

**JUNIOR LYCEUM and SECONDARY SCHOOL  
ANNUAL EXAMINATION 2004**

**Educational Assessment Unit – Education Division**

---

FORM 2

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 drawing paper for question number 2 only.**

Information

- All dimensions are in millimetres.
- Estimate any missing dimension.
- Marks will be awarded for accuracy, clarity and appropriateness of construction.

NAME: \_\_\_\_\_

CLASS: \_\_\_\_\_

Question	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Max.mark	<b>10</b>	<b>38</b>	<b>28</b>	<b>12</b>	<b>12</b>
Mark					

Question 1

Draw a borderline and a title (name) block on one side of your drawing paper.

In the appropriate spaces print in freehand simple block letters:

- (a) Your surname and name.
- (b) Your class.
- (c) Date.
- (d) Annual Examination.
- (e) In the middle spaces of your title block write down the name of the drawing in question No. TWO i.e. **PRECISION BLOCK**

**10 marks**

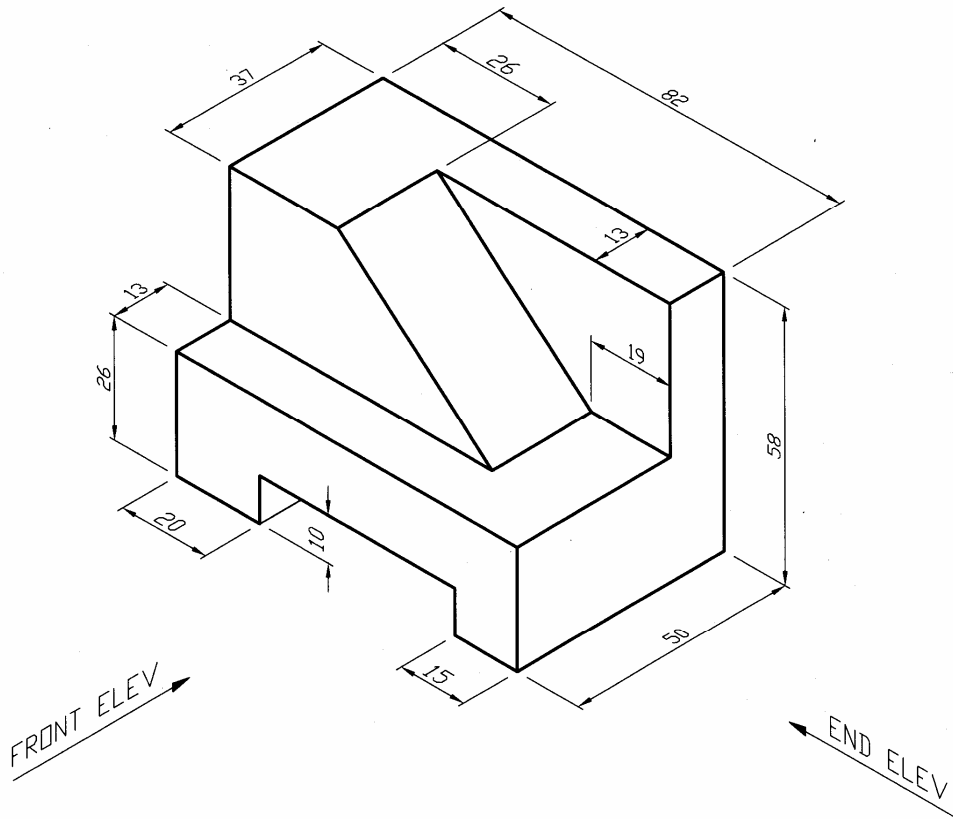
Question 2

The figure below shows a **Precision Block**. To the dimensions given and in either first or third angle projection, draw:

- (a) A front elevation 9 marks
- (b) An end elevation 10 marks
- (c) A complete plan 15 marks
- (d) The symbol of projection used. 4 marks

**Note:** Insert all hidden details.

**Total 38 marks**



Question 3

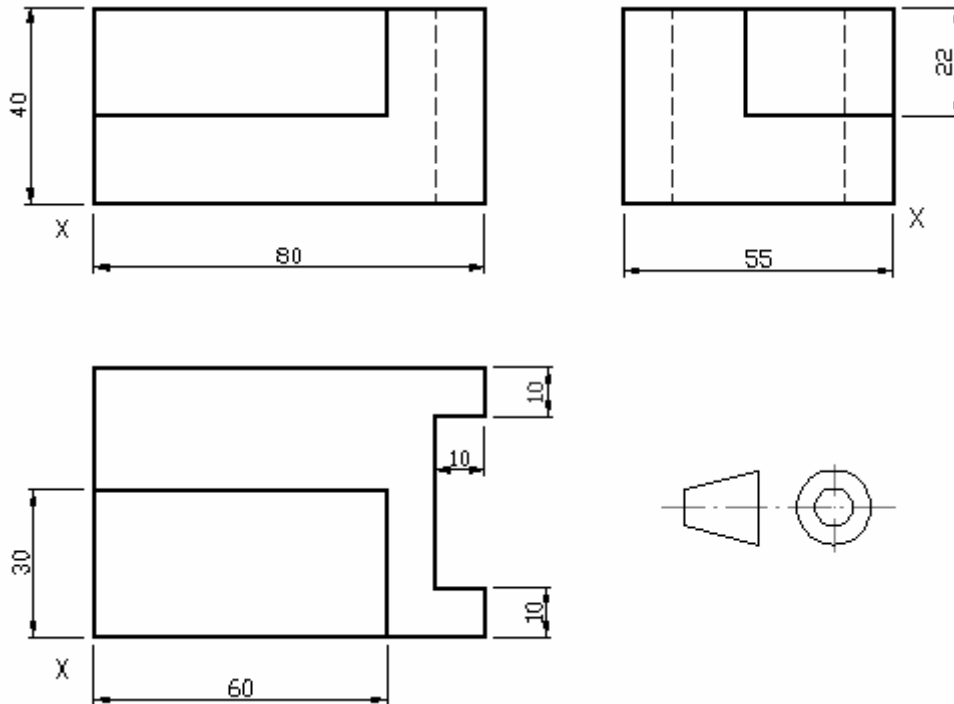
- (a) Draw TWO lines AB and AC making an angle of  $75^\circ$  between them.  
 Draw a circle of 25mm radius touching the two lines. 8 marks
- (b) A triangle has a perimeter of 145mm. If its sides are in the ratio of  
 $2 : 4 : 5$ , construct geometrically the triangle. 10 marks
- (c) The diagonals of a square are 70mm long.  
 Using geometrical construction, draw the square and measure the length of  
**ONE** side. 10 marks

**Total 28 marks**

Question 4

Draw an Isometric drawing of the component shown in the figure below,  
 making **X** to be the lowest corner on your drawing.

**12 marks**



Question 5

Draw the development of the triangular pyramid shown below, where the base is an equilateral triangle of 70mm side and the vertical height 95mm.

**12 marks**

