

**071604T4AUT**

**AUTOMOTIVE TECHNOLOGY LEVEL 4**

**ENG/OS/AUT/CC/5/4/A**

**MAINTAIN WORKSHOP TOOLS, EQUIPMENT AND MEASURING DEVICES**

**July/August 2024**



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

**WRITTEN ASSESSMENT**

**TIME: 2 HOURS**

**INSTRUCTIONS TO THE CANDIDATE**

1. This paper consists of **TWO** sections; **A** and **B**
2. Attempt **ALL** questions in both sections.
3. Marks for each question are indicated.
4. You are provided with a separate answer booklet.
5. Do not write on the question paper.

**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 question is missing**

**Turn over**

**SECTION A: (10 MARKS)**

*Attempt all the questions in this section. Each question carries 1 Mark*

1. \_\_\_\_\_ is not a use of a centre punch when dealing with a work piece.
  - A. Marking the centre point for drilling holes.
  - B. Creating small indentations for starting drill bits or screws.
  - C. Misaligning components during assembly.
  - D. Making small marks for precise measurements.
2. The following three tools and equipment are required for brazing except \_\_\_\_\_
  - A. Gas welding equipment
  - B. Brazing rods
  - C. Flux
  - D. Angle plate
3. The following activities are carried out during workshop housekeeping. Choose the odd one out.
  - A. Tools and equipment arrangement.
  - B. Disposal of wastes
  - C. Greasing of the floors
  - D. Cleaning of machines
4. Which one of the following is not part of a Vernier calliper?
  - A. Inside jaws
  - B. Outside jaws
  - C. Retainer/lock
  - D. Thimble scale
5. Choose one device mentioned below that is not used for measuring.
  - A. Car hoist
  - B. Dial gauge
  - C. Straight edge
  - D. Compression gauge
6. In carrying out maintenance, which one of the following requires a procedure?
  - A. Oiling
  - B. Dusting
  - C. Finishing
  - D. Servicing

7. Which one is not a fault in a workshop equipment operation?
- A. Noise
  - B. Vibrations
  - C. Increased power consumption
  - D. Proper cooling
8. Maintenance reports should include the following except \_\_\_\_\_.
- A. Date
  - B. Activity
  - C. Production rate
  - D. The maintaining person
9. Files should not be \_\_\_\_\_
- A. Cleaned after use
  - B. Heaped together
  - C. Stored on a wooden rack
  - D. Be fitted handles
10. Why is regular maintenance of equipment necessary?
- A. Helps Equipment in performing poorly.
  - B. Assists in increasing the number of employees.
  - C. To keep employees busy.
  - D. Reduces chances of breakdown

**SECTION B: (40 MARKS)**

*Attempt all the questions in this section.*

11. Define the term 'maintenance'. (2Marks)
12. Outline any **four** reasons for tool and equipment maintenance. (4Marks)
13. State any **two** factors that will determine the service lifespan of a tool or equipment. (2Marks)
14. Assume you have been appointed as a workshop manager. Briefly explain any **three** types of maintenance you would recommend. (6Marks)
15. Well maintained tools and equipment enhance productivity in an automotive workshop. Outline any **four** ways in which this can be realised. (4Marks)
16. Sketch a hand file and label any **four** parts. (5Marks)
17. Explain **two** reasons why one should use grease instead of oil for lubrication in hydraulic jacks. (4Marks)
18. State any **two** safety equipment in a workshop. (2Marks)
19. Mention any **four** personal protective equipment that should be worn in a workshop. (4Marks)
20. State the reason why a torque wrench is preferred to ordinary spanners in a garage when tightening bolts and nuts. (2Marks)
21. Give **one** reason why the pressure of a radiator tester should not exceed the manufacturer's specification when testing the radiator for leakage. (2Marks)
22. State **one** function of each of the following measuring equipment in a workshop; (3Marks)
  - i. Dial gauge
  - ii. Vernier calliper
  - iii. Hydrometer