UGANDA INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY

FINAL EXAMS

ACADEMIC YEAR: **2025/2026**

SEMESTER: **TWO**

PROGRAMME: **DEEE & DECE**

YEAR OF STUDY: **ONE**

COURSE UNIT: **ENGINEERING DRAWING**

COURSE CODE: **ENG 1201**

DATE: **TUESDAY 23/06/2026**

TIME: **2:00 : 5:00PM (SHIFT TWO)**

DURATION: **3 HOURS**

ROOMS: **LABS**

INSTRUCTIONS:

This paper contains of Two (2) sections A and B

Section A is compulsory and carries 40 marks
Section B contains 5 questions, each with 20 Marks, Attempt only 3 Questions
Show all workings where applicable

SECTION A (40MARKS)

Attempt **ALL** the Questions in this Section

Question 1

a) i) Draw the boundary and title block to recommended ISO standard.

ii) Properly print your name, registration number, course name and course code.

(8marks)

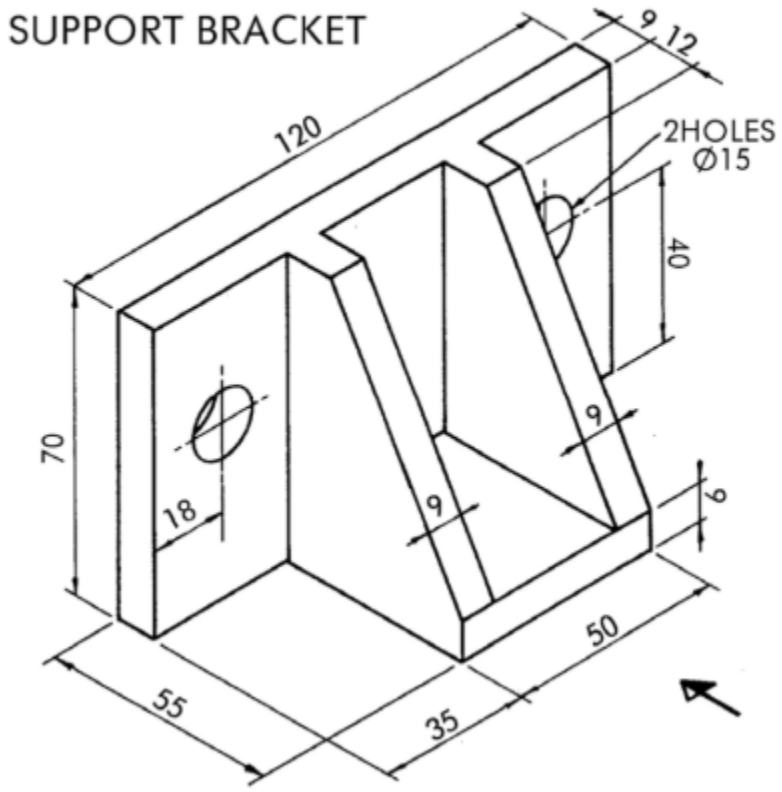
b) The figure below is an isometric drawing of a support bracket part.

(i) Draw the orthographic views using first angle projection showing all the hidden parts. The front view is in the direction of the given arrow.

(16marks)

(ii) Draw the orthographic views using third angle projection showing all the hidden details. The front view is in the direction of the given arrow.

(16marks)



SECTION B (60MARKS)

ATTEMPT ANY FOUR QUESTIONS IN THIS SECTION

Question 2

a) A mechanical component requires a regular heptagon base with a side length of 40 mm. Construct the regular heptagon using the Universal (General) Method. Show all geometric construction lines clearly. (12 Marks)
b) Using the same center point established from your construction, inscribe a circle inside the heptagon so that it touches all flat sides. (4 Marks)
c) Fully dimension one side of the polygon and the diameter of the inscribed circle according to standard engineering practice (ISO/BS standards). (4 Marks)

Question 3

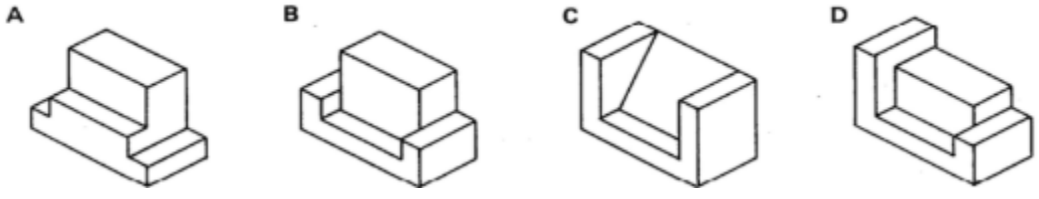
a) A coin of 40mm diameter rolls over a horizontal table without slipping. A point on the circumference of the coin in contact with the table surface in the beginning and after one complete revolution.

(i) Draw the path traced by the point. **(9marks)**
(ii) Construct a tangent and a normal at any point on the circle **(3mark)**

b) The vertex of a hyperbola is 5cms from directrix. Draw the curve if the eccentricity is 3/2. Draw the normal and tangent at a point 50mm from axis. **(8marks)**

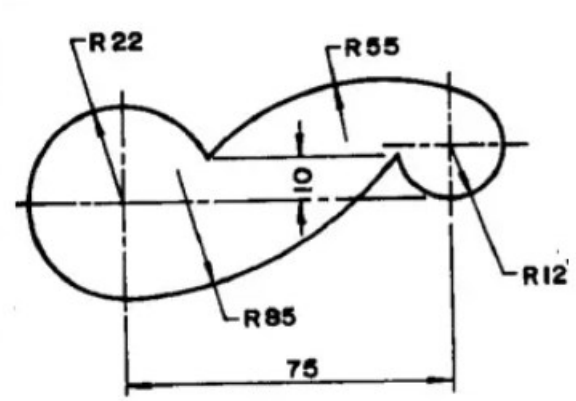
Question 4

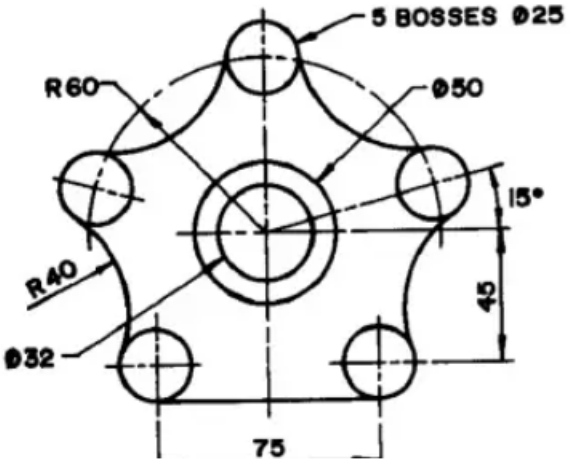
Sketch the Plan and Front views of the isometric drawings below. @ 5marks



Question 5

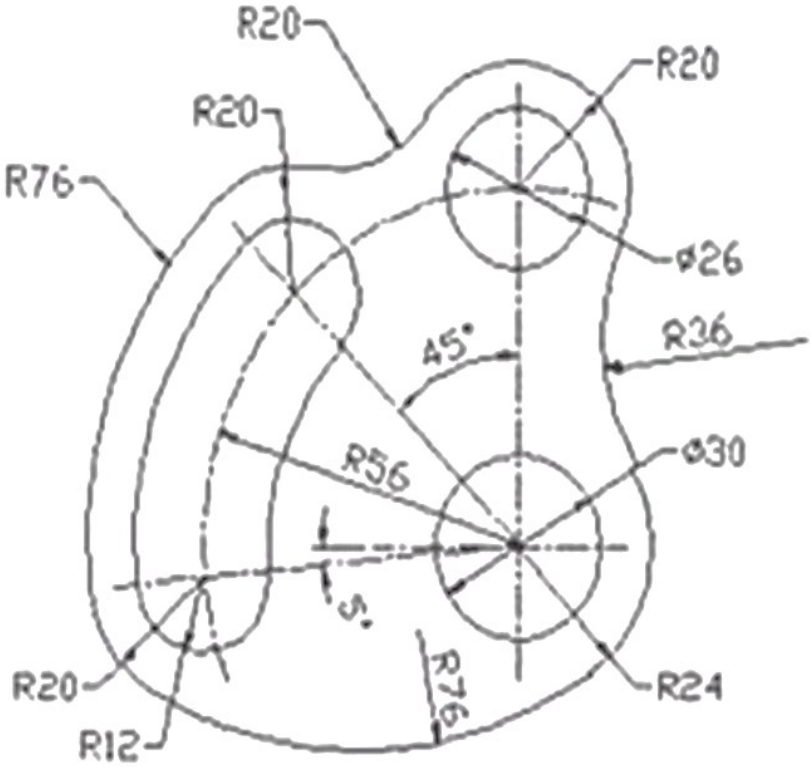
a) The front elevation of a rail support is shown in the figure below.
Draw the outlines below showing clearly all the construction lines. (@10 marks)





Question 6

a) Draw the fan blade in the figure below showing clearly all the construction lines. **(20 marks)**



THE END