

JUNIOR LYCEUM ANNUAL EXAMINATION 2002
Educational Assessment Unit. Education Division

FORM IV (2nd year)

TECHNICAL DESIGN

Time 2 hours

Instructions

- Write your name and class on **ALL** sheets.
- Attempt **ALL** questions.
- Questions should be attempted on the pre-printed answer sheets provided.
- 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.
- Colour/shading should be used where appropriate.

Information

- All dimensions are in millimetres
- Estimate any dimensions not given.
- Marks will be awarded for accuracy, clarity and appropriateness of construction

NAME _____

CLASS _____

QUESTION	1	2	3	4	5
MARK					

Question 1

Draw a **Plain/Simple** scale, (a **Diagonal** scale may be used), to measure up to 120mm at a scale of 5:4 and to read to the nearest millimetre.

You are to draw this scale ruler, carefully and accurately, in the space provided for question number 1 on the starter sheet.

15 marks

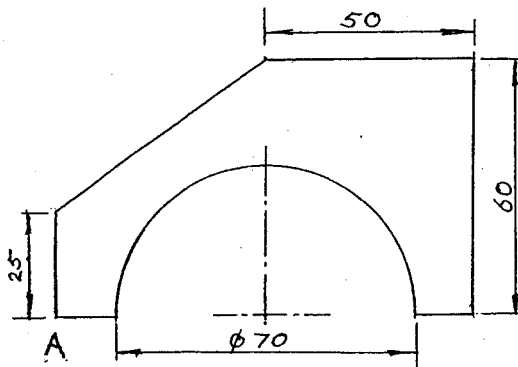
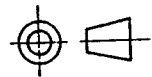
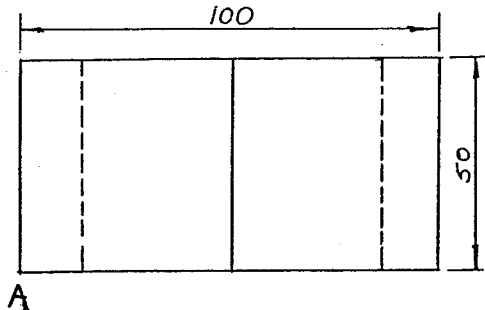
Question 2

The elevation and plan of a solid are given below.

In the space provided for question 2 on the starter sheet and using the scale ruler from question 1:

- Copy the two views (enlarged 5:4).
- Draw an isometric projection of the solid with corner A as the lowest point.

20 marks



Question 3

Safety signs (ideograms) are obligatory in industry. The following European/British Safety Signs are used:

Prohibition (don't do)

Mandatory (must do)

Warning/Caution (risk of danger)

Safe Condition (the safe way)

General (information)

The outlines of these symbols are given on the starter sheet. Your task is to finish their correct design/colours.

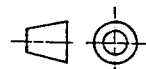
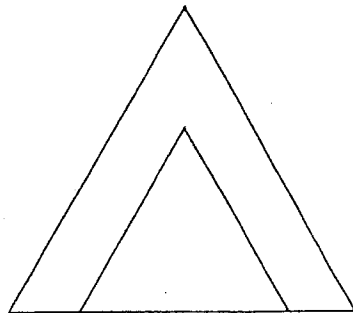
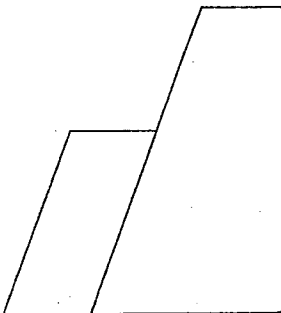
20 marks

Question 4

The front and side elevations of a solid are given on the starter sheet. The solid consists basically of 2 triangular prisms each with a sloping surface and attached to each other as shown. **Project a plan from the front elevation.**

All Construction lines are to be shown.

20 marks

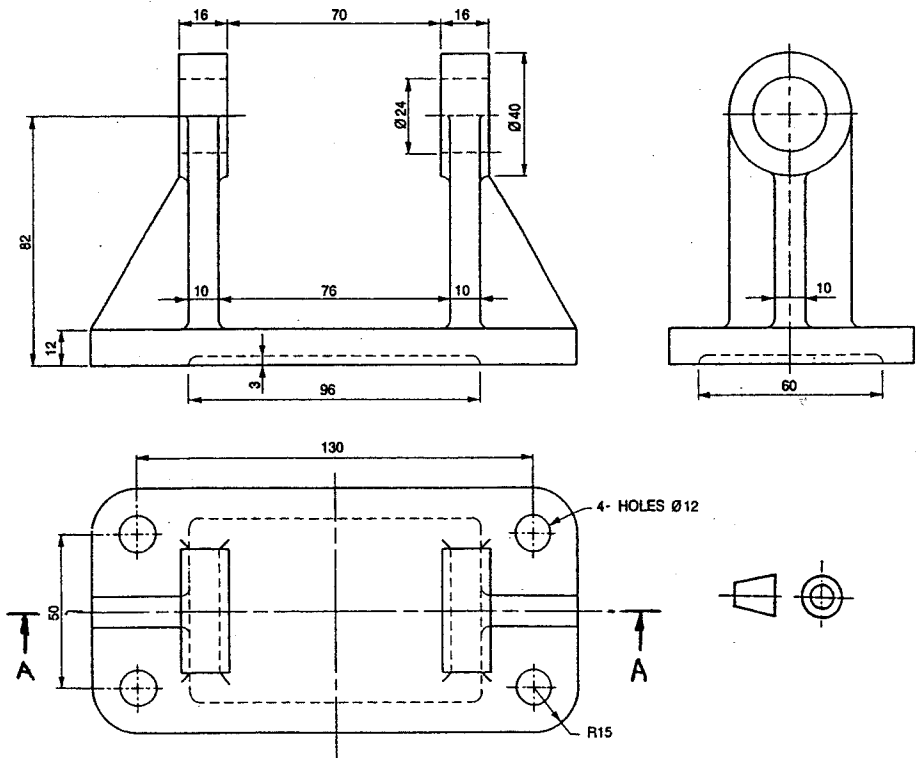


Question 5

The figure shows orthographic views of A Roll Base. To a scale of 1:1 and in either 1st or 3rd angle orthographic projection:

- Copy the plan and
- Project a sectional front elevation A-A.

25 marks



QUESTION 1

QUESTION 2

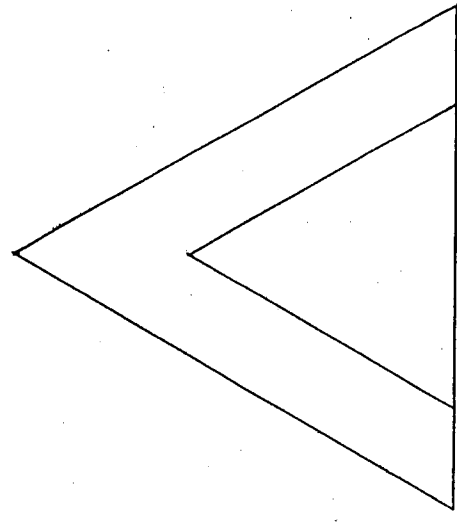
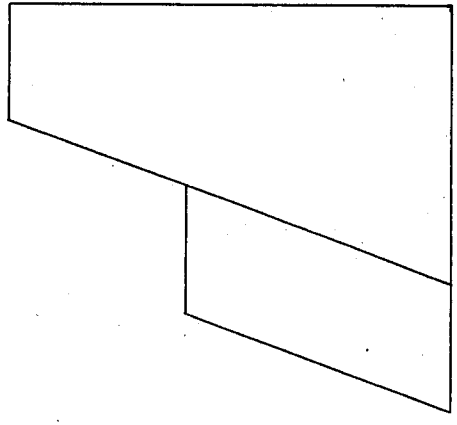
Orthographic Projection

Isometric Projection

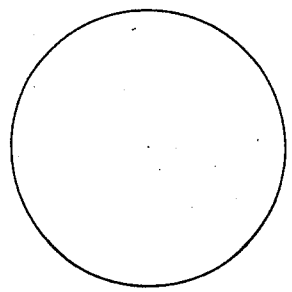
CLASS

NAME

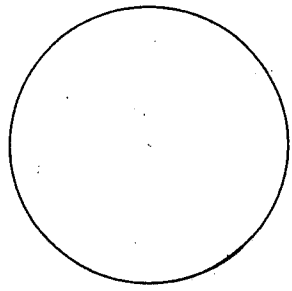
QUESTION 4



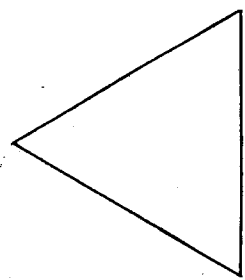
QUESTION 3



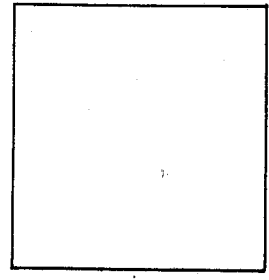
Prohibition



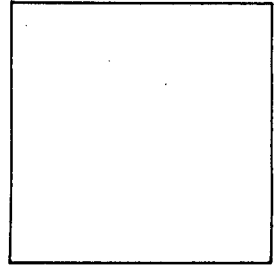
Mandatory



Warning/ Caution



Safe way



Information

CLASS

NAME

QUESTION 5

CLASS

NAME