

071305T4EOP

Electrical Operator Level 5 (Power Option)

ENG/OS/PO/CR/02/5

Apply workshop processes

July/August 2023



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

WRITTEN ASSESSMENT

3 HOURS

INSTRUCTIONS TO CANDIDATE

This paper consists of sections A, B and C.

*Answer **all** questions in section A & B and any **two** questions from section C in the answer booklet and drawing papers provided.*

Do not write on the question paper.

Marks for each question are indicated in the brackets.

***Only** use CAD software for the specified questions.*

This paper consists of seven (7) printed pages.

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

SECTION A: (20 Marks)

Answer all questions in this section

1. Which of the following is true about faulty tools? (1mark)
 - A. safe to use
 - B. difficult to find
 - C. Save money
 - D. Can cause injuries

2. Which one of the following is not a benefit of using PPE? (1mark)
 - A. Reduced chances of electric shock
 - B. Prevents death
 - C. Restricts comfort and movement
 - D. Prevents respiratory infections

3. What is a fire escape? (1mark)
 - A. A way of running away from the fire
 - B. Designated window
 - C. Emergency exit
 - D. A fire assembly point

4. What is the name of the book where the tools' list is kept in a workshop? (1mark)
 - A. Tools Catalogue
 - B. Tools inventory
 - C. Tools black book
 - D. Tools master roll

5. Repairing of tools should take place _____. (1mark)
 - A. After a long time
 - B. After using them
 - C. Immediately they develop problems
 - D. Once every year

6. What is the importance of a polarity test? (1mark)
- A. To confirm proper insulation
 - B. To ensure that the sockets and lamps are connected in order
 - C. To ensure that each phase has continuity
 - D. To make sure that the three phases are not interconnected
7. Which of the following tools is used to carry out the continuity test? (1mark)
- A. Multi-meter
 - B. Pliers
 - C. Screw driver
 - D. Ruler
8. The reason why we learn safety is to_____ . (1mark)
- A. avoid being arrested
 - B. enable the trainer to pass examination
 - C. make everybody conscious
 - D. make safety costly
9. Which of the following is true about a special waste? (1mark)
- A. It can be dumped anywhere
 - B. It doesn't affect the people's health
 - C. It is considered hazardous
 - D. It requires specific handling for proper disposal
10. All equipment designed to be worn or held to protect against a risk to health and safety are referred to as_____ . (1mark)
- A. Hazard
 - B. Risk
 - C. PPE
 - D. IEE.

11. From the list below choose the potentially most dangerous work activity. (1mark)
- A. Working on a live circuit
 - B. Working inside a grain silo
 - C. Fixing a socket outlet
 - D. Fixing a luminaire
12. Which of the following is the safest environment to work in? (1mark)
- A. Working on a live circuit
 - B. Work in isolation
 - C. Work above ground level
 - D. Working in the dark
13. What is the danger of storing electric tools in a moist environment? (1mark)
- A. Corrosion of metal parts
 - B. Tools gets lost
 - C. Lack of locating tools on time
 - D. Tools disintegrate
14. To avoid back injury when manually lifting heavy weights from ground level workers should _____. (1mark)
- A. Bend both legs and back
 - B. Bend legs but keep back straight
 - C. Keep legs straight but bend back
 - D. Keep both legs and back straight
15. Choose the three components that must be present for any fire to continue to burn. (1mark)
- A. Fuel, wood, cardboard
 - B. Petrol, oxygen, bottled gas
 - C. Flames, fuel, heat
 - D. Fuel, oxygen, heat
16. What is the initial assistance given to a casualty for any sudden injury called? (1mark)
- A. Assembly point
 - B. Nominated person
 - C. First aider
 - D. First aid

17. Record keeping in an electrical workshop helps to_____. (1mark)
- A. Arrange tools
 - B. Predict equipment life
 - C. Sell extra equipment
 - D. Avoid budgeting for tools
18. Which of the following is not an importance of proper storage of tools? (1mark)
- A. Tool durability
 - B. Improved accessibility
 - C. Reduced use of one tool
 - D. Saves time
19. Which of the following is not a type of waste disposal methods? (1mark)
- A. Recycling-
 - B. Exporting
 - C. Incineration
 - D. Landfill/waste compaction
20. Tools and equipment should be organized according to_____. (1mark)
- A. Frequency of use
 - B. Size of the tools
 - C. Manufacturer
 - D. Power or non-powered

SECTION B: (40 Marks)

Answer all questions in this section

21. List any **four** factors to consider when deciding whether to repair or replace equipment in the workshop. (4marks)
22. State **five** advantages of keeping an equipment maintenance record. (5marks)
23. State **five** sources of accidents in an electrical workshop. (5marks)
24. Define Personal Protective Equipment. (2marks)
25. What is an accident? (2marks)
26. What is an electric shock? (2marks)
27. State **two** reasons why tools and Equipment are calibrated. (3marks)
28. State **five** importance of proper storage of tools and equipment. (5marks)
29. Outline the standard procedure for storing tools. (5marks)
30. State **four** reasons why it is important to keep a tools and equipment inventory. (4marks)
31. List any **three** activities carried out during preventive maintenance. (3marks)

SECTION C: (40 Marks)

Answer any two questions in this section

32. a) List down:
- i. **Six** applications of the pliers; (6marks)
 - ii. **Two** applications of an electrician's knife. (2marks)
- b) State **six** ways of maintaining:
- i. Hack saws; (6marks)
 - ii. Pliers. (6marks)
33. a) State **five** types of hazards caused by electricity. (5marks)
- b) Outline the procedure of doing first aid on a victim who is not breathing. (5marks)
- c) Explain **five** importance of tools and equipment maintenance record. (10marks)
34. a) List any **three** examples for each of the following classifications of tools: (9marks)
- i. On the basis of shape;
 - ii. In the basis of grades;
 - iii. On the basis of cut.
- b) State any **seven** disadvantages of PPE. (7marks)
- c) State **four** repercussions of incorrectly handling an electrical instrument. (4marks)

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