



QUALIFICATION FILE

AI Data Architecture Analyst

- ☒ 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

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Section 1: Basic Details

1.	Qualification Name	AI Data Architecture analyst	
2.	Sector/s	IT/ITeS	
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of the existing /previous qualification: QG-06-IT-01528-2023-V1.1-NASSCOM & Version 3	Qualification Name of the existing/previous version: AI Data Architecture analyst
4.	a. OEM name b. Qualification Name (Wherever applicable)		
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-06-IT-045842025-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	The AI Data Architecture analyst qualification equips professionals with the essential skills to design, implement, and maintain data architectures that align with organizational goals. Participants will learn to assess business requirements, select appropriate technologies, and manage storage solutions while ensuring compliance with data governance and security standards. The curriculum covers key areas such as data quality assurance, performance optimization, and the implementation of security protocols. Upon completion, individuals will be adept at analyzing existing systems, innovating data integration solutions, and contributing to effective data management strategies, ultimately enabling organizations to leverage their data as a strategic asset for business success.	
9.	Eligibility Criteria for Entry for a Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience/ field: **Relevant Experience in job roles related to IT/AI/Big Data Analytics/Programming The relevant experience would include work, internship, and apprenticeship after completing relevant educational qualifications. * PHD or PG or UG or diploma with courses related to Engg./ Science	

		<table border="1"> <tr> <th>S. No.</th><th>Academic/Skill Qualification (with Specialization - if applicable)</th><th>Required Experience (with Specialization - if applicable)</th></tr> <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 years of relevant experience**</td></tr> <tr> <td>3</td><td>Previous Relevant qualification of NSQF level 5.5</td><td>1.5 years of relevant experience**</td></tr> </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 years of relevant experience**	3	Previous Relevant qualification of NSQF level 5.5	1.5 years 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 years of relevant experience**																	
3	Previous Relevant qualification of NSQF level 5.5	1.5 years of relevant experience**																	
		b. Age: NA																	
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	19 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"> <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> <tr> <td>Classroom (offline)</td><td>204</td><td>246</td><td>120</td><td>-</td><td rowspan="2">570</td></tr> <tr> <td>Online</td><td>204</td><td>246</td><td>120</td><td>-</td></tr> </table>	Training Delivery Mode	Theory (Hours)	Practical (Hours)	OJT (Mandatory) Hours	OJT (Recommended) Hours	Total (Hours)	Classroom (offline)	204	246	120	-	570	Online	204	246	120	-
Training Delivery Mode	Theory (Hours)	Practical (Hours)	OJT (Mandatory) Hours	OJT (Recommended) Hours	Total (Hours)														
Classroom (offline)	204	246	120	-	570														
Online	204	246	120	-															
		(Refer Blended Learning Annexure for details)																	
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/252.																	
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 – AI Solutions Architect • Professional Progression: Access to related qualification(s) at the next NSQF level – Enterprise architect																	

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 Skills (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: 07 th October 2025	24. Validity Duration: 3 Years	25. Next Review Date: 7 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/NSQF 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.	Design and maintain data architectures as per specifications	SSC/N8109 V3.0	Core	6	05	60:00	60:00	30:00	00:00	150:00	30	50	-	20	100	21
2.	Implement data storage network solutions	SSC/N8111 V3.0	Core	6	04	45:00	45:00	30:00	00:00	120:00	30	50	-	20	100	21
3.	Ensure data quality and data governance processes and structures are in place	SSC/N8119 V3.0	Core	5	05	45:00	75:00	30:00	00:00	150:00	30	50	-	20	100	21
4.	Follow data security best	SSC/N8158, V1.0	Core	6	03	30:00	30:00	30:00	00:00	90:00	30	50	-	20	100	21

S.No.	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF 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)
	practices and risk management															
5.	Employability Skill (60 Hrs)	DGT/VSQ/N0102 V1.0	Non-Core	4	02	24:00	36:00	00:00	00:00	60:00	20	30	-	-	50	16
Duration (in Hours) / Total Marks					19	204:00	246:00	120:00	00:00	570:00	140	230	-	80	450	100

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF 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																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF 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) (as per NCVET guidelines)	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.
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 Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap study (not older than 2 years) (Yes/No): Yes
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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: 1100
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_SSCQ8107_AI- Data Architect_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 (Mandatory)	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	Understanding of Data Architectures: Knowledge of various data architecture types (e.g., relational, NoSQL, hybrid) and their strengths, weaknesses, and appropriate applications. Data Governance and Compliance: Familiarity with data governance frameworks, data privacy regulations (like GDPR and PII), and policies that govern data usage and protection. Data Processing Concepts: Theoretical knowledge of data processing methodologies, including batch processing, real-time processing, ETL (Extract, Transform, Load) processes, and data pipelining.	The role requires in-depth theoretical understanding of data architecture concepts, which aligns with NSQF levels emphasizing comprehensive knowledge in a specialized field.	6
Professional and Technical Skills/ Expertise/ Professional Knowledge	Tool Proficiency: Expertise in using data management tools and technologies such as database management systems (MySQL, PostgreSQL), data pipeline software (Apache Airflow), ETL tools (Pentaho, Talend), and cloud platforms. Data Modeling Skills: Ability to design effective data schemas and architectural frameworks based on business requirements. Troubleshooting Skills: Proficiency in	The job role demands practical application of advanced technical skills and expertise in tools and technologies relevant to data architecture, which is consistent with higher NSQF levels that highlight skilled knowledge applicability.	6

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
	diagnosing and resolving issues within data architectures and related technologies, employing various debugging tools and methodologies. Performance Monitoring Skills: Skills to assess and enhance data architecture performance metrics using monitoring tools (Grafana, Prometheus).		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Adaptability: Capacity to adjust to evolving technologies and organizational needs related to data architecture. Collaboration and Communication: Skills to effectively communicate with stakeholders, including data scientists, analysts, and business units, ensuring alignment of data strategies with business goals. Entrepreneurial Mindset: Ability to identify opportunities for innovation in data management practices and contribute to developing strategic initiatives within an organization.	In the ever-evolving landscape of data management and technology, data architects must be able to quickly pivot to adopt new tools, frameworks, or methodologies in response to changing business needs or technological advancements. This includes becoming proficient in new databases, data processing frameworks (e.g., moving from traditional databases to cloud-native solutions), or updates in regulations affecting data governance. Data architects often serve as a bridge between technical teams and business units. They must communicate intricate data architecture concepts in a manner that is understandable to non-technical stakeholders, ensuring that data solutions align with business objectives. Collaboration is crucial for gathering requirements, addressing issues, and deriving insights from data analysis.	6
Broad Learning Outcomes/Core Skill	Critical Thinking: Development of analytical	Data architects must possess strong critical	6

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
	skills to assess data requirements, identify patterns, and make informed decisions regarding architecture design. Documentation and Reporting: Skills to create clear, comprehensive documentation for data architecture processes, ensuring accessibility and clarity for stakeholders. Continuous Learning: Engagement in ongoing professional development to stay updated on emerging trends, technologies, and best practices in data architecture and management.	thinking skills to assess complex data requirements and workflows. This includes identifying relevant data sources, analyzing data relationships, defining performance metrics, and making informed decisions regarding architecture design and implementation. They should be capable of evaluating trade-offs between different architectural solutions based on scalability, performance, security, and cost.	
Responsibility	Accountability for Data Integrity: Commitment to ensuring the quality, accuracy, and security of data throughout its lifecycle, adhering to organizational and legal standards. Ethical Data Management: Responsibility for implementing ethical practices in data handling, ensuring compliance with regulations and fostering trust in data governance processes. Leadership: Ability to take initiative in driving data architecture projects, mentoring junior team members, and contributing to a culture of continuous improvement within the organization	In the context of a Data Architect's role, responsibility entails being accountable for the effective design, implementation, and management of data architectures that support organizational objectives while ensuring data integrity, security, and compliance with relevant regulations.	6

Annexure: Tools and Equipment (lab set-up)

List of Tools and Equipment

Batch Size:

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	PC/Laptop with internet	-	
2	DBMS	MySQL,PostgreSQL	
3	Data pipeline Software	Apache Airflow	
4	ETL Software	Pentaho Data Integration (Kettle)	
5	DBaaS (Database as a service)	Hortonworks Data Platform	
6	Network Simulation tools	GNS3	
7	Free NAS Solution	Openmediavault	
8	Monitoring Tools	Nagios	
9	Networking testing tools	Iperf	
10	Network protocol analyzer	Wireshark	
11	Data analysis tools	ELS Stack	
12	Backup Software	Duplicati	
13	Open-source Disk Encryption Software	Veracrypt	
14	Data profiling tools	Pandas profiling	
15	Scripting Language	Python	
16	Dashboarding/Visualization Software	Tableau	
17	Access Control Management Software/Libraries	Various open-source libraries for role-based access control (specific tools may vary by organization).	
18	Data Masking Tools/Libraries	Specific open-source tools as per organizational needs.	
19	Framework for Tracking Security-Relevant Events:	OSSEC (intrusion detection)	
20	Documentation tools	Google Workspace (for drafting data policies)	
21	Collaboration tools	Google Meet	

Classroom Aids

The aids required to conduct sessions in the classroom are:

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

*Tools are open source

Annexure: Industry Validations Summary

Provide summary information of all the industry validations in the 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/agrishi/
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		9655747 400	santhoshselvaraj24031998@gmail.com	
11	Accolite Digital	Ayushmaan Pandey	Senior Software Engineer	-	8077386 365	ayushmaan.pandey@accolitedigital.com	https://www.linkedin.com/in/ayushmaanpandey
12	Impekable	sreepathi.D	Lead Market Research and Business Development		9655036 999	sanjeevsree22@gmail.com	
13	Data Switch	Thilak hariharaSudhan A	Product Engineer	DataSwitch, Chennai	6393798 750	thilakhariharan@gmail.com	https://www.linkedin.com/in/thilak-hariharasudhan-43a89b269/
14	Kornferry	Ragul	Data analyst	-	9659964 881	ragulbloomer143@gmail.com	https://www.linkedin.com/in/ragul-kumar-b2297a171/
15	Navitas life sciences Chennai	Gowtham K V	Junior Research associate	-	9994594 693	gg17165322@gmail.com	
16	Intellibren	Kailash PD	Director	Intellibren services LLP	6374700 185	kailash@intellibren.com	-
17	Openweaver	Ashok Balasubramanian	Founder & CEO	-	9962548 366	ashok@openweaver.com	https://www.linkedin.com/in/ashok-balasubramanian/
18	Upgrad	Samneesh Sharma	Sr Manager-project delivery		8679334 000	shamneesh.sharma@upgrad.com	https://www.linkedin.com/in/shamneeshsharma1987/
19	Q Acadmey	Deepak Gour	Product and Academic Head	-	9893554 394	deepak@qacademy.ca	https://ca.linkedin.com/in/deepak-gour-8853968
20	Tata consultancy services	Karthiga N	Test Analyst	-	7092257 551	karthiga0115@gmail.com	
21	Wipro	Narendra Nande	Practice Director (VLSI SW and PSV Practice)	-	9900086 708	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
2023-24	200		40		20	
2024-25	400		80		40	
2025-26	500		100		50	

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/N8109: Design and maintain data architectures as per specifications	PC.1 Define and document business and technical requirements for data architecture ensuring alignment with organizational goals and stakeholder needs	3	5	-	2
	PC.2 Review and analyze various data architectures capabilities limitations and evaluate potential evolution of the data technology stack	3	5	-	2
	PC.3 Formulate strategies and select the best technologies to implement data architectures considering security standards governance and compliance requirements	3	5	-	2
	PC.4 Design data architecture that integrates data from various sources stages data for processing determines appropriate data formats and defines data segmentations	3	5	-	2
	PC.5 Develop reliable and scalable data pipelines and integrations continuously monitor performance metrics troubleshoot issues and optimize data storage and retrieval processes	3	5	-	2
	PC.6 Stage data loading approaches for batch and real-time applications and adapt architecture based on performance scalability and evolving governance standards	3	5	-	2
	PC.7 Maintain comprehensive documentation of data architecture processes standards and updates and share with relevant stakeholders for transparency and future reference	3	5	-	2
	PC.8 Incorporate Agile methodologies to support iterative development and continuous improvement in data architecture design and maintenance	3	5	-	2
	PC.9 Proactively monitor governance and compliance requirements ensuring data architecture aligns with regulatory standards and environmental changes	3	5	-	2
	PC.10 Collaborate with stakeholders to understand their needs and ensure data architecture effectively supports organizational functions and strategic objectives	3	5	-	2
	Total Marks	30	50	-	20
SSC/N8111 Implement data storage network solutions	PC.1 Evaluate storage design considerations for the data architecture	2	4	-	1
	PC.2 Describe assessment goals and methodology of storage networks	2	3	-	1
	PC.3 Setup the storage network for the desired architecture	2	4	-	1
	PC.4 Create documentation on storage networks for appropriate people	3	4	-	1
	PC.5 Validate storage networks with appropriate people	2	4	-	1
	PC.6 Monitor system storage performance and recommend suitable improvements	2	4	-	1
	PC.7 Perform regular port and throughput exercises	2	4	-	2
	PC.8 Resolve data storage network issues	2	4	-	2
	PC.9 Analyze data access patterns to optimize storage performance and determine the most effective configuration for data retrieval	2	4	-	2
	PC.10 Implement data redundancy and backup strategies to ensure data availability and disaster recovery	2	4	-	2

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC.11 Integrate security measures within the storage network architecture	2	4	-	2
	PC.12 Perform capacity planning to estimate future storage needs based on usage trends and projected data growth	3	4	-	2
	PC.13 Research and evaluate emerging storage technologies and solutions to recommend innovative approaches that align with organizational goals	4	3	-	2
	Total Marks	30	50	-	20
SSC/N8119: Ensure data quality and data governance processes and structures are in place	PC.1 Work with stakeholders to identify data quality criteria like accuracy and completeness and document benchmarks to measure quality	3	5	-	2
	PC.2 Analyze data to understand its characteristics and create processes to clean duplicates and fix formatting errors	3	5	-	2
	PC.3 Standardize data formats such as dates and text and set validation rules to ensure data is correct and consistent	3	5	-	2
	PC.4 Use scripts to automatically check data during ETL processes detect errors and set up alerts for issues	3	5	-	2
	PC.5 Improve data quality by adding external data sources while ensuring accuracy and standard practices are followed	3	5	-	2
	PC.6 Investigate the causes of data issues and set up ongoing monitoring with reports and dashboards to track quality trends	3	5	-	2
	PC.7 Collect feedback from data users about quality issues and update processes and documentation regularly	3	5	-	2
	PC.8 Create regular data quality reports for stakeholders and stay current with best practices and tools in data quality management	3	5	-	2
	PC.9 Establish a data governance framework with roles and policies to manage data classification access and responsibilities	3	5	-	2
	PC.10 Implement security measures like encryption and access controls and review logs to ensure compliance and respond to incidents	3	5	-	2
	Total Marks	30	50	-	20
SSC/N8158: Follow data security best practices and risk management	PC.1 Implement data encryption methods to protect sensitive data at rest and in transit	3	5	-	2
	PC.2 Establish secure protocols for transferring data between systems, ensuring data security during transit	3	5	-	2
	PC.3 Set up monitoring tools to track access and modifications to sensitive data	3	5	-	2
	PC.4 Conduct regular audits and reviews of data access logs to identify potential security breaches and assess compliance with governance policies	3	5	-	2

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC.5 Develop data retention policies that outline how long different types of data should be retained	3	5	-	2
	PC.6 Conduct regular training exercises for the data engineering team and relevant stakeholders on how to respond to security incidents	3	5	-	2
	PC.7 Regularly review and update data security policies and governance frameworks in response to evolving threats and regulatory changes	3	5	-	2
	PC.8 Troubleshoot and resolve issues with new data architectures	3	5	-	2
	PC.9 Analyze common data patterns for transactional systems and hybrid data solutions	3	5	-	2
	PC.10 Define reliable and scalable data pipelines or integrations	3	5	-	2
	Total Marks	30	50	-	20
DGT/VSQ/N0102: Employability Skill (60 Hours)	PC1. Introduction to Employability Skills	1	1	-	-
	PC2. Constitutional values – Citizenship	1	1	-	-
	PC3. Becoming a Professional in the 21st Century	2	4	-	-
	PC4. Basic English Skills	2	3	-	-
	PC5. Career Development & Goal Setting	1	2	-	-
	PC6. Communication Skills	2	2	-	-
	PC7. Diversity & Inclusion	1	2	-	-
	PC8. Financial and Legal Literacy	2	3	-	-
	PC9. Essential Digital Skills	3	4	-	-
	PC10. Entrepreneurship	2	3	-	-
	PC11. Customer Service	1	2	-	-
	PC12. Getting Ready for Apprenticeship & Jobs	2	3	-	-
	Total Marks	20	30	-	-
Grand Total		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

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.

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