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

QUALIFICATION FILE

JR. TECHNICIAN – WELDING

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

☐ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

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

NCrF/NSQF Level: 3

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,
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Section 1: Basic Details

1.	**Qualification Name**	**Jr. Technician – Welding**	
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-03-CG-02400-2024-V1-MSME**	**Qualification Name of existing/previous version:** **CERTIFICATE COURSE IN WELDING TECHNOLOGY**
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable)*	**NA**	
5.	**National Qualification Register (NQR) Code & Version** (*Will be issued after NSQC approval)*	QG-03-CG-02400-2024-V1-MSME	**6. NCrF/NSQF Level: 3**
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 qualification containing different modules which is required for the job role Welding Technician, after completion of this course learner shall be able to: • Understand the various welding methods • Perform welding operation on different materials with selection of appropriate welding methods • Read basic engineering drawings for welding operation • Get an employment in Engineering/ Manufacturing and also become an entrepreneur	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	a. Entry Qualification & Relevant Experience: **10th pass or Equivalent**	

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

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		3 | Previous relevant Qualification of NSQF Level 2 in metal Working/ Machine Tool area | 3 year relevant experience b. **Age: 15 Years**
10.	**Credits Assigned to this Qualification, Subject to Assessment***(as per National Credit Framework (NCrF))*	**20** — **11. Common Cost Norm Category (I/II/III)** *(wherever applicable)*: **I**
12.	**Any Licensing requirements for Undertaking Training on This Qualification***(wherever applicable)*	N.A
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 ☐Online ☒Blended** **Training Delivery Modes** | **Theory (Hours)** | **Practical (Hours)** | **OJT Mandatory (Hours)** | **OJT Recommended (Hours)** | **Total (Hours)** **Classroom (offline)** | 63 | 360 | 90 | | 513 **Online** | 87 | | | | 87 **Total** | 150 | 360 | 90 | | 600 *(Refer Blended Learning Annexure for details)*
14.	**Aligned to NCO/ISCO Code/s***(if no code is available mention the same)*	*7212.08 (Welding Assistant)*
15.	**Progression path after attaining the qualification** *(Please show Professional and Academic progression)*	***Professional/Career Progress:*** *Technician - Welding*
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 Role Amenable to Persons with Disability**	**☒Yes ☐ No** **If "Yes", specify applicable type of Disability: as per government norms**
19.	**How Participation of Women will be Encouraged**	**Seats are reserved as per govt. norms**
20.	**Are Greening/ Environment Sustainability Aspects Covered** *(Specify the NOS/Module which covers it)*	**☒Yes ☐No** **The said aspect is covered in the module name Employability Skill**
21.	**Is Qualification Suitable to be Offered in Schools/Colleges**	**Schools ☐ Yes ☒ No Colleges ☐ Yes ☒ No**

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22.	**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**	
23.	Final Approval Date by NSQC: 30..4.2024	**24.** Validity Duration: 3 years	**25.** Next Review Date 30..4.2027

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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*

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 MarksIn Both Semester					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
1.	Interpret Engineering Drawing	MSME/CCWT/01 & Version 1.0	Core	3	2	30	30	-	-	60	-	100	-	-	100	
2.	Perform Machining Operation on Conventional	MSME/CCWT/02 & Version 1.0	Core	3	4	30	90			120	100	100	-	-	200	

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 MarksIn Both Semester					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
	Machine															
3.	Carry out Welding Operations (Arc and Gas Welding)	MSME/CCWT/03 & Version 1.0	Core	3	13	60	**240**	**90**		390	100	100	-	-	200	
4.	Employability skills	MSME/ES/01	None- Core	3	1	30	-			30	100	-	-	-	100	
Duration (in Hours) / Total Marks					20	**150**	**360**	**90**		**600**	**300**	**300**			**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)*
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.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

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

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 Mechanical Engineering or Equivalent with Practical skills and knowledge required in the relevant job role at least one level higher i.e level 3.5 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)*	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.

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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 theneed 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:** 51
5.	**Estimated nos. of persons to be trained and employed: Approx. 3000 per Year**
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 *(Mandatory)*	*Annexure-I*

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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*

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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	Technician performs activities on metal cutting machining operation by using / operating conventional and advance welding machine tools for producing job in predetermined process.	Technician is expected to understand /predict the process of doing job and its related limited range of activities to be carried out by him in order to perform the job successfully.	**3**
Professional and Technical Skills/ Expertise/ Professional Knowledge	Technician have knowledge on - Safe working practices and procedures before starting the welding ensuring personal protective equipment. Principle knowledge on operating machines, tools and instruments. Basic technical knowledge for welding process. Types and valid sources of appropriate job specification such as work drawing and instructions from supervisor, etc. Understanding of technical drawing of the job to be performed. To decide parameter setting of machine. Sequence of operation. Selection of tools and instruments required for the job. Importance of ensuring work pieces / electrode and consumables for the specified job and related procedures. To ensure that tool and equipment's are in a safe and useable condition. Should understand how to do self. Inspection of shaped components against specified quality standards. Importance of leaving the work area and machine in a safe condition on completion of the activities.	Technician is expected of having knowledge on principle functions of all parts of machines. Technician able to understand the technical drawing, knowing of parameter setting etc. required by his trade employment.	**3**
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Technician have skill and ability to : Operate machines in order to manufacture part with specific shape and size. Identify problems with work planning, procedures, output and behavior and their implications. Communicate problems appropriately to others identify sources of information and support for problem solving. Plan, prioritize and sequence of work operations as per job requirement. Understand basic concepts of shop floor work productivity including waste reduction,efficient material usage and optimization of time. Manage own time for achieving better result. Seek assistance from team members.	Technician expected having skill and ability to perform the repetitive and routine jobs within predefined specification.	**3**
Broad Learning Outcomes/Core Skill	Technician understands how to : Read and interpret information correctly from various job specification documents, manuals etc. Communicate with people in respectful form and manner in line with organizational protocol.	Technician expected having skill and ability to communicate others in his workplace and organization and also in social domain within limited capacity and also has skill and knowledge of doing calculations as needed by	**3**

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	Undertake basic numerical operations and calculations / formulae. Identify various basic, compound and solid shape as per dimensions given. Use appropriate measuring techniques and units of measurements and also units and numbers systems to express degree of accuracy. Clarify task related information with appropriate or technical adviser.	his trade employment.	
Responsibility	Technician follows instructions from superior and works with close supervision. Taking personal responsibility for own actions and for the quality and accuracy of the work.	Technician expected to perform his job under close supervision. but have responsibility on his own trade work with limited range	**3**

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

Batch Size:30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Manual Metal Arc WeldingMachine (MMAW)	As per Standard specification and availability	4
2	TIG	As per Standard specification and availability	3
3	MIG	As per Standard specification and availability	3
4	GAS Welding & GAS Cutting		2
5	Pedestal Grinding Machine	As per Standard specification and availability	2
6	Drill Machine	As per Standard specification and availability	2
7	Bench Vice	As per Standard specification and availability	10
8	Surface Table	As per Standard specification and availability	1

9	PC with MS Office & Internet	As per Standard specification and availability preferably with Lasted version of OS and Software	15
10	Coated & Non-coated electrodes, Filler Roads	As per Standard specification and availability	Adequate nos.
11	Multipoint Cutting Tools	As per Standard specification and availability	30
12	Grinding Wheel	As per Standard specification and availability	10
13	Machine Accessories& Hand Tools	As per Standard specification and availability	Adequate nos.
14	Measuring Instruments & Gauges	As per Standard specification and availability	Adequate nos.

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White Boards Marker / Chalk, Dusters etc.
2. PC with necessary software
3. Projectors

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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	SHRI VINAYAKA RICE TECHNO	NEERAJ GUPTA	DIRECTOR	RAILWAY ROAD, TARAORI KARNAL 132116 HARYANA INDIA	9215811055	NEERAJ@JYOTIGROUP.NET	
2	JYOTI INOX PVT. LTD.	SAHIL GARG	DIRECTOR	524,PHASE V, UDYOG VIHAR SEC-19, GURUGRAM-HARYANA 122016	9991916777	JYOTIINOX@GMAIL.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	7980872335	SHIVENGINEER1980@GMAIL.COM	

				113			
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	MAX MILL TECHNOLOGIES	PRADEEP SHARMA	MANAGER	172/1,ASHOKGARH,DUNLOP, BARANAGAR, KOLKATA-700108	7003462714	MAXMILLTECHNOLOGIES@GMAIL.COM	
10	SPECIAL ENGINEERING SERVICES LTD.	ASHIM GANGULY	JR. FACTORY MANAGER	16, COSSIPORE ROAD, KOLKATA-700 002	913325578434	SESCATCN@CAL2.VSL.NET.IN	
11	ABHAYA PRECISION INDUSTRIES PVT LTD	ABHESEK GHOSH	MANAGING DIRECTOR	70/2,YOURIBANI LANE,KOLKATTA-04	9831617997	MAIL@ABHAYAMD.COM	
12	SATYANARAYAN ENGINEERINGWORKS	NILANGSHU GHARUI	MANAGER	SHANPUR, DAONAGAR, HW-711105	7980278984	DATYANARAYANEGG@GMAIL.COM	
13	SHREE RADHA KRISHNA INDUSTRIES	MANI BHUSHAN SINGH	PROPRIETER	1/1D, JOY KRISHNA GHOSAL ROAD, ARÍADAHA, RATHTALA, KOLKATA-700 057	9883368597	SHREERADHAKRISHNA21@GMAIL.COM	
14	NSCB AVIATION (P) LIMITED	SUBHASISH HALDER	DIRECTOR	34, SCOUT PARA, GANGA NAGAR, KOLKATA 700132	8910627096	SUBHASISH.HALDAR@NSCBAVIATION.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	AKASH RAILWAY EQUIPMENT & SERVICES	AKASH SINGH	OWNER		887138046	ARES.BHOPAL@GMAIL.COM	
17	DEETEE INDUSTRIES			PLOT NO- 59B SECTOR C, INDORE	9755097825	HR-RMR@DEETEEPVT.COM	
18	MIKRONIX GAUGES PVT LTD		MD	B-25 MIDC , CHIKALTHANA, CH. SAMBHAJINAGAR	9822004674	MGPLAY@GMAIL.COM	
19	ALLWIN UNITED ASSOCIATION PVT.LTD	MI PANKAJ	DIRECTOR	ALLWIN UNITED ASSOCIATION PVT.LIMITED	7588537412	CONTACT@TECHNOCADDAPL.COM	
20	MIS ANNA BLOCK BORING CENTER	MASIT KHAN	PROPRIETOR	MIS ANNA BLOCK BORING CENTER	9767375083		
21	LAXMI ENTERPRISES	RANJANA BHAYYA SAHEB PAWAR	MI.MANAGER	SAINAGAR GHANEGAON MIDC WALUJ, AURANGABAD	7387431128		

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22	M/S HR INDUSTRIES	VASPUT JAUGELE	PROPRIETOR	SAJAPUR, AURANGABAD	9637384737		
23	GAYATRJ AUTO COMPONENTS, AURANGABAD	MR. RANJEET METE	MANAGER	AURANGABAD	7385613842	INFO@GAYATRIAUTO.IN	
24	SHARP TOOLS	MAHESH DORLE	SR.MANAGER		9689574563		
25	CHANCHAL ENGINEERING WORKS AURANGABAD	DRYHAEBHWAR	PROPRIETOR	AURANGABAD	9765499939	CHANCHALENGINEERINGWORKS@GMAIL.COM	
26	AKSHARA ENGINEERING WORKS	SHIVAJI GAIKWAD		WALUJ MIDC AURANGABAD	9096420857		
27	ARUSHI ENGINEERING AND BREEZING	VIJAYA PARADE	MANAGER	WALUJ MIDC AURANGABAD	9049596736		
28	SR INDUSTRIES AURANGABAD	RAJENDRA SAUDAGAR MARE	SR. MANAGER	AURANGABAD	8698145607		
29	DEVA ENGINEERING AURANGABAD	ASHOK MOTINAM VEOR	SR. MANAGER	AURANGABAD	8459567793		
30	MAULI PATTERN AURANGABAD	MR.PANCHAL	PROFESSOR	AURANGABAD	9673067755		
31	NAVARATNA INDUSTRIES			WALUJ MIDC AURANGABAD			
32	PRANAW ENTERPRISES AURANGABAD	PANDRINATH DEVKAR	PROPRIETOR	AURANGABAD	9371671146	PRANAVENT@GMAIL.COM	
33	R.P INDUSTRIES	PRASHANT PATIL	CEO	MIDC CHIKATHANA AURANGABAD	8007222251	PRASHANTPATIL@GMAIL.COM	
34	TECHNO MOULD SOLUTION	MR.PANDA	PROPRIETOR	AURANGABAD	7774077907	TECHNOMOULD.SOLUTIONS@GMAIL.COM	
35	SANJAY THCHNO PRODUCTS	HEMANT CHAUDHURY	VP-MANUFACTURING	AURANGABAD	9158898090	HEMANT.CHAUDHARI@SANJAYTECHNOPRODUCTS.IN	
36	SPECIAL PRECISION	ASHIWINI TADHAV	PROPRIETOR	AURANGABAD		SPECIALASHIWIN@GMAIL.COM	
37	PARASON MACHINERY (INDIA) PVT LTD	GHAHU	GM	AURANGABAD	9325202860	AMOIL.MOGAL@PASASEN.COM	
38	PADMA INDUSTRIES	VITTHALKADOM	CEO	MIDC AURANGABAD	9421688212	VITTHALKADOM2525@GMAIL.COM	
39	VANI ENGINEERING CO.PVT LTD	SUBH	GENERAL MANAGER	AURANGABAD	9730729991	SKAPE@GMAIL.COM	
40	GLANCE ENGINEERING -6 PVT.LIMITED CHIKALTHANA	SUBH SK	GENERAL MANAGER	CHIKALTHANA	9730729991	S.KALE@GMAIL.COM	

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41	SURAJ TOOLS AND ENGINEERING WORKS	DEIM	CEO	MIDC CHIKATHANA AURANGABAD	7447375273	SURAJTOOLS@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	MADURA DIE CAST PVT LIMITD	MADHURA	CEO	SHENDRA AURANGABAD	9422204622	MADHRADIECAST@GMAIL.COM	
46	SWAGATI ENGINEERING WIS2		CEO	CHIKALTHNA,AURANGABAD	9763714369	SWAGATIENGG@GMAIL.COM	
47	IDEAL ENTERPRISE		GENERAL MANAGER	CHIKALTHANA AURANGABAD	9763785199	IDEAL1993@GMAIL.COM	
48	INDEXABLE CUTTING TOOL	TOR	PROPRIETOR	BAJAJNAGAR,AURANGABAD			
49	CREATIVE CASTING INDUSTRIES	MR. SANJAY RANDIRE	PARTNER	K-30, MIDC WALUJ , AURANGABAD	9011001671	CREATIVECAST@REDIFFMAIL.COM	
50	PYRAMID INDUSTRIES	MR. RAJENDRA KALE	PROPRIETOR				
51	RMG INDUSTRIES	RAOUAL	CEO	MIDC AURANGABAD WALUJ	9766699611	EAJUQANDA@RMGINDUSTRIES.COM	

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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
2024-2025	250	250	0	0	-	-
2025-2026	400	400	0	0	-	-
2026-2027	600	600	0	0	-	-

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
Existing/Previous	20-21	13	13	13	10	0	0	0	0	-	-	-	-
	21-22	34	34	34	31	0	0	0	0	-	-	-	-
	22-23	33	33	33	30	0	0	0	0	-	-	-	-

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. Self Finance by the candidate
2. Government Sponsored

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	☐Theory/ Lectures - Imparting theoretical and conceptual knowledge	Books/ e-books, Presentations, Reference Material , Audio / Video Modules with	40:60

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		2D and 3D animation Self-Learning Videos /Broadcasts /Mobile Learning /Curated Digital content	
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	Various welding equipment, Manual Metal Arc Welding Machine (MMAW), TIG, MIG, GAS Welding & GAS Cutting, Video Content , E-Resource library	100:0
4	☐Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	Manual Metal Arc Welding Machine (MMAW), TIG, MIG, GAS Welding & GAS Cutting, Measuring, instruments, Hand Tools , Drafter	100:0
5	☐Tutorials/ Assignments/ Drill/ 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)/ Project Work Internship/ Apprenticeship Training	Live Project on Welding process at concern Industry/ Institution.	100:0

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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
Interpret Engineering Drawing MSME/CCWT/01	PC1 Describe the various dimensioning techniques. PC2 Identify orthographic views of objects: Front, top, left side, right side using lines. PC3 Draw elements and simple assembly.	-	100	-	-

	PC4 Assessment examination (Written + Practical) to test basic skills on engineering drawing. PC5 Their applications will also be assessed during execution of assessable outcome and also tested during theory and practical examination. PC6 Describe Layout of drawing sheet as per B.I.S. Block letters & numerals, Single & double stroke as per BIS. PC7 Describe different types of lines as per BIS. PC8 Construct simple geometrical figures like triangle, polygons, circle, ellipse etc. PC9 Draw Projection of points, lines and plain figures. PC10 Provide dimension on object as per BIS				
NOS / Module: **Perform Machining Operation on Conventional Machine** **MSME/CCWT/02**		100	-	-	-

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Carry out Welding Operations (Arc and Gas Welding) **MSME/CCWT/03**	PC1 Describe Arc & Gas welding equipment PC2 Describe various welding process & their application PC3 Describe use of electricity & various electric terms, application & importance of heat & temperature in welding 31.3 PC4 Perform arc welding operation using various welding instrument PC5 Differentiate AC & DC welding machines PC6 Describe arc length & its effects PC7 Describe importance of electrode, fluxes, coating, size & its coding PC8 Use the properties of calcium carbide, acetylene gas its purifier & related terms. PC9 Use properties of oxygen its charging process & equipment use in with oxygen gas. PC10 Describe and demonstrate working of oxy-acetylene low presser & high presser in welding system PC11 Demonstrate right & left ward welding technique PC12 Identify defects, cause, remedies & controlling during Arc welding PC13 Describe about filler rod, specification & size fluxes, types & its functions PC14 Know about welds slop & rotation PC15 Identify welding symbols PC16 Apply safety in gas metal Arc welding & gas tungsten arc welding 36.2 PC17 Demonstrate use of equipment in GMAW/GTAW PC18 Describe the difference between GMAW over SMAW PC19 Describe wire feed system its type & maintenance PC20 Identify various wire used in GMAW as per standard PC21 Perform edge preparation for various metals PC22 Perform pre heating & post weld treatment PC23 Describe sub merged Arc welding process its principle, equipment,				

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	advantage & limitation. PC24 Describe about GTAW process 36.15 PC25 Describe tungsten electrode type & its use PC26 Identify various filler rod & its selection PC27 Identify various parameter of welding in GTAW and pulsed TIG welding **Gas welding** PC28 Perform Weld of MS sheet with filler rod & without filler rod PC29 Demonstrate joining of MS sheet (3.15 mm) of filet position in butt square welding PC30 Demonstrate joining of MS sheet (3.15 mm) of filet position in Lap joint fillet weld PC31 Perform To Joint butt weld single 'V' butt right welding technique with fillet position on MS sheet 8 mm **PC32** Perform weld of vertical position with filler road on MS sheet 3.15 mm. **PC33** Perform Welding on cast iron, copper sheet, brass sheet, stainless steel sheet, aluminum sheet, brazing of MS sheet **Arc welding** PC34 Perform straight bead, bevel bead, open corner, 'T', Lap, Open square, Single 'V' butt on 10 mm plate PC35 Perform horizontal straight bead & 'T' fillet joint on 10 mm MS plate, Overhead 'T' fillet, Lap fillet, Single 'V' butt & outside corner joint on 10 mm MS plate PC36 Perform joining of MS plate with MS pipe Perform hard facing PC37 Perform square butt, arc glazing & arc cutting on MS/SS sheet **TIG welding** PC38 Perform fusion run with or without filler rod on MS sheet PC39 Perform 'T' fillet butt joint on 3.15 mm MS sheet PC40 Perform fusion run 'T' fillet, but square & outside corner joint on 3 mm				

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	aluminum sheet PC41 Perform Butt weld square joint on aluminum pipe PC42 Perform fusion run with or without filler wire on SS sheet PC43 Perform fillet lap, Fillet 'T', fillet outside corner joint, butt square weld on 3.15 mm SS sheet **MIG welding** PC44 Perform straight bead on 10 mm MS plate PC45 Perform 'T' fillet, Lap, single 'V' butt joint on 10 mm MS plate PC46 Perform straight bead & 'T' weld on fillet position on 10 mm MS plate PC47 Perform straight bead, 'T' fillet, single butt & square butt joint in horizontal position on MS plate PC48 Perform straight bead in overhead position PC49 Perform 'T' joint in overhead condition on MS plate				
Employability skills **MSME/ES/01**	PC.1 Explain the major applications of MS Office PC.2 Explain the different types of e-commerce PC.3 List the benefits of e-commerce for retailers and PC.4 customers PC.5 Discuss how the Digital India campaign will help boost e-commerce in India PC.6 Write applications pertaining to various matters. PC.7 Explain power of positive attitude and Importance of PC.8 Commitment PC.9 Explain motivation and the Ways to motivate oneself and Personal goal setting PC.10 Explain the Effective & Level of Communication PC.11 Explain communication and Significance of technical communication? PC.12 Explain the methods of listening Skills.				

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	PC.13 Explain the differences between bio-data, CV and Resume. PC.14 Explain verbal and non-verbal Communication PC.15 Explain how to face an interview. PC.16 Explain team work, group work, team formation process PC.17 How to Minimize the team conflicts PC.18 Explain Ethics & values PC.19 Explain the concept of entrepreneurship, and entrepreneurship v/s Management PC.20 Explain the process of project report preparation for setting up a new business PC.21 Explain the role of various schemes and institute for self-employment i.e MSME, DIC, NSIC, SIDBI etc, PC.22 Role of financial institution to support startup PC.23 Discuss the importance of saving money PC.24 Discuss the main types of bank accounts PC.25 Differentiate between fixed and variable costs PC.26 Describe the different types of insurance products PC.27 Discuss the main types of electronic funds transfers				

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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.

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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

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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	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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