FORM 3 (1st year)	**TECHNICAL DESIGN**	Time : 2 hours

Instructions

- Write your name and class on all sheets.

- Attempt **ALL** questions.

- All answers are to be drawn accurately, with instruments, unless otherwise stated.

- All construction lines **MUST** be left on each solution to show the method employed.

- Drawing aids may be used.

- **You are required to use one side of your paper for question number 1 only.**

Information

- All dimensions are in millimetres.

- Estimate any dimension not given.

- Marks will be awarded for accuracy, clarity and appropriateness of construction.

NAME : _____ CLASS :_____

| Question	1	2	3	4	5
Max.mark	**45**	**16**	**14**	**11**	**14**
Mark					

1.   The figure shows a pictorial view of a **CLAMP.**
      To the dimensions given and using **First Angle Projection**, draw the
      following views.

      (a)   a front elevation as seen from direction of arrow **A**   12 marks
      (b)   an end elevation as seen from direction of arrow **B**   13 marks
      (c)   a complete plan   15 marks
      (d)   the **Symbol** for the projection used and **Scale**   5 marks

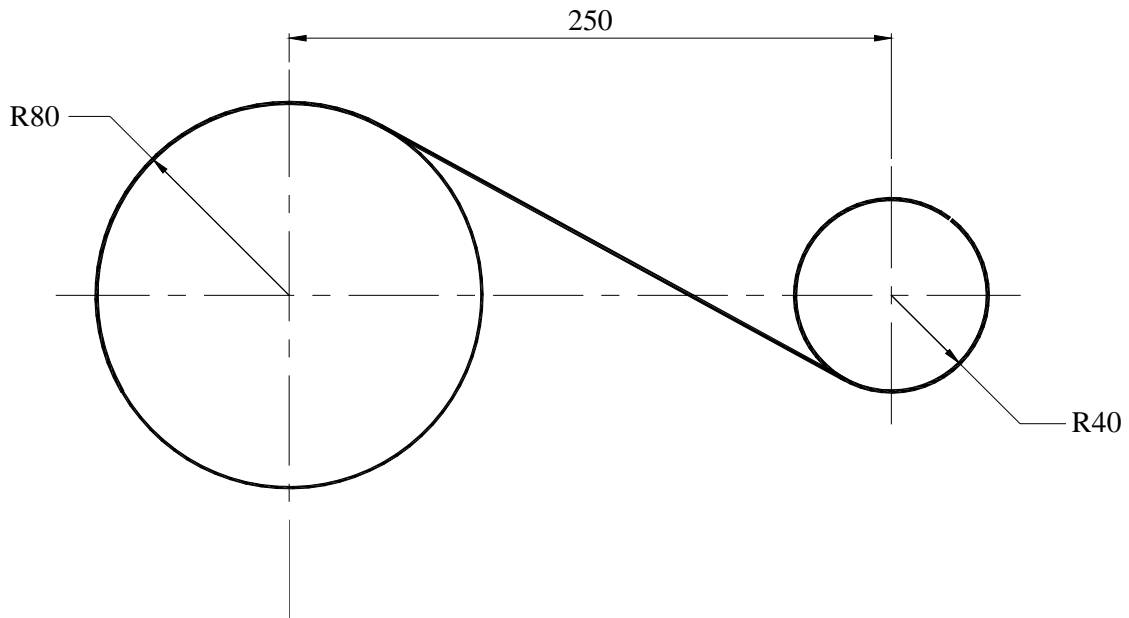   Note: Insert all hidden details

   (Total 45 marks)
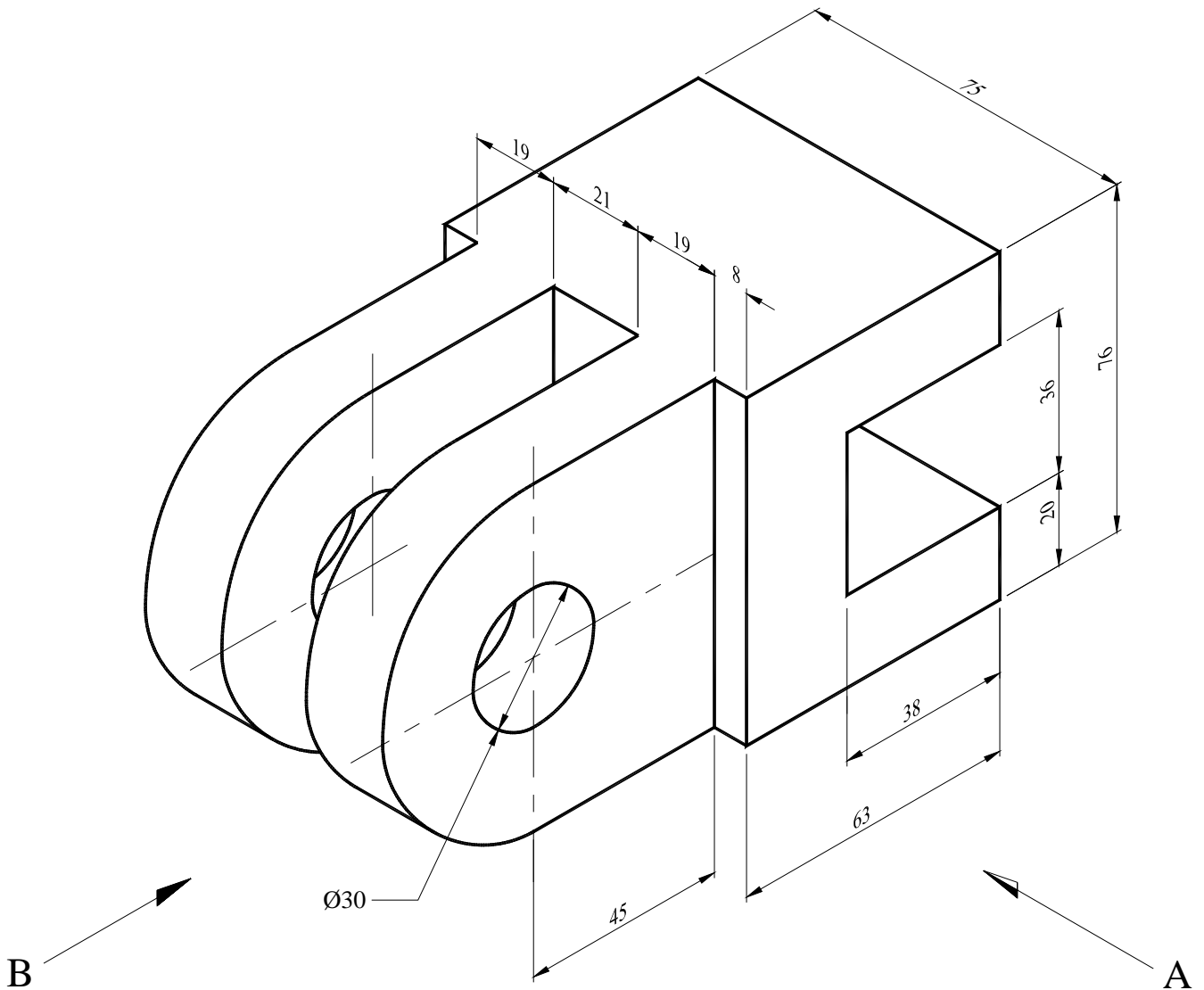
2. The figure shows the layout for a paper feed mechanism.
   (a) Construct geometrically the outline to a scale of **1 : 2**.
   (b) Indicate the exact points of tangency by drawing short lines across the outline at these points
   (c) All construction lines must be shown.

   (16 marks)

3. The figure shows the elevation of a company logo based on the letters **C** and **T** and an Isometric view showing the thickness of the letters.
   Draw, to the dimensions given a **CABINET OBLIQUE** of the Logo.
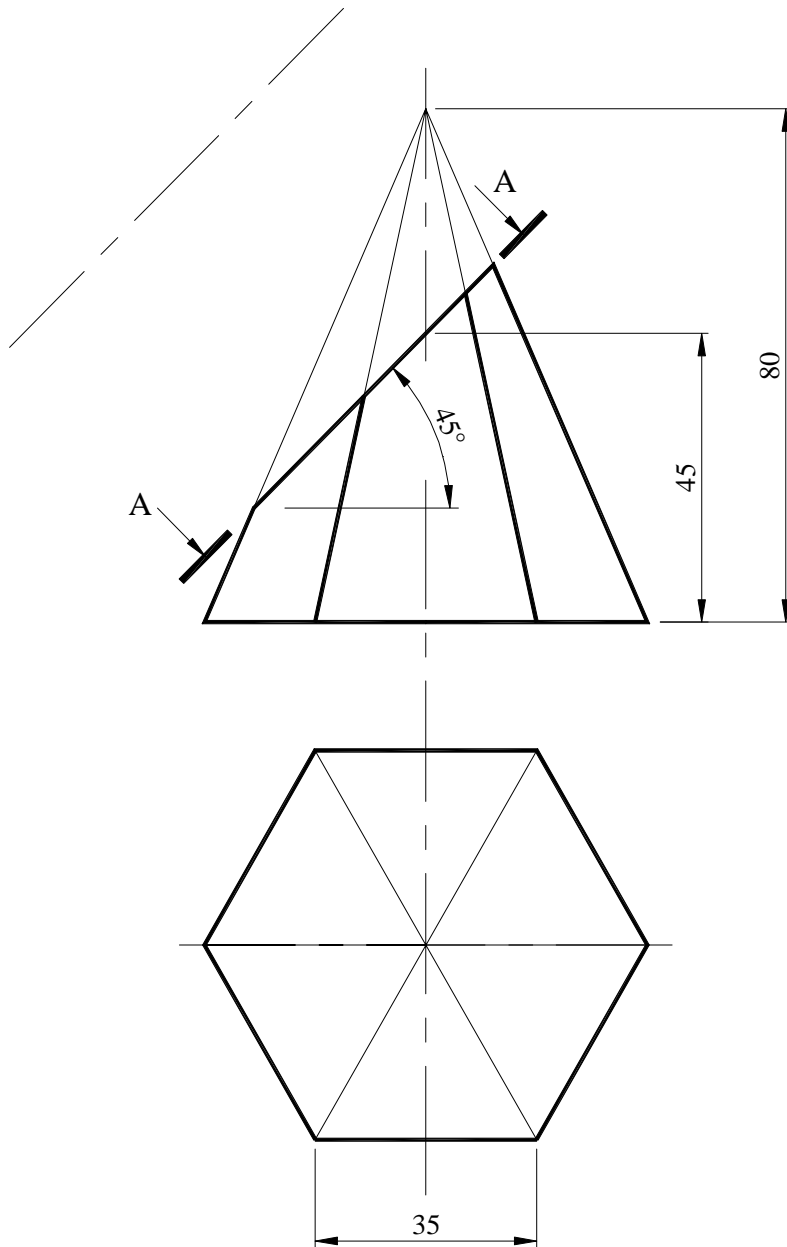
   (14 marks)
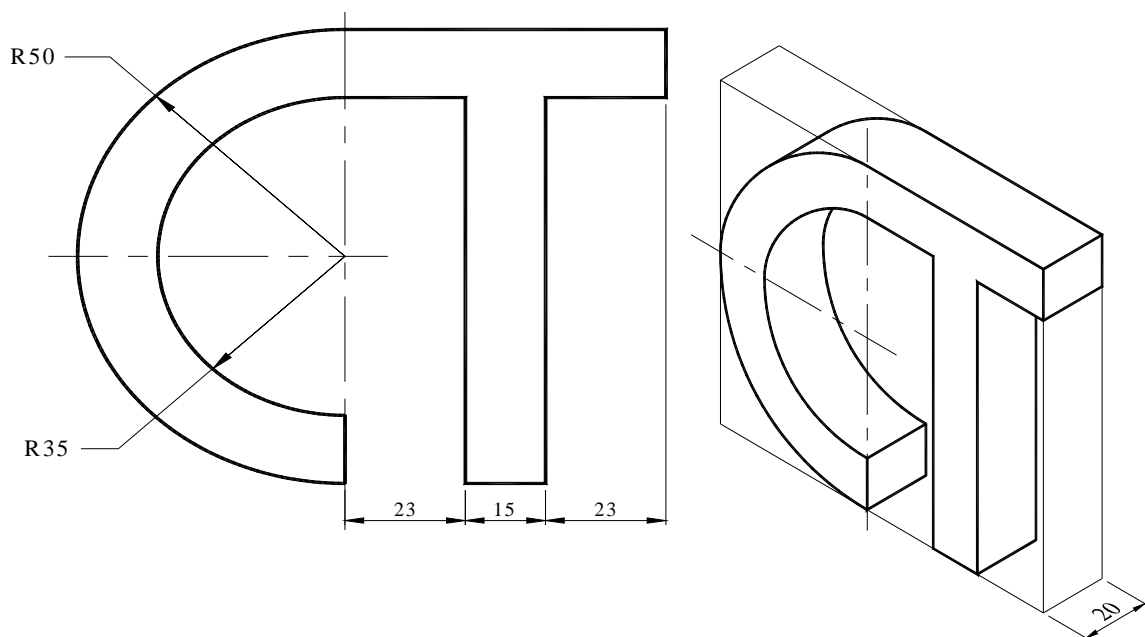
4.   The figure shows the elevation and an incomplete plan of a truncated
      pyramid. **A – A** indicates the cutting plane.

      To the dimensions given:

      (a)   Copy the given elevation
      (b)   Draw and complete the plan indicating the section
      (c)   Construct or project the true shape of the section

                                                                (11 marks)

5. The figure shows an irregular quadrilateral ABCD and E.
   (a) Draw the quadrilateral shown to the dimensions given
   (b) Enlarge the given figure so that side AB = 100mm.
   (c) Calculate to the nearest millimetre the perimeter of the enlarged quadrilateral.

Side AB = 80mm	Side AE = 55mm
Side BC = 34	Side ED = 44mm
Diagonal AC 95mm	Side CD = 58mm

   (14 marks)