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**071504T4MAM**

**WELDING (MANUAL METAL ARC) LEVEL 4**

**ENG/OS/WEF/CR/01/4**

**Perform Manual Metal Arc (Stick) Welding**

**July/August 2025**

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

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**WRITTEN ASSESSMENT**

**Time: 2 HOURS**

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**INSTRUCTIONS TO CANDIDATE**

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1. This paper consists of **TWO** sections **A** and **B**.

2. Answer **ALL** the questions as guided in section **A**.

3. Marks for each question are indicated in the brackets.

4. Candidates are provided with a separate answer booklet

5. Do not write on the question paper.

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**This paper consists of FOUR (4) printed pages**

**Candidates should check the question paper to ascertain that all  
pages are printed as indicated and that no questions are missing.**

**SECTION A: (10 MARKS)**

**Answer ALL questions in this section. Each question carries one mark.**

1. You are preparing to weld a structural steel beam in an overhead position (4G) at a construction site. Name one protective equipment (PPE) that is most critical for this task.

A. Cotton apron

B. Leather welding gloves and welding helmet with proper shade

C. Rubber boots

D. Safety glasses only

2. While working in a fabrication workshop, you notice a co-worker welding without a proper welding shield. Identify the primary hazard they are exposed to;

A. Electric shock

B. UV radiation and eye damage (arc eye)

C. Excessive noise

D. Tripping over cables

3. In engineering drawing, the symbol used for fillet weld is:

A. 

B. 

C. 

D. 

4. "Dressing" a weld involves \_\_\_\_\_.

A. Removing slag and grinding

B. Painting the weld

C. Heating the weld

D. Cooling the weld rapidly

5. Identify the task shown in the Figure 1 below.

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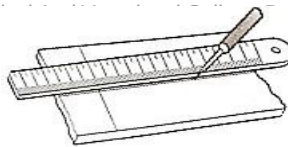


Figure 1

- A. Scribing edges on a material  
B. Measuring a metal plate

C. Making holes in a sheet metal

D. Scribing a line on a flat material

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6. Your supervisor provides you a welding job card with specification for 5G pipe weld.

State what you should do first;

- A. Start welding based on experience
- B. Use any available electrode
- C. Skip PPE to save time
- D. Review the job card and clarify unclear instructions

7. A permit-to-work is required for welding in a confined space. Identify TWO approvals that are essential.

- A. Hot work permit and confined space entry permit
- B. Only safety helmet approval
- C. Supervisor's verbal permission
- D. Workshop attendance record

8. Heating the metal before welding is known as;

- A. Kerfing
- B. Oxidation
- C. Ignition
- D. Pre-heating

9. During pre-weld inspection, you find the work piece dimensions deviate by 2mm from the specification. State what you will do;

- A. Proceed with welding
- B. Report to supervisor for corrective measures
- C. Adjust the welding current to compensate
- D. Hide the discrepancy

10. A welder was given instructions to weld a window but the major dimensions were not clearly understood. Choose the correct action to be taken;

- A. Ignore them
- B. Guess and start work
- C. Ask for clarification
- D. Do another task

**SECTION B (40 MARKS)****Answer ALL questions in this section.**

11. You are assigned to weld a vessel. List FOUR safety checks you must perform before starting. (4 Marks)
12. When carrying out linear measurements, one is required to transfer these measurements. State FOUR tools that can be used during this activity. (4 Marks)
13. You are assigned to weld a vertical (3G) joint on a storage tank. List FOUR factors you should consider to ensure a quality weld. (4 Marks)
14. You are about to perform welding tasks in a high-risk area. State FOUR key permits and approvals you must acquire. (4 Marks)
15. Identify FOUR incidents that may arise from poor housekeeping. (4 Marks)
16. A supervisor requests a 5G pipe weld. Outline FOUR steps you should follow to perform this type of welding position. (4 Marks)
17. Choosing the correct electrode during arc welding is important. State TWO factors you should consider. (2 Marks)
18. During arc welding process, defects might occur. List TWO possible solutions for each of the following; (4 Marks)
- a. Undercut;
  - b. Spatter.
19. You are assigned to weld components based on a technical drawing showing a 90-degree T-joint. List FOUR elements of the drawing that must be correctly interpreted (4 Marks)
20. Before starting arc welding job, you are asked to complete the equipment setup checklist. Identify FOUR items that you should verify on the (4 Marks)
21. State TWO ways in which one can strike an arc. (2 Marks)