TEVETA

Technical Education, Vocational and Entrepreneurship Training Authority

DIPLOMA IN BIOMEDICAL ENGINEERING TECHNOLOGY

LEVEL 6 YEAR II EXAMINATIONS

FINAL INTEGRATED SUMMATIVE EXAMINATION

SITTING: JULY /AUGUST 2026

SUBJECT: ENGINEERING DRAWING

TIME: THREE (3) HOURS **TOTAL MARKS: 100**

PASS MARK: 50

INSTRUCTIONS TO CANDIDATE

1. There are FIVE (5) questions in this paper.
2. Unless otherwise specified, all dimensions are in mm.
3. Attempt question ONE (1) as compulsory and any THREE (3) questions.
4. Show your constructions clearly.
5. Answer sheets will be provided.
6. Where dimensions are omitted, they may be estimated.
7. Scientific calculators are allowed in the examination room.
8. Programmable Calculators and cell phones are NOT allowed.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

QUESTION 1 (COMPULSORY)

(a) Draw the borderline and add the title block at the bottom right-hand side of the paper and include the following information on the title block:

(i) Name of the institution. **[1 Mark]**
(ii) Center number. **[1 Mark]**
(iii) Examination number. **[1 Mark]**
(iv) NRC number. **[1 Mark]**
(v) Programme. **[1 Mark]**

(b) Fig.1 shows a pictorial view of machine bracket drawn to full size.

i) Draw full size, the following views in 1st angle orthographic projection.

a) Section front view on A – A. **[18 Marks]**
b) Section top view on B – B. **[12 Marks]**

ii) Insert the projection symbol. **[5 Marks]**

(Note: Hidden details are NOT required in the views)

Total = [40 Marks]

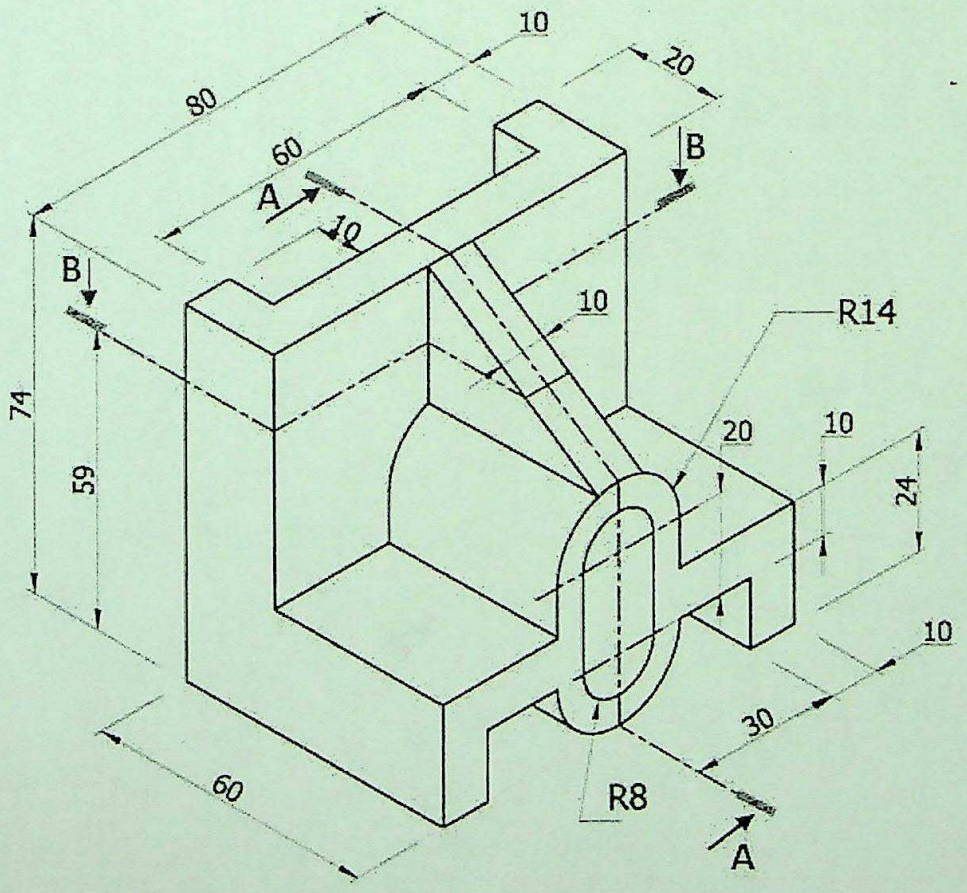


Fig.Q1

QUESTION 2

Fig.Q2 shows a profile of a metal template. Draw, full size, the given template clearly showing the constructions used to determine the points of tangency and arc centres.

[20 Marks]

[Total = 20 Marks]

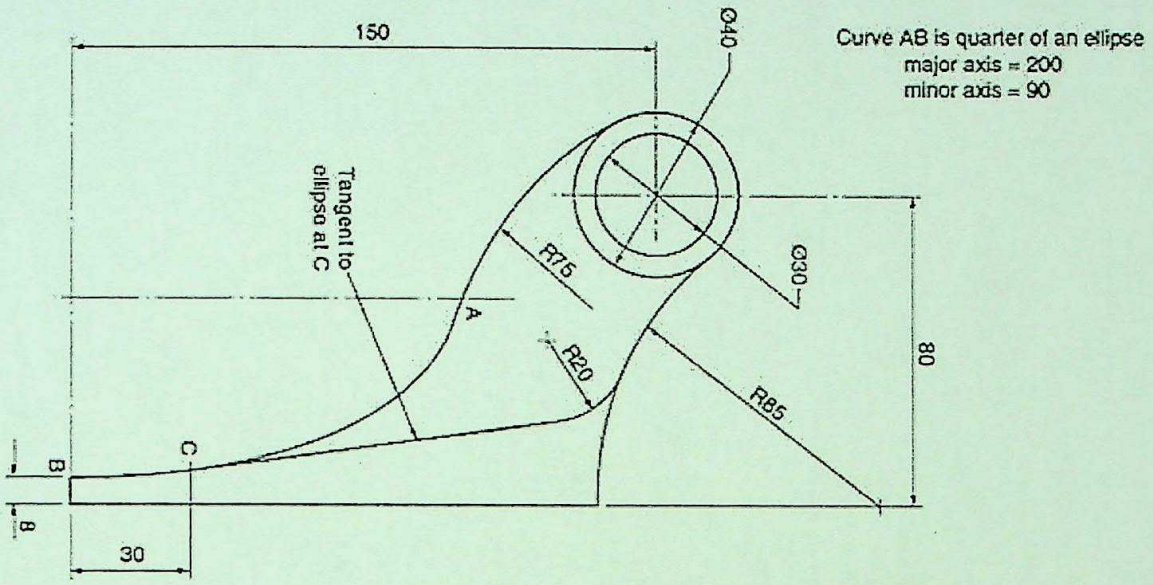


Fig.Q2

QUESTION 3

Fig.4 shows a pictorial view drawn in isometric projection. Draw the given isometric view without changing its orientation.

[20 Marks]

Total = [20 Marks]

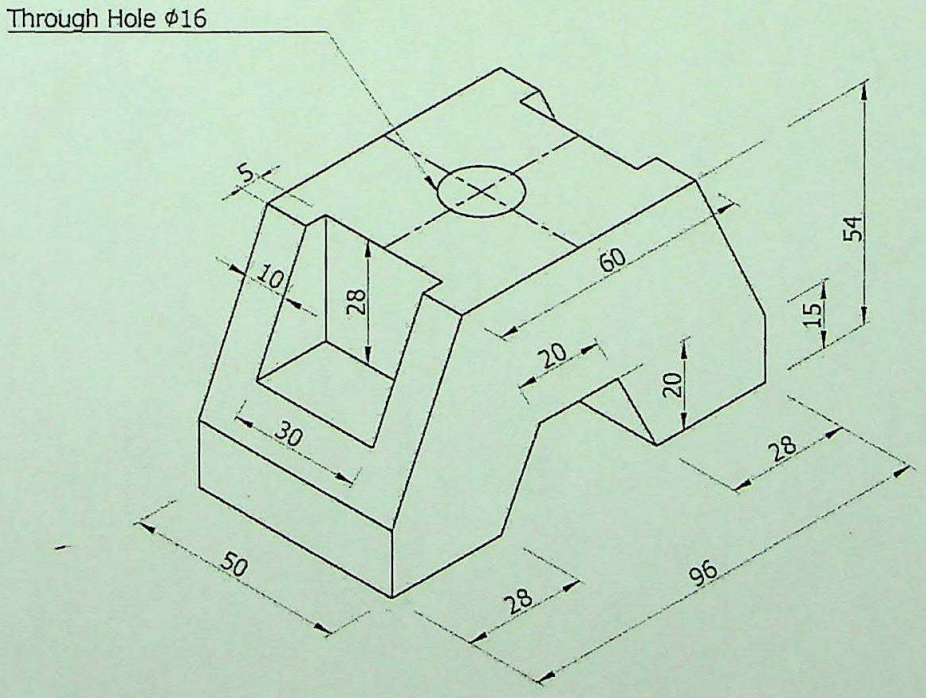


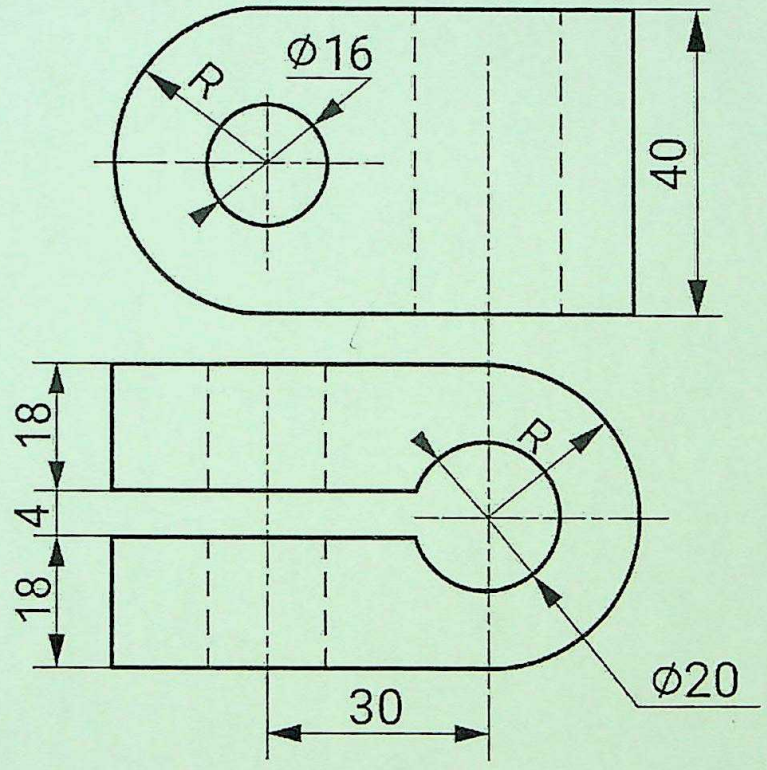
Fig.Q3

QUESTION 4

The figure below shows two (2) views in Orthographic Projection.

Draw the Isometric Projection of the Object. **[20 Marks]**

(Do not insert any dimensions)



QUESTION 5

Draw an ellipse by Arcs of circles method. Given: Major Axis =160mm and Minor axis =100mm. **[20 Marks]**