




**A JUNIOR CERTIFICATE EXAMINATION, 2001**  
**TECHNICAL GRAPHICS — ORDINARY LEVEL**  
**THURSDAY 14 JUNE - MORNING, 9.30 — 12.00**  
**TOTAL MARKS 400 (Section A and B)**

<b>EXAMINATION NUMBER</b> 	
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<b>CENTRE STAMP</b> 	
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**INSTRUCTIONS**

- (a) Answer any ten of the short answer questions in Section A (120 marks) using the spaces provided.  
All questions in Section A carry equal marks.
- (b) Answer any four of the six questions in Section B (280 marks).  
All questions in Section B carry equal marks.
- (c) Examination Number must be distinctly marked in the space provided above and on each sheet of paper used.
- (d) All construction lines must be clearly shown.
- (e) All measurements are in millimetres.
- (f) Hand up this answer book (Section A) at the end of the examination.

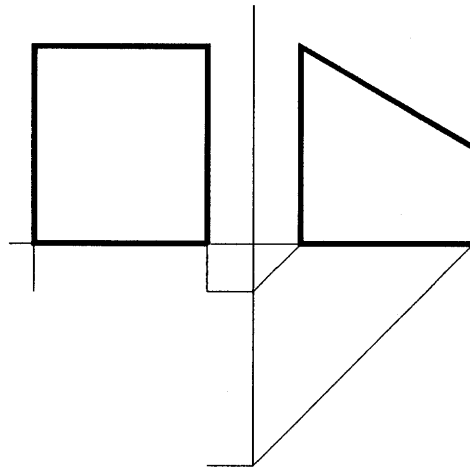
<b>For Examiner's use only</b>	
<b>QUESTION</b>	<b>MARK</b>
<b>Section A (Total)</b>	
<b>Section B Q1</b>	
<b>Q2</b>	
<b>Q3</b>	
<b>Q4</b>	
<b>Q5</b>	
<b>Q6</b>	
<b>TOTAL</b> 	
<b>GRADE</b> 	

**WARNING**

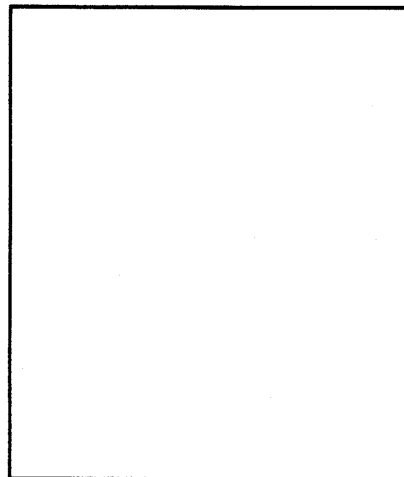
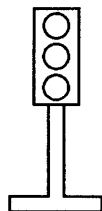
**THIS ANSWERBOOK MUST BE HANDED UP  
 AT THE END OF THE EXAMINATION  
 OTHERWISE MARKS WILL BE LOST.**

**SECTION A ANSWER ANY TEN QUESTIONS - ALL QUESTIONS CARRY EQUAL MARKS**

**1** Insert the line missing in the elevation and complete the plan.



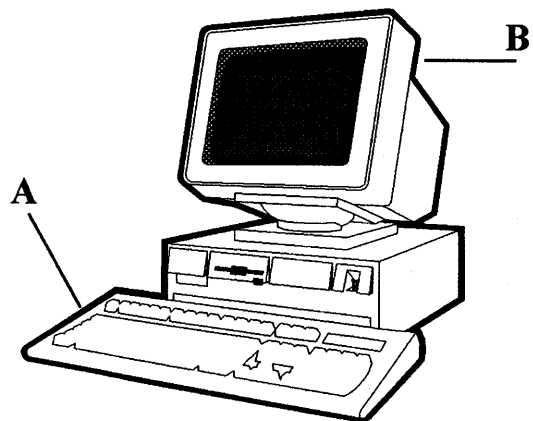
**2** Draw a freehand sketch of the traffic lights in the given box.



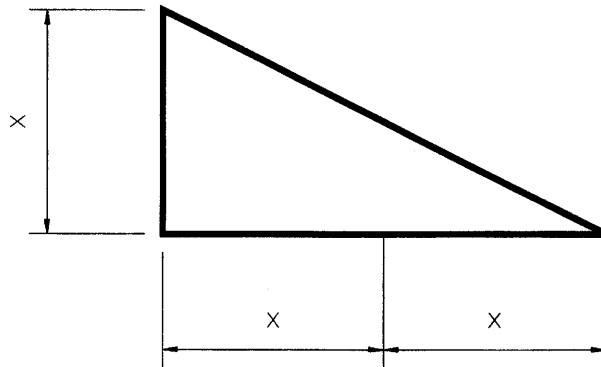
**3** Identify the computer components shown at **A** and **B**, below.

**A** = \_\_\_\_\_

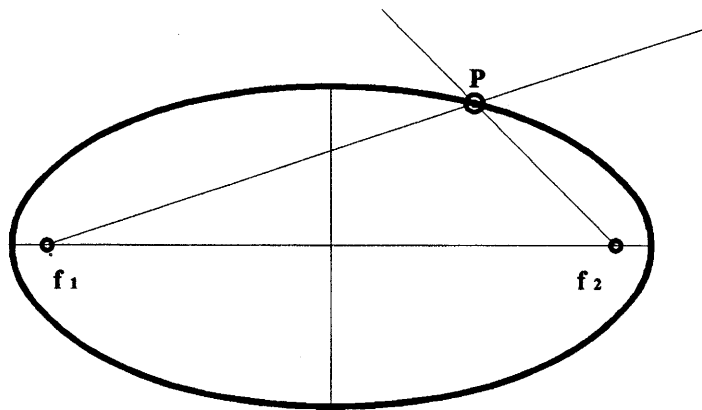
**B** = \_\_\_\_\_



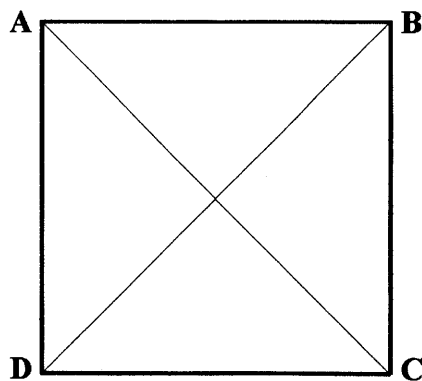
- 4 Convert the area of the given right-angled triangle, to a **SQUARE** of equal area.



- 5 Complete the figure by constructing a **TANGENT** at the point P.

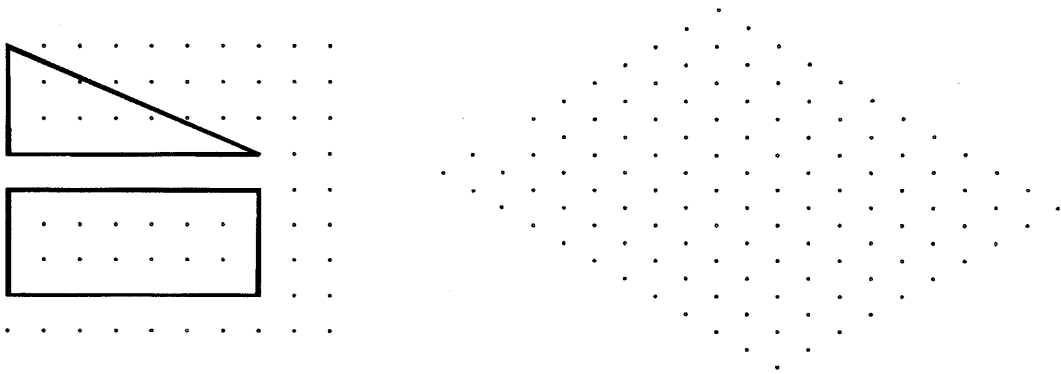


- 6 Inscribe a regular **OCTAGON** in the square, ABCD.



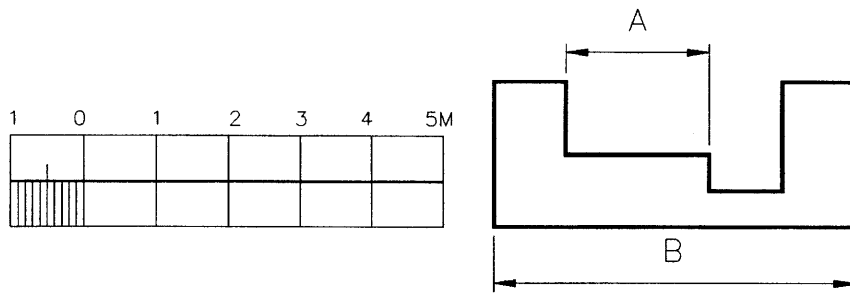
7

The elevation and plan of a wedge are shown. Draw an isometric view of the wedge, on the grid provided.



8

Using the scale provided, measure and record the dimensions A and B.



A = \_\_\_\_\_

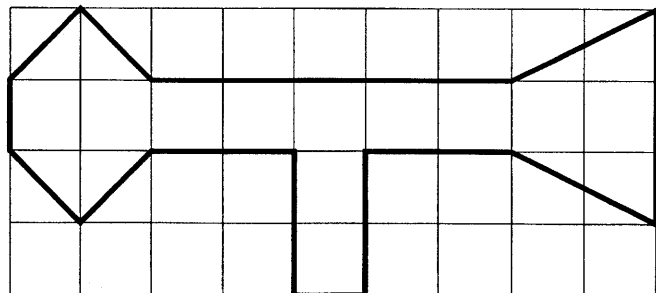
B = \_\_\_\_\_

9

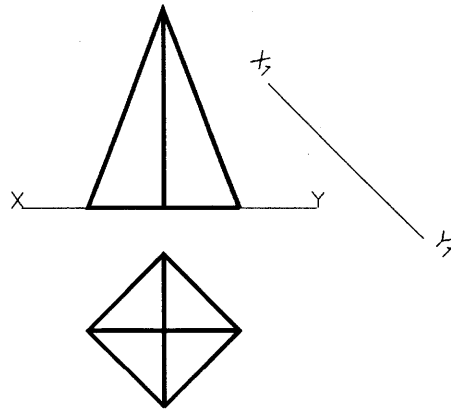
Record the area of the irregular figure in square units.

1 square = 1 x 1 Unit.

Area = \_\_\_\_\_



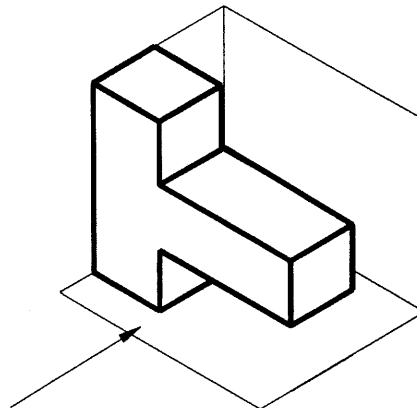
- 10** The elevation and plan of a square based pyramid are shown.  
Project an **AUXILIARY ELEVATION**, on the given  $X_1, Y_1$  line.



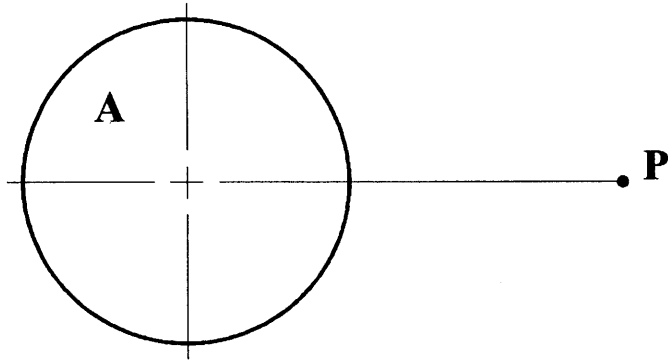
- 11** Using the grid provided, sketch the orthographic views indicated by the arrows.



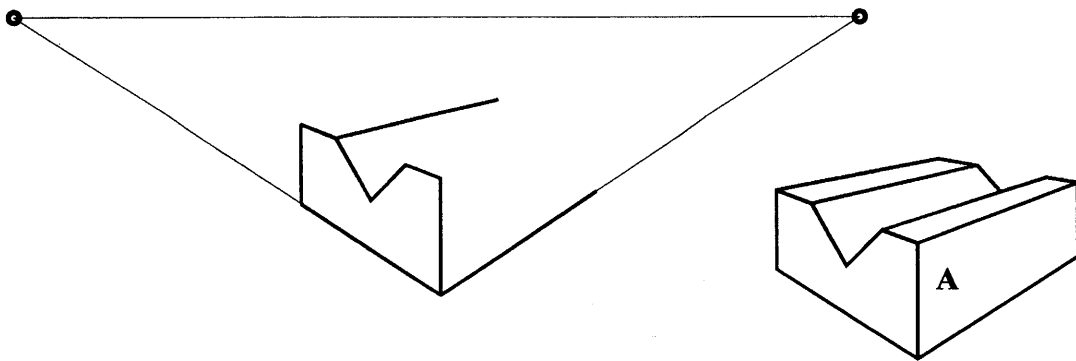
- 12** Sketch the **SHADOW** cast by the solid when the light source is as shown by the arrow.



- 13** Construct a **TANGENT** to circle **A** from the point **P**. Show clearly all constructions and the point of contact.



- 14** The figure shows the incomplete two point perspective outline of a vee block. Complete the perspective outline, similar to the view shown at **A**.



- 15** Rotate the compass needle clockwise through  $120^\circ$ , about its centre.

