

UGANDA MARTYRS UNIVERSITY

FORT PORTAL CAMPUS

FACULTY OF ENGINEERING AND APPLIED SCIENCES

DEPARTMENT OF CIVIL ENGINEERING

END OF SEMESTER I YEAR I ACADEMIC YEAR 2023/2024 EXAMINATIONS
DECEMBER, 2023

PROGRAMME (S) (DCE, DEE, DWE and DME)

COURSE NAME: **ENGINEERING DRAWING**

COURSE CODE: IET1107

DATE: 8TH DECEMBER, 2023

TIME: 2:00PM -5:00PM

INSTRUCTIONS TO CANDIDATES

- Do not **write** anywhere on this question paper.
- **All rough** work should be done in **official answer booklet**.
- **Read** other instructions on the answer booklet.
- **All** questions carry **equal** marks
- This paper consists of **six** questions, Attempt **any four**.

Question one

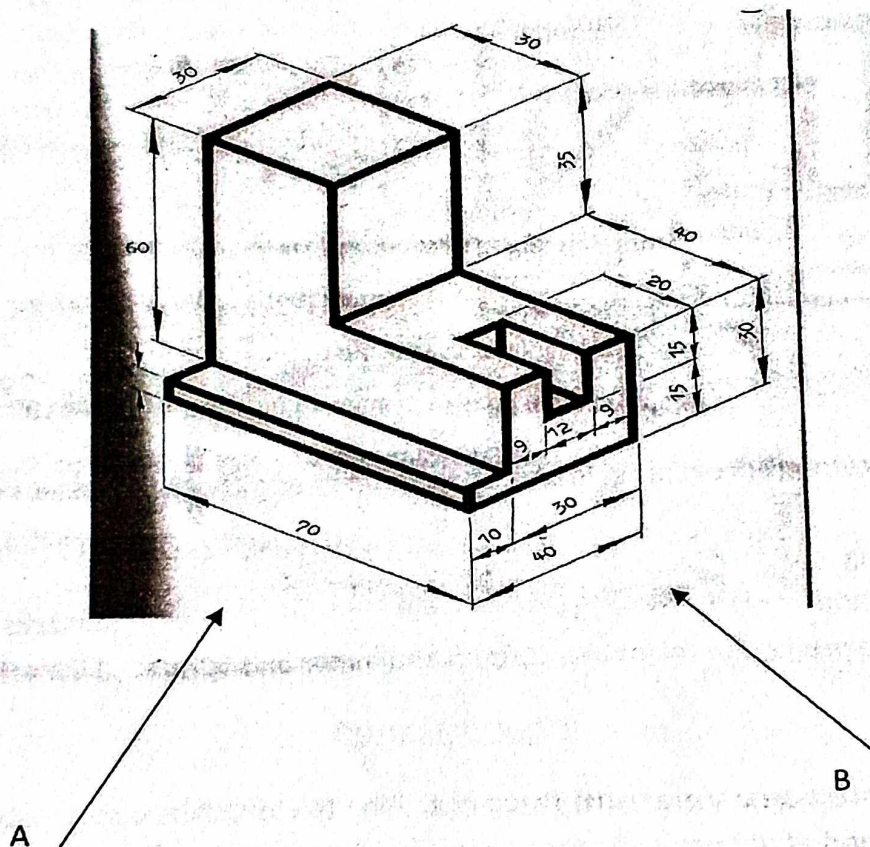
- Draw a line AB 80mm and bisect it (2marks)
- On the same drawing construct an angle of 75° (3marks)
- Draw a line 120mm and divide it into 5 equal parts (7marks)
- Identify any four types of lines, sketch then and indicate when they are used (8marks)

Question two

- Draw a right angled triangle ABC where AB=50mm and angle ABC= 45° and inscribe a circle in it. State the radius of the circle . (10marks)
- Draw a rectangle whose diagonal is 80mm and one side is 35mm. convert the rectangle into a square of equal area. (10marks)

Question three

- a) Draw the figure below in isometric and indicate any five major dimensions (6marks)
- b) Using the same figure, draw the following views in first angle projection (9 marks)
 - the front in direction of arrow B and the plan (5 marks)
 - End in direction of arrow A.



Question four

- a) Draw any circle size and on it indicate the following; **tangent, circumference, radius, diameter, chord and arc** (6marks)
- b) Draw a circle of radius 35mm and indicate a point **p** which is 70mm away from the centre of the circle. Construct a tangent from **p** to the circle. (6marks)
- c) In a circle of radius 50mm, draw a regular octagon (4marks)
- d) Using a 60° set square draw a hexagon of the side 45mm (4marks)

Question five

- a) On the same base of 30mm, draw the **square**, the **pentagon** and **heptagon** (10marks)
b) Using general method of constructing any polygon draw a **pentagon** (10marks)

Question six

- a) Given that ABC is an equilateral triangle and of side 50mm, draw it. (6marks)
b) Convert the triangle ABC above into a square of equal area. (12marks)

END