

071305T4EOP

ELECTRICAL OPERATION LEVEL 5

ENG/OS/PO/CC/02/6/A

Perform Workshop Processes

March/April 2025



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

WRITTEN ASSESSMENT
Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Marks for each question are indicated in the brackets.
3. Candidates are provided with a separate answer booklet.
4. **DO NOT** write on this question paper.

This paper consists of THREE (3) printed pages.

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

SECTION A (40 MARKS)

Answer ALL the questions in this section.

1. State FOUR causes of accidents in an electrical workshop. (4 marks)
2. Fire is a hazard that is caused by several factors in a workshop. Identify FOUR possible causes of fire in an electrical installation workshop. (4 marks)
3. Workshops are always prone to hazards caused by several factors. State THREE electrical hazards which could be in an electrical workshop. (3 marks)
4. List THREE reasons why equipment are calibrated. (3 marks)
5. After any installation work, wastes are disposed in line with the Electrical Health and Safety guidelines. List three methods of waste disposal found in a workshop. (3marks)
6. State the function of each of the following parts of a lathe machine. (4 Marks)
 - i. Hand Wheel;
 - ii. Lead Screw.
7. Surface finishing operations are done to improve the quality of the final products in workshop operations. Discuss TWO surface finishing operations. (4 Marks)
8. Lathe machine and a milling machine are major power machines used in a workshop. List TWO major differences between a lathe machine and a milling machine. (4 Marks)
9. Safety is a major factor to be considered during encounters with hand tools in a workshop. Highlight FOUR main causes of injury while using hand tools. (4 Marks)
10. Depending on the extent of a machine fault, a technician is able to decide whether to repair or replace the equipment. State THREE factors to consider when deciding whether to repair or replace equipment in the workshop. (3 marks)
11. Tools in a workshop must be correctly stored after use. Outline FOUR standard procedures for storing tools. (4 marks)

SECTION B (60 MARKS)

Answer any THREE questions in this section

12. (a) Considering the fire triangle, explain FOUR agents of extinguishing fires relating each to the type of fire it extinguishes. (8 marks)
- (b) Explain TWO reasons why inspection during maintenance is important. (4 Marks)
- (c) Describe any FOUR steps followed when preparing practical stations. (8 marks)
13. (a) Discuss FOUR ways through which tools and equipment are taken care of and kept in proper working conditions in an electrical workshop. (8 Marks)
- (b) Pliers are available in a variety of designs for different specialist tasks. Discuss any FIVE varieties of pliers in a workshop. (10 Marks)
- (c) Define the term 'power tool' as used in an electrical workshop. (2 marks)
14. (a) Discuss any FIVE common defects encountered during welding. (10 Marks)
- (b) Discuss FIVE methods of waste disposal as a way of preserving the environment. (10 marks)
15. (a) With respect to workshop tools, machines and equipment, define the term maintenance as used in electrical workshop practices. (2 marks)
- (b) ~~John is an electrical~~ Personal protective equipment (PPEs) that he should wear when on duty. (6 marks)
- (c) List FOUR tips for large machinery maintenance. (4 marks)
- (d) Explain FOUR fault diagnosis procedures when handling a faulty equipment. (8 Marks)