

073106T4QSV

QUANTITY SURVEYING LEVEL 6

ENG/OS/QS/CC/02/6

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

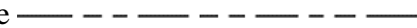


1. This paper has **TWO** sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
2. You are provided with a separate answer booklet and size A2 drawing papers
3. Marks for each question are indicated in the brackets.
4. Do not write on the question paper.
5. You should have drawing instruments for this paper.

This Paper Consists of FIVE (5) Printed Pages.

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

SECTION A: (40 MARKS)

Attempt all questions in this section.

1. As a quantity surveyor, you may be required to use drawing line from time to time.
Explain the application of each of the following lines. (3 marks)
 - a. Chain thin double-dashed line 
 - b. Dashed thin line 
 - c. Continuous thin with Zigzag 
2. Maintenance is an importance practice to ensure that you enjoy maximum economical life of tools and equipment, explain **FOUR** ways to care for drawing tools and equipment. (4 marks)
3. In any construction drawing, a title block comes at top of the list. Outline four contents that must be included in the title block (4 marks)
4. You have been identified by a construction company to participate in preparation of drawings, identify any three types of scales you can use in the technical drawing. (3 marks)
5. Free hand sketching is a technical skill required to draft drawings in the process of preparing drawings, Make a free hand sketch of a straight snip. (4 marks)
6. You have been given a project to prepare drawings, outline four general rules that you ought to observe when sectioning the drawing. (4 marks)
7. Plane geometry is an important technique for quantity surveying practice, Using the appropriate technical drawing instruments, Construct an angle of 30° (3 marks)
8. Sectors, Segment, Chords, and Arc are all parts of a circle. Using appropriate drawing instruments, Construct a circle of diameter 60mm and showing the parts. (4 marks)
9. Technical drawing helps in achieving different shapes required for preparing projects, Construct an isosceles triangle where the lengths of each of its equal sides is 6.5 cm and the angle between them is 110° . (4 marks)
10. Plane geometry helps in production of different geometric forms. Using appropriate drawing instruments, Construct a square of equal area to a triangle ABC. given $AB = 80\text{mm}$, $BC = 100\text{mm}$ and $AC = 70\text{mm}$. (7 marks)

SECTION B: (60 MARKS)

(Answer any **THREE** questions. All questions carry equal marks.)

11. Figure 1 shows an isometric drawing of a block for a proposed project whose three views are shown in first angle projection. Making X the lowest point.

- a) Draw a free hand isometric drawing of the block (8 marks)
- b) Draw an isometric drawing of the block using CAD, save and print. (12 marks)

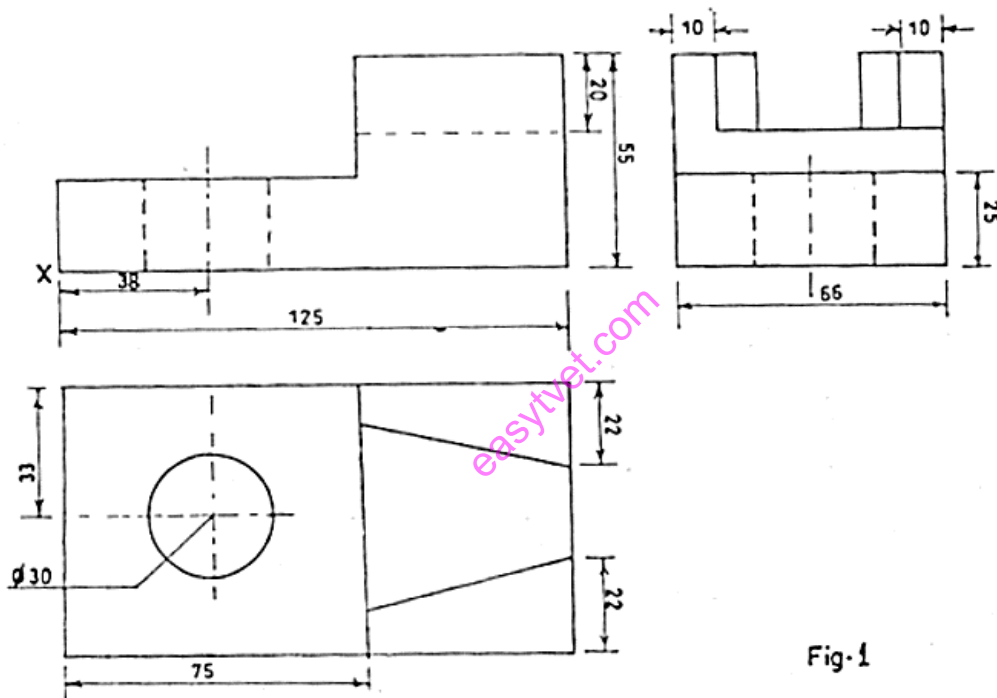


Fig-1

12. The fig. 2 shows uncompleted views drawn in orthographic projection, using drawing instruments, complete the views by adding the missing lines. (20 marks)

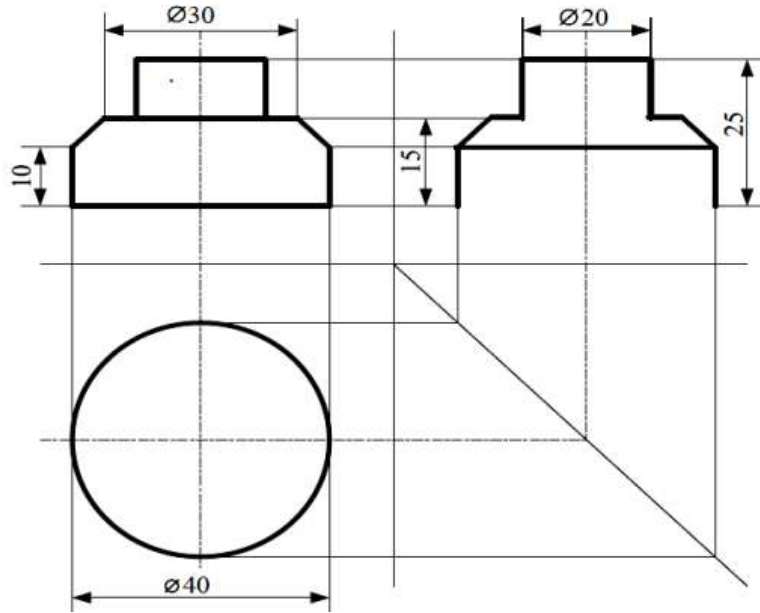


Fig. 2

13. The **fig 3** shows an irregular pentagon ABCDE; using drawing instruments reduce it to the ratio of 4:3.

(20 marks)

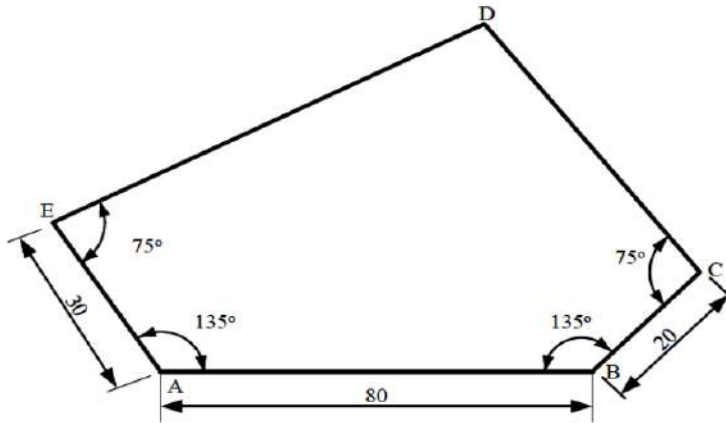


Fig. 3

14. Fig 4 shows a plan of a mechanical object to be used in installing a lift in an apartment, Using appropriate drawing instruments draw the sectional view along plane s-s.

(20 marks)

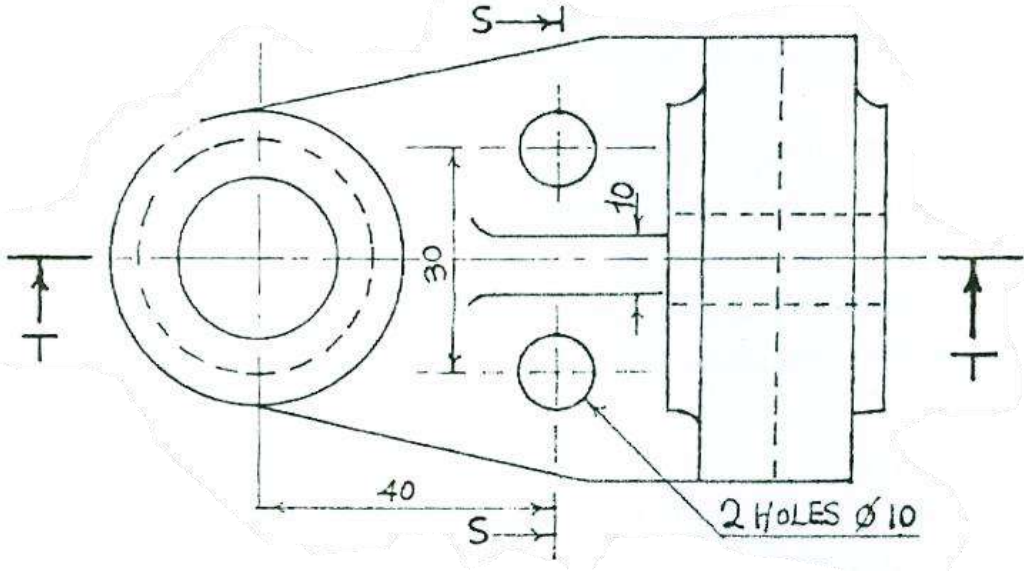


Fig. 4

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