



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

**MSME TECHNOLOGY CENTRE**



**Skill India**  
कौशल भारत - कुशल भारत

## QUALIFICATION FILE

### Technician - Audio Video Systems

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**

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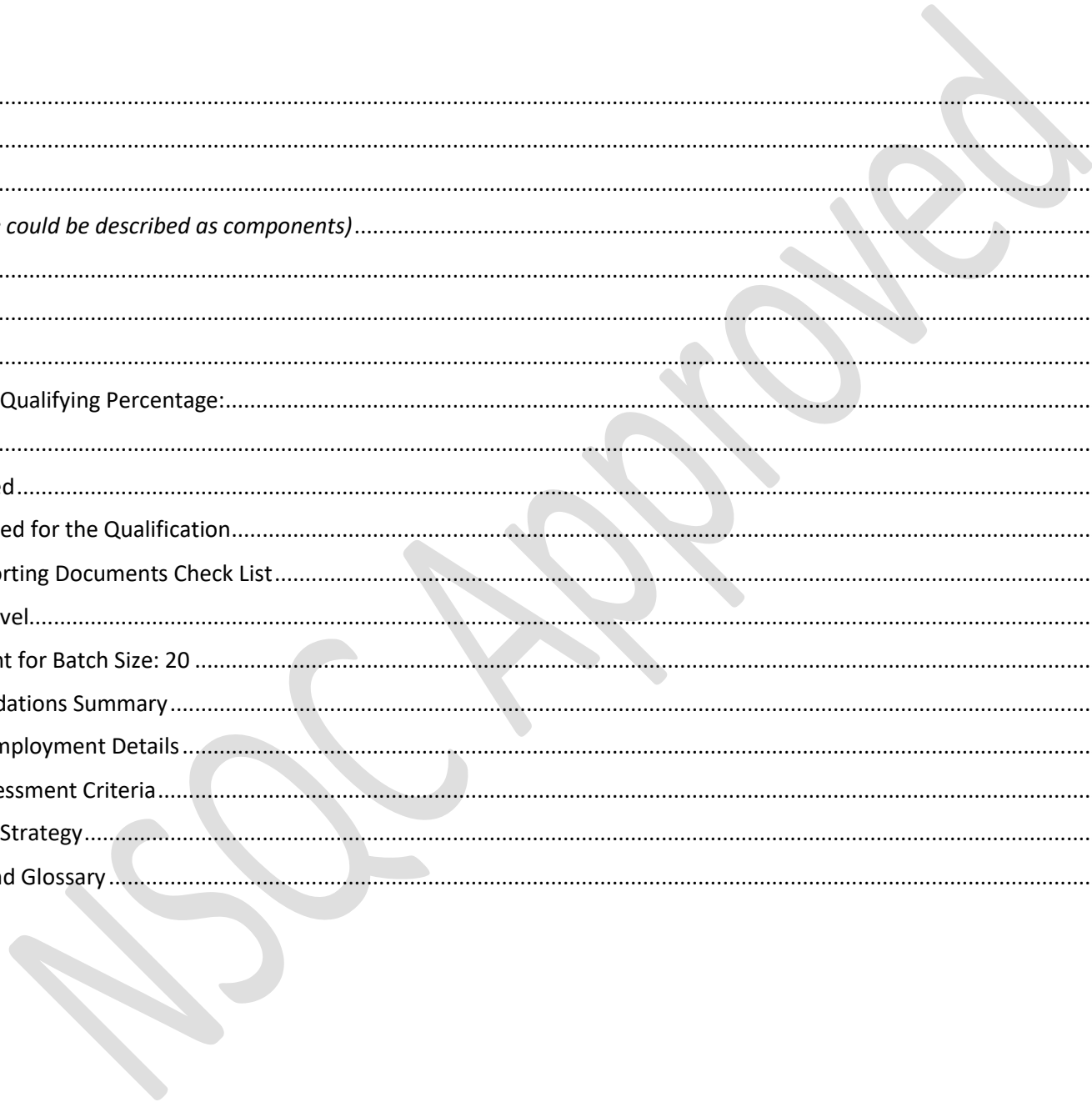
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### Section 1: Basic Details

1.	<b>Qualification Name</b>	Master Technician (Audio Video Systems)																
2.	<b>Sector/s</b>	Electronics & Hardware																
3.	<b>Type of Qualification:</b> <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	<b>NQR Code &amp; version of existing/previous qualification:</b> <i>(change to previous, once approved)</i>  QG-04-EH-02383-2024-V1-MSME	<b>NQR Code &amp; version of existing/previous qualification:</b> <i>(change to previous, once approved)</i>															
4.	<b>a. OEM Name</b> <b>b. Qualification Name</b> <i>(Wherever applicable)</i>	NA -																
5.	<b>National Qualification Register (NQR) Code&amp;Version</b>	QG-04-EH-02383-2024-V1-MSME	<b>6. NCrF/NSQF Level: 4</b>															
7.	<b>Award (Certificate/Diploma/Advance Diploma/Any Other)</b> <i>(Wherever applicable specify multiple entry/exits also &amp; provide details in annexure)</i>	<b>Certificate</b>																
8.	<b>Brief Description of the Qualification</b>	After attaining this qualification learner will be able to: <ul style="list-style-type: none"> <li>• Installation, repairing &amp; servicing of CRT TV, LCD TV, LEDTV, PLASMA TV, SMART TV, DVD PLAYER and HOME AUDIO</li> <li>• Learners are competent in get employment in the industry in the field of AV Repair &amp; Service and also become an entrepreneur</li> </ul>																
9.	<b>Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</b>	<b>a. Entry Qualification &amp;Relevant Experience:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 60%;">Academic/Skill Qualification (with Specialization - if applicable)</th> <th style="width: 30%;">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>Completed / Pursuing 2nd year of 3-year diploma (after 10th)</td> <td>Nil</td> </tr> <tr> <td>3</td> <td>10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent.</td> <td>Nil</td> </tr> <tr> <td>4</td> <td>Previous relevant Qualification of NSQF Level 3.5</td> <td>1.5 year relevant experience</td> </tr> </tbody> </table> <p><b>b. Age:</b> 17 Years.</p>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12th grade pass	Nil	2	Completed / Pursuing 2nd year of 3-year diploma (after 10th)	Nil	3	10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent.	Nil	4	Previous relevant Qualification of NSQF Level 3.5	1.5 year relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1	12th grade pass	Nil																
2	Completed / Pursuing 2nd year of 3-year diploma (after 10th)	Nil																
3	10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent.	Nil																
4	Previous relevant Qualification of NSQF Level 3.5	1.5 year relevant experience																

10.	<b>Credits Assigned to this Qualification, Subject to Assessment</b> (as per National Credit Framework (NCrF))	17	<b>11.Common Cost Norm Category (I/II/III)</b> (wherever applicable): <b>I</b>																										
12.	<b>Any Licensing requirements for Undertaking Training on This Qualification</b> (wherever applicable)	NA																											
13.	<b>Training Duration by Modes of Training Delivery</b> (Specify <b>Total Duration</b> as per selected training delivery modes and as per requirement of the qualification)	<input type="checkbox"/> Offline <input type="checkbox"/> Online <input checked="" type="checkbox"/> Blended <table border="1" data-bbox="958 395 2110 651"> <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>70</td> <td>120</td> <td>210</td> <td>-</td> <td>370</td> </tr> <tr> <td>Online</td> <td>140</td> <td>-</td> <td>-</td> <td>-</td> <td>140</td> </tr> <tr> <td><b>Total</b></td> <td>210</td> <td>120</td> <td>210</td> <td></td> <td>510</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)	70	120	210	-	370	Online	140	-	-	-	140	<b>Total</b>	210	120	210		510
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																								
Classroom (offline)	70	120	210	-	370																								
Online	140	-	-	-	140																								
<b>Total</b>	210	120	210		510																								
14.	<b>Aligned to NCO/ISCO Code/s</b> (if no code is available mention the same)	7422.13 (Television Repair Technician)																											
15.	<b>Progression path after attaining the qualification</b> (Please show Professional and Academic progression)	Professional Progress: Sr. Technician (AV)																											
16.	<b>Other Indian languages in which the Qualification &amp; Model Curriculum are being submitted</b>	Hindi																											
17.	<b>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																											
18.	<b>Is the Job Role Amenable to Persons with Disability</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: As per govt. Norms.																											
19.	<b>How Participation of Women will be Encouraged</b>	Seats are reserved as per government Norms.																											
20.	<b>Are Greening/ Environment Sustainability Aspects Covered</b> (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No The said aspect is covered in the module name Employability Skill.																											

21.	<b>Is Qualification Suitable to be Offered in Schools/Colleges</b>	<b>Schools <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</b> <b>Subject to availability of resources.</b>	
22.	<b>Name and Contact Details of Submitting / Awarding Body SPOC</b> <i>(In case of CS or MS, provide details of both Lead AB &amp; Supporting ABs)</i>	<b>Name: Sh. Vijay Mahipatrao Bankar</b> <b>Contact No. +0755 3501078</b> <b>Email-msmetcab@gmail.com</b>	
23.	<b>Final Approval Date by NSQC:30.04.2024</b>	<b>24.Validity Duration: 3 years</b>	<b>25.Next Review Date:</b> <b>30.04.2027</b>

NSQC Approved

## 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/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weight age (%) (if applicable)
1.	STUDY ON BASIC ELECTRICAL/ELECTRONICS, SAFETY & HAND TOOLS -AV	<b>MSME/AV /01</b>	Core	4	4	120	-	-	-	120	100	-	-	-	100	
2.	ADVANCE SKILL ENHANCEMENT ON TROUBLESHOOTING, ASSEMBLY, DISASSEMBLY, INSTALLATION & DEMONSTRATION ON RESPECTIVE PRODUCTS -AV	<b>MSME/AV /02</b>	Core	4	5	30	120	-	-	150	100	100	-	-	200	
3.	Employability skills	<b>MSME/ES /01</b>	Non-Core	4	1	30	-	-	-	30	100	-	-	-	100	
4.	ON JOB TRAINING	<b>MSME/AV /03</b>	Core	4	7	-	-	210	-	210				100	100	
<b>Duration (in Hours) / Total Marks</b>					<b>17</b>	180	120	210		510	300	100	-	100	500	

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)

## Assessment - Minimum Qualifying Percentage:

**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/Electrical/Electronic or Equivalent with Practical skills and knowledge required in the relevant job role at least one level high-rise level 4.5 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 Engineering/Electrical/Electronic or) or equivalent with 3 to 5 years of experience in Service centre of any reputed company like Samsung ,LG, Reliance OR Training 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 Upskilling Required for Trainer	Yes

### Section 4: Assessment Related

1.	<b>Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Diploma / Degree in Engineering (Mechanical Engineering/Electrical/Electronic) or equivalent with 3 years of experience Service centre of any reputed company like Samsung ,LG, Reliance OR in Training from Tool Room/ Technology Centre of MSME or any reputed industry.  Only (TOA) certified assessors will be able to conduct the assessments.
2.	<b>Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Degree in Engineering (Mechanical Engineering/Electrical/Electronic) or equivalent With 5 years of experience in Service centre of any reputed company like Samsung ,LG, Reliance OR Training Department from Tool Room/ Technology Centre of MSME or any reputed industry.
3.	<b>Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Post Graduate in the relevant discipline with minimum 5 years of experience in Service centre of any reputed company like Samsung ,LG, Reliance OR Training/Department from Tool Room/ Technology Centre of MSME or any reputed industry.
4.	<b>Assessment Mode</b> (Specify the assessment mode)	Blended Type (Online + Offline)
5.	<b>Tools and Equipment Required for Assessment</b>	<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)
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## Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	<b>Latest Skill Gap Study (not older than 2 years)(Yes/No): Yes,</b> <a href="https://www.meity.gov.in/writereaddata/files/Electronics_IT_Hardware_NSDC_Report_1732011%20%281%29.pdf">https://www.meity.gov.in/writereaddata/files/Electronics_IT_Hardware_NSDC_Report_1732011%20%281%29.pdf</a>
2.	<b>Latest Market Research Reports or any other source (not older than 2years) (Yes/No): Yes,</b> <a href="https://www.thebusinessresearchcompany.com/report/audio-and-video-equipment-global-market-report">https://www.thebusinessresearchcompany.com/report/audio-and-video-equipment-global-market-report</a>
3.	<b>Government /Industry initiatives/ requirement (Yes/No):Yes</b>
4.	<b>Number of Industry validation provided: 30</b>
5.	<b>Estimated nos. of persons to be trained and employed: Approx. 500 per Year</b>
6.	<b>Evidence of Concurrence/Consultation with Line Ministry/State Departments: yes</b> If "No", why:

## Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	<b>Annexure:</b> NCrf/NSQF level justification based on NCrf level/NSQF descriptors ( <i>Mandatory</i> )	<i>Annexure-I</i>
2.	<b>Annexure:</b> List of tools and equipment relevant for qualification ( <i>Mandatory, except in case of online course</i> )	<i>Annexure-II</i>
3.	<b>Annexure:</b> Industry Validations Summary	<i>Annexure-III</i>
4.	<b>Annexure:</b> Training & Employment Details	<i>Annexure-IV</i>
5.	<b>Annexure:</b> Blended Learning ( <i>Mandatory, in case selected Mode of delivery is "Blended Learning"</i> )	<i>Annexure-V</i>
6.	<b>Annexure:</b> Detailed Assessment Criteria ( <i>Mandatory</i> )	<i>Annexure-VI</i>
7.	<b>Annexure:</b> Assessment Strategy ( <i>Mandatory</i> )	<i>Annexure-VII</i>
8.	<b>Annexure:</b> Acronym and Glossary ( <i>Optional</i> )	<i>Annexure- VIII</i>
9.	<b>Annexure:</b> Multiple Entry-Exit Details ( <i>Mandatory, in case qualification has multiple Entry-Exit</i> )	<i>NA</i>
10.	<b>Supporting Document:</b> Model Curriculum ( <i>Mandatory – Public view</i> )	<i>Annexure- IX</i>
11.	<b>Supporting Document:</b> Career Progression ( <i>Mandatory - Public view</i> )	<i>This aspect mentioned in point no. 15</i>
12.	<b>Supporting Document:</b> Occupational Map ( <i>Mandatory</i> )	<i>Annexure-X</i>
13.	<b>Supporting Document:</b> Assessment SOP ( <i>Mandatory</i> )	<i>Annexure- XI</i>
14.	Any other document you wish to submit:	<i>NA</i>

### Annexure: 1 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>Describe general service &amp; maintenance Practice</p> <p>Describe elements of servicing of various products.</p> <p>Describe assembling procedure for critical product.</p> <p>Describe Service / Maintenance Processes and process plan</p>	<p>As job holder (Service Engineer) is dealing with various products.</p> <p>he has to describe various process involving standard guidelines and procedures for doing the work.</p> <p>Job Holder ( Service Engineer) shall use various methods for completing the task in stipulated time by using various catalogues and manuals supplied with the product . He should understand various assemblies and fitments related to product and desired mechanism.</p> <p>Through Cognitive knowledge job holder ( Service Engineer) shall judge the best conceptual procedure to work in complicated systems and logical system diagrams related to product</p>	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	Identify customer’s requirement and create standard worksheet as per product.	Job holder ( Service Engineer) shall carry out the regular service / maintenance activity in service station / workshop.	4

	<p><input type="checkbox"/>Develop plan for daily, weekly and monthly service / maintenance chart.</p> <p><input type="checkbox"/>Demonstrate and understand various service / maintenance techniques of mechanisms on various product.</p> <p><input type="checkbox"/>Develop creative solution to the predictable and unpredictable problems in product</p> <p><input type="checkbox"/>Develop mathematical/Analytical skills</p> <p><input type="checkbox"/>Develop quality consciousness concept</p> <p><input type="checkbox"/>Prepare costing of servicing and its related replace part.</p> <p><input type="checkbox"/>Troubleshoot the problems in product.</p>	<p>Assembling and dis- assembling methods for various product .</p> <p>Able identify and correct the cause of problems/error ,use of work clamping &amp; product holding device for product , cognitive &amp; practical skill required to accomplished tasks and solve problem &amp; selecting basic method, principles, tools, material and information of standard practice of service product assembly.</p> <p>Understand judge the product and create a report of problems and errors. Identifying the basic problems/errors and resolving through related system solutions.</p>	
<p>Employment Readiness &amp; Entrepreneurship</p> <p>Skills &amp; Mind-set/Professional Skill</p>	<p>Cognitive and practical skills required to generate solutions to specific problems in a field of work or study</p>		<p>4</p>
<p>Broad Learning Outcomes/Core Skill</p>	<p><input type="checkbox"/>Use basic &amp; advance knowledge of the product and safety practices at the workplace</p>	<p>Job holder ( Service Engineer) shall work on product service where he/she shall gather accurate information on</p>	<p>4</p>

- Work on service of the product
- Develop entrepreneurship skills
- Communicate effectively

maintenance or service scope and requirements, Confirm the problems, preparation of service plan, selection of assembly process based on criticality and fitment, communicate clearly about the failure to the group members through written /verbal/e mail etc. as per organizational standard, identify different solution options which will meet requirements and design specification, ,Analyze system concepts to meet design requirements, identify problems with work planning, procedures, output and behavior and their implications e.g. unpredictable behavior of machines, different automatic systems and standard parts de graded performance, prioritize and plan for problem solving, communicate problems appropriately to others. identify sources of information and support for problem solving, seek assistance and support from other sources to solve

		<p>problems, Identify effective resolution techniques e.g. user manuals, maintenance manual, do and don'ts of systems etc., select and apply resolution techniques, seek evidence for problem resolution, inspect quality of own or other's work, analyze, information according to enterprise and work requirements, use diagnostic skills to identify and determine causes of faults, including interpretation of in-built fault indicators and error codes, take decisions within if within own jurisdiction or take approval for case outside own jurisdiction, Prepare cost estimate of the project, Prepare design &amp; development project plan with timeline and responsibilities of self and team members, Carry out mathematical calculation required for various input specifications e.g. economy factor calculation, different forces calculation, tool element size design calculations, no. of cavities</p>	
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		calculation etc., carry out mathematical calculation for selection of optimum solutions.	
Responsibility	<input type="checkbox"/> Work independently and work as a team members with full responsibility of output of group and development.	<p>Job holder ( Service Engineer) shall work independently during analyzing requirements of the service ( product), concept generation of standard practice ( based on guide line of particular product) and finalizing the requirements ( according to service point of view) with the customer.</p> <p>After receiving confirm order from the customer, job holder shall prepare service work sheet and development plan with time line ( visit date) and with job responsibilities of team members like preparation of standard parts ( procure from store or purchase), preparation of material list as per service point of requirement.. Verification of final service plan, after service of the product final testing charts can be made for product performance, if its ok and rectification along with tool validation and will</p>	4

		<p>have full responsibility of output of service engineer.</p> <p>Job holder ( Service Engineer) shall encourage team members for continues learning and development by time to time discussing with them various issues of service point of view like problems &amp; its solution, frequent failures to specified product, new development in product ( service point of view), selection of parts, new development in various automation systems according to service point of view.</p> <p>.</p> <p>Job holder ( Service Engineer) shall follow work standard , Product Service Guide Line ( Service Manual), specific norms and procedures ( work instruction) laid down by the organization. Job holder ( Service Engineer) shall develop moral, values and ethical practices in business operation.</p>	
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## Annexure: II Tools and Equipment (Lab Set-Up)

### List of Tools and Equipment for Batch Size: 10

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	AV Repair tool Kit	Industry Standard	3
2	AV Installation tool Kit		1
3	Solder Capsule		20
4	Home Theatre		01
5	TV (LED/LCD/Plasma)		15
6	Computer System		01
7	A/S ASSY-BRACKET P- WIRE;16/17 Screwless		1
8	HDMICABLE;SC550,19,1500mmBLK,HDMI A HD		3
9	A/S-ASSYMISCP-JIG-2017;Q7curve,Poly I		2

#### Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White Board with marker pen
2. Practice Exercise
3. Projector etc.

## 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	R K Imaging Service	KrunalManilal Patel (Karta)		702, Sungrace Arcade, Chandkheda, Visat Gandhi Ngr Road, Motera	9825020026		
2	Shree Ram Krishna Enterprises	RajenderChoudhary		Sh No 15,16,17, 1st Floor, Manas Complex, Jodhpur Cross Road, Satellite Road	079-40321036		
3	Shrinath Electronics	HemantkumarSatishbhai Patel		1, Panchjyot Society	079-27495225		
4	Panacea Services	Manish Chandak		1st Floor - 126, Pushkar Business Park, LbShahtri Marg Bapunagar, Near Chirag Diamond	9558551919		
5	H H Enterprise	AartiNamanReshamwala		U/L/6, Opp. Rambali School, Paldi, Anisha Complex, Mahalaxmi Cross Road	9874507339		
6	Rajvi Enterprise	Bhavika K Shah		8/46, Sonal Park, Nr. Ankur Cross Road, Naranpura	9925221137		
7	Aditi AirconditioningPvt Ltd	Ashish D Shah		7, Ground Floor, Ekta Tower, VasnaBarage Road, Vasna	9925227800		
8	Krishna Sales	Dharmendra Nandubhai Patel		27, Kalgi Park, Opp. Swaminarayan Mandir, Nava Naroda	9558821465		
9	Electronics World Service	Sumit R Patel & Ramesh J Pataliya		No. 2, AshopalavAppt, Maitrinagar Society, Near Adc Bank, Pragatinagar	9904022243		
10	Rucha Refrigeration	NileshPratulbhaiMaru		12, Sujan Tower, Naranpura	7878888188		
11	Giriraj Engineers	Kanan S Shah		Shop 24 to 27, Bima Shopping Center, Rambaug, Maninagar	9265964401		
12	Qarmatek Services Pvt Ltd	KrunalSaumirbhai Shah		4th Floor, ShashwatBuisness Park, Opp. Soma Textile Brts, Rakhiyal	8799050997		
13	Vision HVAC Pvt Ltd	Darshan Dave		A3, Madhuvrund,Rajpath Row House Road, Opp. Ahmedabad International School, Bodakdev	9825018222		
14	Dev Services	Vishal Patel		Ff -102&103, Urja Complex, Near Vishvakarma Temple - Mart Mall, Sabarmati	079-40328185		
15	Azzure Enterprise	Ravi Asnani		Shop No. 205, 2nd Floor, Stellar Sindhu Bhawan Road, Bodakdev	6353270099		
16	Qarmatek Services Pvt Ltd	KrunalSaumirbhai Shah		2nd Floor, Shashwat Business Park, Opp. Soma Textile Brts, Rakhiyal	9879060300		
17	Riddhi Siddhi Mobile	ShivkumarDharwal		4/40/1, Vallabh Nagar Flats, Near Bapunagar Char Rasta, Bapunagar	9227233777		
18	VtechNxtgen Retails LLP	Malav Shah		Showroom No. 4, Ground Floor, The Link, Vijay Cross Road, Navarangpura	7874732836		
19	Anand Cooling Equipment	ManojAshokbhaiHarwani& Sunil		1, Ground Floor, Vinues Chambers, Near	9998305678		

	PVT Ltd	LakhmichandHarwani		KalapiResturant, Bhadra		
20	Sysnet Global Technologies Pvt Ltd	Narinder Sharma		4Th Floor,ChandaNivas, Opposite Karnavati Hospital, Near Ellis Bridge	7948944566	
21	Yash Communications	Sushilkumar C Jain		Shop No. 65, Ground Floor, Sobo Center, South Bopal, Near Gala Swing	9898444524	
22	Happy Engineering	SamirbhaiYusufbhaiGhanchi		2nd floor, Office No. 0203, 0204, 0205, Gala Hub, Bopal	9825249087	
23	F1 Info Solutions & Services P Ltd	BalrajVirdi		Shop No 3&4, Metro Commerical Centre, City Survey No. 1973, Sub Plot No 3, Asharm Road	7080240240	
24	N K Enterprise	Modi NiravKanaiyalal		Ground, Shop No. 1 & 2, New Ashram Road, Ozone Aangan, Ramapir No Tekro, Vadaj	9909982548	
25	Khyansh Enterprise	Krutarth		09-Flat, Near GovtPolitechnic, Near AnandVatika, Ambawadi	9998868893	
26	Advance Care	Santoshbha		12/47, Gujarat Housing Board, Near Raipur Mill Rakhial	8128104755	
27	Ved Services	Anil Sharma		43 - A, Giriraj Tenement Mangaleshwar, Mahadev Road Ghodasar	9879002535	
28	PranamHvac Engineering Pvt Ltd	NiravJetly		405 - 406 / 1st Floor, Nilkanth Palace, Opp. Karma Shrstha Tower, 100 Ft Road Jod	9824009818	
29	Shreeji Mobile Care	DarshanNavnitlalBarot		Shop No 6, Ground Floor, Madhur Complex, Opp Stadium Fountain, Navrangpura	9879003545	
30	Reliance Retail Limited	Vaibhav Trivedi		Reliance Market Advance Mill Compund, Opp. Swaminarayan Temple, Shahibaug	9510977643	

## 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
23-24	400	320	40	32	-	-
24-25	600	480	60	48	-	-
25-26	800	640	80	64	-	-

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
0.0	20-21	54	54	54	24	0	0	0	0	-	-	-	-
0.0	21-22	124	124	124	70	0	0	0	0	-	-	-	-
0.0	22-23	131	131	131	110	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:**

- Fee based Training Program under the Ministry of MSME.
- ESDP Scheme under the Ministry of MSME.
- Capacity building Training program under National SC/ST Hub, M/o MSME, GOI

**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/2023/01/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	<input type="checkbox"/> 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	<input type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	Self-Learning Videos , Broadcasts, Mobile Learning , Curated Digital content	100:0
3	<input type="checkbox"/> Showing Practical Demonstrations to the learners	AV repair & installation kit,TV,Home Theatre, Video Content , E-Resource library	100:0
4	<input type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	AV repair & installation kit,TV,Home Theatre	100:0
5	<input type="checkbox"/> Tutorials/ Assignments/ Practice	Online Question Bank, Mobile Quick test app, MCQ based tests, Practical Test	40:60

		on Machines	
6	<input type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	Assessment engine for Essays, Up-loadable file examinations, Mock test sessions	50:50
7	<input type="checkbox"/> On the Job Training (OJT)	Different service center of Reputed company like Samsung ,LG, Reliance Geo ETC.	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
<p><b>NOS / Module:</b> MSME/AV/01 STUDY ON BASIC ELECTRICAL /ELECTRON ICS, SAFETY &amp; HAND TOOLS -AV</p>	<p>PC.1 Safety- Basic knowledge about safety General safety precautions. Accidents Fire and Fire Accidents First Aid. Personal Protective Equipment (PPE) Selecting and using PPE. Maintenance of PPE. Monitor and review. Types of PPE. Emergency equipment. Basic hand tools Types of Screwdrivers Pliers, Tweezers, Steel Rule, and Scriber.</p> <p>PC.2 Electronics Fundamentals- What is Matter, molecules, atom. Brief knowledge about Voltage and current. Various types of Voltage and current device. Checking Process of Resistor, capacitor Basic units Basic of computer and its use.</p> <p>PC.3 Basic electronics- Process of Inductors. Describe Conductor, insulator, wire. Describe the types of Power supplies. 20 Process of Soldering, disordering equipment's.</p> <p>PC.4 Semiconductor- Semiconductor physics. Semiconductor diodes. Filters. Special purpose diodes Power supply.</p> <p>PC.5 Transistor and its application- Types of transistor. BJT. FET. Identify transistor terminals. Applications of transistor.</p> <p>PC.6 Basic technology- What is ohm's law, what is voltage, current, resistance? Series circuit and parallel circuit. Resistor, Variable Resistor(Rheostat), Trimmer Capacitor Polarized Capacitor, LED (Light Emitting Diode), Photodiode, Transistor NPN, Transistor PNP.</p>	100	-	-	-
<p><b>NOS / Module:</b> MSME/AV/02 ADVANCE</p>	<p>PC.1Basic- Introduction of basic electronics. About Electricity, Electronics. What is ohm's law, what is voltage, current, resistance? Series circuit and parallel circuit. Audio Video Standard Tools Kit: Repair &amp; installation. About Multimeter, Rotary selector switch, Sliding switch, Probes, Display, COM Plug, VΩ Plug, A Plug, DC Volt Range, DC Current Range, AC Volt Range, AC Current Range, Ohm Range, Frequency Range, Logic Range, Diode Range, Continuity. Measuring AC Volt, DC Volt, DC Current, AC Current, Checking Continuity, Frequency &amp; Logic.</p>	100	100	-	-

<p>SKILL ENHANCEMENT ON TROUBLES HOOTING, ASSEMBLY, DISASSEMBLY, INSTALLATION &amp; DEMONSTRATION ON RESPECTIVE PRODUCTS -AV</p>	<p>PC.2 Safety and Precautions- Electrostatic Discharge Definitions of Electrostatic Discharge (ESD), Electrostatic Discharge Sensitive (ESDS), Electrostatic protected Area (EPA) What is Electrostatic Discharge (ESD), Charge is generated all the time, Electrostatic Charge generation, Damage Criteria, ESD comparison with germ Electrostatic Protected Area (EPA) Setup Methods of ESD Protection, Methods of Handling Printed Board Assembly (PBA)</p> <p>PC.3 Soldering and Disordering- Basics of Soldering. What is Soldering, Soldering Tools, Disordering Tools, and Soldering Methods Soldering Practice. Soldering Iron Usage Tips &amp; Maintenance, Possible Soldering Defects.</p> <p>PC.4 Types of TV's- Basic overview. Types of TV's, Basic terms &amp; technology related to TV.</p> <p>PC.5 CRT TV- Technology Overview. What is Cathode Ray Tube, Advantages and Disadvantages, Colour Transmission System, Health Concerns.</p> <p>PC.6 LCD TV- Technology Overview. What is LCD, History of LCD TV, Working Principle of LCD, What is CCFL, Features (CCFL), Advantages of LCD, Disadvantages of LCD, Key features of LCD TV, Wiring Layout of LCD TV, and Major components. Disassembly Process Assembling disassembling Process, Identification of parts.</p> <p>PC.7 LED TV- Technology Overview. What is LED, LED Backlighting, Features of LED backlit LCD TVs, How LED technology is used in LCD TVs, Full -Array vs. Edge Lit, Energy Consumption, How LED TV works . Disassembly Process . Assembling disassembling Process, Identification of parts</p> <p>PC.8 PLASMA TV- Technology Overview Basic Theory of Plasma, History of Plasma Display, Basic concept of Plasma, What is plasma, Inside a Plasma Display, How Plasma Displays Work, Advantages of Plasma T V, Disadvantages of Plasma TV. Disassembly Process . Assembling disassembling Process, Identification of parts .</p> <p>PC.9 Smart TV- Joy Series &amp; Curved TV: Installation&amp; features. TV Model Nomenclature, installation process of Joy Series LED TV's and features, installation process for curved TV and features . Troubleshoot &amp; How to reduce repeat repairs . Check list for initial operation, Troubleshooting. :No Power &amp; No Video, Symptoms related to T -Con, LVDS, Main boards of LED TV, customer education, Awareness on liquid log cases, importance of tool adherence.</p> <p>PC.10 DVD Player- Technology Overview. What is a DVD, Specifications of DVD, Advantages of DVD, and Structure of a DVD Disc, DVD Video and Audio Format? Troubleshoot Parts of a DVD Player. Block Diagram, Assembling a DVD Player.</p> <p>PC.11 Home Audio- Technology Overview. What is Home Theatre ,Surround sound basics How to install? Speaker Set-up Guidelines, Wiring of Speakers Disassembly Process Block Diagram, Disassembly Troubleshoot&amp; features Troubleshooting (No power, Disc loading error, Remote control doesn't work, No picture, Disc Freeze, No Disc reading error) , Home audio features , F/W method,</p>				
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<p><b>NOS / Module: MSME/AV/03 OJT</b></p>	<p>PC.1 On job training (OJT)- Installation Demonstration servicing Repairing Troubleshooting</p>	<p>-</p>	<p>100</p>	<p>-</p>	<p>-</p>
<p><b>NOS / Module: MSME/ES/ 01</b>  Employability skills &amp; Entrepreneurship</p>	<p>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 customers                      PC.4 Discuss how the Digital India campaign will help boost e-commerce in India                      PC.5 Write applications pertaining to various matters.                      PC.6 Explain power of positive attitude and Importance of commitment                      PC.7 Explain motivation and the Ways to motivate oneself and Personal goal setting                      PC.8 Explain the Effective &amp; Level of Communication                      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 &amp; 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,</p>	<p>100</p>	<p>-</p>	<p>-</p>	<p>-</p>

	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				
	Discuss the main types of electronic funds transfers				
	<b>Total Marks</b>	<b>300</b>	<b>100</b>		<b>100</b>

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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 Central MSME NSQF Examination Cell via email for the assessment.
- Central MSME NSQF Examination Cell sends the assessment confirmation to respective TC/AB
- Central MSME NSQF Examination Cell deploys the certified Assessor for executing the assessment at respective TC/AB via online / offline mode.
- Central MSME NSQF Examination Cell & respective TC/AB Internal Examination Cell monitors the assessment process & records

### 2. Testing Environment:

- Central MSME NSQF Examination Cell confirms the Assessment location, date and time
- For number of candidates more than 30 separate assessors are assigned for the assessment.

- Central MSME NSQF Examination Cell & 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 Central MSME NSQF Examination Cell and it is verified by the Central MSME NSQF Examination Cell 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 sent by Central MSME NSQF Examination Cell to respective TC & Assessor. Reporting of the assessor from assessment location is verified by the Central MSME NSQF Examination Cell through the online Meeting Link. Students are also required to join for the online link for verification by the Central MSME NSQF Examination Cell
- Assessment Photographs are shared with the Central MSME NSQF Examination Cell & are also with the respective TC.

### **5. Method of verification or validation:**

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

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

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

**On the Job Training:**

- The module / NOS (which covers the job profile of CNC Operator- Turning will be assessed.
- 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)

<b>NQR</b>	National Qualification Register
<b>NSQF</b>	National Skills Qualifications Framework
<b>OJT</b>	On the Job Training

**Glossary**

<b>Term</b>	<b>Description</b>
<b>National Occupational Standards (NOS)</b>	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.
<b>Qualification</b>	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
<b>Qualification File</b>	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.
<b>Sector</b>	A grouping of professional activities on the basis of their main economic function, product, service or technology.
<b>Short Term Training (STT)</b>	STT/ Short -term skilling means any vocational training program undertaken for less than a year (Theory + Practical + OJT). <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>

