

**073205T4CPJ**

**CARPENTRY AND JOINERY LEVEL 5**

**CON/OS/CAJ/CC/02/5/A**

**Prepare And Interpret Technical Drawings**

**July/August 2024**



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

**WRITTEN ASSESSMENT**

**TIME: 3 HOURS**


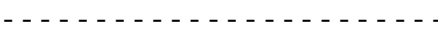
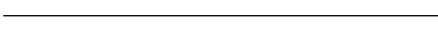
**INSTRUCTIONS TO CANDIDATE:**

1. This paper consists of TWO sections: **A** and **B**
2. You will be provided with an A3 paper for the drawing and a separate answer booklet for theory.
3. Marks for each question are indicated in the brackets.
4. Do not write on the question paper.

**This paper consists SIX (6) printed pages.**

**The candidates should check the question paper to ascertain that  
all pages are printed as indicated.**

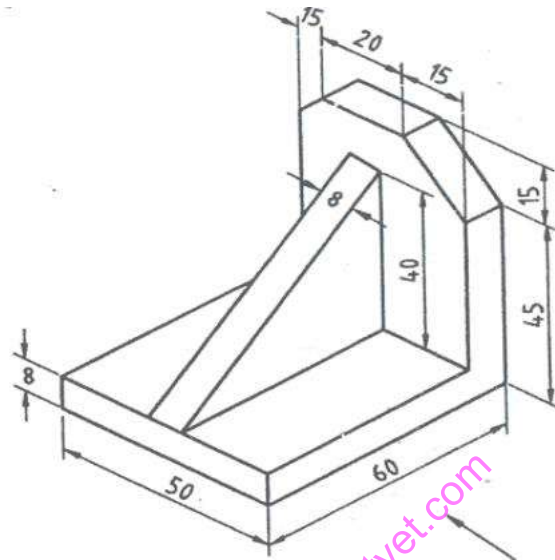
**SECTION A (40 MARKS)***(Attempt ALL questions in this section)*

1. Sketch the tool and equipment given below: (4 Marks)
  - a) T square
  - b) Carpenters square
2. Outline any two drawing paper sizes, giving the dimension of each. (4 Marks)
3. Identify the following lines: (3 Marks)
  - a) 
  - b) 
  - c) 
4. Construct a plain scale, 30 mm=10 mm, 50 mm long to read to 1 mm. (3 Marks)
5. Using a compass and ruler only construct a 45° angle. (4 Marks)
6. Inscribe a circle to a triangle ABC where AB= 80mm, BC= 50mm and AC= 70 mm.  
show all construction lines. (5 Marks)
7. Construct a pair of tangents to a circle of radius 40mm. the tangents are inclined to each other at an angle of 60°. (4 Marks)
8. Construct a triangle given its perimeter as 120mm and ratio of 3:4:5 respectively. (4 Marks)
9. Sketch the symbol for 1<sup>st</sup> angle orthographic projection. (4 marks)
10. A ball thrown in air attains a height of 100mm and covers a distance of 150mm. Draw its projectile. (5 Marks)

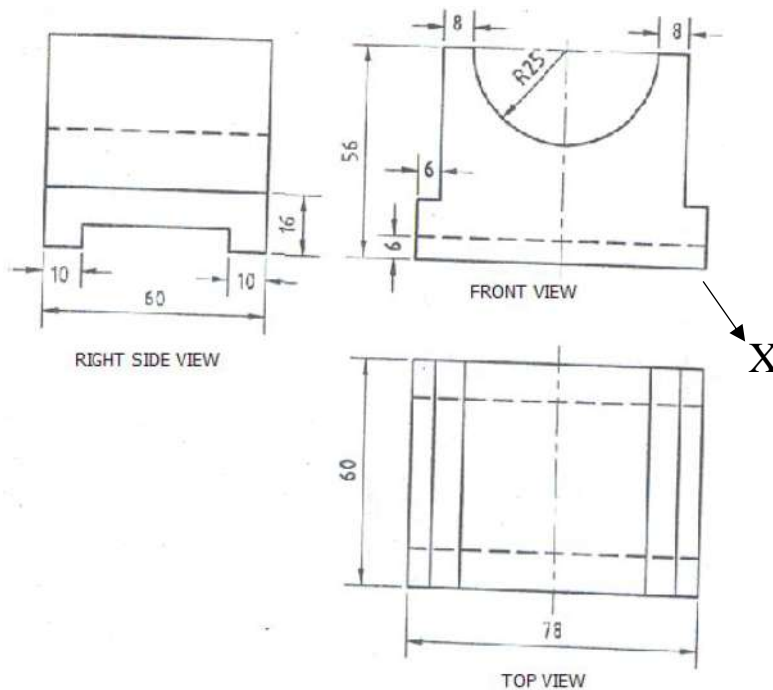
**SECTION B (60 MARKS)**

*(In this section, Question 11 is compulsory. Attempt any other two)*

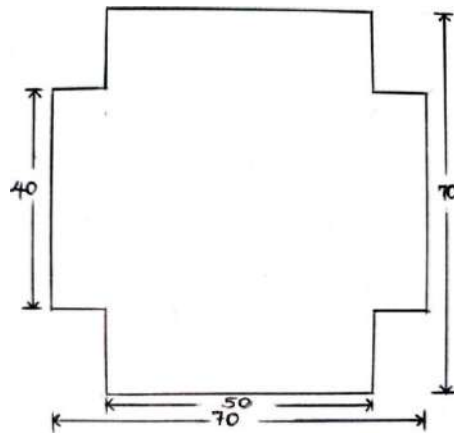
11. Draw the orthographic views of the figure below in 1<sup>st</sup> angle projection. The arrow shows the direction of the front view. (20 Marks)



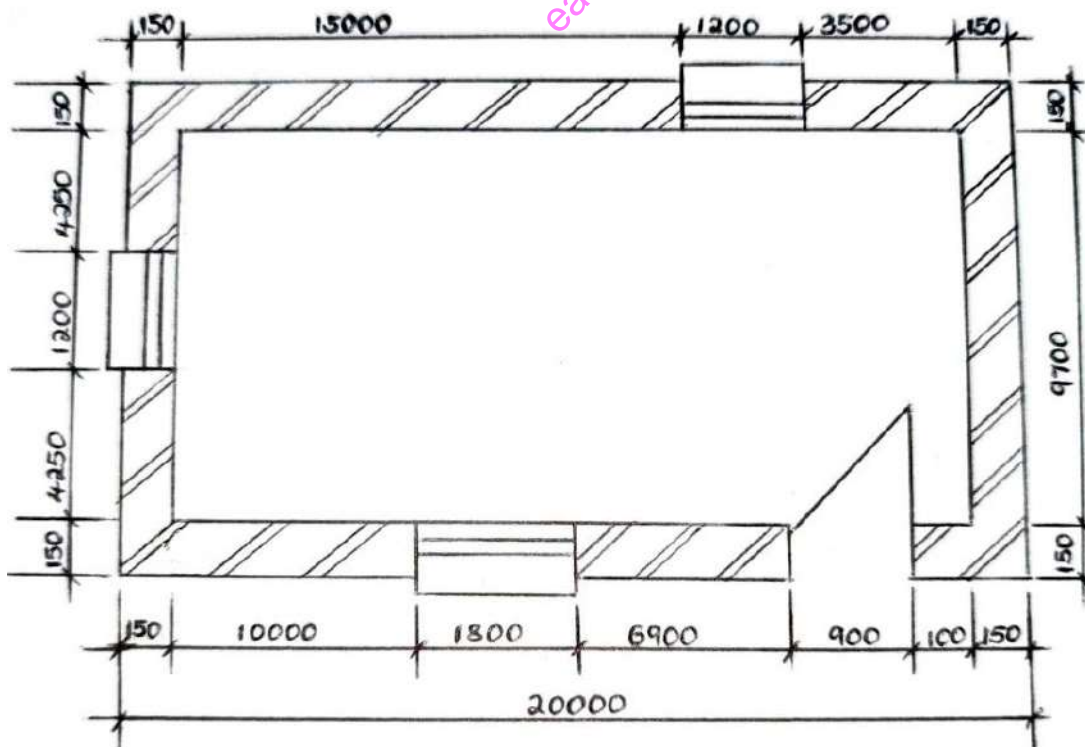
12. Given below are views of a block in orthographic projection. Draw the isometric view of the block taking point X as its lowest point. Show at least five dimensions. (20 Marks)



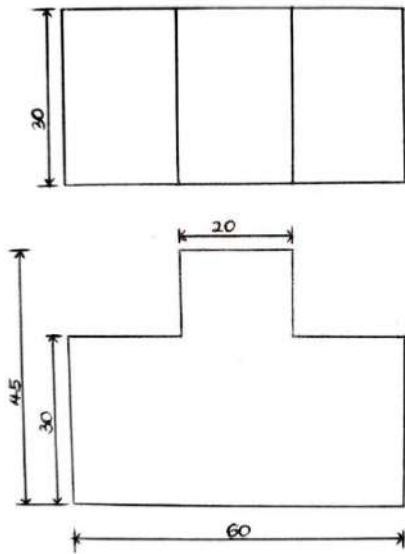
13. A cylinder 50mm diameter and 70mm height is completely penetrated by another of 40mm diameter and 70mm height horizontally as shown below. The axes intersect and bisect each other. Draw the projections showing curves of intersection. (20 Marks)



14. a) The figure below shows a floor plan of a building. Using a suitable scale, make sketches of the front and rear views assuming the following: (10 Marks)
- i. The roof pitch is  $30^\circ$
  - ii. Gambrel roof type



b) The following are the top and front elevation of an object. Use the views to produce a one-point perspective drawing of the object. (10 Marks)



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