



QUALIFICATION FILE

Welding

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

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

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

NCrF/NSQF Level: 4.5

Submitted By:

Automotive Skills Development Council

E-113, Okhla Industrial Estate

Phase- III,

New Delhi-110020

Table of Contents

Section 1: Basic Details.....	3
Section 2: Module Summary	5
NOS/s of Qualifications	5
Mandatory NOS/s:	5
Elective NOS/s:	5
Optional NOS/s:.....	6
Assessment - Minimum Qualifying Percentage	6
Section 3: Training Related	6
Section 4: Assessment Related	7
Section 5: Evidence of the need for the Qualification	7
Section 6: Annexure & Supporting Documents Check List.....	8
Annexure: Evidence of Level.....	8
Annexure: Tools and Equipment (Lab Set-Up)	10
Annexure: Industry Validations Summary	12
Annexure: Training & Employment Details	13
Annexure: Blended Learning	14
Annexure: Detailed Assessment Criteria	15
Annexure: Assessment Strategy	19
Annexure: Acronym and Glossary.....	20

Section 1: Basic Details

1.	Qualification Name	Welding																						
2.	Sector/s	Automotive																						
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i>			Qualification Name of existing/previous version:																			
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	b. Welding																						
5.	National Qualification Register (NQR) Code & Version <i>(Will be issued after NSQC approval)</i>	QG-4.5-AU-01811-2024-V1-ASDC			6. NCrF/NSQF Level: 4.5																			
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate																						
8.	Brief Description of the Qualification	A welder prepares and joins a range of metals and metallic alloys using mainly processes where an electric arc is the heat source. Electric arc processes utilize a gas shield or a flux to protect the molten weld area from contamination by the surrounding atmosphere. A welder needs to be able to interpret engineering drawings, standards and symbols and correctly translate these requirements into accurate structures and fabrications.																						
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: No formal education required. b. Age: Below 22 Years of age.																						
10.	Credits Assigned to this Qualification, Subject to Assessment <i>(as per National Credit Framework (NCrF))</i>	14			11. Common Cost Norm Category (I/II/III) <i>(wherever applicable): I</i>																			
12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																						
13.	Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <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>84:00</td> <td>84:00</td> <td>342:00</td> <td></td> <td>510:00</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	84:00	84:00	342:00		510:00	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	84:00	84:00	342:00		510:00																			
Online																								

14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7212.0302	
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Welding Lead Technician Welding Master Technician	
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	NA	
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:	
18.	Is the Job Role Amenable to Persons with Disability	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", specify applicable type of Disability:	
19.	How Participation of Women will be Encouraged	No gender sensitization	
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
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: Mr. Arindam Lahiri Email: ceo@asdc.org.in Contact No.: 011-42599800 Website: https://www.asdc.org.in/	
23.	Final Approval Date by NSQC: 06-02-2024	24. Validity Duration: 2 Years	25. Next Review Date: 06-02-2026

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/NSQ F 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	Work organization and management	ASC/N9819	Core	4.5	1	6	6	18		30	30	50		20	100	10
2	Preparation and assembly techniques	ASC/N3120	Core	4.5	1	6	6	18		30	15	25		10	50	10
3	Welding materials	ASC/N3121	Core	4.5	1	6	6	18		30	15	25		10	50	10
4	SMAW (111) and GMAW (135) Process	ASC/N3122	Core	4.5	4	24	24	102		150	15	25		10	50	25
5	FCAW-G (136) Process	ASC/N3123	Core	4.5	2	12	12	36		60	15	25		10	50	10
6	GTAW (141) Process	ASC/N3124	Core	4.5	2	12	12	66		90	15	25		10	50	15
7	Finishing, quality assurance, and testing	ASC/N3125	Core	4.5	3	18	18	84		120	30	50		20	100	20
Duration (in Hours) / Total Marks					14	84	84	342	0	510	135	225	0	90	450	100

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQ F 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/NSQ F Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT - Man.	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

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

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

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.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	ITI (Welder) with 5 years of industry and 1 year of training experience in Welding Or ITI (Welder) with 6 years of industry experience in welding Or
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		Diploma (Mechanical) with 3 years of industry and 1 year of training experience in welding Or Diploma (Mechanical) with 4 years of industry experience in welding
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	B.Tech (Mechanical) with 3 years of industry and 1 year of training experience in Welding
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	

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Any Recognized certification with proven industrial and/or practical experience in the relevant skill (minimum 10 years). OR Have worked as a Jury member/expert in skill competitions and other competitions of similar nature at regional/national levels OR Trained/mentored competitors for IndiaSkills/ WorldSkills competitions (national/ international). OR As any change per NCVET guidelines.
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	As per IndiaSkills/ WorldSkills guidelines
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	As per IndiaSkills/ WorldSkills guidelines
4.	Assessment Mode (Specify the assessment mode)	Blended
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided:
5.	Estimated nos. of persons to be trained and employed: 500
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: In progress If "No", why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	<i>Attached</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Attached</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Attached</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Attached</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	<i>Filled</i>
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	<i>Filled</i>
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Attached
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Attached
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	Attached
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	Attached

12.	Any other document you wish to submit:	
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Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Conduct welding operation as per the methodology selected for welding and the Standard Operating Principles followed.	Install the welding work pieces on the apparatus. Check the operations of the machine and conduct the actual welding process. Check the measurement instruments for monitoring the welding process.	4.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	Should have factual knowledge of: <ul style="list-style-type: none"> • Different types of welding processes. • Different types of tools used in the welding process. • Usage of cleaning tools like brooms, dusters, chemical solvents. • Measuring instruments like Vernier calipers, micrometer. • Different types of joints used in welding. • How to read and interpret sketches and engineering drawings. 	Factual knowledge of welding operations and operations of different welding tools.	4.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	<ul style="list-style-type: none"> • Recall and demonstrate skill in routine and repetitive applications including: • Plan and organize the activities/ work allocated by supervisor and operator. • Organize all equipment and kits so that sorting is easy on a day-to-day basis. • Complete the job defined by the supervisor within the timelines and quality norms 	Recall and demonstrate practical skill, routine and repetitive in wide range of application, using appropriate rule and tool, using quality concepts.	4.5
Broad Learning Outcomes/Core Skill	<ul style="list-style-type: none"> • Write basic level notes and observations with minimum required clarity. • Read documents and notes. • Question operator/ supervisor in order to understand the nature of the problem. • With required clarity, note measurements, equipment panel readings for various process parameters 	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment.	4.5

Responsibility	<ul style="list-style-type: none"> • Install the welding work pieces on the apparatus. • Check the operations of the machine and conduct the actual welding process • Check the measurement instruments for monitoring the welding process. 	The individual on the job is responsible for only own work	4.5
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Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Alternating/Direct Current Arc Welding set	Standard	2 No.
2	Metal Inert Gas (MIG) Welding Machine	Standard	3 No.
3	Oxy-acetylene welding set	Standard	2 No.
4	Tungsten Inert Gas (TIG) Welding Machine	Standard	2 No.
5	FCAW welding Machine	Standard	2 No.
6	Bench Grinder	Standard	2 No.
7	Disc Grinder	Standard	1 No.
8	Hand Drill machine/ Tap and die	Standard	1 No.
9	Welding table with bench vice	Standard	6 No.
10	Spark Lighter	Standard	2 No.
11	Bench Drilling Machine	Standard	1 No.
12	Try Square	Standard	1 No.
13	Hacksaw With Spare Blades	Standard	30 No.
14	Flat File	Standard	5 No.
15	Square File	Standard	1 No.
16	Round File	Standard	1 No.
17	Half Round File	Standard	1 No.
18	Triangular File	Standard	8 No.
19	Adjustable Wrench	Standard	2 No.
20	Screw Driver Set	Standard	1 Set
21	Allen key Set	Standard	2 Set

22	Spanner Set	Standard	2 Set
23	C-Clamp Set	Standard	2 Set
24	Fixtures For Clamping Components	Standard	3 No.
25	Flux Coated Electrodes/ Wire (Different type electrodes)	Standard	30 No.
26	Blow Torch/Gas cutter	Standard	2 No.
27	Electrode Holder	Standard	2 No.
28	Chipping Hammers	Standard	5 No.
29	Welder Torch	Standard	5 No.
30	Wire Brushes	Standard	5 No.
31	Welding Gun	Standard	5 No.
32	Vernier Caliper	Standard	4 No.
33	Micrometer	Standard	4 No.
34	Height Gauge	Standard	2 No.
35	Surface Plate	Standard	1 No.
36	V-Block with Clamp (Set)	Standard	1 Set
37	Steel Rule	Standard	1 No.
38	Radius Gauge	Standard	1 No.
39	Feeler gauge	Standard	1 No.
40	Raw Material/sheet	Standard	120 Kg
41	Tubes	Standard	120 Kg
42	Bar	Standard	120 Kg
43	Angle iron	Standard	120 Kg
44	Fire Extinguisher (Different category)	Standard	3 No.
45	Portable Welding Curtains with frame	Standard	4 No.
46	Leather Safety Aprons	Standard	30 No.
47	Leather Safety Gloves	Standard	30 No.
48	Safety Glass with Side Shields	Standard	30 No.
49	Safety helmet	Standard	15 No.
50	Ear Plugs	Standard	30 No.
51	Safety Shoes	Standard	30 No.
52	First Aid Kit	Standard	1 No.
53	Any other as per requirement of World Skills occupation standard	Standard	Standard

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs

- 5. Tables
- 6. Whiteboard marker

Annexure: 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							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
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14							
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16							

17							
18							
19							
20							
21							

Annexure: 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
2023-24	500	350	200	140	50	35
2024-25	1000	700	400	280	100	70
2025-26	1500	1050	600	420	150	105

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

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.
- 2.

Content availability for previous versions of qualifications:

☐ Participant Handbook ☐ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available:

NSQC Approved

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
1	<input checked="" type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	<ul style="list-style-type: none"> • Books/ e-books • Presentations • Reference Material • Audio / Video Modules 	100:0
2	<input checked="" type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	<ul style="list-style-type: none"> • Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content 	100:0
3	<input checked="" type="checkbox"/> Showing Practical Demonstrations to the learners	<ul style="list-style-type: none"> • Video Content • E-Resource library • AR/ VR/ XR 	100:0
4	<input checked="" type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	<ul style="list-style-type: none"> • Training tools (tools list attached) • Video Play • Presentations 	100:0
5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice	<ul style="list-style-type: none"> • Online Question Bank • Mobile Quick test app • MCQ based tests 	100:0
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	<ul style="list-style-type: none"> • Assessment engine for Essays • Up-loadable file examinations • Mock test sessions 	100:0
7	<input checked="" type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	<ul style="list-style-type: none"> • Online tests • Offline assessments 	100:0

Annexure: Detailed Assessment Criteria

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

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Work organization and management	PC1. Work safely with regard to themselves and others	2	4	-	2
	PC2. Select, wear, and maintain PPE as required	2	3	-	1
	PC3. Recognize hazardous situations and take appropriate actions with regard to their own and others' safety	3	5	-	2
	PC4. Follow correct procedural processes when working in hazardous environments	3	5	-	2
	PC5. Locate and identify dimensions and weld symbols	2	3	-	2
	PC6. Adhere to manufacturers' safety data sheets	2	3	-	2
	PC7. Maintain a clean working environment	2	4	-	1
	PC8. Complete work within agreed timescales	2	3	-	1
	PC9. Make essential connections for specific welding procedures	2	3	-	2
	PC10. Problem solve efficiently	2	3	-	1
	PC11. Take account of the physical and mental demand of the tasks	2	3	-	1
	PC12. Use hand and eye coordination with precision	2	3	-	1
	PC13. Utilize fume extraction systems efficiently to remove emissions	2	4	-	1
	PC14. Create efficient work practices to eliminate waste	2	4	-	1
	Total Marks	30	50	-	20
Preparation and assembly techniques	PC1. Set up welding equipment to manufacturers' specifications including (but not limited to): Welding polarity, Welding amperage, Welding voltage, Wire feed speed, Travel speed, Travel/electrode angles, Mode of metal transfer	4	7	-	3
	PC2. Prepare material edges in line with specifications and drawing requirements	4	6	-	3
	PC3. Set up and operate appropriate controls to minimize and correct distortion	4	6	-	2
	PC4. Carry out appropriate procedures to control heat input	3	6	-	2
	Total Marks	15	25	-	10

Welding materials	PC1. Use materials with consideration to their mechanical and physical properties	3	5	-	2
	PC2. Store welding consumables correctly with reference to type, use and safety considerations	3	5	-	2
	PC3. Select and prepare materials with reference to drawing material list	3	5	-	2
	PC4. Select methods used in shielding the weld area from contamination	3	5	-	2
	PC5. Select gasses used for shielding and purging	3	5	-	2
	Total Marks	15	25	-	10
SMAW (111) and GMAW (135) Process	PC1. Make welded joints in relation to international specifications	3	5	-	2
	PC2. Interpret welding terminology to complete task to specification	3	5	-	2
	PC3. Perform welding of carbon steel material in all positions (except vertical down) on pipe and plates deposit single sided full penetration root pass welds	3	5	-	2
	PC4. Deposit full penetration butt and fillet welds on pipe and plate	3	5	-	2
	PC5. Perform stop/starts	3	5	-	2
	Total Marks	15	25	-	10
FCAW-G (136) Process	PC1. Make welded joints in relation to international specifications	3	5	-	2
	PC2. Interpret welding terminology to complete task to specification	3	5	-	2
	PC3. Perform welding on carbon steel material in all positions (except vertical down) on pipe and plate	3	5	-	2
	PC4. Perform stop/starts	3	5	-	2
	PC5. Deposit full penetration butt and fillet welds on pipe and plate	3	5	-	2
	Total Marks	15	25	-	10
GTAW (141) Process	PC1. Make welded joints in relation to international specifications	3	5	-	2
	PC2. Interpret welding terminology to complete task to specification	2	3	-	1
	PC3. Perform welding on carbon steel, aluminium sheet, and stainless steel sheet material in all positions (except vertical down) on pipe and plate	3	5	-	2
	PC4. Perform stop/starts	1	2	-	1
	PC5. Deposit full penetration butt and fillet welds on pipe and plate	3	5	-	2
	PC6. Deposit utilising a single pass on stainless steel and aluminium sheet, root and capping pass combination	3	5	-	2
	Total Marks	15	25	-	10
	PC1. Produce welds to meet drawing and legislative specifications	3	5	-	2

Finishing, quality assurance, and testing	PC2. Recognize weld defects and take appropriate action to rectify them	4	6	-	3
	PC3. Utilize correct techniques to ensure weld metal cleanliness is maintained	3	5	-	3
	PC4. Dress welds using wire brushes, scrapers, chisels, etc.	4	6	-	2
	PC5. Check completed work against drawing requirements to reflect accuracy, square and flatness where necessary	3	6	-	2
	PC6. Carry out basic non-destructive testing and be familiar with more advanced testing methods	4	6	-	2
	PC7. Complete pressure vessels capable of withstanding hydrostatic pressure testing	3	6	-	2
	PC8. Be creative in weld bead sequencing and weld bead tie ins to achieve uniform aesthetic appearances for faster finishing	3	5	-	2
	PC9. Develop efficient welding procedures to reduce rework and waste during finishing	3	5	-	2
	Total Marks	30	50	-	20
Grand Total		135	225	0	90

Annexure: 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 assigned to the assessment agencies for conducting the assessment on SDMS/SIP or email
 - Assessment agencies send the assessment confirmation to VTP/TC looping SSC
 - Assessment agency deploys the ToA certified Assessor for executing the assessment
 - SSC monitors the assessment process & records
2. Testing Environment:
 - Confirm that the centre is available at the same address as mentioned on SDMS or SIP
 - Check the duration of the training.
 - Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
 - If the batch size is more than 30, then there should be 2 Assessors.
 - Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
 - Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
 - Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
 - Check the availability of the Lab Equipment for the particular Job Role.
3. Assessment Quality Assurance levels / Framework:
 - Question papers created by the Subject Matter Experts (SME)
 - Question papers created by the SME verified by the other subject Matter Experts
 - Questions are mapped with NOS and PC
 - Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
 - Assessor must be ToA certified & trainer must be ToT Certified
 - Assessment agency must follow the assessment guidelines to conduct the assessment
4. Types of evidence or evidence-gathering protocol:
 - Time-stamped & geotagged reporting of the assessor from assessment location
 - Centre photographs with signboards and scheme specific branding
 - Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
 - Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos
5. Method of verification or validation:
 - Surprise visit to the assessment location
 - Random audit of the batch
 - Random audit of any candidate
6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

Annexure: 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