UGANDA INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

END OF SEMESTER II EXAMINATIONS

RECESS 2024

DEPARTMENT	:	**ICT**
YEAR	:	**ONE**
SEMESTER	:	**TWO**
PROGRAM	:	**DIPLOMA IN ELECTRICAL & ELECTRONIC ENGINEERING**
	:	**DIPLOMA IN ELECTRONIC COMMUNICATIONS ENGINEERING**
COURSE	:	**ENGINEERING DRAWING**
COURSE CODE	:	**ENG 1201**
DATE	:	**JUNE 28, 2024**
TIME	:	**09:00 AM – 12:00 NOON**
DURATION	:	**3 Hours**

INSTRUCTIONS

- The paper consists of two Sections A and B
- Answer **ALL** questions in Section A and **ANY THREE** questions in Section B
- Credit will be given to relevant examples and illustrations
- Don Not Write anything on this question paper

SECTION A (40MARKS)

Attempt **ALL** the Questions in this Section

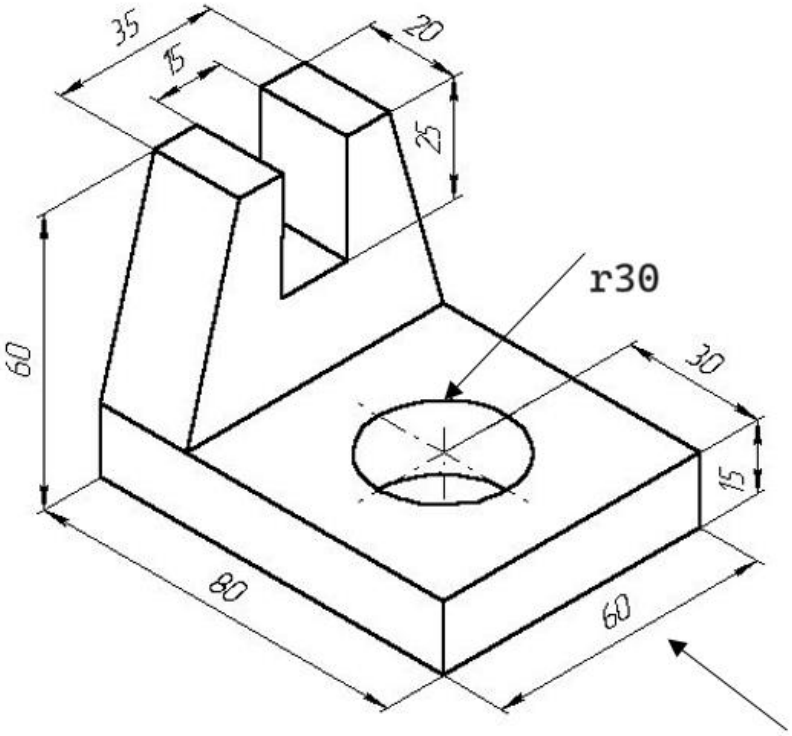
Question 1

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 machine 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 THREE QUESTIONS IN THIS SECTION

Question 2

a) Construct a square, pentagon and a hexagon on the same base = 45mm. **(12 marks)**

b) Construct a square whose sides = 35mm and construct its involute. **(8marks)**

Question 3

a) A circle of diameter 40mm rolls along a straight line for one revolution.

(i) Draw the locus of a point on the circle. **(9marks)**

(ii) Construct a tangent and a normal at any point on the above locus. **(3mark)**

b) A missile is launched and covers a span of 120mm and height 68mm using method of tangents construct the locus of its path. **(8marks)**

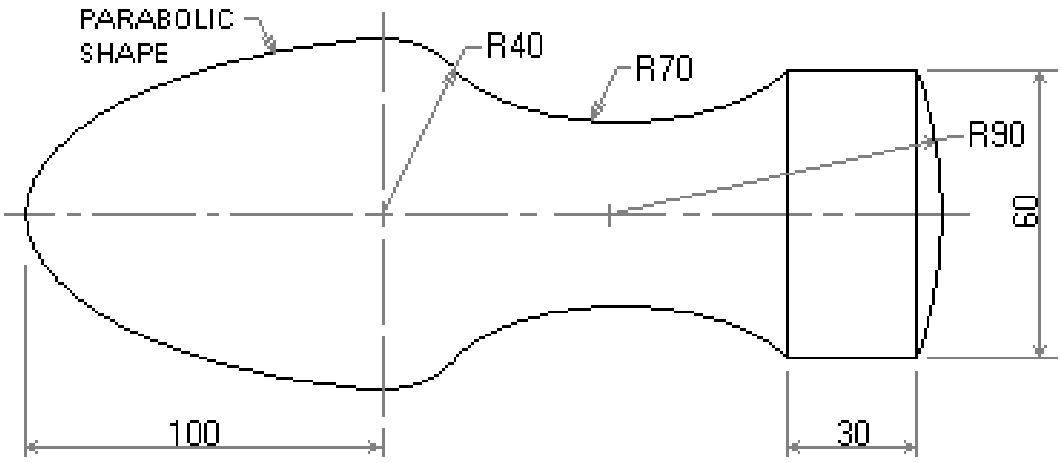
Question 4

a) Construct an ellipse whose major axis is 130mm and minor axis 90mm. **(8 marks)**

i. Locate the foci. **(2 marks)**

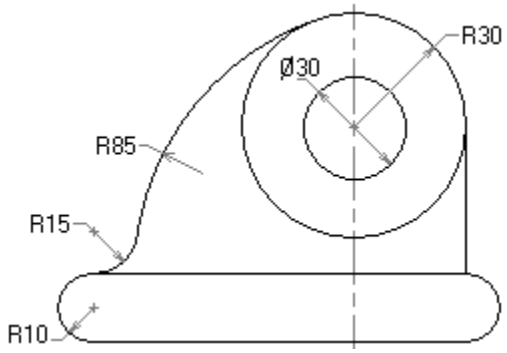
ii. Construct a tangent and a normal at any point on the ellipse. **(2marks)**

b) Draw the tool handle shown in the figure below showing all construction lines. **(8 marks)**

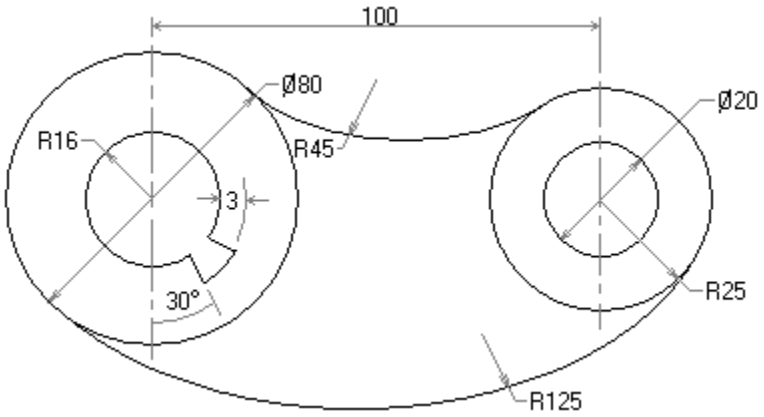


Question 5

a) The front elevation of a rail support is shown in the figure below.
Draw the outline showing clearly the how centre of the curve R85 is obtained.

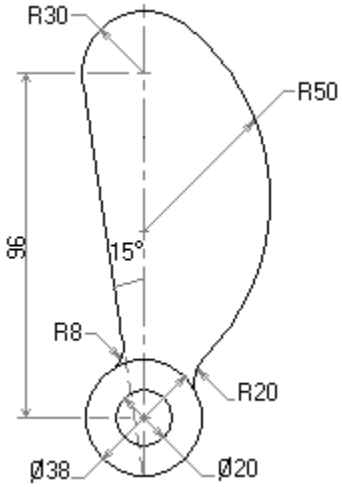


b) Draw the component shown in the figure below. Show all your constructions clearly.



Question 6

a) Draw the fan blade in the figure below showing clearly all the construction lines. **(7 marks)**



b) Circumscribe a hexagon on a circle or radius 20mm. **(5 marks)**

c) Point Q is 70mm from the center O, of the circle in b) above. Showing all the construction lines;

i) Construct a tangent from point Q to the circle. Label the point of tangency, R. **(3 marks)**

ii) Construct a normal from point R. Draw a triangle ORQ is formed. **(2 marks)**

iii) Construct an arc of r15 at angle OQR. **(3 marks)**

END