

Instruction Sheet for the Candidate

Qualification	National Vocational Certificate in Metal Forming & Processing Level 3
Competency Standard	Carry out Gas Welding Operations
Purpose of Assessment	Formative Assessment
Candidate Details	Name _____ Registration/Roll Number _____
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within 04 Hrs. time frame (for practical demonstration & assessment):</p> <ul style="list-style-type: none"> • Set-up gas Welding Equipment • Arrange materials for welding • Prepare Base Material for Welding • Perform Gas Welding
Time: 04 Hrs.	During a practical assessment, under observation by an assessor, you are required to
Minimum Evidence Required	<p>Set-up gas Welding Equipment</p> <ol style="list-style-type: none"> 1. Select the required size of the gas nozzle 2. Adjust pressures of both gas cylinders (Acetylene and Oxygen) with the help of regulator 3. Set gas welding torch as per SOPs 4. Adjust Acetylene gas knob of welding torch to make Carburizing flame 5. Make Neutral flame by adjusting uniform quantity of both gases 6. Make Oxidizing flame by increasing oxygen gas quantity <p>Arrange materials for welding</p> <ol style="list-style-type: none"> 1. Arrange material(s) as per job requirements 2. Arrange marking tools as per job requirements 3. Mark the area to be cut as per drawing/job requirements 4. Arrange relevant welding consumables as per job requirement

	<p>Prepare Base Material for Welding</p> <ol style="list-style-type: none"> 1. Arrange cutting tools and equipment as per job requirement 2. Set-up cutting equipment as per manufacturer's instructions/job requirements 3. Cut the base material as per job specification and dimensions provided in the drawing 4. Prepare edge(s) of the base materials as per drawing 5. Check dimensions of the prepared edge(s) as per drawing with the help of measuring tools 6. Use tools and chemicals for material cleaning 7. Clean the edge(s) of the base material as per job requirements <p>Perform Gas Welding</p> <ol style="list-style-type: none"> 1. Arrange Work piece as per drawing 2. Perform straightening of work piece with the help of hammer and anvil 3. Perform grinding of work piece to prepare the edges flat and parallel to each other 4. Adjust the flame of welding torch as per requirement 5. Place the work piece on working table 6. Perform welding operation to make Tee Joint / Lap Joint / Butt Joint as per specifications. 7. Complete the welding bead as per standard 8. Perform visual inspection of the job as per standard
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Self-Assessment Checklist

Candidate Name	
Registration No.	
Qualification	National Vocational Certificate in Metal Forming & Processing Level 3
Competency Standard	Carry out Gas Welding Operations
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Assessment Task	<ul style="list-style-type: none"> • Set-up gas Welding Equipment • Arrange materials for welding • Prepare Base Material for Welding • Perform Gas Welding

I can.....

Performance Criteria	Yes	No
P1. Select the required size of the gas nozzle	<input type="checkbox"/>	<input type="checkbox"/>
P2. Adjust pressures of both gas cylinders (Acetylene and Oxygen) with the help of regulator	<input type="checkbox"/>	<input type="checkbox"/>
P3. Set gas welding torch as per SOPs	<input type="checkbox"/>	<input type="checkbox"/>
P4. Adjust Acetylene gas knob of welding torch to make Carburizing flame	<input type="checkbox"/>	<input type="checkbox"/>
P5. Make Neutral flame by adjusting uniform quantity of both gases	<input type="checkbox"/>	<input type="checkbox"/>
P6. Make Oxidizing flame by increasing oxygen gas quantity	<input type="checkbox"/>	<input type="checkbox"/>
P7. Arrange material(s) as per job requirements	<input type="checkbox"/>	<input type="checkbox"/>
P8. Arrange marking tools as per job requirements	<input type="checkbox"/>	<input type="checkbox"/>
P9. Mark the area to be cut as per drawing/job requirements	<input type="checkbox"/>	<input type="checkbox"/>
P10. Arrange relevant welding consumables as per job requirement	<input type="checkbox"/>	<input type="checkbox"/>
P11. Arrange cutting tools and equipment as per job requirement	<input type="checkbox"/>	<input type="checkbox"/>
P12. Set-up cutting equipment as per manufacturer's instructions/job requirements	<input type="checkbox"/>	<input type="checkbox"/>
P13. Cut the base material as per job specification and dimensions provided in the drawing	<input type="checkbox"/>	<input type="checkbox"/>
P14. Prepare edge(s) of the base materials as per drawing	<input type="checkbox"/>	<input type="checkbox"/>

P15.	Check dimensions of the prepared edge(s) as per drawing with the help of measuring tools	<input type="text"/>	<input type="text"/>
P16.	Use tools and chemicals for material cleaning	<input type="text"/>	<input type="text"/>
P17.	Clean the edge(s) of the base material as per job requirements	<input type="text"/>	<input type="text"/>
P18.	Arrange Work piece as per drawing	<input type="text"/>	<input type="text"/>
P19.	Perform straightening of work piece with the help of hammer and anvil	<input type="text"/>	<input type="text"/>
P20.	Perform grinding of work piece to prepare the edges flat and parallel to each other	<input type="text"/>	<input type="text"/>
P21.	Adjust the flame of welding torch as per requirement	<input type="text"/>	<input type="text"/>
P22.	Place the work piece on working table	<input type="text"/>	<input type="text"/>
P23.	Perform welding operation to make Tee Joint / Lap Joint / Butt Joint as per specifications.	<input type="text"/>	<input type="text"/>
P24.	Complete the welding bead as per standard	<input type="text"/>	<input type="text"/>
P25.	Perform visual inspection of the job as per standard	<input type="text"/>	<input type="text"/>

Candidate's Signature_____ Assessor's Signature_____

Date: _____

Assessors Judgment Guide

Qualification	National Vocational Certificate in Metal Forming & Processing Level 3
Competency Standard	Carry out Gas Welding Operations
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Signature: _____
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor _____ Assessor's code: _____ Signature: _____

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

Observation Checklist

Assessment Task		<ul style="list-style-type: none"> • Set-up gas Welding Equipment • Arrange materials for welding • Prepare Base Material for Welding • Perform Gas Welding 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Select the required size of the gas nozzle			
2.	Adjust pressures of both gas cylinders (Acetylene and Oxygen) with the help of regulator			
3.	Set gas welding torch as per SOPs			
4.	Adjust Acetylene gas knob of welding torch to make Carburizing flame			
5.	Make Neutral flame by adjusting uniform quantity of both gases			
6.	Make Oxidizing flame by increasing oxygen gas quantity			
7.	Arrange material(s) as per job requirements			
8.	Arrange marking tools as per job requirements			
9.	Mark the area to be cut as per drawing/job requirements			
10.	Arrange relevant welding consumables as per job requirement			
11.	Arrange cutting tools and equipment as per job requirement			
12.	Set-up cutting equipment as per manufacturer's instructions/job requirements			
13.	Cut the base material as per job specification and dimensions provided in the drawing			
14.	Prepare edge(s) of the base materials as per drawing			
15.	Check dimensions of the prepared edge(s) as per drawing with the help of measuring tools			

16.	Use tools and chemicals for material cleaning			
17.	Clean the edge(s) of the base material as per job requirements			
18.	Arrange Work piece as per drawing			
19.	Perform straightening of work piece with the help of hammer and anvil			
20.	Perform grinding of work piece to prepare the edges flat and parallel to each other			
21.	Adjust the flame of welding torch as per requirement			
22.	Place the work piece on working table			
23.	Perform welding operation to make Tee Joint / Lap Joint / Butt Joint as per specifications.			
24.	Complete the welding bead as per standard			
25.	Perform visual inspection of the job as per standard			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Qualification	National Vocational Certificate in Metal Forming & Processing Level 3
Competency Standard	Carry out Gas Welding Operations
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Candidate Signature: _____
Assessment Outcome	<div style="display: flex; justify-content: space-around;"> COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> </div> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	Define gas pressure regulator		
2.	Enlist types of gas flames		

3.	What is the purpose of flux coating of electrode		
4.	Enlist types of cylinders		

Feedback to the Candidate	
Candidate's Signature_____ Assessor's Signature _____	