement & Improve the Gender Sensitivity, PWD (Person/People with Disability) Sensitivity and Greening NOS Version No. 1 NSQF Level 4	05:00	20:00	00:00	00:00	25:00
Module 13: Inclusive and Environmentally Sustainable Workplaces	05:00	20:00	00:00	00:00	25:00
Total Duration	100:00	300:00	00:00	00:00	400:00

Module Details

Module 1: IT-ITeS/IT Service Industry – An Introduction

Bridge Module

Terminal Outcomes:

- Comprehend various delivery models used in the IT-Services industry.

Duration: 02:00(In Hours)	Duration: 02:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the relevance of the IT-ITeS sector. • Identify the career path for a Test Engineer. 	<ul style="list-style-type: none"> • Conduct internet research to gather information, evidence, and articles regarding the IT- ITeS/support services. • Categorize key applications for Testing and Quality Assurance services.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools, Equipment and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated)	

Module 2: Concept and Principle of Quality Testing

Mapped to SSC/N1301, v2.0

Terminal Outcomes:

- Discuss the objectives and scope of Quality Assurance work being undertaken.
- Categorize the key elements of Quality Testing vs Quality Control.

Duration: 10:00(In Hours)	Duration: 30:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Identify the version control and entry-exit criteria for testing. • List the principles of effective quality assurance of projects. 	<ul style="list-style-type: none"> • Evaluate the methods of collecting data/ information to quality assure projects and how to apply these. • Evaluate the outputs of objective and subjective analysis. • Examine the process of failure test or stress test of data. • Examine various aspects of quality assurance across any industry, including controls, job management, adequate processes, performance, and integrity criteria. • Evaluate the key skill sets of a test engineer, on software design, writing source code, control of source code, reviewing code, etc.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands):	
<ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	



Module 3: Design Tests for Software Products/Applications/Modules

Mapped to SSC/N1301, v2.0

Terminal Outcomes:

- Identify any issues with the requirements for testing and clarify these with experts/trainers.
- Examine the process to modify test cases relevant to the requirements.

Duration: 10:00(In Hours)	Duration: 30:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Access reusable scenarios, test cases, scripts and tools required for testing. • Identify general policies, procedures and guidelines when designing tests for software products/applications/modules. 	<ul style="list-style-type: none"> • Design methods to test high level scenarios relevant to the requirements. • Evaluate the test cases that can be automated feasibly. • Examine ways to modify automated scripts relevant to the requirements. • Evaluate how to design test data relevant to the requirements. • Create a test plan to cover all the requirements. • Examine methods to review the test plan, test cases and/or automated scripts with experts/trainers. • Modify the test plan, test cases and/or automated scripts before final delivery.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands): <ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	



Module 4: Contribute to Quality Assurance of Projects

Mapped to SSC/N1302, v2.0

Terminal Outcomes:

- Identify the checkpoints that a project should comply with during every phase.
- Maintain reports on checks carried out, data/information collected, and risks identified.

Duration: 09:00(In Hours)	Duration: 20:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the scope of quality assurance for a test engineer. • Collate required data/information against key indicators using standard templates and tools. • Discuss with experts, any issues related to project data, where necessary. 	<ul style="list-style-type: none"> • Analyse the purpose of conducting review meetings at agreed project milestones. • Plan on delivering required information to project management reviewers, internal auditors, and technical reviewers. • Ensure that key actions from review meetings are accurately recorded. • Evaluate the need for root cause analysis of process failures in projects. • Practice documenting good practices to improve productivity.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands):	
<ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	

Module 5: Carry out Automated Tests on Software Products/ Applications/Modules

Mapped to SSC/N1302, v2.0

Terminal Outcomes:

- Identify the category of testing to be carried out on automated scripts.
- Examine the process of functional, usability, compatibility, performance, and regression testing on applications.

Duration: 13:00(In Hours)	Duration: 29:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Identify the test management tool to be used during testing. • Identify the latest versions of the test cases and automated scripts. • List the correct versions of the application and data. 	<ul style="list-style-type: none"> • Pan how to execute the automated test scripts according to instructions. • Evaluate the method of logging the test progress, results and defects discovered, using the agreed test management tool. • Analyse the results of testing to develop a clear understanding of the defects. • Utilize various programming languages like C, C++, SQL, Java, etc., for designing.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands):	
<ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	



Module 6: Key Indicators for Software Applications

Mapped to SSC/N1303, v2.0

Terminal Outcomes:

- Identify the key indicators for quality testing.
- Review data/information with management reviewers and internal auditors.

Duration: 07:00(In Hours)	Duration: 15:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Identify the purpose of impact indicator, efficiency indicator in testing. • Identify why projects must comply with QA indicators. 	<ul style="list-style-type: none"> • Evaluate the types of risks arising from unproven technologies, user and functional requirements, application, and system architecture, etc. • Examine project risks and their potential/ actual impact on developing application. • Analyse how inadequate third-party performance, obsolete software, and lack of executive support impacts output.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands): <ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	



Module 7: Carry out Manual Tests on Software Products/Applications/Modules

Mapped to SSC/N1303, v2.0

Terminal Outcomes:

- Select the latest versions of the manual test cases and scripts.
- Evaluate the purpose of usability guidelines in case of usability testing.

Duration: 10:00(In Hours)	Duration: 30:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Check that the correct versions of the application and data are used. • Collate advice and guidance from experts in case of problems with testing that are beyond the level of competence. 	<ul style="list-style-type: none"> • Plan how to execute manual test scripts according to instructions. • Construct test progress report, results and defects discovered, using the agreed test management tool. • Examine the purpose of analyzing results to identify defects and track the same in defect tracking system. • Design plans to deliver documented report of defects. • Examine how applying different values and data impacts the manual test report.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands): <ul style="list-style-type: none"> • DOT Net, Visual studio 2010 - ultimate, IIS 7.5 • SQL server 2008 R2, JAVA • Eclipse SDE 7.0, Apache Tomcat 6.0 • My SQL & work bench 5.2, Oracle 11G - express edition • Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script • QTP (Quick Test Professional) tool • Scripting and Programming environments for C, C++, SQL, Java, .Net and VB • Unit Testing Tool – Junit 	



Module 8: Technical Skills for Manual Tests

Mapped to SSC/N1303, v2.0

Terminal Outcomes:

- Identify the latest changes, procedures and practices in test designing.
- Examine the purpose of source coding standards, and utilities/tools for handling quality assurance.

Duration: 08:00(In Hours)	Duration: 10:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss how to store and retrieve information. • Identify methods to access and validate alerts and test service requests. 	<ul style="list-style-type: none"> • Use information technology effectively to input and/or extract data accurately. • Develop methods to analyse anomalies in data and risk triggers during test. • Evaluate the use of applications like .Net, SQL, Java, Oracle, VB Script, etc. • Examine the process of conducting static testing, dynamic testing, white box/black box/grey box testing.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Application Development environment (Suitable alternates may be added, as suited to local demands): DOT Net, Visual studio 2010 - ultimate, IIS 7.5, SQL server 2008 R2, JAVA, Eclipse SDE 7.0 Apache Tomcat 6.0, My SQL & work bench 5.2, Oracle 11G - express edition, Selenium IDE, Selenium WebDriver, Active Scripting Engine Jscript, VB Script, QTP (Quick Test Professional) tool Scripting and Programming environments for C, C++, SQL, Java, .Net and VB	

Module 9: Manage your Work to meet Requirements

Mapped to SSC/N9001, v2.0

Terminal Outcomes:

- Define the scope of work.
- Demonstrate effective work planning principles.
- Recognize the importance of using time and resources effectively.

Duration: 08:00(In Hours)	Duration: 32:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the role, responsibilities, and limits of the responsibilities. • Discuss the importance of gathering detailed work requirements and prioritizing work areas. • Identify commonly made mistakes in the prioritized work areas. • Explain the importance of completing work accurately. 	<ul style="list-style-type: none"> • Analyse needs, requirements, and dependencies in order to meet the work requirements. • Apply resource management principles and techniques. • Demonstrate the ways to maintain an organized work area. • Apply effective time management principles.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Microphone / voice system for lecture and class activities Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools	



Module 10: Work Effectively with Colleagues

Mapped to SSC/N9002, v2.0

Terminal Outcomes:

- Explain the methods and mechanisms for effective communication.
- Explain the importance of effective collaboration at workplace.

Duration: 08:00(In Hours)	Duration: 32:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the principles of clear communication. • Outline the importance of being a good listener and adhering to the commitments. • Identify challenges and pain points related to work distribution while working in a team. • Explain the importance of distributing and sharing workloads. 	<ul style="list-style-type: none"> • Use oral, written, and non-verbal communication skills in a variety of forms to construct thoughts and ideas effectively. • Demonstrate professional behaviour at workplace. • Demonstrate effective team mentorship.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Microphone / voice system for lecture and class activities Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools Social networking tool / LMS tool to enable blog posts or discussion board, Instant messenger, chat and email tools to enable mock exercises.	

Module 11: Managing Health and Safety

Mapped to SSC/N9003, v2.0

Terminal Outcomes:

- Describe how to maintain a health, safe and secure environment at workplace.

Duration: 05:00(In Hours)	Duration: 25:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss the importance of complying with organizational health, safety and security policies and procedures. Discuss possible roles and responsibilities that an employee can take up with respect to workplace safety management. Evaluate sample organizational emergency procedures. Identify mechanisms to improve workplace health, safety, and security. Label appropriate personal protective equipment needed for a job role. 	<ul style="list-style-type: none"> Demonstrate the identification of possible breaches in health, safety, and security policies. Document health, safety, and security breaches. Design a contingency plan for emergency situations like fire, short circuit, accidents, earthquake, etc. Demonstrate the use of First Aid, CPR, and safety evacuation process as part of routine operations.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Microphone / voice system for lecture and class activities Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools A sample health and safety policy document, Emergency broadcast system and mock emergency signage in the appropriate areas of the training institute	



Module 12: Workplace Data Management

Mapped to SSC/N9004, v2.0

Terminal Outcomes:

- Describe how data / information can be managed effectively.

Duration: 05:00(In Hours)	Duration: 25:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss data privacy in terms of sharing and retrieving data from different sources. Discuss the significance of providing accurate and up-to-date information on time. Identify the database management tools and importance of CRM database. 	<ul style="list-style-type: none"> Apply the concepts behind information and knowledge management. Perform rule-based analysis of data/information. Format the data/information into required types/forms. Demonstrate effective data management. Use CRM databases to record and extract information.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Microphone / voice system for lecture and class activities Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools Social networking tool / LMS tool to enable blog posts or discussion board, Instant messenger, chat, and email tools to enable mock exercises.	

Module 13: Inclusive and Environmentally Sustainable Workplaces

Mapped to SSC/N9014, v1.0

Terminal Outcomes:

- Illustrate sustainable practices at workplace for energy efficiency and waste management.
- Apply different approaches to maintain gender equality and increase inclusiveness for PwD.

Duration: 05:00(In Hours)	Duration: 20:00(In Hours)
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe different approaches for efficient energy resource utilisation and waste management. • Describe the importance of following the diversity policies. • Identify stereotypes and prejudices associated with people with disabilities and the negative consequences of prejudice and stereotypes. • Discuss the importance of promoting, sharing, and implementing gender equality and PwD sensitivity guidelines at organization level. 	<ul style="list-style-type: none"> • Practice the segregation of recyclable, non-recyclable and hazardous waste generated. • Demonstrate different methods of energy resource use optimization and conservation. • Demonstrate essential communication methods in line with gender inclusiveness and PwD sensitivity.
Classroom Aids:	
Whiteboard and Markers Chart paper and sketch pens LCD Projector and Laptop for presentations	
Tools and Other Requirements:	
Labs equipped with the following: PCs/Laptops Internet with Wi-Fi (Min 2 Mbps Dedicated) Microphone / voice system for lecture and class activities	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
12th/ Diploma in relevant field	NA	Minimum 2 years' experience in the IT services domain		1 year preferred	Minimum 2 years' experience in the testing and quality services domain	Additional certification in TQM, ISO etc. quality process, software testing techniques, test writing plans, ISTQB, CSTE, CSQA, Windows, UNIX, Networking.

Trainer Certification	
Domain Certification	Platform Certification
Minimum accepted score in SSC Assessment is 80% per NOS being taught in "SSC/Q1301, V 2.0"	Recommended that the trainer is certified for the Job role "Trainer" mapped to the Qualification Pack "MEP/Q2601". Minimum accepted score is 80% aggregate



Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate in any discipline		2	Experience that involves client interaction	1-2	Experience that involves client interaction	

Assessor Certification	
Domain Certification	Platform Certification
Not Applicable	

Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the learner on the required competencies of the program.

Assessment System Overview

A uniform assessment of job candidates as per industry standards facilitates progress of the industry by filtering employable individuals while simultaneously providing candidates with an analysis of personal strengths and weaknesses.

Assessment Criteria

Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.

The assessment for the theory part will be based on a knowledge bank of questions created by the SSC. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.

Guidelines for Assessment			
Testing Environment	Tasks and Functions	Productivity	Teamwork
<ul style="list-style-type: none"> Carry out assessments under realistic work pressures that are found in the normal industry workplace (or simulated workplace). Ensure that the range of materials, equipment, and tools that learners use are current and of the type routinely found in the normal industry workplace (or simulated workplace) environments. 	<ul style="list-style-type: none"> Assess that all tasks and functions are completed in a way, and to a timescale, that is acceptable in the normal industry workplace. Assign workplace (or simulated workplace) responsibilities that enable learners to meet the requirements of the NOS. 	<ul style="list-style-type: none"> Productivity levels must be checked to ensure that it reflects those that are found in the work situation being replicated. 	<ul style="list-style-type: none"> Provide situations that allow learners to interact with the range of personnel and contractors found in the normal industry workplace (or simulated workplace).

Assessment Quality Assurance framework

NASSCOM provides two assessment frameworks NAC and NAC-Tech.

NAC (NASSCOM Assessment of Competence)

NAC follows a test matrix to assess Speaking & Listening, Analytical, Quantitative, Writing, and Keyboard skills of candidates appearing for assessment.

NAC-Tech

NAC-Tech test matrix includes assessment of Communication, Reading, Analytical, Logical Reasoning, Work Management, Computer Fundamentals, Operating Systems, RDBMS, SDLC, Algorithms & Programming Fundamentals, and System Architecture skills.

Methods of Validation

To pass a QP, a trainee should score an average of 70% across generic NOS' and a minimum of 70% for each technical NOS. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Method of assessment documentation and access

The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by SSC assessment team. After upload, only SSC can access this data.

References

Glossary

Term	Description
Key Learning Outcome	Key learning outcome is the statement of what the learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcomes is specified in terms of knowledge, understanding (theory) and skills (practical application).
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.
National Occupational Standards	National Occupational Standard specify the standard of performance an individual must achieve when carrying out a function in the workplace.
Persons with Disability	Persons with Disability are those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on equal basis with others.
Integrated Development Environment	An integrated development environment is a software application that provides comprehensive facilities to computer programmers for software development.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skill Qualification Framework
NSQC	National Skill Qualification Committee
NOS	National Occupational Standards
SSC	Skill Sectors Council
NASSCOM	National Association of Software & Service Companies
PWD	Persons with Disability
IDE	Integrated Development Environment