

073204T4MSN

MASON LEVEL 4

CON/OS/MA/CC/02/4/A

INTERPRET AND DRAW SIMPLE WORKING DRAWINGS

July /August 2024



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

WRITTEN ASSESSMENT

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATE


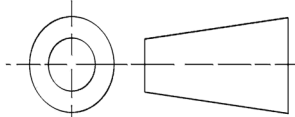


1. This paper has **TWO** sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
2. You are provided with a separate answer booklet
3. Marks for each question are indicated in the brackets.
4. Do not write on the question paper

**This paper consists of FIVE (5) 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: (10 MARKS)

Answer *all* questions in this section. Each question carries one mark.

- A working drawing is a detailed plan used for construction or manufacturing. The following are types of working drawings in construction except?
 - Structural drawing
 - Architectural drawing
 - Detailed drawing
 - Aeronautical drawing
- Drawing instruments ensure accuracy, precision, and efficiency in creating detailed and professional drawings. From the items below identify which one is not a drawing instrument.
 - T-square
 - Paper
 - Pair of compasses
 - Divider
- The following are technical drawing symbols. Select the symbol of Third angle projection.

<p>A. </p>	<p>C. </p>
<p>B. </p>	<p>D. </p>

- Which of the following abbreviations is used to indicate diameter?

<p>A. DIA</p>	<p>B. </p>
<p>C. DIM</p>	<p>D. MM</p>

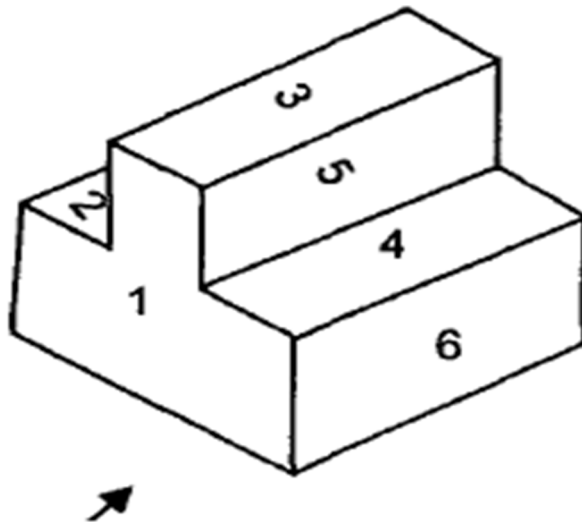
- One of the following statements refer to the definition of a segment. Segment is _____
 - Any part of the circumference of a circle
 - An area bounded by a chord and an arc
 - An area bounded by two radii and an arc

- D. An area of the circle bounded by two radii
6. A straight line joining any two points on the circumference _____
- A. Chord
 - B. Radius
 - C. Tangent
 - D. Sector
7. Measurements ensure accuracy, precision, and consistency in drawing proportions. Select the measurement used in drawing.
- A. Linear
 - B. Kilograms
 - C. Newton's
 - D. Milligrams
8. During interpreting and drawing of simple working drawings a lot of paper may be wasted. Select among the following practices a practice that is not the best practice of disposal of waste that may be generated from the drawing.
- A. Recycle paper and plastic materials
 - B. Digitize drafts and minimize printing
 - C. Dispose of unused sketches and drafts in trash bins.
 - D. Reuse paper for multiple sketches
9. Reducing scales is a common practice used when drawing. _____ is the true definition of reducing scale from the statements below?
- A. A scale that enlarges objects to their actual size
 - B. A Scale that maintains objects at their actual size
 - C. A scale that reduces objects to a smaller size while preserving proportions
 - D. A scale that distorts objects without changing their size
10. Isometric drawing is a method of representing three-dimensional objects. Pick a drawing that is not a type of isometric drawing from the list below.
- A. Cuboid
 - B. Pictorial drawing
 - C. Auxiliary drawing
 - D. First angle projection

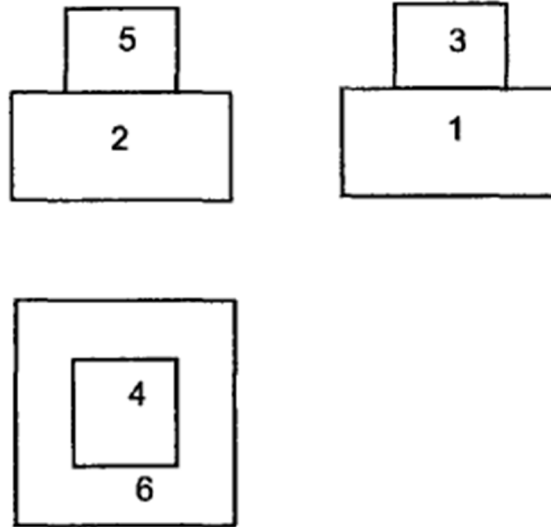
SECTION B: (40 MARKS)

Attempt all the questions in this section.

11. Dividing lines equally ensures symmetry and accuracy in drawing. Draw a line 95 mm long and divide it accurately into 6 equal parts. (3 marks)
12. Caring for drawing instruments maintains accuracy, prolongs lifespan, and ensures reliable performance in designs. State two ways in which we can care for and maintain our drawing instruments. (2 marks)
13. Lines in drawings help give precision, clarity, and communication in technical design. Sketch any 4 lines used in technical drawing indicating their uses. (4 marks)
14. Using a pair of compasses and rule only construct an angle of 30° . (4 marks)
15. Drawing papers are in different sizes. Illustrate the standard papers in drawing $A_0 - A_3$. (4 marks)
16. Using first angle orthographic projection sketch plan, front elevation and end elevation of the following drawing. Front elevation from the direction of the arrow. (6 marks)



17. Construct triangle ABC in which; $AB = 80$ mm; $BD = 60$ mm and $AD = 60$ mm. To it circumscribe a circle and measure its radius. (4 marks)
18. The following are the views for an object in 1st angle orthographic projection, using isometric projection draw its pictorial drawing. (4 marks)



19. Draw a plain scale to measure 86 mm using a line of 100mm. (5 marks)

20. There are various types of triangles. Construct an equilateral triangle ABC of sides 60mm. (4 marks)

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