



सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
DEVELOPMENT COMMISSIONER
MINISTRY OF MICRO, SMALL & MEDIUM
ENTERPRISES

MSME TECHNOLOGY CENTRE



QUALIFICATION FILE

CISCO Certified Network Associate

Short Term Training (STT) Long Term Training (LTT) Apprenticeship

Up skilling Dual/Flexi Qualification For ToT For ToA

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

NCrF/NSQF Level: 4.0

Submitted By:

MSME TECHNOLOGY CENTRE

O/o DC MSME, Ministry of Micro, Small and Medium Enterprises

Govt. of India

A-Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road

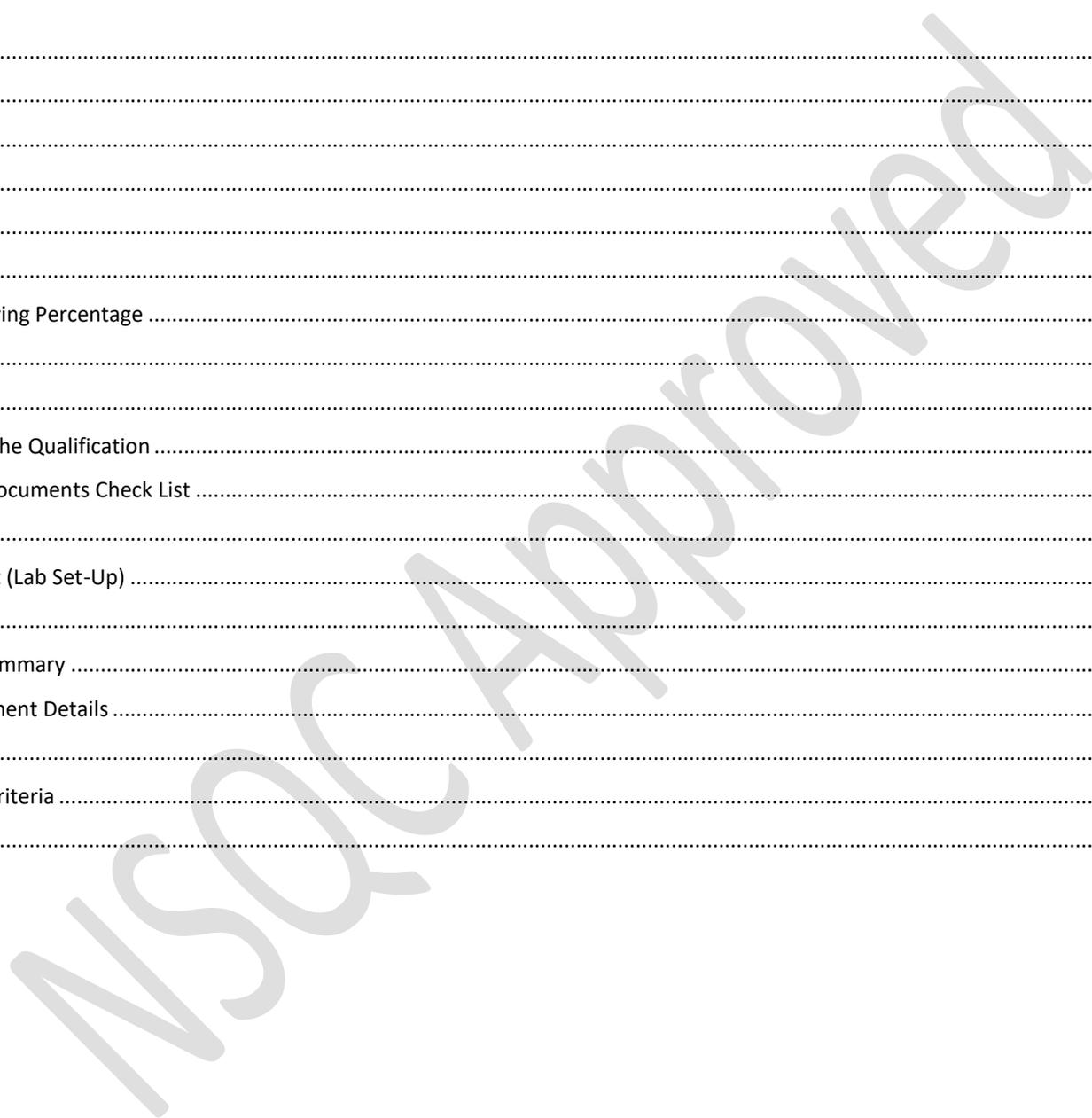
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Section 1: Basic Details

1.	Qualification Name	CISCO Certified Network Associate	
2.	Sector/s	Electronics & HW	
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i> QG-04-EH-02389-2024-V1-MSME	Qualification Name of existing/previous version: Cisco Certified Network Associate (CCNA)
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA -	
5.	National Qualification Register (NQR) Code & Version <i>(Will be issued after NSQC approval)</i>	QG-04-EH-02389-2024-V1-MSME	6. NCrF/NSQF Level: 4
7.	Award (Certificate/Diploma/Advanced Diploma/Any Other) <i>(Wherever, applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate	
8.	Brief Description of the Qualification	<p>The qualification containing different modules, which is required for the job role of CCNA and ultimately helps learner in the following:</p> <ul style="list-style-type: none"> • Computer Networks, various protocols used in Communication, Managing and configuring Cisco Switches and Routers and various WAN technologies. • Manage Network for an Organization. • Install, configure, operate, and troubleshoot medium-sized routed and switched networks. • Learners are competent to get the employment in the IT industries and also become an entrepreneur. 	

<p>9. Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</p>	<p>a. Entry Qualification & Relevant Experience:</p> <table border="1" data-bbox="840 191 2105 414"> <thead> <tr> <th>Sl. 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>12th grade pass</td> <td>Nil</td> </tr> <tr> <td>2</td> <td>2nd year of 3 year diploma (after 10th)</td> <td>Nil</td> </tr> <tr> <td>3</td> <td>Previous relevant Qualification of NSQF Level 3.5</td> <td>1.5-year relevant experience</td> </tr> <tr> <td>4</td> <td>Previous relevant Qualification of NSQF Level 3</td> <td>1-year relevant experience</td> </tr> </tbody> </table> <p>b. Age: 17 years</p>						Sl. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12th grade pass	Nil	2	2nd year of 3 year diploma (after 10th)	Nil	3	Previous relevant Qualification of NSQF Level 3.5	1.5-year relevant experience	4	Previous relevant Qualification of NSQF Level 3	1-year relevant experience									
Sl. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																												
1	12th grade pass	Nil																												
2	2nd year of 3 year diploma (after 10th)	Nil																												
3	Previous relevant Qualification of NSQF Level 3.5	1.5-year relevant experience																												
4	Previous relevant Qualification of NSQF Level 3	1-year relevant experience																												
<p>10. Credits Assigned to this Qualification, Subject to Assessment(as per National Credit Framework (NCrF))</p>	<p>14</p>	<p>11. Common Cost Norm Category (I/II/III) (wherever applicable): II</p>																												
<p>12. Any Licensing requirements for Undertaking Training on This Qualification(whenever applicable)</p>	<p>NA</p>																													
<p>13. Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirements of the qualification)</p>	<p><input type="checkbox"/>Offline <input type="checkbox"/> Online <input checked="" type="checkbox"/>Blended</p> <table border="1" data-bbox="840 710 2105 917"> <thead> <tr> <th>Training Delivery Modes</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>48</td> <td>120</td> <td>60</td> <td></td> <td>168</td> </tr> <tr> <td>Online</td> <td>72</td> <td>180</td> <td>-</td> <td></td> <td>252</td> </tr> <tr> <td>Total</td> <td>120</td> <td>300</td> <td>60</td> <td></td> <td>480</td> </tr> </tbody> </table> <p>(Refer Blended Learning Annexure for details)</p>						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total(Hours)	Classroom (offline)	48	120	60		168	Online	72	180	-		252	Total	120	300	60		480
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total(Hours)																									
Classroom (offline)	48	120	60		168																									
Online	72	180	-		252																									
Total	120	300	60		480																									
<p>14. Aligned to NCO/ISCO Code/s(if no code is available mention the same)</p>	<p>7422.21 (Field Technician- Networking and Storage)</p>																													
<p>15. Progression path after attaining the qualification (Please show Professional and Academic progression)</p>	<p>Professional / Career Progress: Technician Network Support</p>																													
<p>16. Other Indian languages in which the Qualification & Model Curriculum are being submitted</p>	<p>Hindi</p>																													
<p>17. Is similar Qualification(s) available on NQR-if yes, justification for this qualification</p>	<p><input type="checkbox"/>Yes <input checked="" type="checkbox"/>No URLs of similar Qualifications.</p>																													
<p>18. Is the Job Role Amenable to Persons with Disability</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", As per Govt. Norms</p>																													
<p>19. How Participation of Women will be Encouraged</p>	<p>Seats are reserve as per Govt. norms.</p>																													
<p>20. Are Greening/ Environment Sustainability Aspects Covered</p>	<p><input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p>																													

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version <i>(if applicable)</i>	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 (%) <i>(if applicable)</i>
1.																
2.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version <i>(if applicable)</i>	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 (%) <i>(if applicable)</i>
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

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

Minimum Marks to pass Theory Exam: 40%

Minimum Marks to pass Practical Exam: 60%

Minimum Pass Percentage –NOS/Module-wise : *(Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)*

Minimum Marks to pass Theory Exam: 40%

Minimum Marks to pass Practical Exam: 60%

Section 3: Training Related

1.	Trainer’s Qualification and experience in the relevant sector (in years)(as per NCVET guidelines)	Diploma / Degree in Computer Science/ IT /Electrical / Electronics / or Equivalent with Practical skills and knowledge required in the relevant job role at least one level higher i.e. level 5 and above in related field and minimum 2 years of experience in Tool Room/ Technology Centre of MSME or any reputed industry will become a trainer, or in accordance with the TOT guideline of NCVET.
2.	Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma / Degree in Computer Science/ IT /Electrical / Electronics / or Equivalent with 3 to 5 years of experience in IT/ Training/ IT Department from Tool Room/ Technology Centre of MSME or any reputed industry will become as a Master Trainer, Or in accordance with the TOT guideline of NCVET
3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If “Yes”, details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Up skilling Required for Trainer	Yes

Section 4: Assessment Related

1.	Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma / Degree in Computer Science/ IT /Electrical / Electronics / or Equivalent with 3 years of experience in IT/CS/ Training/ IT from Tool Room/ Technology Centre of MSME or any reputed industry and Only (TOA) certified assessors will be able to conduct the assessments.
2.	Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Degree in Computer Science/ IT /Electrical / Electronics / or Equivalent with 5 years of experience in IT/ Training/ IT Department from Tool Room/ Technology Centre of MSME or any reputed industry.
3.	Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Post Graduate in the relevant discipline with minimum 5 years of experience in CS/IT/ Training/ IT Department from Tool Room/ Technology Centre of MSME or any reputed industry.
4.	Assessment Mode(Specify the assessment mode)	Blended Type (Online + Offline)
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.

Cisco Certified Network Associate (CCNA)

1.	Latest Skill Gap Study (not older than 2 years)(Yes/No):Yes https://www.meity.gov.in/writereaddata/files/Electronics_IT_Hardware_NSDC_Report_1732011%20%281%29.pdf Human Resource and Skill Requirements in the Electronics and IT Hardware Industry, “Study on mapping of human resource skill gaps in India till 2022 ”
2.	Latest Market Research Reports or any other source (not older than 2years) (Yes/No):- Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 35
5.	Estimated nos. of persons to be trained and employed: Approx. 1000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments:, Yes 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 level/NSQF descriptors <i>(Mandatory)</i>	Annexure-I
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Annexure-II
3.	Annexure: Industry Validations Summary	Annexure-III
4.	Annexure: Training & Employment Details	Annexure-IV
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	Annexure-V
6.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Annexure-VI
7.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Annexure-VII
8.	Annexure: Acronym and Glossary <i>(Optional)</i>	Annexure- VIII

9.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	NA
10.	Supporting Document: Model Curriculum (Mandatory – Public view)	Annexure- IX
11.	Supporting Document: Career Progression (Mandatory - Public view)	This aspect mentioned in point no. 15
12.	Supporting Document: Occupational Map (Mandatory)	Annexure-X
13.	Supporting Document: Assessment SOP (Mandatory)	Annexure- XI
14.	Any other document you wish to submit:	NA

Annexure I: 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	<p>CISCO CERTIFIED NETWORK ASSOCIATE (CCNA) qualification identifies and exhibits wide range of well-developed skill set with clear knowledge required to study of networking and the configuration of routers, switches and wireless devices etc. along with the analyzing the fault of the devices according to standard and non-standard requirements.</p> <p>Also the trainee is expected to be well conversant with the trouble shooting the networking devices & implementation network service of the industry/organization.</p>	<p>Job holder is expected to execute the study and analysis process required for various Networking Equipment, their working principles in various type of conditions which requires well developed knowledge in analysis and troubleshoot the Wide Area Networking under different conditions. The trainees also can monitor the condition of networking devices from a remote location and solve the error found if any which requires high depth of skill in through this qualification. Hence the qualification is kept at level 4 as per the process is concerned.</p>	4

<p>Professional and Technical Skills/ Expertise/ Professional Knowledge</p>	<p>The curriculum of the qualification Advanced Diploma in Cisco Certified in Network Associate covers wide range through understanding and knowledge of different type of Networking devices used in different networks, their working principles, configuration of routers, switches and Wireless devices. Cisco Certified in Network Associate qualification has thorough knowledge of configuration and troubleshooting of various modern networking equipment's and hand tools to support the all these activities.</p>	<p>Job holder's needs to have in depth knowledge and understanding IP addressing, sub netting, configuration of routers, switches and various WAN protocols. Draw out specification of the various topologies used in networking and identify them correctly, Understand the error message etc. They also gain adequate knowledge about the networking structure, LAN, protocol, OSI layers through the theoretical input. Therefore this is pegged at level 4.</p>	<p>4</p>
<p>Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill</p>	<p>Cisco Certified in Network Associate qualification have the ability to apply practical knowledge and understanding in identifying, specifying the Advance Networking components and method of troubleshooting all of these components. Cisco Certified in Network Associate also have the ability to perform partitioning, formatting of IOS in Routers and also can reset the password of Routers and Switches. The qualification also imparts skill for trouble shooting the entire network. They should have the capability to test network to ensure the functionality of the same after maintenance work. Cisco Certified in Network Associate imparts detail in depth skill to use different types of instruments to maintain the desired function.</p>	<p>Job holder is engaged in tasks such as studying, configuring, identifying, analyzing and interpreting the trouble of LAN and WAN. Planning and executing the maintenance work, using appropriate instruments within the quality framework and norms. These activities are variable in nature due to the dependency upon various types of configurations, IOS and network structures of the Industry/Organizations. They will be accustomed to wide range of maintenance for any kind of fault. These skills are at certain range of cognitive in nature and therefore fixed at level 4.</p>	<p>4</p>
<p>Broad Learning Outcomes/Core Skill</p>	<p>Cisco Certified in Network Associate curriculum is designed to have reasonable good numerical abilities, mathematical calculations required for analyzing the networking components used in LAN & WAN, communication skills to receive, provide, and transmit information logically to the appropriate person or the group involved in the activities. Use of appropriate measuring techniques, units and number systems to express degree of accuracy units and number systems representing degree of accuracy. Should be able to communicate to the appropriate person in regards to health, safety, first aid etc.</p>	<p>The job holder needs to have Generic Skills of writing, Oral and Communication Skills. Job holder prepares Documentations for maintenance history and schedule requirements. Understand the maintenance requirements/client requirement which requires reasonably good clarity in oral and the written skills and while working on the content he needs to be aware of the social, political and natural environment. Also the job holder is competent enough to prepare the estimation and costing sheet by gathering analytical and logical data for the successful maintenance execution. Therefore it is pegged at level 4.</p>	<p>4</p>
<p>Responsibility</p>	<p>Check-up procedures to ensure that maintenance objectives are finished within</p>	<p>Job holder is required to carry out functions such as configuration,</p>	<p>4</p>

	<p>specified time frames are developed. Checkup procedures to ensure that agreed ethical and legal requirements are met are drawn. Cisco Certified in Network Associate is responsible for own work and learning along with full responsibility for other works and learning. The Job holder is expected to have openness to learning, ability to plan and organize own work and identify and solve problems in the course of working with in the team. Understanding the need to take initiative and manage him/herself and others and work to improve efficiency and effectiveness.</p>	<p>maintenance and troubleshoot the problem of networking devices and find the solution to it within specified requirement. In these activities job holder is doing the tasks independently which is the sole responsibility for him And guiding others as and when required. He/she is responsible for his/her own learning and others learning during the execution of the task. Therefore it is pegged at level 4.</p>	
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Annexure II: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment's: **Batch Size: 20**

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
EQUIPMENTS:		Industry Standard	3 Nos
1	Switches Cisco Catalyst 2950T		3 Nos
2	Cisco Catalyst 3550		3 Nos
3	Routers		3 Nos
4	Cisco 1800 series 1811 1822 1841 1861		3 Nos
5	Cisco 2800 series		3 Nos
6	Flash Memory and RAM		10 Nos
7	Cables		10 Nos
8	RS-232 serial connectors		10 Nos
9	Desktop Computer		20 Nos
10	Pen Drives	10 Nos	
SOFTWARE			

11	Windows Server Operating System	Industry Standard	2 Licenses	
12	Windows Operating System		2 Licenses	
13	Linux Operating System		20 Licenses	
14	Emulator / Simulator / GNS3		2 Nos	
15	Cisco VIRL		2 Nos	
16	Packet Tracer		2 Nos	
17	Topology		2 Nos	
COMPUTER NETWORKING				
18	Wireless Network Adapter			12 Nos
19	Wireless Access Point			6 Nos
20	Router			2 Nos
21	LAN cable tester		Industry Standard	As required
22	Network cables – UTP			As required
23	Network Cables – coaxial, flat, ribbon			As required
24	LAN Cards, Wi-Fi LAN Card			As required
25	Connectors for cables			As required
26	Media Convertor			As required
27	24 port UTP jack panel	As required		
28	SC Couplers	As required		
29	SC Pigtails	As required		
30	Co-axial cable	As required		
31	RJ-11 connector	As required		
32	BNC connector, T connector, terminator	As required		
33	Keystone jack	As required		
34	Patch / Jack Panel	As required		
35	Patch / Mounting cord	As required		
36	RJ-45 Info outlet with faceplate	As required		
37	RJ-45 I/O Box	As required		
38	Punching Tool	1 set		
39	LCD/DLP Projector/Interactive Smart Board			
40	General Equipment for Classroom : White Board, Smart Board, Duster, Marker, Multimedia /LCD Projector, Audio Video Aids, Pen drive and Practice exercise, PC with necessary software Etc.,	Standard		1 Set / As required

Annexure III: Industry Validations Summary

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

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	ALLWIN UNITED ASSOCIATION PVT.LTD	MI PANKAJ	DIRECTOR	ALLWIN UNITED ASSOCIATION PVT.LIMITED	7588537412	CONTACT@TECHNOCA DDAPL.COM	
2	SANJAY TECHNO PRODUCTS PVT LTD	V. P. MANUFACTURING	PROPRIETOR	MIDC AURANGABAD WALUJ	915888090	KEMANT.CHAUDHARI @SANJAYTRCHNOPRO DUCTS.IN	
3	MADURA DIE CAST PVT LIMITD	MADHURA	CEO	SHENDRA AURANGABAD	9422204622	MADHRADIECAST@GM AIL.COM	
4	MIS ANNA BLOCK BORING CENTER	MASIT KHAN	PROPRIETOR	MIS ANNA BLOCK BORING CENTER	9767375083		
5	LAXMI ENTERPRISES	RANJANA BHAYYA SAHEB PAWAR	MI.MANAGER	SAINAGAR GHANEGAON MIDC WALUJ, AURANGABAD	7387431128		
6	M/S HR INDUSTRIES	VASPUT JAUGELE	PROPRIETOR	SAJAPUR, AURANGABAD	9637384737		
7	GAYATRJ AUTO COMPONENTS, AURANGABAD	MR. RANJEET METE	MANAGER	AURANGABAD	7385613842	INFO@GAYATRIAUTO.I N	

8	SHARP TOOLS	MAHESH DORLE	SR.MANAGER		9689574563		
9	CHANCHAL ENGINEERING WORKS AURANGABAD	DRYHAEBHWAR	PROPRIETOR	AURANGABAD	9765499939	CHANCHALENGINEERIN GWORKS@GMAIL.CO M	
10	AKSHARA ENGINEERING WORKS	SHIVAJI GAIKWAD		WALUJ MIDC AURANGABAD	9096420857		
11	ARUSHI ENGINEERING AND BREEZING	VIJAYA PARADE	MANAGER	WALUJ MIDC AURANGABAD	9049596736		
12	SR INDUSTRIES AURANGABAD	RAJENDRA SAUDAGAR MARE	SR. MANAGER	AURANGABAD	8698145607		
13	DEVA ENGINEERING AURANGABAD	ASHOK MOTINAM VEOR	SR. MANAGER	AURANGABAD	8459567793		
14	MAULI PATTERN AURANGABAD	MR.PANCHAL	PROPRIETOR	AURANGABAD	9673067755		
15	NAVARATNA INDUSTRIES			WALUJ MIDC AURANGABAD			
16	PRANAW ENTERPRISES AURANGABAD	PANDRINATH DEVKAR	PROPRIETOR	AURANGABAD	9371671146	PRANAVENT@GMAIL.C OM	
17	R.P INDUSTRIES	PRASHANT PATIL	CEO	MIDC CHIKATHANA AURANGABAD	8007222251	PRASHANTPATIL@GM AIL.COM	
18	TECHNO MOULD SOLUTION	MR.PANDA	PROPRIETOR	AURANGABAD	7774077907	TECHNOMOULD.SOLUT IONS@GMAIL.COM	
19	SPECIAL PRECISION	ASHIWINI TADHAV	PROPRIETOR	AURANGABAD		SPECIALASHIWIN@GM AIL.COM	
20	SURAJ TOOLS AND ENGINEERING WORKS	DEIM	CEO	MIDC CHIKATHANA AURANGABAD	7447375273	SURAJTOOLS@GMAIL. COM	
21	PARASON MACHINERY (INDIA) PVT LTD	GHAHU	GM	AURANGABAD	9325202860	AMOIL.MOGAL@PASA SEN.COM	
22	PADMA INDUSTRIES	VITTHALKADOM	CEO	MIDC AURANGABAD	9421688212	VITTHALKADOM2525@ GMAIL.COM	
23	VANI ENGINEERING CO.PVT LTD	SUBH	GENERAL MANAGER	AURANGABAD	9730729991	SKAPE@GMAIL.COM	
24	GLANCE ENGINEERING -6 PVT.LIMITED CHIKALTHANA	SUBH SK	GENERAL MANAGER	CHIKALTHANA	9730729991	S.KALE@GMAIL.COM	
25	JAI BHAVANI ENGINEERING WORKS		GENERAL MANAGER		9370251815		
26	S N ENGINEERINGWORKS	SNEHA	CEO	CH SAMBAJINAGAR	9822859974	SNEHAG858@GMAIL.C OM	

27	R N INDUSTRIES	TLC	CEO	KAIAGRAM, AURANGABAD	9890718928	R.N.INDUSTRIES01@GMAIL.COM	
28	SWAGATI ENGINEERING WIS2		CEO	CHIKALTHNA,AURANGABAD	9763714369	SWAGATIENGG@GMAIL.COM	
29	IDEAL ENTERPRISE		GENERAL MANAGER	CHIKALTHANA AURANGABAD	9763785199	IDEAL1993@GMAIL.COM	
30	INDOTURAN INDUSTRIES	MR. VISHAL SHINDHE	PROPRIETOR	MIDC AURANGABAD WALUJ	9595280808		
31	MIKRONIX GAUGES PVT LTD		MD	B-25 MIDC , CHIKALTHANA, CH. SAMBHAJINAGAR	9822004674	MGPLAY@GMAIL.COM	
32	INDEXABLE CUTTING TOOL	TOR	PROPRIETOR	BAJAJNAGAR,AURANGABAD			
33	CREATIVE CASTING INDUSTRIES	MR. SANJAY RANDIRE	PARTNER	K-30, MIDC WALUJ , AURANGABAD	9011001671	CREATIVECAST@REDIFFMAIL.COM	
34	PYRAMID INDUSTRIES	MR. RAJENDRA KALE	PROPRIETOR				
35	RMG INDUSTRIES	RAOUAL	CEO	MIDC AURANGABAD WALUJ	9766699611	EAJUQANDA@RMGINDUSTRIES.COM	

Annexure IV: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
24-25	1000	1000	500	500	-	-
25-26	1200	1200	600	600	-	-
26-27	1500	1500	750	750	-	-

Data to be provided year-wise for 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	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
1.1	20-21	162	162	162	150	82	82	82	62	-	-	-	-
1.1	21-22	196	196	196	170	88	88	88	64	-	-	-	-
1.1	22-23	169	169	169	133	78	78	78	58	-	-	-	-

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

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

1. Fee based Training Program under the Ministry of MSME
2. Schemes under the different state Government.

Content availability for previous versions of qualifications:

Participant Handbook Facilitator Guide Digital Content Qualification Handbook Any Other:

Languages in which Content is available:

English

Annexure V: 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	<input checked="" type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	Books/ e-books, Presentations, Reference Material , Audio / Video Modules with installation step, settings and configuration Self-Learning Videos /Broadcasts /Mobile Learning /Curated Digital content	40:60
2	<input checked="" type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	Self-Learning Videos , Broadcasts, Mobile Learning , Curated Digital content	40:60
3	<input checked="" type="checkbox"/> Showing Practical Demonstrations to the learners	Emulator / Simulator, packet tracer, Topology practice lab configuration / simple network setup, Video Content, E-Resource library.	100:0

4	<input checked="" type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	GNS3, Different topology network setup ,	100:0
5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Practice	Online Question Bank, Mobile Quick test app, MCQ based tests, Practical Test on Machines	40:60
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	Assessment engine for Essays, Up-loadable file examinations, Mock test sessions	50:50
7	<input checked="" type="checkbox"/> On the Job Training (OJT)	NA	100:0

Annexure: VI 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
NOS / Module: MSME/CCNA/01 Introduction to Networks	PC.1 Understand the concept of Networking. PC.2 Understand the advantages of networking. PC.3 Working principle of Network Topologies. PC.4 Identify various communication Medias and cabling technique. PC.5 Crimping of Ethernet Cables. PC.6 Configure switches and end devices to provide access to local and remote network resources. PC.7 Explain how physical and data link layer protocols support the operation of Ethernet in a switched network. PC.8 Configure routers to enable end-to-end connectivity between remote devices.	100	100	-	-

	<p>PC.9 Understand the responsibilities of each layers of OSI model.</p> <p>PC.10 Understand the working principle of Transport layer.</p> <p>PC.11 Understand the TCP and UDP protocol.</p> <p>PC.12 Calculation of IPV4 Addressing.</p> <p>PC.13 Sub netting of IP Address.</p> <p>PC.14 Using FLSM & VLSM for Sub netting.</p> <p>PC.15 Understand the IPV6 Addressing.</p> <p>PC.16 Understand the working process of Router.</p> <p>PC.17 Understand the needs and benefits of Router.</p> <p>PC.18 Configuration of Router.</p> <p>PC.19 Configuration of IPv6 addresses on router.</p> <p>PC.20 Assigning Passwords to router.</p> <p>PC.21 Configure a small network with security best practices.</p> <p>PC.22 Troubleshoot connectivity in a small network.</p>				
<p>NOS / Module: MSME/CCNA/02</p> <p>Switching, Routing, and Wireless Essentials</p>	<p>PC.1 Configuration of Switch.</p> <p>PC.2 Configuration of SSH for Secure Access in Switch.</p> <p>PC.3 Configuration VLANs and Trunks.</p> <p>PC.4 Configuration of VTP.</p> <p>PC.5 Inter-VLAN routing.</p> <p>PC.6 Troubleshoot inter-VLAN routing on Layer 3 devices.</p> <p>PC.7 Understand the working principle of STP.</p> <p>PC.8 Understand the STP root configuration and verification.</p> <p>PC.9 Identify the Root Bridge on the basis of lowest Mac address.</p> <p>PC.10 Observe the Blocking and Designated port.</p> <p>PC.11 Understand the working process of Per VLAN Spanning Tree (PVSTP).</p> <p>PC.12 Observe the occurrence of Rapid Spanning Tree.</p>	<p>100</p>	<p>100</p>	<p>-</p>	<p>-</p>

PC.13	Understand the Static routing.				
PC.14	Configuration of Static and Default Routes.				
PC.15	Configuration of CDP and Summary routes.				
PC.16	Configure redundancy on a switched network using STP and Ether Channel.				
PC.17	Troubleshoot Ether Channel on switched networks.				
PC.18	Configure IPv4 and IPv6 static routing on routers.				
PC.19	Concept of link aggregation working and load balancing.				
PC.20	Understand the basic concept of Ether Channel.				
PC.21	Identify the types of Ether Channel.				
PC.22	Configuration of LACP, PAGP protocols in Ether Channel.				
PC.23	Configure WLANs using a WLC and L2 security best practices				
PC.24	Understand the Dynamic Routing Protocols.				
PC.25	Discuss the working principle of Distance Vector Routing.				
PC.26	Understand the concept of RIPv2.				
PC.27	Understand the Link State Routing.				
PC.28	Introduction to OSPF and OSPF DR/BDR.				
PC.29	Understand the concept of Multi Area OSPF.				
PC.30	Calculation of VLSM and CIDR.				
PC.31	Loading of IOS in Routers.				
PC.32	Resetting of password in Routers and Switches.				
PC.33	Configuration of Access Control List (ACLs).				
PC.34	Understand the types of ACLs (Standard & Extended ACLs).				
PC.35	Identify the requirement of ACLs.				
PC.36	Understand the requirement of DHCP.				
PC.37	Configuration of DHCP on real devices.				
PC.38	Understand the basic and advance concept of NAT.				

	<p>PC.39 Configuration of Static NAT.</p> <p>PC.40 Dynamic NAT configuration and verification on real device.</p> <p>PC.41 PAT configuration and verification on real device.</p>				
<p>NOS / Module: MSME/CCNA/03</p> <p>Enterprise Networking, Security, and Automation</p>	<p>PC.1 Understand the concept of Virtual Routing.</p> <p>PC.2 Understand the working principle of Hot Standby Routing Protocol.</p> <p>PC.3 How to mitigate threats and enhance network security using access control lists and security best practices.</p> <p>PC.4 Basic concept of EIGRP.</p> <p>PC.5 Configuration of EIGRP on real devices.</p> <p>PC.6 Understand the concept of equal and unequal load balancing in EIGRP.</p> <p>PC.7 OSPFv3 concept and configuration..</p> <p>PC.8 Configuration of Access Control List (ACLs).</p> <p>PC.9 Understand the types of ACLs (Standard & Extended ACLs).</p> <p>PC.10 Identify the requirement of ACLs.</p> <p>PC.11 Understand the requirement of DHCP.</p> <p>PC.12 Configuration of DHCP on real devices.</p> <p>PC.13 Understand the basic and advance concept of NAT.</p> <p>PC.14 Configuration of Static NAT.</p> <p>PC.15 Dynamic NAT configuration and verification on real device.</p> <p>PC.16 PAT configuration and verification on real device.</p> <p>PC.17 Understand the WAN encapsulation protocols.</p> <p>PC.18 Understand the working process of HDLC protocol.</p> <p>PC.19 Understand the Circuit Switched Networks.</p> <p>PC.20 Understand the concept of Packet Switched Networks.</p> <p>PC.21 Identify the different Public Internet Network (DSL, Cable Modems and Wi-max).</p> <p>PC.22 Understand the working principle of Point to Point Protocol (PPP).</p>	100	100	-	-

	<p>PC.23 Configuration of PPP on real devices.</p> <p>PC.24 Understand the types of PPP (PAP & CHAP).</p> <p>PC.25 Authentication of PAP over PPP on real devices.</p> <p>PC.26 Authentication of CHAP over PPP on real devices.</p> <p>PC.27 Understand the networking devices implement QoS</p> <p>PC.28 Understand the Implement protocols to manage the network</p> <p>PC.29 Understand the concept of Lease Line Connections.</p> <p>PC.30 Understand the concept and technical detail of Frame Relay switch.</p> <p>PC.31 Point to Point configuration of Frame Relay.</p> <p>PC.32 Understand the concept of Tunneling.</p> <p>PC.33 Configuration of Virtual Private Network (VPN).</p> <p>PC.34 Identify the types of VPN.</p> <p>PC.35 Configuration of GRE Tunneling.</p> <p>PC.36 Understand the concept of IP Sec.</p> <p>PC.37 Tunneling of IPv6 over IPv4 Packets.</p> <p>PC.38 Understand the software defined networking</p> <p>PC.39 Understand the automation affect evolving networks.</p>				
<p>NOS / Module:-</p> <p>Employability Skill</p>	<p>PC.1 Explain the major applications of MS Office</p> <p>PC.2 Explain the different types of e-commerce</p> <p>PC.3 List the benefits of e-commerce for retailers and customers</p> <p>PC.4 Discuss how the Digital India campaign will help boost e-commerce in India</p> <p>PC.5 Write applications pertaining to various matters.</p> <p>PC.6 Explain power of positive attitude and Importance of commitment</p> <p>PC.7 Explain motivation and the Ways to motivate oneself and Personal goal setting</p> <p>PC.8 Explain the Effective & Level of Communication</p>	<p>100</p>	<p>-</p>	<p>-</p>	<p>-</p>

	PC.9 Explain communication and Significance of technical communication? PC.10 Explain the methods of listening Skills. PC.11 Explain the differences between bio-data, CV and Resume. PC.12 Explain verbal and non-verbal Communication PC.13 Explain how to face an interview. PC.14 Explain team work, group work, team formation process PC.15 How to Minimize the team conflicts PC.16 Explain Ethics & values PC.17 Explain the concept of entrepreneurship, and entrepreneurship v/s Management PC.18 Explain the process of project report preparation for setting up a new business PC.19 Explain the role of various schemes and institute for self- employment i.e. MSME, DIC, NSIC, SIDBI etc., PC.20 Role of financial institution to support startup PC.21 Discuss the importance of saving money PC.22 Discuss the main types of bank accounts PC.23 Differentiate between fixed and variable costs PC.24 Describe the different types of insurance products PC.25 Discuss the main types of electronic funds transfers				
Grand Total		400	300	-	-

Annexure VII: Assessment Strategy

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

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:

- Batches are assigned to the MSME NSQF Assessment Agency via email for the assessment.

- MSME NSQF Assessment Agency sends the assessment confirmation to respective TC.
- MSME NSQF Assessment Agency deploys the certified Assessor for executing the assessment at respective TC via online / offline mode.
- MSME NSQF Assessment Agency & respective TC Internal Assessment cell monitors the assessment process & records.

2. Testing Environment:

- MSME NSQF Assessment Agency confirms the Assessment location, date and time
- For number of candidates more than 30 separate assessors are assigned for the assessment.
- MSME NSQF Assessment Agency & respective assessor confirms that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

3. Assessment Quality Assurance levels/Framework:

- Each TC Submits the Question Bank for the individual subject Theory & Practice separately, submits to MSME NSQF Assessment Agency and it is verified by the MSME NSQF Assessment Agency Committee members.
- Questions are mapped to the specified assessment criteria
- All the assessors & Trainers are well qualified & trained to carry out the specified task.

4. Types of evidence or evidence-gathering protocol:

- Online Link is send by MSME NSQF Assessment Agency to respective TC & Assessor. Reporting of the assessor from assessment location is verified by the MSME NSQF Assessment Agency through the online Meeting Link. Students are also required to join for the online link for verification by the MSME NSQF Assessment Agency.
- Assessment Photographs are shared with the MSME NSQF Assessment Agency & are also with the respective TC.

5. Method of verification or validation:

- Online Link is send by MSME NSQF Assessment Agency to respective TC & Assessor. Reporting of the assessor from assessment location is verified by the MSME NSQF Assessment Agency through the online Meeting Link. Students are also required to join for the online link for verification by the MSME NSQF Assessment Agency.

6. Method for assessment documentation, archiving, and access:

- The Assessment records are shared with MSME NSQF Assessment Agency & also stored at respective TC.
- Assessor fills the assessment report and shares with the MSME NSQF Assessment Agency.

On the Job Training:

- Each module will be assessed separately.
- The candidate must score 60% marks to successfully complete the OJT.
- Learner will be assessed on the basis of OJT report followed by Viva
- Assessment will ensure that the Learner is able to:
 - ✓ Effective engagement with the customers / Subordinates and team
 - ✓ Understand the working of various tools and equipment
 - ✓ Understand the working environment of the industry

Annexure VIII: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualification Framework
OJT	On the 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 on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf

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