

071504T4WLD

WELDING - LEVEL 4

ENG/OS/WEF/CR/01/4/A

Perform Manual Arc (Stick) Welding in All Positions with Various Metal

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

ASSESSOR'S GUIDE

PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST			
Candidate's Name & Registration Code			
Assessor's Name & Registration Code			
Venue of Assessment			
Date of Assessment			
<i>Items to be Evaluated: Please award marks as appropriate. Give a brief comment on your observation.</i>	Marks Available	Marks Obtained	Comments
1. Adhered to prescribed safety; Wore and used PPEs correctly <ul style="list-style-type: none"> a. Welding shield b. Safety boots c. Leather gloves d. Overall/Dust coat/Apron <p style="text-align: center;"><i>(Award 1 mark for each)</i></p>	4		
Sub-Total	4		
2. Set up Manual Metal Arc welding equipment; <ul style="list-style-type: none"> a. Connected cable to allow welding – DC/ AC b. Connected earth wire c. Clamped the electrode correctly d. Set current and voltage correctly e. Switched off the welding machine correctly after welding 	5		

<i>(Award 1 mark for each)</i>			
Sub-Total	5		
<p>3. Performed welding in the following positions:</p> <p>a) 1G b) 1F c) 2F d) 3F e) 6G</p> <p><i>(Award 2 marks for each)</i></p>	10		
Sub-Total	10		
<p>4. Performed housekeeping;</p> <p>a. Cleaned weld table and floor after welding</p> <p>b. Disposed wastes in the correct bins</p> <p>c. Returned tools and unused materials to the store</p> <p><i>(Award 1 mark for each)</i></p>	3		
Sub-Total	3		
Total (Observation Checklist)	22		

PRODUCT CHECKLIST			
<p>5. Prepared work pieces as per task specifications;</p> <p>a) Dimensions: Linear tolerance: ± 1 All dimensions are in mm</p> <p>i. 100 (3 \times ½)</p> <p>ii. 80 (8 \times ½)</p> <p>iii. 60 (3 \times ½)</p> <p>iv. 30 (2 \times ½)</p> <p><i>(Award ½ mark for each)</i></p> <p>b. Squareness of work pieces</p> <p>i. 100 \times 80 (2 \times ½)</p> <p>ii. 80 \times 80 (2 \times ½)</p> <p>iii. 80 \times 60 (2 \times ½)</p> <p>iv. 80 \times 30 (2 \times ½)</p> <p><i>(Award ½ mark for each)</i></p> <p>c. Prepared surface grooves</p> <p>i. Part 1 and Part 2</p> <p><i>(Award 2 marks for each)</i></p>	<p>1½</p> <p>4</p> <p>1½</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2</p>		
Sub-Total	14		
<p>Carried out arc welding</p> <p>6. Tee joint (Part 3 to 4)</p> <p>a. Welded as per welding symbol</p> <p>b. Alignment $90^\circ \pm 1^\circ$</p> <p>c. Weld quality</p> <p>i. No slag inclusions</p> <p>ii. No spatter</p>	14		

<ul style="list-style-type: none"> iii. Uniform bead iv. Proper fusion v. No undercut <p><i>(Award 2 marks for each)</i></p>			
Sub-Total	14		
<p>7. Tee joint (Part 1 to 5)</p> <ul style="list-style-type: none"> a. Welded as per welding symbol b. Alignment $90^\circ \pm 1^\circ$ c. Weld quality <ul style="list-style-type: none"> i. No slag inclusions ii. No spatter iii. Uniform bead iv. Proper fusion v. No undercut <p><i>(Award 2 marks for each)</i></p>	14		
Sub-Total	14		
<p>8. Butt joint (Part 1 to 2)</p> <ul style="list-style-type: none"> a. Welded as per weld symbol b. Weld quality: <ul style="list-style-type: none"> i. No spatter ii. No slag inclusions iii. No undercut iv. Proper fusion v. Uniform bead vi. Complete penetration <p><i>(Award 2 marks for each)</i></p>	14		
Sub-Total	14		

<p>9. Butt joint (Part 5 to 6)</p> <p>a. Welded as per weld symbol</p> <p>b. Weld quality:</p> <p> i. No spatter</p> <p> ii. No slag inclusions</p> <p> iii. No undercut</p> <p> iv. Proper fusion</p> <p> v. Uniform bead</p> <p> vi. Complete penetration</p> <p><i>(Award 2 marks for each)</i></p>	14		
Sub-Total	14		
<p>10. Corner joint;</p> <p>a) Welded as per weld symbol</p> <p>b) Alignment $90^\circ \pm 1^\circ$</p> <p>c) Weld quality</p> <p> i. Uniform bead</p> <p> ii. No slag inclusions</p> <p> iii. Proper fusion</p> <p> iv. No undercut</p> <p> v. No cavities</p> <p><i>(Award 2 marks for each)</i></p>	14		
Sub-Total	14		
<p>11. Assembly;</p> <p>Joined parts as per working drawing</p> <p>a) Part 1 to part 2</p> <p>b) Part 2 to part 3</p> <p>c) Part 3 to part 4</p>	5		

d) Part 1 to part 5 e) Part 5 to part 6 <i>(Award 1 mark for each)</i>			
Sub-Total	5		
Total (Product Checklist)	89		
GRAND TOTAL	111		
Candidate percentage Score = $\frac{x}{111} \times 100$	100%		
ASSESSMENT OUTCOME			
<p>The candidate was found to be:</p> <p style="text-align: center;"> Competent <input type="checkbox"/> Not yet Competent <input type="checkbox"/> </p> <p>(Please tick as appropriate)</p> <p style="text-align: center;">(The candidate is competent if the candidate obtains at least 50%)</p>			
Feedback from the Candidate:			
Feedback to the Candidate:			
Candidate Signature:		Date:	

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Assessor's Signature:	Date:
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