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

MSME TECHNOLOGY CENTRE

QUALIFICATION FILE

Jr. Technician -Tool & Die Maker

☐ 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: 3.5

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

New Delhi-110108

Contact No. +91-674-2654700

Email- msmetcab@gmail.com

Table of Contents

Section 1: Basic Details

1.	**Qualification Name**	**Jr. Technician -Tool & Die Maker**	
2.	**Sector/s**	**Capital Goods & Manufacturing**	
3.	**Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options** **☐OEM**	**NQR Code & version of existing/previous qualification:** *(change to previous, once approved)* **QG-3.5-CG-02402-2024-V1-MSME**	**Qualification Name of existing/previous version:** **CERTIFICATE COURSE IN TOOL AND DIE MAKING (CCTDM)**
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable)*	**NA** **-**	
5.	**National Qualification Register (NQR) Code & Version** (*Will be issued after NSQC approval)*	QG-3.5-CG-02402-2024-V1-MSME	**6. NCrF/NSQF Level: 3.5**
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**	Learners who attain this qualification are competent in Tool and Die Manufacturing and can get a job in a captive or commercial Tool Room. Qualified Learners can set up their own Tool and Die manufacturing unit that leads to make an entrepreneur.	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/ Employee**	a. Entry Qualification & Relevant Experience: 10th grade pass	

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1	10 pass or equivalent	No Experience required.
2	Previous relevant Qualification of NSQF Level 3 in metal Working/ Machine Tool area	1.5 year relevant experience
3	Previous relevant Qualification of NSQF Level 2.5 in metal Working/ Machine Tool area	3 year relevant experience

<table>
<tr><td></td><td></td><td>b. Age: 15 years</td></tr>
<tr><td>10.</td><td>Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</td><td>40</td><td>Norm Category (I/II/III) (wherever applicable) : I</td></tr>
<tr><td>11.</td><td>Any Licensing requirements for Undertaking Training on This Qualification(wherever applicable)</td><td colspan="2">NA</td></tr>
<tr><td>12.</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td colspan="2">☐ Offline ☐Online ☒ Blended
<table>
<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>
<tr><td>Classroom (offline)</td><td>144</td><td>840</td><td>-</td><td>-</td><td>984</td></tr>
<tr><td>Online</td><td>216</td><td>-</td><td>-</td><td>-</td><td>216</td></tr>
<tr><td>Total</td><td>360</td><td>840</td><td></td><td></td><td>1200</td></tr>
</table>
(Refer Blended Learning Annexure for details)</td></tr>
<tr><td>13.</td><td>Aligned to NCO/ISCO Code/s(if no code is available mention the same)</td><td colspan="2">7223.05 / Tool & Die Maker</td></tr>
<tr><td>14.</td><td>Progression path after attainng the qualification (Please show Professional and Academic progression)</td><td colspan="2">Professional Progress: Technician- Tool and Die Maker
Academic Progression: Diploma in Tool & Die Making</td></tr>
<tr><td>15.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="2">Hindi</td></tr>
<tr><td>16.</td><td>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</td><td colspan="2">☐ Yes ☒ No URLs of similar Qualifications</td></tr>
<tr><td>17.</td><td>Is the Job Role Amenable to Persons with Disability</td><td colspan="2">☒ Yes ☐ No
If “Yes”, As per Govt. norms</td></tr>
<tr><td>18.</td><td>How Participation of Women will be Encouraged</td><td colspan="2">Seats are reserved as per government Norms.</td></tr>
<tr><td>19.</td><td>Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)</td><td colspan="2">☒Yes ☐No
The said aspect is covered in the module name Workshop Technology.</td></tr>
</table>

20.	**Is Qualification Suitable to be Offered in Schools/Colleges**	**Schools ☐ Yes ☒ No Colleges ☐ Yes ☒ No**	
21.	**Name and Contact Details of Submitting / Awarding Body SPOC** *(In case of CS or MS, provide details of both Lead AB & Supporting ABs)*	**Name: Sh. Vijay Mahipatrao Bankar** **Contact No. +0755 3501078** **Email-msmetcab@gmail.com**	
22.	**Final Approval Date by NSQC:30.04.2024**	**23. Validity Duration: 3years**	**24. Next Review Date:30.04.2027**

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 **Man.**-Mandatory Training Rec.-Recommended Proj.-Project*

SEMESTER-I

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	Create Part Drawing using CAD	MSME/CCTDM/ 01 & Version 1.0	Core	3.5	5	30	120	-	-	150	-	100	-	-	100	
2	Checking dimensions of machined Part	MSME/CCTDM/ 02 & Version 1.0	Core	3.5	1	-	30	-	-	30	-	100	-	-	100	

3	Manufacturing of Tool & Die Parts	MSME/CCTDM/ 03 & Version 1.0	Core	3.5	8	60	180	-	-	240	-	100	-	-	100	
4	Use and Application of Engineering Materials	MSME/CCTDM/ 04 & Version 1.0	Core	3.5	1	30	-	-	-	30	100	-	-	-	100	
5	Design of Press Tool	MSME/CCTDM/ 05 & Version 1.0	Core	3.5	5	30	120	-	-	150	100	100			200	
Duration (in Hours) / Total Credit / Marks					**20**	**180**	**420**	**-**	**-**	**600**	**200**	**400**	**-**	**-**	**600**	

SEMESTER-II

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	Assist in Operation of CNC Machine	MSME/CCTDM/06 & Version 1.0	Core	3.5	5	30	120	-	-	150	-	100	-	-	100	
2	Design of Mould	MSME/CCTDM/07 & Version 1.0	Core	3.5	5	30	120	-	-	150	100	100	-	-	200	
3	Create & Modify part using higher End software	MSME/CCTDM/08 & Version 1.0	Core	3.5	3	-	90	-	-	90	-	100	-	-	100	
4	Generate Part Program for CNC Machine using CAM	MSME/CCTDM/09 & Version 1.0	Core	3.5	3	-	90	-	-	90	-	100	-	-	100	
5	Employability Skills	MSME/ES/03	None Core	3.5	4	120	-	-	-	120	100	-	-	-	100	

Duration (in Hours) / Total Credit / Marks		**20**	**180**	**420**	**-**	**-**	**600**	**200**	**400**	**-**	**-**	**600**	

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)*

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.																

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)*
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage:

*Please specify **any one** of the following:*

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)*

Minimum Pass Percentage –Aggregate at qualification level

Passing criteria is based on marks obtained in attendance record, term works, assignments, practical performance, viva or oral exam, module test, practical exam and final exam.

Minimum Marks to pass practical exam – 60%

Minimum Marks to pass theory exam – 40%

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 Mechanical Engineering or Equivalent with Practical skills and knowledge required in the relevant job role at least one level higher i.e. level 4 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)*	Degree in Engineering (Mechanical/ Production/ Manufacturing Technology) or equivalent with 3 to 5 years of experience in Production/ Training/ Design 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**	☒Yes ☐No (*If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised Qualification, Details of Any Upskilling 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 Engineering (Mechanical/ Production/ Manufacturing Technology) or equivalent with 3 years of experience in Production/ Training/ Design Department from Tool Room/ Technology Centre of MSME or any reputed industry. 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 Engineering (Mechanical/ Production/ Manufacturing Technology) or equivalent With 5 years of experience in Production/ Training/ Design 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 Production/ Training/ Design 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**	☒ 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,** India Skills Report 2023, " Roadmap to India's Skills and talent Economy 2030"
2.	**Latest Market Research Reports or any other source (not older than 2years) (Yes/No):** **Yes,** "Engineering and capital goods industry" (Feb-2023) by India Brand Equity Foundation –IBEF (Trust established by the Department of Commerce, Ministry of Commerce and Industry, Government of India
3.	**Government /Industry initiatives/ requirement (Yes/No):** Yes
4.	**Number of Industry validation provided: 50**
5.	**Estimated nos. of persons to be trained and employed:1000**
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** *NA* 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 *(Mandatory)*	*ANNEXURE-I*
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	*ANNEXURE-II*
3.	**Annexure:** Industry Validations Summary	*ANNEXURE-III*
4.	**Annexure:** Training & Employment Details	*ANNEXURE-IV*
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is "Blended Learning")*	*ANNEXURE-V*
6.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	*ANNEXURE-VI*
7.	**Annexure:** Assessment Strategy *(Mandatory)*	*ANNEXURE-VII*
8.	**Annexure:** Acronym and Glossary *(Optional)*	*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: 1Evidence 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	Condensed Tool & Die Maker identifies and executes the various operations required to make the Tools, Dies Fixtures according to specified requirements	Job holder expected to execute the process required for machining of various components and assembly of Tools and dies.	3.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	Condensed Tool & Die Maker should have complete understanding and knowledge of tool and die making which includes study of Engineering Drawing, fitting and Tool assembly. The Condensed Tool and Die Maker should have knowledge of operations of CNC machines including turning machines, milling machines, grinding machines etc.	Jobholder's needs to have an understanding of study of engineering drawing, machining and assembly of Tools & Dies.	3.5
Professional Skill	Condensed Tool & Die Maker must have the ability to apply practical knowledge and understanding in interpreting the drawing for fitting and assembly operations in tool and dies making. Condensed Tool and Die Maker must have the ability to identify various operations required to make the tool, die, and further be able to sequence the same. Condensed Tool & Die should be able to use different types of measuring instruments to maintain the desired quality.	Jobholder is engaged in tasks such as interpretation of Engineering Drawing, machining of engineering items and Tool & Die Making (Machining and Assembly) by using appropriate tools and quality norms. These activities are routine in nature with narrow range of application.	3.5
Broad Learning Outcomes/Core	Condensed Tool and Die Maker is required to have numerical abilities,	The jobholder needs to have Generic Skills of writing, Oral and Communication Skills. Jobholder needs Document	3.5

Skill	communication skills to receive and provide or transmit information to the appropriate person. Use appropriate measuring techniques, units and number systems to express degree of accuracy units and number systems representing degree of accuracy Interpretation and express tolerance in terms of limits on dimensions Should be able to communicate to the appropriate person in regards to health, safety, first aid etc.	postproduction requirements. Understand the project requirements/client requirement, which requires 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.	
Responsibility	Check-up procedures to ensure that project objectives are finished within specified periods are developed. Checkup procedures to ensure that agreed ethical and legal requirements are met are drawn.	Jobholder is required to carry out functions such as engineering drawing reading, operating machine tools, assemble Tools Dies, Jigs & fixture within specified quality. In these activities, jobholder is doing the tasks independently without any supervision and he is responsible for his own learning at the task.	3.5

Annexure: II Tools and Equipment (Lab Set-Up)

List of Tools and Equipment for Batch Size: 20

S. No.	Tools / Equipment Name	Specification	Quantity for specified Batch size
1	Conventional Turning / Lathe Machine	Industry Standard	2
2	CNC Turning Machine with attachments		4
3	Conventional Milling machine		3
4	CNC Milling Machine with attachments		4
5	Tool & Cutter Grinders		1
6	Conventional Drilling machine		1
7	Grinding Machine		1
8	Pedestal grinding machine		1
9	CNC Simulator		20 seats
10	Desk top / Computer system With LAN		20
11	CAD-Auto CAD Software		20 Seats

12	Hydraulic Press machine		1
13	**Measuring Instruments:** Vernier Calliper, Micrometre: External & Internal, Height Gauge, Dial Indicators (Lever type & Plunger type), Profile Projector, Different types of Gauges (Slip, Bore, Ring, Plug, Radius, Feeler, Thread pitch etc.), Engineering steel rules, Outside & Inside spring callipers, Try square, Precision block levels, Surface roughness tester.		1 Set
14	**Cutting tools:** Single Point brazed turning tool, Boring bars, Twist Drills: Parallel & taper shank types (MT-1 / MT-2/ MT-3/MT-4), Knurling and threading tools		1 Set
15	**Cutting Inserts:** CNMG, VNMG, DNMG, WNMG, CCMT and TCMT		1 Set
16	**Tool Holders :** Turning tool holders for OD/ID turning, Profile turning, Grooving/Parting, Drilling, Boring, Threading, Sleeves, Set of Spring collets (ER-16, ER-25,ER-32, ER-40) and Collet adopters		1 set
17	**Hand Tools:** Centre punches, Hammers, Combination Plier, set of number punches, set of double ended spanners, set of box spanners with ratchet handle, Adjustable spanner, set of screw drivers, Nylon / Soft hammer, set of hexagonal Allen keys, cutting files: flat, round, half round, square and triangular		1 set
18	**Others Miscellaneous items for workshop / Lab :** Industry hand gloves, Apron, Safety goggles, Bench vice, Magnetic stand for dial indicators, Spring dividers, Angle Plates, Scribing blocks, Vice mounted tables, Scrap box, Tool storage trolley, Set of soft jaws, Power Saw, Surface plate, Oil stone , Hand pallet truck and First aid kit.		1 set
19	**General Equipment for Classroom**: White Board, Smart Board, Duster, Marker, Multimedia /LCD Projector, Audio Video Aids, Pen drive and Practice exercise etc.,		1 set

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	Voltex Electrical Engineers	MALKIT DIT	PROPRIETER	BEHIND OSWAL CANCER HOS| PITAL, LUDHTANA 141010	9814028614		
2	Arrow Aviation	Sanjib De	Quality Managaer	53/1/3, Hazra Road, Kolkata - 700019	9831092407	qualitymanager@arrowaviation.com	
3	Unique Enterprises	Partha Roy	Proprieter	.S.- Dasnagar, Howrah-711 13	98741 27130	partha@enterprisesindia.com	
4	SHIV ENGINEERS	S.Maity	Proprieter	BALITIKURI, HOWRAH - 711 113	7980872335	shivengineer1980@gmail.com	
5	SK Synthetics	MANISH JAIN	CEO	40 STRAND RD,3RD FLOOR KOLKATTA-700001	9331022044	SKSYNTHETICS@HOTMAIL.COM	
6	A. C. STEEL TRAIDING CORPORATION	A. C. JASWAL	PROPRIETER	BELILIOUS RD,LOAN BAZER,ROOM-141,142, HOWRAH-711101	9830073612	ACSTEEL_2004@YAHOO.CO.IN	

7	CALCUTTA TECHNO HEATERS (INDIA) PVT. LTD	M. K. SAHA	DIRECTOR	22A, DUM DUM ROAD, KOLKATA - 700 002	9831086241	MKSOCT55@GMAIL.COM	
8	Arrow Aviation	Sanjib De	Quality Managaer	53/1/3, Hazra Road, Kolkata - 700019	9831092407	qualitymanager@arrowaviation.com	
9	SPECIAL ENGINEERING SERVICES LTD.	ASHIM GANGULY	JR. Factory Manager	16, COSSIPORE ROAD, KOLKATA-700 002	3325578434	sescatcn@cal2.vsl.net.in	
10	ABHAYA PRECISION INDUSTRIES PVT LTD	Abhesek Ghosh	Managing Director	70/2,YOURIBANI LANE,KOLKATTA-04	9831617997	MAIL@ABHAYAMD.COM	
11	SATYANARAYAN ENGINEERINGWORKS	NILANGSHU GHARUI	MANAGER	SHANPUR, DAONAGAR, HW-711105	7980278984	DATYANARAYANEGG@GMAIL.COM	
12	SHREE RADHA KRISHNA INDUSTRIES	MANI BHUSHAN SINGH	Proprieter	1/1d, Joy Krishna Ghosal Road, Aríadaha, Rathtala, Kolkata-700 057	9883368597	SHREERADHAKRISHNA21@GMAIL.COM	
13	NSCB AVIATION (P) LIMITED	SUBHASISH HALDER	DIRECTOR	34, Scout Para, Ganga Nagar, Kolkata 700132	8910627096	subhasish.haldar@nscbaviation.com	
14	MAX MILL Technologies	PRADEEP SHARMA	MANAGER	172/1,Ashokgarh,Dunlop, Baranagar, Kolkata-700108	7003462714	maxmilltechnologies@gmail.com	
15	SSK PRECISION COMPONENTS Mfg. Put. LTD.	SOUVIK SINHA	DIRECTOR	P31, KB.. Roy Garden, Garia Station Road, Kolkata-84	9831065851	SSKCNC@REDIFFMAIL.COM	
16	DIGEARTH EQUIPMENT(INDIA) PVT. LTD.	KAVISH DABAR	DIRECTOR	222 SECTOR ,SAWER ROAD, INDUSTRIAL AREA	9826385266	DIGEEARTH.EQUIPMENTS@GMAIL.COM	
17	RUDRA MAGNETS	M. P. Shalda	MANAGER	625, Badam Road, Satyavedu Mandal,	98858 77000	contactus@rudramagnets.com	

	LLP			Sricity - 517 646, Andhra Pradesh,			
18	EAST COAST MAGNETS PVT. LTD.	NIRMALA	MANAGER	44/1/6; Phases; 1DA:, JeedIMETIA,HYDRABAD-500055	8048989786	DIRECTOR.eastcoastmagnet.com	
19	Azad Engineering Limited,	K.SathiraJU	GENERAL MANAGER	Plot No: 90/C, 90/D, Phase-I IDA Jeedimetla, Hyderabad 500 055	78931 77300	sathiraju.k@azad.in	
20	MIKRONIX GAUGES PVT LTD		MD	B-25 MIDC , CHIKALTHANA, CH. SAMBHAJINAGAR	9822004674	MGPLAY@GMAIL.COM	
21	SANJAY TECHNO PRODUCTS PVT LTD	V. P. MANUFACTURING	PROPRIETOR	MIDC AURANGABAD WALUJ	915888090	KEMANT.CHAUDHARI@SANJAYTRCHNOPRODUCTS.IN	
22	INDEXABLE CUTTING TOOL	TOR	PROPRIETOR	BAJAJNAGAR,AURANGABAD			
23	ALLWIN UNITED ASSOCIATION PVT.LTD	MI PANKAJ	DIRECTOR	ALLWIN UNITED ASSOCIATION PVT.LIMITED	7588537412	CONTACT@TECHNOCADDAPL.COM	
24	MADURA DIE CAST PVT LIMITD	MADHURA	CEO	SHENDRA AURANGABAD	9422204622	MADHRADIECAST@GMAIL.COM	
25	LAXMI ENTERPRISES	RANJANA BHAYYA SAHEB PAWAR	MI.MANAGER	SAINAGAR GHANEGAON MIDC WALUJ, AURANGABAD	7387431128		
26	GAYATRJ AUTO COMPONENTS, AURANGABAD	MR. RANJEET METE	MANAGER	AURANGABAD	7385613842	INFO@GAYATRIAUTO.IN	
27	SHARP TOOLS	MAHESH DORLE	SR.MANAGER		9689574563		
28	AKSHARA	SHIVAJI GAIKWAD		WALUJ MIDC	9096420857		

	ENGINEERING WORKS			AURANGABAD			
29	ARUSHI ENGINEERING AND BREEZING	VIJAYA PARADE	MANAGER	WALUJ MIDC AURANGABAD	9049596736		
30	SR INDUSTRIES AURANGABAD	RAJENDRA SAUDAGAR MARE	SR. MANAGER	AURANGABAD	8698145607		
31	DEVA ENGINEERING AURANGABAD	ASHOK MOTINAM VEOR	SR. MANAGER	AURANGABAD	8459567793		
32	MAULI PATTERN AURANGABAD	MR.PANCHAL	PROPRIETOR	AURANGABAD	9673067755		
33	NAVARATNA INDUSTRIES			WALUJ MIDC AURANGABAD			
34	PRANAW ENTERPRISES AURANGABAD	PANDRINATH DEVKAR	PROPRIETOR	AURANGABAD	9371671146	PRANAVENT@GMAIL.COM	
35	R.P INDUSTRIES	PRASHANT PATIL	CEO	MIDC CHIKATHANA AURANGABAD	8007222251	PRASHANTPATIL@GMAIL.COM	
36	TECHNO MOULD SOLUTION	MR.PANDA	PROPRIETOR	AURANGABAD	7774077907	TECHNOMOULD.SOLUTIONS@GMAIL.COM	
37	SURAJ TOOLS AND ENGINEERING WORKS	DEIM	CEO	MIDC CHIKATHANA AURANGABAD	7447375273	SURAJTOOLS@GMAIL.COM	
38	PARASON MACHINERY (INDIA) PVT LTD	GHAHU	GM	AURANGABAD	9325202860	AMOIL.MOGAL@PASASEN.COM	
39	PADMA INDUSTRIES	VITTHALKADOM	CEO	MIDC AURANGABAD	9421688212	VITTHALKADOM2525@GMAIL.COM	

40	VANI ENGINEERING CO.PVT LTD	SUBH	GENERAL MANAGER	AURANGABAD	9730729991	SKAPE@GMAIL.COM	
41	GLANCE ENGINEERING -6 PVT.LIMITED CHIKALTHANA	SUBH SK	GENERAL MANAGER	CHIKALTHANA	9730729991	S.KALE@GMAIL.COM	
42	JAI BHAVANI ENGINEERING WORKS		GENERAL MANAGER		9370251815		
43	S N ENGINEERINGWORKS	SNEHA	CEO	CH SAMBHAJINAGAR	9822859974	SNEHAG858@GMAIL.COM	
44	R N INDUSTRIES	TLC	CEO	KAIAGRAM, AURANGABAD	9890718928	R.N.INDUSTRIES01@GMAIL.COM	
45	SWAGATI ENGINEERING WIS2		CEO	CHIKALTHNA,AURANGABAD	9763714369	SWAGATIENGG@GMAIL.COM	
46	IDEAL ENTERPRISE		GENERAL MANAGER	CHIKALTHANA AURANGABAD	9763785199	IDEAL1993@GMAIL.COM	
47	INDOTURAN INDUSTRIES	MR. VISHAL SHINDHE	PROPRIETOR	MIDC AURANGABAD WALUJ	9595280808		
48	CREATIVE CASTING INDUSTRIES	MR. SANJAY RANDIRE	PARTNER	K-30, MIDC WALUJ , AURANGABAD	9011001671	CREATIVECAST@REDIFFMAIL.COM	
49	PYRAMID INDUSTRIES	MR. RAJENDRA KALE	PROPRIETOR				
50	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	110	110	-	-
25-26	1200	1200	120	120	-	-
26-27	1500	1500	150	150	-	-

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
1.0	20-21	98	98	98	98	-	-	-	-	-	-	-	-
1.0	21-22	110	110	110	110	-	-	-	-	-	-	-	-

1.0	22-23	329	329	329	329	-	-	-	-	-	-	-	-

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. DDUGKY under the MoRD.
3. 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 are 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/wp-content/uploads/2023.5/01/Guidelines-for-Blended-Learning-for-Vocational-Education-Training-Skilling.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	Books/ e-books, Presentations, Reference Material , Audio / Video Modules with 2D and 3D animation Self-Learning Videos /Broadcasts /Mobile Learning /Curated Digital content	40:60
2	☐Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	Self-Learning Videos , Broadcasts, Mobile Learning , Curated Digital content	40:60
3	☐Showing Practical Demonstrations to the learners	CNC Simulators/ CAD Software, Video Content , E-Resource library	100:0
4	☐Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	CNC Simulators, CNC Lathe Machines, Grinding Machines, Measuring, instruments, Cutting Tools, Hand Tools / CAD Software	100:0

5	☐Tutorials/ Assignments/ Practice	Online Question Bank, Mobile Quick test app, MCQ based tests, Practical Test on Machines	40:60
6	☐Proctored Monitoring/ Assessment/ Evaluation/ Examinations	Assessment engine for Essays, Up-loadable file examinations, Mock test sessions	50:50
7	☐On the Job Training (OJT)	Live Project on CNC Machines, Measuring Instruments at concern Industry/ Institution	100:0

Annexure: VI Detailed Assessment Criteria

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

SEMESTER I

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS / Module: **MSME/CCTDM/01** **Create Part Drawing using CAD**	PC.1 Explain the Importance of Engineering drawing, PC.2 Explanation the scope and objective of Engineering Drawing PC.3 Demonstrate and explain drawing Standards: Size of drawing sheets – Layout of drawing sheet – Title Blocks – Types of lines – Folding of drawing sheets. PC.4 Use of dimensioning techniques according to Standard of dimensions PC.5 Demonstrate orthographic & Isometric projection by using a viewing box and a model PC.6 Demonstrate first angle and third angle projection PC.7 Use of symbol in projections -Front view, top view and side view PC.8 Demonstrate the use of Auto CAD and Auto CAD interface PC.9 Apply coordinates systems in auto CAD		100	-	

	PC.10 Demonstrate the use of tool bars. PC.11 Create solid field area (Hatching, Gradient) PC.12 Edit objects using the object property tool bar and various methods. PC.13 Use sketch settings and Style toolbar (text style, Multilayer style etc.) PC.14 Edit object using object property toolbar & various method. PC.15 Create the replica of model using copy, array command PC.16 Work with models in the modify toolbar. PC.17 Identify the appropriate Tool to create and modify the model PC.18 Change the orientation of the object by aligns, offset, rotate command PC.19 Apply standard dimension in a mechanical component. PC.20 Use of dimensioning Methods: Linear, Align, ordinates, Radius, Diameter, Arc length, angular etc, PC.21 Use of leader with text, block reference PC.22 Edit or modify the CAD Drawings PC.23 Use of layers Management and its applications PC.24 Apply GD& T Symbols in drawings PC.25 Develop proper drawing layout.				
NOS / Module: **MSME/CCTDM/02** **Checking dimensions of machined Part**	PC.1 Explain the linear measuring Instruments - Vernier Caliper (Digital, Analog and Dial type) and micrometer (Analog and Digital type) PC.2 Calculate the least count of various instruments (Venire Caliper, Micrometer and Height Gauge) PC.3 Explain the diametrical Measurement: inside diameter by inside micrometer PC.4 Demonstrate the Diametrical Measurement: depth of hole or recess by depth micrometer. PC.5 Find out Angle and taper measurements by bevel protractor and Sine bar. PC.6 Find out the flatness of Surface plate by use of spirit level and optical flat.	-	100	-	-

	PC.7 Measurement of surface roughness by roughness tester. PC.8 measurement of micro threads (British , Acme, Matric) by using profile projector PC.9 Apply limits, fits and tolerances for a given geometry PC.10 Check various dimensions using gauges (Go-No GO Type, plug, ring etc.) PC.11 Measurement of screw thread using various instruments PC.12 List Geometrical Dimensions & Tolerances used in manufacturing industries. PC.13 Evaluate and do analysis of parameters of screw threads Measurement				
NOS / Module : **MSME/CCTDM/03** **Manufacturing of Tool & Die Parts**	PC.1 Explain occupational health and Safety. PC.2 Explain about safety rules. PC.3 State the name and location of people responsible for health and safety in the workplace PC.4 State the names and location of documents that refer to health and safety in the workplace PC.5 Using various appropriate fire extinguishers on different types of fires correctly PC.6 Explain the PPE in Industrial Safety. PC.7 Explain Basic injury prevention, Hazard identification and avoidance, safety signs for Danger, Warning, caution & personal safety message PC.8 Explain the types of Waste disposal techniques/ Management. PC.9 Explain the importance of occupational health and safety at workplace. PC.10 Explain the concept of 5S PC.11 the 5S cycle, activities and 5S program overview PC.12 Describe 5S program steps PC.13 Explain different types of machine tools (Milling machines) PC.14 Explain the Parts of a Milling machine PC.15 Explain various job holding device on Milling machine PC.16 Explain the function of Milling machine PC.17 Explain various operations performed on Milling Machine.	-	100	-	-

	PC.18 Explain Methods of performing tapper Milling operation PC.19 Explain Taper Milling, step Milling, radius making and parting-off. PC.20 Explain Different types of fitting tools and marking tools used in fitting practice. PC.21 Explain the systems of unit - FPS, CGS, MKS/SI unit. PC.22 unit of length, Mass and time and Conversion of units PC.23 Mensuration: Area and perimeter of square, rectangle, parallelogram, triangle, circle, semi-circle, Volume of solids and cylinder PC.24 Explain quality policy and quality organization: Indian and international organization PC.25 Explain the concept of quality Assurance and 7 QC Tools. PC.26 Explain the types of machine tools used in Tool Room PC.27 To prepare a job on a lathe involving facing, outside turning, taper turning, step turning, radius making and parting-off. PC.28 Describe different types of fitting and marking tools used in fitting practice. PC.29 To prepare simple engineering components. PC.30 To prepare horizontal surface/ vertical surface/ curved surface/ slots or V-grooves on a shaper/ planner. PC.31 To prepare a job involving side and face milling on a milling machine. PC.32 Explain the uses of jigs & fixtures in the machining process. PC.33 Explain the use of drill jigs & selection of fixtures on the basis of component PC.34 Explain the uses of locator types. PC.35 Use location principle of locator for different jobs.				
NOS / Module :	PC.1 Explain mechanical properties of different materials. PC.2 Identify ferrous and non-ferrous materials.	100	-	-	-

MSME/CCTDM/04 **Use and Application of Engineering Materials**	PC.3 Distinguish between steel and iron. PC.4 State the effect of alloying elements & High carbon steels. PC.5 Describe tool steels and tool & die materials, Composition, properties and applications. PC.6 Describe the composition, properties and application of spring steel, stainless steel and high speed steel. PC.7 Explain the importance of heat treatment. PC.8 Explain the effect of annealing and normalizing process on the steel. PC.9 Describe the process of hardening and tempering. PC.10 Identify different types of non-ferrous metal. PC.11 Describe aluminum alloys and copper alloys and their importance. PC.12 State the trade name, properties and applications of thermoplastic and thermosets plastics materials.				
NOS / Module: **MSME/CCTDM/05** **Design of Press Tool**	PC.1 Explain basics of a press tool and its specification and shearing and non-shearing operations. PC.2 Identify types of die-sets and proper material for die-set. PC.3 Calculate cutting force, cutting clearance & stripping force. PC.4 Identify the progressive tool parts and the number of stations. PC.5 Assemble punches for Piercing, Blanking, and Notching Lancing. PC.6 Identify different types of stops used in press tool. PC.7 Calculate unbent strip length for a bending component. PC.8 Explain construction, application of compound die, Draw die and combination die. PC.9 Perform required calculation for drawing tool. PC.10 Make strip layout, determine cutting clearance, cutting force, press tonnage, economy of material etc. PC.11 Calculate the design parameters for die plate and punches	100	100	-	-

	PC.12 Do Design calculations for top and bottom plates, guide pillar & bushes. PC.13 Find out the plug point and do design of shank PC.14 Prepare assembly drawing and mention the part numbers and prepare bill of material. PC.15 Prepare part detailing of press tool with GD&T and surface finish symbol. PC.16 Draw Top plate and bottom plate showing GD&T and machining symbols				

SEMESTER-II

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS / Module: **MSME/CCTDM/06** **Assist in Operation of CNC Machine**	PC.1 Carried out the planning activity for operation. PC.2 Use appropriate sources to obtain the required information e.g. Numerical control on CNC machine, types of CNC control PC.3 Calculation of technological data for CNC machining. Check that all the equipment is correctly connected and in a safe and usable working condition PC.4 Calculate parameters like speed feed, depth of cut etc. and set references for the various operations. PC.5 Set up the suitable template/folder PC.6 Set up and check that all peripheral devices are connected and correctly PC.7 Establish coordinate system, orientation and views as per the job PC.8 confirm that the program is as per job specifications and contains all relevant information PC.9 Use appropriate techniques to create program that are sufficiently and clearly detailed PC.10 Use codes and other references that follow the required conventions PC.11 Make sure that programs are checked and approved by the appropriate person		100	-	

	PC.12 Save the program in the appropriate file type and location PC.13 Take help and guidance from the co-worker or supervisor if found any abnormality while working PC.14 Shut down the CAM system to a safe condition on completion of the programming activities. PC.15 Prepare programs, demonstrate, simulate and operate CNC lathe, milling, machines for various machining operations. PC.16 Execute program and inspect simple geometrical forms / standard parts				
NOS / Module: **MSME/CCTDM/07** **Design of Mould**	PC.1 Identify- hand, semi-automatic, fully automatic moulds PC.2 Determine the parts- functions, specifications, molding cycle and the method of operation. PC.3 Identify compression mould, Injection mould, and transfer mould and determine the materials used. PC.4 Describe construction, parts-applications- materials. PC.5 Identify parting line on the component. PC.6 Identify the different types of gate used while designing mould and select the runner system as per the requirements. PC.7 Demonstrate ejection system & cooling system. PC.8 Determine the types of split concept used (Side core- Sliding splits) PC.9 Describe the construction of dog leg cam mould and its application applications. PC.10 Do detail study of related components regarding material, shape, shrinkage & parting surface. PC.11 Do design of core and cavity inserts. PC.12 Select standard mould base as per core and cavity plate dimension. PC.13 Make design calculation for parts of standard mould base. PC.14 Prepare design of locating ring, sprue bush, runner and gate.	100	100	-	-

	PC.15 Do design of two plate Injection mould with single cavity and multi cavity. PC.16 Design cooling channels in core and cavity plate. PC.17 Draw mould parts with specified symbols.				
NOS / Module : **MSME/CCTDM/08** **Create & Modify part using higher End software**	PC.1 Obtain and review existing information with reference to the specified design requirement like 2D drawing and 3D model, existing sample, etc. PC.2 Prepare outline ideas for the designs by using conceptual design work or collect similar information. PC.3 Carry out the design process, utilizing the appropriate technology e.g. Tool/die is suitable/compliable to specified machines. PC.4 Obtain the tool part can be manufactured and assemble easily. PC.5 Select the suitable material for the design. PC.6 Document all facets of the design activity and communicate the outcomes of the design process. PC.7 Deliver the designs in the appropriate format to the customers PC.8 Confirm and agree understanding of the design requirements PC.9 Deal with problems relating to the design requirements and agreed solutions PC.10 Identify design options which will meet requirements and the design specification PC.11 Create designs that meet the customer's requirements as specified in the design brief for the engineering product or process PC.12 Ensure that the designs comply with all relevant regulations, standards directives or codes of practice PC.13 Deal promptly and effectively with problems within your control and seek help and guidance from the relevant people if you have problems that you cannot resolve PC.14 Ensure that the designs are protected in line with organizational procedures PC.15 Evaluate the design against the established criteria, using appropriate evaluation methods	-	100	-	-

NOS / Module : **MSME/CCTDM/09** **Generate Part Program for CNC Machine using CAM**	PC.1 Identify the toolbar and uses of functional key. PC.2 Use the icon for the required command to draw the assigned geometry. PC.3 Make 2-D modeling by using the icons for different command. PC.4 Demonstrate letter, point, spiral, and helix, break two pieces, trim much joint entity, close arc, break many pieces, simplify PC.5 Demonstrate break at intersection, break circle, break drafting into line, convert to nurbs, and modify spline, hatch, dimension tools, dimension option. PC.6 Create 3-D models by using 3D tool bar, draft, extrude, fillet, trim icons. PC.7 Generate 3-D profile using used / lofted, revolved, offset, swept. PC.8 Generate tool path using machining toolbar and other commands PC.9 Do the machining using the options like 2-D countering,pocketing,2-D drilling, etc PC.10 Generate the toolpath on the model created by surface.	-	100	-	-
NOS / Module: **MSME/ES/03** **Employability Skills**	PC.1 Understand the significance of employability skills in meeting the current job market requirement and future of work. PC.2 Identify and explore learning and employability relevant portals PC.3 Research about the different industries, job market trends, latest skills required and the available opportunities. PC.4 recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. for personal growth and the nation's progress PC.5 Follow personal values and ethics such as honesty, integrity, caring and respecting others, etc. PC.6 follow and promote environmentally sustainable practices PC.7 recognize the significance of 21st Century Skills for employment PC.8 practice the 21st Century Skills such as Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social	100	-	-	-

	and cultural awareness, emotional awareness, learning to learn etc. in personal and professional life PC.9 adopt a continuous learning mindset for personal and professional development PC.10 use English as a medium of formal and informal communication while dealing with topics of everyday conversation in different contexts PC.11 speak over the phone in English, in an audible manner, using appropriate greetings, opening, and closing statements both on personal and work front PC.12 read and understand routine information, instructions, emails, letters etc. written in English PC.13 Write short messages, notes, letters, e-mails etc., using accurate English PC.14 Identify career goals based on the skills, interests, knowledge, and personal attributes PC.15 Prepare a career development plan with short- and long-term goals. PC.16 follow verbal and non-verbal communication etiquette while communicating in professional and public settings PC.17 use active listening techniques for effective communication PC.18 communicate in writing using appropriate style and format based on formal or informal requirements PC.19 work collaboratively with others in a team PC.20 ensure personal behavior, conduct, and use appropriate communication by taking gender into consideration PC.21 empathize with a PwD and aid a PwD, if asked PC.22 escalate any issues related to sexual harassment at the workplace in accordance with the POSH Act PC.23 Identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc. PC.24 carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook				

	PC.25 Identify common components of salary and compute income, expenses, taxes, investments etc. PC.26 identify relevant rights and laws and use legal aids to fight against legal exploitation PC.27 operate digital devices and use their features and applications securely and safely PC.28 Carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc. PC.29 display responsible online behavior while using various social media platforms PC.30 create a personal email account, send and process received messages as per requirement PC.31 carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications PC.32 utilize virtual collaboration tools to work effectively PC.33 identify different types of Entrepreneurship and Enterprises PC.34 use research and networking skills to identify and assess opportunities for potential business PC.35 develop a business plan and a work model, considering the 4Ps of Marketing- Product, Price, Place and Promotion PC.36 identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity PC.37 identify different types of customers PC.38 identify and respond to customer requests and needs in a professional manner PC.39 use appropriate tools to collect customer feedback PC.40 Follow appropriate hygiene and grooming standards. PC.41 create a professional Curriculum vitae (Résumé) PC.42 search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively PC.43 apply to identified job openings using offline /online methods as per requirement				

	PC.44 answer questions politely, with clarity and confidence, during recruitment and selection PC.45 Identify apprenticeship opportunities and register for it as per guidelines and requirements.				

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 Qualifications 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 (LTT)	LTT/ Long-term skilling means any vocational training program undertaken for less than a year (Theory + Practical + OJT). https://ncvet.gov.in/sites/default/files/NCVET.pdf