

THE COPPERBELT UNIVERSITY
SCHOOL OF MINES & MINERAL SCIENCES

15th MAY 2024 / ENGINEERING DRAWING [ED 111 / ED 211] / TEST 1

Instructions

1. Mark all line, except construction lines, black, bold and dense, observe the distinction between thick and thin lines and keep line thickness consistent throughout. **Title Block = 10 Marks**
2. Unless stated, all drawings should be drawn full Size(1:1)
3. **Marks will be awarded for good draughtsmanship and neatness.**
4. Duration: **Mins**
5. Answer all questions. Total = **100 Marks**

QUESTION 1 [40 Marks]

- (a) Inscribe a circle in a **triangle** whose parameters are: AB = 116 mm, angle BAC = 67.5° , Height = 87 mm. [10]
- (b) Construct a regular **Hexagon** whose sides are 50 each and **transform** the hexagon to a triangle of equal area. [10]
- (c) Construct a **Helix** with the following parameters: Circle Radius 30, Pitch 48, Width 12, 2 Revolutions. [20]

QUESTION 2 [50 Marks]

Construct the **geometrical shape** shown in the figure below.

