

QUALIFICATION FILE

AI Database Administrator

- ☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship
☒ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT
☐ For ToA

- ☐ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☒ Future Skills ☐ OEM

NCrF/NSQF Level: 6

Submitted By:

IT-ITeS Sector Skills Council NASSCOM (SSC NASSCOM)

Plot No. – 7, 8, 9 & 10

Sector – 126, Noida, Uttar Pradesh - 201303

Table of Contents

Section 1: Basic Details 3

Section 2: Module Summary 6

 NOS/s of Qualifications..... 6

 Mandatory NOS/s: 6

 Elective NOS/s: 7

 Optional NOS/s: 7

 Assessment - Minimum Qualifying Percentage..... 7

Section 3: Training Related..... 8

Section 4: Assessment Related..... 8

Section 5: Evidence of the Need for the Qualification 9

Section 6: Annexure & Supporting Documents Check List..... 10

 Annexure: Evidence of Level 11

 Annexure: Tools and Equipment (lab set-up)..... 14

 Annexure: Industry Validations Summary..... 15

 Annexure: Training & Employment Details 16

 Annexure: Blended Learning 17

 Annexure: Detailed Assessment Criteria 18

 Annexure: Assessment Strategy 20

 Annexure: Acronym and Glossary 23

Section 1: Basic Details

1.	Qualification Name	AI Database Administrator	
2.	Sector/s	IT/ITeS	
3.	Type of Qualification: ☐ New ☒ Revised ☒ Has Electives/Options ☐ OEM	NQR Code & version of the existing /previous qualification: QG-07-IT-01530-2023-V1.1-NASSCOM & Version 3	Qualification Name of the existing/previous version: AI Database Administrator
4.	Qualification Name (Wherever applicable)	AI Database Administrator	
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-06-IT-045862025-V2-NASSCOM & Version 4	6. NCrF/NSQF Level: 6
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate	
8.	Brief Description of the Qualification	This Qualification is designed to equip participants with essential knowledge and skills for effectively managing databases and computing clusters within various professional environments. Spanning multiple modules, this qualification covers foundational concepts in database management, including the installation and configuration of popular open-source database management systems such as MySQL and PostgreSQL, as well as hands-on experience with SQL commands for data manipulation. Participants will learn advanced topics including data validation, compliance frameworks, automated maintenance, and monitoring techniques to ensure optimal database performance. Furthermore, the qualification emphasizes user access management, security configurations, and the importance of documentation in operational continuity. Beyond technical competencies, the program incorporates employability skills, communication training, and entrepreneurship concepts, preparing participants for real-world responsibilities and career advancement opportunities in database management, IT infrastructure, and related fields.	
9.	Eligibility Criteria for Entry for a Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: * Relevant Field- AI/Computer Science/IT The relevant experience would include work, internship and apprenticeship undertaken post-completion of relevant educational qualification	

		** UG or diploma with courses related to Engg./ Science <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Completed 4 Year UG**</td> <td>-</td> </tr> <tr> <td>2</td> <td>Completed 3 Year UG degree</td> <td>1.5 Year of relevant experience*</td> </tr> <tr> <td>3</td> <td>Previous Relevant qualification of NSQF level 5.5</td> <td>1.5 Year of relevant experience*</td> </tr> </tbody> </table>						S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	Completed 4 Year UG**	-	2	Completed 3 Year UG degree	1.5 Year of relevant experience*	3	Previous Relevant qualification of NSQF level 5.5	1.5 Year of relevant experience*						
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																							
1	Completed 4 Year UG**	-																							
2	Completed 3 Year UG degree	1.5 Year of relevant experience*																							
3	Previous Relevant qualification of NSQF level 5.5	1.5 Year of relevant experience*																							
		b. Age: NA																							
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	16 Credits			11. Common Cost Norm Category (I/II/III) (wherever applicable): II																				
12.	Any Licensing Requirements for Undertaking Training on This Qualification (wherever applicable)	NA																							
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	☐ Offline Only ☐ Online Only ☒ Blended																							
		<table border="1"> <thead> <tr> <th>Training Delivery Mode</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT (Mandatory) Hours</th> <th>OJT (Recommended) Hours</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>155</td> <td>235</td> <td>90</td> <td>-</td> <td>480</td> </tr> <tr> <td>Online</td> <td>155</td> <td>235</td> <td>90</td> <td>-</td> <td>480</td> </tr> </tbody> </table>						Training Delivery Mode	Theory (Hours)	Practical (Hours)	OJT (Mandatory) Hours	OJT (Recommended) Hours	Total (Hours)	Classroom (offline)	155	235	90	-	480	Online	155	235	90	-	480
Training Delivery Mode	Theory (Hours)	Practical (Hours)	OJT (Mandatory) Hours	OJT (Recommended) Hours	Total (Hours)																				
Classroom (offline)	155	235	90	-	480																				
Online	155	235	90	-	480																				
		(Refer Blended Learning Annexure for details)																							
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/2522.0100																							

15.	Progression Path After Attaining the Qualification, wherever applicable (Please show Professional and Academic progression)	This entry should refer to one or more of the following: • Academic Progression: Access to other qualifications at the same NSQF level – DevOps Engineer, Data Steward, Security Analyst • Professional Progression: Access to related qualification(s) at the next NSQF level – Senior Database Administrator, Senior DevOps Engineer	
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi	
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:	
18.	Is the Job Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: Visual, Hearing or Speech impairment, Locomotor Disability	
19.	How participation of women will be encouraged?	The Program is gender neutral although to increase the women participation, organizations are keeping aside few seats to encourage the female candidates	
20.	Are Greening/Environment Sustainability Aspects covered (Specify the NOS/Module which Covers it)	☒ Yes ☐ No, DGT/VSQ/N0102: Employability Skill (60 Hours)	
21.	Is Qualification suitable to be offered in Schools/Colleges	Schools: ☐ Yes ☒ No Colleges ☒ Yes ☐ No	
22.	Name and Contact Details Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Namrata Kapoor Email: Standards@nasscom.in Contact No.: 0120-4990111 Website: https://www.sscnasscom.com/	
23.	Final Approval Date by NSQC: 07th October 2025	24. Validity Duration: 3 Years	25. Next Review Date: 07 th October 2028

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/Module level. For Further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job training **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**- Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core / Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Pr oj.	Vi va	Total	Weightage (%) (if applicable)
1.	Create new databases	SSC/N8115 V4.0	Core	6	04	40:00	65:00	15:00	00:00	120:00	30	50	-	20	100	21
2.	Maintain existing databases	SSC/N8116 V3.0	Core	6	03	34:00	41:00	15:00	00:00	90:00	30	50	-	20	100	21
3.	Manage database access and configuration	SSC/N8117 V4.0	Core	6	03	27:00	33:00	30:00	00:00	90:00	30	50	-	20	100	21
4.	Manage computer cluster administration	SSC/N8118, V3.0	Core	6	04	30:00	60:00	30:00	00:00	120:00	30	50	-	20	100	21
5.	Employability Skill (60 Hours)	DGT/VSQ/N01 02 V1.0	Non-Core	4	02	24:00	36:00	00:00	00:00	60:00	20	30	-	-	50	16
Total Duration (in Hours)/Total Marks					16	155:00	235:00	90:00	00:00	480:00	140	230	-	80	450	100

Assessment - Minimum Qualifying Percentage

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Elective NOS/s:

Specify the training duration and assessment criteria at NOS/Module level. For Further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job training **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**- Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage**Assessment - Minimum Qualifying Percentage**

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Educational Qualification: Graduate (Engineering/ Technology/ Computer Science) Industry & training experience: 2 years of industry experience in AIBDA. The industry experience would include work, internship, and apprenticeship undertaken after regular graduation Certification: "Trainer" mapped to the Qualification Pack "MEP/Q2601" Minimum accepted score is 80% aggregate
2.	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Educational Qualification: Graduate (Engineering/ Technology/ Computer Science) Industry & training experience: 4 years of industry experience in AIBDA. The full-time experience would include work, internship, and apprenticeship undertaken after regular graduation. Certification: "Master Trainer" mapped to the Qualification Pack "MEP/Q2602" Minimum accepted score is 90% aggregate
3.	Tools and Equipment Required for the Training	☒ Yes ☐ No <i>(If "Yes", details to be provided in Annexure)</i>
4.	In Case of Revised Qualification, details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Educational Qualification: Graduate (Engineering/ Technology/ Computer Science)
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		Industry & Training Experience: 2 years of industry experience in AIBDA. The full-time experience would include work, internship, and apprenticeship undertaken after regular graduation. Certification: “Assessor” mapped to the Qualification Pack “MEP/Q2701” Minimum accepted score is 80% aggregate.
2.	Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines), (wherever applicable)	Educational Qualification: Graduate (Engineering/ Technology/ Computer Science) Industry & Training Experience: 2 years of industry experience in AIBDA. The full-time experience would include work, internship, and apprenticeship undertaken after regular graduation. Certification: “Assessor” mapped to the Qualification Pack “MEP/Q2701” Minimum accepted score is 80% aggregate.
3.	Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Educational Qualification: Graduate (Engineering/ Technology/ Computer Science) Industry & Training Experience: 4 years of industry experience in AIBDA. The full-time experience would include work, internship, and apprenticeship undertaken after regular graduation. Certification: “Lead Assessor” mapped to the Qualification Pack “MEP/Q2702” Minimum accepted score is 90% aggregate.
4.	Assessment Mode (Specify the assessment mode)	The assessment will consist of a blend of hands-on practical evaluations, viva-voce, and online proctored scenario-based multiple-choice questions ensuring a thorough evaluation of the individual's proficiency in learning outcomes, practical understanding, and real-world application of concepts.
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the Need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government/Industry initiatives/requirement (Yes/No): Industry Initiative
4.	Number of industry validations provided: 21

5.	Estimated number of people to be trained and employed: NA
6.	Evidence of Concurrence/Consultation with Line/State Departments: Applied If “No”, why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrF/NSQF level justification based on NCrF/NSQF descriptors <i>(Mandatory)</i>	Evidence of Level
2.	Annexure: List of tools and equipment relevant for NOS <i>(Mandatory, except in case of online course)</i>	Tools and Equipment (lab set-up)
3.	Annexure: Detailed Assessment criteria <i>(Mandatory)</i>	Performance Criteria Details
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Assessment Strategy
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is Blended Learning)</i>	NA
6.	Annexure: Multiple Entry Exit Details <i>(Mandatory, in case qualification has multiple entry-exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	Acronym and Glossary
8.	Supporting Document: Model Curriculum <i>(Mandatory-Public View)</i>	MC_SSCQ8109_ Database Administrator_V4
9.	Supporting Document: Career Progression <i>(Mandatory-Public View)</i>	AI BDA Occupational Map
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	AI BDA Occupational Map
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	NA
12.	Any Other document you wish to submit:	NA

Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	- Identify the objectives to be addressed while creating and maintaining databases - Create documentation on new databases for appropriate people - Update and delete information from existing databases - Perform migration existing databases to new environments - Monitor logs, server usage, and performance metrics to ensure functionality and accessibility - Identify and refer anomalies to superiors - Deploy and manage clusters - Set up cluster configurations using cookbooks, etc.	The individual in this role must work in a constantly changing environment where he/she needs to actively engage with other stakeholders within the company who wish to access databases and utilize relevant data. To perform his/her role effectively, the individual requires a vast understanding of the processes associated with providing access to data. The individual needs to combine a knowledge of the processes along with a solid understanding of the contexts where these processes can be performed.	5
Professional and Technical Skills/ Expertise/ Professional Knowledge	- The range of standard templates and tools available and how to use them - Different data sources and how to access documents and information from them - Knowledge of different databases, including relational and NoSQL - Knowledge of how to create new databases - Organizational policies, procedures and guidelines which relate to maintaining existing databases	The individual in the role must have a vast amount of knowledge across organizational policies, database tools, databases, disaster recovery strategies and different computing platforms. This knowledge across various disciplines must be accompanied with an in-depth understanding of each discipline in order to perform this role effectively.	5

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
	• Knowledge of disaster recovery strategies for the database environment • Different tools to repair or recover data from corrupted databases and to monitor clusters • Different capacity planning considerations such as data redundancy, overhead and compression, IOPS (Input/Output Operations per Second) • How to use different cloud or distributed computing platforms such as AWS, Azure, Hadoop and their affiliated services		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Query and write scripts to acquire and understand the data • Work on various operating systems such as linux, ubuntu, or windows • Run and create different functions to update or delete data from the databases • Migrate a database to a new architecture • Perform load / stress testing on the database • Manage database capacity by monitoring filegroup sizes and growth rates • Identify database consumption and allocate storage and compute resources	The role demands a skillset that allows the individual to create and maintain databases. This requires a wide range of skills across scripting, operating systems and architectures. The individual therefore needs a wide range of skills and must have the analytical ability to put these skills in practice.	5

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
	- Develop reports on database utilization, availability and performance metrics for relevant stakeholders - Define the size of computing cluster and administer its access for appropriate people		
Broad Learning Outcomes/Core Skill	- Create new databases according to the company's storage requirements - Define encryption standards and user access rules for the database - Implement database maintenance plans and backup routines in line with industry standards - Perform manual and scheduled maintenance procedures for backup, optimization, and indexing of databases - Awareness of the regulatory data frameworks across the world (such as GDPR)	The individual should possess in depth knowledge of the tools required to create and maintain databases. He/she must also understand larger business, technological and regulatory trends. This would enable him/her to put these skills into use to obtain appropriate and favourable outcomes.	5
Responsibility	- Listen effectively and orally communicate information accurately with attention to details - Check your work is complete and free from errors - Make decisions on suitable courses of action - Apply balanced judgements to different situations - Ask for clarification and advice from appropriate people	The role demands working in a team to create and maintain databases. This may involve helping peers with their work from time to time and providing feedback and advice to help improve the quality of their work. Since this role is likely to have people reporting to it, the individual performing this role is supposed to take responsibility for the output and the development of the entire team.	5

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
	- Build and maintain positive and effective relationships with clients - Check that your own and/or your peers' work meets customer requirements - Plan and organize your own work to achieve targets and deadlines - Work with colleagues to deliver shared goals		

Annexure: Tools and Equipment (lab set-up)

List of Tools and Equipment: (Open Source Tools)

Batch Size:

S. No.	Tool / Equipment Name (Open Source)	Specification	Quantity for specified Batch size
1	PC/Laptop with internet	-	
2	Database Management Systems (DBMS)	MySQL, PostgreSQL	
3	ER Diagram Tools	diagrams.net, Lucidchart	
4	Documentation Tools	Markdown Editors (e.g., Typora, Dillinger), Google Docs	
5	Integrated Development Environment (IDE)	DBeaver, pgAdmin (for PostgreSQL)	
6	Backup Tools	pgAdmin, MySQL Workbench	
7	Monitoring Tools	Zabbix, Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana)	
8	Load Testing Tools	Apache JMeter, Locust	
9	Cloud Platforms	Google Cloud Platform, AWS Educate	
10	Collaboration and Presentation Tools	Microsoft PowerPoint, Google Slides	

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White Board
2. White Board Marker
3. Projector

Annexure: Industry Validations Summary

Provide summary information of all the industry validation in table. This is not required for OEM Qualifications.

S. No	Organisation Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile
1	Infosys	Vivek Pilaniya	Program Manager	Infosys, delhi	9718423 687	vivek.pilania@infosys.com	https://www.linkedin.com/in/vivek-pilania-iimc
2	IBM	Arpita Majumder	Tech Consultant	IBM DLF Park 1	7894369 677	Arpita.majumder@ibm.com	https://www.linkedin.com/in/arpita-majumder-85612a67/
3	Mindshare (Inclusive Minds)	Pamindar Singh	Team Lead		8713901 984	paminder.singh@themindshare.in	https://www.linkedin.com/in/paminder-singh-7990b8101/
4	Freelance SME (Ex-3i Infotech)	Rishi Agrawal	Ex-SVP and Global Delivery Head – Automations, Applications and Analytics	-	7702191 049	agrishi@gmail.com	https://www.linkedin.com/in/agrishahi/
5	Acolyte	Saranya	Research Analyst		9944313 170	saranyakathir128@gmail.com	
6	Verizon	Sudeesh Sankaravel	Fellow Data Scientist	-	9176433 113	sudeesh.sankaravel@verizon.com	https://www.linkedin.com/in/sudeesh-sankaravel
7	Amazon	Asvin Ragav R	Data Associate		9994308 478	asvinragav16@gmail.com	
8	Sutherland	Nausath Raja	Sr. Director-Platform Solutions Group	-	9940113 955	naushathraja.mohammed@sutherlandglobal.com	https://www.linkedin.com/in/naushath-raja-mohammed-4b7080b6/
9	Forbes Advisor	Naveenkumar Janakiraman	Data Research Analyst		9976773 109	naveenkumarj4997@gmail.com	https://www.linkedin.com/in/naveenkuumar-janakiraman

10	Frontier	Santhosh kumar S	DevOps L1		9655747400	santhoshselvaraj24031998@gmail.com	
11	Accolite Digital	Ayushmaan Pandey	Senior Software Engineer	-	8077386365	ayushmaan.pandey@accolitedigital.com	https://www.linkedin.com/in/ayushmaanpandey
12	Impekable	sreepathi.D	Lead Market Research and Business Development		9655036999	sanjeevsree22@gmail.com	
13	Data Switch	Thilak hariharaSudhan A	Product Engineer	DataSwitch, Chennai	6393798750	thilakhariharan@gmail.com	https://www.linkedin.com/in/thilak-hariharasudhan-43a89b269/
14	Kornferry	Ragul	Data analyst	-	9659964881	ragulbloomer143@gmail.com	https://www.linkedin.com/in/ragul-kumar-b2297a171/
15	Navitas life sciences Chennai	Gowtham K V	Junior Research associate	-	9994594693	gg17165322@gmail.com	
16	Intellibren	Kailash PD	Director	Intellibren services LLP	6374700185	kailash@intellibren.com	-
17	Openweaver	Ashok Balasubramanian	Founder & CEO	-	9962548366	ashok@openweaver.com	https://www.linkedin.com/in/ashok-balasubramanian/
18	Upgrad	Samneesh Sharma	Sr Manager-project delivery		8679334000	shamneesh.sharma@upgrad.com	https://www.linkedin.com/in/shamneeshsharma1987/
19	Q Acadmey	Deepak Gour	Product and Academic Head	-	9893554394	deepak@qacademy.ca	https://ca.linkedin.com/in/deepak-gour-8853968
20	Tata consultancy services	Karthiga N	Test Analyst	-	7092257551	karthiga0115@gmail.com	
21	Wipro	Narendra Nande	Practice Director (VLSI SW and PSV Practice)	-	9900086708	narendra.nande@wipro.com	https://www.linkedin.com/in/narendra-nande-84402a2/

Annexure: Training & Employment Details

Training & Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employed Opportunities	Estimated Training #	Estimated Employed Opportunities	Estimated Training #	Estimated Employed Opportunities

Data to be provided year-wise for the next 3 years.

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates			Women			People with disability		
		Trained	Assessed	Certified	Trained	Assessed	Certified	Trained	Assessed	Certified

Applicable for revised qualifications only, data to be provided year-wise for the next 3 years.

List Schemes in which the previous version of qualification was implemented:

1.

Content availability for previous version of qualifications:

☐ Participant Handbook ☐ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Language in which content is available:

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
1	☐ Theory/ Lectures - Imparting theoretical and conceptual knowledge	NA	NA

2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	NA	NA
3	☐ Showing Practical Demonstrations to the learners	NA	NA
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	NA	NA
5	☐ Tutorials/ Assignments/ Drill/ Practice	NA	NA
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	NA	NA
7	☐ On the Job Training (OJT)/ Project Work Internship/ Candidate Training	NA	NA

Annexure: Detailed Assessment Criteria

Detailed Assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SSC/N8115 Create new databases	PC.1 Define and prioritize objectives based on business needs and database performance requirements.	3	8	-	4
	PC.2 Identify and evaluate quality and reliability of suitable data sources.	7	8	-	4
	PC.3 Specify storage requirements including scalability considerations and create new databases.	10	12	-	4
	PC.4 import data from the identified sources into the database	10	12	-	4
	PC.5 create documentation on new databases for appropriate people	0	10	-	4
	Total Marks	30	50	-	20
SSC/N8116 Maintain Existing databases	PC.1 Collaborate with stakeholders to validate databases for compliance and performance.	3	5	-	2
	PC.2 Modify and remove data from existing databases and implement archiving procedures for outdated information	3	5	-	2
	PC.3 Assist in the migration of existing databases to new environments, ensuring data integrity throughout the process.	3	5	-	2
	PC.4 Implement automated database maintenance plans, backup routines, and monitoring tools to proactively identify issues.	3	5	-	2

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC.5 Perform both manual and scheduled maintenance procedures for backup, optimization, and indexing, including specific examples of each.	3	5	-	2
	PC.6 Diagnose and resolve issues with database completeness and veracity, ensuring data integrity.	3	5	-	2
	PC.7 Conduct load or stress testing and user acceptance testing to ensure database reliability under pressure.	3	5	-	2
	PC.8 Monitor ongoing and forecasted workloads and data storage consumption; develop reports for relevant stakeholders, including benchmarking against industry standards.	3	5	-	2
	PC.9 Oversee and regularly test the disaster recovery strategy for database environments to ensure effectiveness.	3	5	-	2
	PC.10 create documentation on managed databases	3	5	-	2
	Total Marks	30	50	-	20
SSC/N8117: Manage database access and configuration	PC.1 Define and test user access rules for databases	4	7	-	3
	PC.2 Define encryption standards for the database	4	7	-	3
	PC.3 Perform load or stress testing to ensure the database does not crash in a DDoS attack	3	5	-	2
	PC.4 Ensure access to specific data and form of the data and provide deployment support to appropriate people using the databases	3	5	-	2
	PC.5 Monitor ongoing and forecasted workloads and determine consumption of data storage and compute resources	3	5	-	2
	PC.6 Monitor logs, server usage, and performance metrics to ensure functionality and accessibility	4	6	-	2
	PC.7 Develop reports on database utilization, availability and performance metrics for relevant stakeholders	3	5	-	2
	PC.8 Troubleshoot database utilization, availability and performance issues and remediate known impacting vulnerabilities	3	5	-	2
	PC.9 Oversee the availability and disaster recovery strategy for the database environment	3	5	-	2
	Total Marks	30	50	-	20
SSC/N8118: Manage Computing Cluster administration	PC.1 Define, deploy, and manage clusters, including setup configurations and maintenance of redundancy and failover strategies.	6	10	-	4
	PC.2 Evaluate cluster requirements through capacity planning to ensure scalability.	6	10	-	4
	PC.3 Monitor cluster connectivity and performance, recommending efficiencies, and utilize advanced analytics or machine learning for predictive insights.	6	10	-	4
	PC.4 Administer cluster access for appropriate users and manage permissions effectively.	6	10	-	4

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC.5 Create and validate documentation specific to computing clusters.	6	10	-	4
	Total Marks	30	50	-	20
DGT/VSQ/N0102 Employability Skill (60 Hours)	PC.1 Introduction to Employability Skills	1	1	-	-
	PC.2 Constitutional values – Citizenship	1	1	-	-
	PC.3 Becoming a Professional in the 21st Century	2	4	-	-
	PC.4 Basic English Skills	2	3	-	-
	PC.5 Career Development & Goal Setting	1	2	-	-
	PC.6 Communication Skills	2	2	-	-
	PC.7 Diversity & Inclusion	1	2	-	-
	PC.8 Financial and Legal Literacy	2	3	-	-
	PC.9 Essential Digital Skills	3	4	-	-
	PC.10 Entrepreneurship	2	3	-	-
	PC.11 Customer Service	1	2	-	-
	PC.12 Getting Ready for Apprenticeship & Jobs	2	3	-	-
	Total Marks	20	30	-	-
		140	230	-	80

Annexure: Assessment Strategy

Assessment Process Overview

Batch Creation & Assessment Request:

Training Providers (TP) or Training Centers (TC), including any other authorized partner of Ministry/ Department create batches / push batches on the SIDH portal. Assessment requests are submitted through the SIDH portal or via email or other media as authorized from time to time. For NON-SIDH schemes, assessment requests are received electronically or through respective State Skill Mission portals. TP/TC initiates the assessment request through the InSDMS portal and processes the payment (where applicable).

Batch Alignment & Confirmation:

Upon payment confirmation, batches are assigned to the Assessment Agency based on factors like:

- Assessment readiness
- Availability of certified assessors for the specific job role
- Assessment capping to an assessment agency as prescribed from time to time for an AB An email communication / prescribed mode communication is sent to TP/TC for confirmation of the assessment date, with IT-ITeS SSC in the loop. Once confirmation is received, the Assessment Agency designates a TOA-certified assessor to conduct or facilitate the assessment.
- Batches are only formed when the Qualification is active.

Candidate Verification & Assessment Execution:

Candidate details are verified and documented at the beginning of the assessment by a certified assessor. A Quality Assurance (QA) mechanism is enforced, requiring an undertaking from the TC. Regular feedback is collected from TP/TC to ensure continuous improvement.

Evidence Collection & Validation:

Proctors or assessors capture date/time-stamped and geo-tagged photographs of the assessment location during the process. Attendance is also ensured offline. A PC-wise result analysis is conducted to refine assessment standards.

Monitoring & Compliance:

Batch monitoring follows established protocols, ensuring adherence to assessment guidelines. Sample based surprise visits are conducted at TC locations during both training and assessments to verify compliance. This structured approach ensures transparency, quality control, and validation throughout the assessment process.

Testing Environment:

- Check the Assessment location, date and time
- If the batch size is more than 30, then there should be 2 Assessors.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

Assessment Quality Assurance levels/Framework:

IT-ITeS SSC nasscom is responsible for the development and periodic review of the question bank developed for a specific job role. We publish an openly accessible sample /model question paper on our website for all stakeholders. The quality of the Question Bank created by the assessment designer is validated by a Subject matter experts on the following parameters:

- Appropriateness of the Question Bank in terms of facts, data and information.

- Checks for grammar, spellings, scripting and formatting.
- The information provided should be specific enough to remove any ambiguity in answers/solutions to the question.
- Relevance – Assessing the topic well w.r.t. the job role.
- Check if the difficulty level of each question is as per the matrix.
- Check if the images used in the question are clear and relevant.
- All variables, symbols and abbreviations used must be declared.
- The correct answer option should be unique, and the options should not be overlapping

NSQC Approved

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities based on their main economic function, product, service or technology.