

**071504T4WLD**

**WELDING LEVEL 4**

**ENG/OS/WEF/CR/04/4/A**

**PERFORM GAS WELDING IN ALL POSITIONS WITH VARIOUS METAL WORK  
PIECES**

**July/August 2024**



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

**WRITTEN ASSESSMENT**

**TIME: 2 HOURS**

**INSTRUCTIONS TO THE CANDIDATE:**

1. This paper has **TWO** sections: **A** and **B**;
2. Answer all questions in section **A** and **B**;
3. You are provided with a separate answer booklet;
4. Marks for each question are as indicated;
5. Do not write on the question paper.

**This paper consists of FOUR (4) printed pages with TWENTY ONE (21) questions.  
Candidates should check the question paper to ascertain that all pages are printed as  
indicated and that no questions are missing.**

**Turn Over**

**SECTION A: (10 MARKS)**

*Answer ALL questions in this section. Each question carries ONE Mark.*

1. There are \_\_\_\_\_ types of flames that can be used in gas welding.
  - A. 6
  - B. 2
  - C. 3
  - D. 4
2. Proper ventilation is important because it helps;
  - A. Keep the area warm
  - B. Remove welding fumes and gases
  - C. Create a pleasant working environment
  - D. Reduce noise levels
3. To prevent the eyes from injury during gas welding, always use;
  - A. Safety shoes
  - B. Gas welding goggles
  - C. Chipping goggles
  - D. Helmet screen
4. During gas welding, a welder is prone to burns from hot objects. These burns can be prevented by;
  - A. Totally avoiding welding
  - B. Working in damp conditions
  - C. Inspecting the equipment for damages
  - D. Wearing appropriate personal protective equipment (PPEs)
5. Carburizing flame is used to weld metals like;
  - A. Steel
  - B. Copper and brass
  - C. Aluminum and nickel
  - D. Carburized steel

**Turn Over**

6. If there is no melting of edges on the base metal and the root face, then the welding defect is;
- A. Lack of penetration
  - B. Lack of fusion
  - C. Burn through
  - D. Excessive penetration
7. Oxyacetylene gas welding cylinders come in different colours. Maroon color is usually painted on;
- A. Acetylene cylinder
  - B. Oxygen cylinder
  - C. Hydrogen cylinder
  - D. Nitrogen cylinder
8. Shutting off a gas welding flame involves;
- A. Shutting off oxygen and dip blow pipe in water
  - B. Shutting off oxygen and acetylene valve at a time
  - C. First shutting off oxygen valve followed by acetylene valve
  - D. First shutting off acetylene valve followed by oxygen valve
9. The distance from joint root to the toe of the weld is called;
- A. Leg length
  - B. Face
  - C. Effective throat
  - D. Actual throat
10. The drawing representation shown in figure 1 below is used to represent;

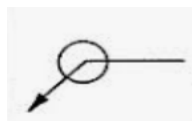


Figure 1

- A. Field weld
- B. Weld all round
- C. Flush contour
- D. Chipping finish

**Turn Over**

**SECTION B: (40 MARKS)**

*Answer ALL questions in this section.*

11. To ensure long life to PPEs, it's important that these equipment are well maintained. List TWO maintenance measures for welding goggles (2 Marks)
12. Housekeeping is important at a place of work. Highlight FOUR benefits of practicing this at a workplace. (4 Marks)
13. With the aid of a sketch, describe the principle of gas welding. (5 Marks)
14. There are different types of welding positions. Illustrate the following welding positions.
  - a. 4G
  - b. 6G(4 Marks)
15. Weld inspection takes place before, during and after the welding process. List THREE ways through which a welded joint can be inspected. (3 Marks)
16. Gas welding has various applications in the real world. Outline FOUR applications of gas welding in the industrial world. (4 Marks)
17. The use of symbols in drawings makes communication easy and simple. Illustrate the following welding symbols;
  - a. Fillet weld
  - b. Single bevel butt weld
  - c. Single J butt weld
  - d. Spot weld(4 Marks)
18. Weld defects occur as a result of poor welding process. Highlight FOUR remedies you would employ to solve warping weld defect. (4 Marks)
19. Accidents in workshops are as a result of NOT following necessary precautions List TWO causes of accidents in a gas welding workshop. (2 Marks)
20. The management concept of 5S is promoted for good housekeeping practice in workplaces. The 5s stands for? (5 Marks)
21. Oxyacetylene gas welding comes with various accessories. List THREE accessories of gas welding equipment. (3 Marks)

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