

071304T4EIN

Electrical installation artisan level 4

ENG/OS/EI/CC/03/4
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Prepare and Interpret Technical Drawing

November/December 2025

Time: 2 Hours
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TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION

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WRITTEN ASSESSMENT

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INSTRUCTIONS TO CANDIDATES

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

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2. Answer **ALL** the questions in each sectionP, rinted By: Technical And Vocational College

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

4. You are provided with a separate answer booklet to answer the questions.

5. Do not write on the question
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This paper consists of FOUR (4) printed pages.

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Candidate should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
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Answer ALL questions in this section. Each question is 1 mark

following types of ne

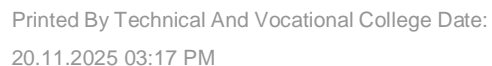
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D. 6

D. Bold line

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D. An oblique drawing

5. Which of the following drawing activity promotes neatness while drawing?

- A. Use of sliding tools which are unclean
- B. Direct contact with hands
- C. Using a soft eraser while erasing or rubbing
- D. Using a blunt pencil with dirt and graphite particles

6. Title block of a technical drawing has the following except _____

- A. Drawing number
- B. Material list
- C. Scale
- D. Date

7. Which of the following is the importance of sketching electrical drawings before construction?

- A. Misguides the construction team
- B. Helps visualize proportions, layout, and structure before building starts.
- C. Increases cost of construction
- D. Changes shape of the object under construction

8. What is the main purpose of a technical drawing?

- A. To create artistic designs
- B. To express abstract ideas
- C. To visually communicate how something functions or is constructed
- D. To entertain the client

9. The following are tools used for technical drawing, which one is not

- A. Vernier Callipers
- B. T square
- C. Set square
- D. Ruler

10. The type of line that projects from an object for the express purpose of locating a dimension is a _____ line.

- A. Visible
- B. Hidden
- C. Extension
- D. Dimension

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

11. Write freehand the stroke vertical (CAPITAL case) letters

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(2 marks)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

12. List **three** safety precautions to be adhered to while using drawing instruments. (3 marks)

13. Using free hand, sketch the following tools: (6 marks)

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i. Combination pliers.

ii. Flat screw driver

iii. Claw hammer

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14. Circumscribe triangle ABC given that AB=60mm, BC=55mm and CA= 30mm. (5 marks)

15. Sketch the conventional symbols of the following:

(a) First angle orthographic projections

(2 marks)

(b) Third angle orthographic projections

(2 marks)

16. Construct a regular pentagon given the length of one side to be 40mm. (4 marks)

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17. Construct triangle AQB of sides AB=60mm, BQ= 70mm and QA=80mm. On the triangle,

drop a perpendicular line from point Q to meet line AB in M. Measure QM. Bisect angle

QBA.

(4 marks)

18. Draw the following conventional lines.

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a) Centre line

b) Cutting or viewing plane lines

c) Hidden outlines

19. Draw electrical and electronic symbols for the following: (3 marks)

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a) Variable resistor

b) Voltmeter

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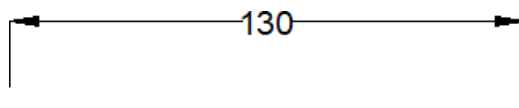
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20. Draw a wiring diagram showing one lighting point controlled from two separate positions. (3 marks)

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21. Draw a line below and divide it in the ratio 2:3:4

(3 marks)



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