Candidate's Surname ....
Other Names ....
Centre Number ....
Candidate's Number ....

For
Examiner's
use

TIME   1 hour

Write your surname, other names. Centre number and candidate number in the spaces provided.

Answer any **two** questions.

Draw your answers in the spaces provided on the question paper.

All dimensions are in millimetres.

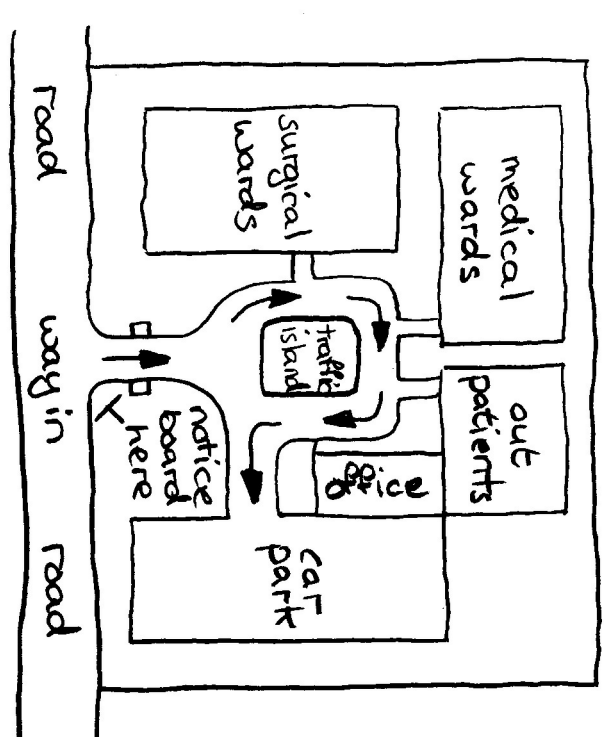The number of marks is given in brackets [ ] at the end of each question or part question.

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1 A sketch plan of the *OCEAN HOSPITAL* is given to the right. Given below is an incomplete view of a notice board to be placed at the entrance to the hospital in the position indicated on the sketch.
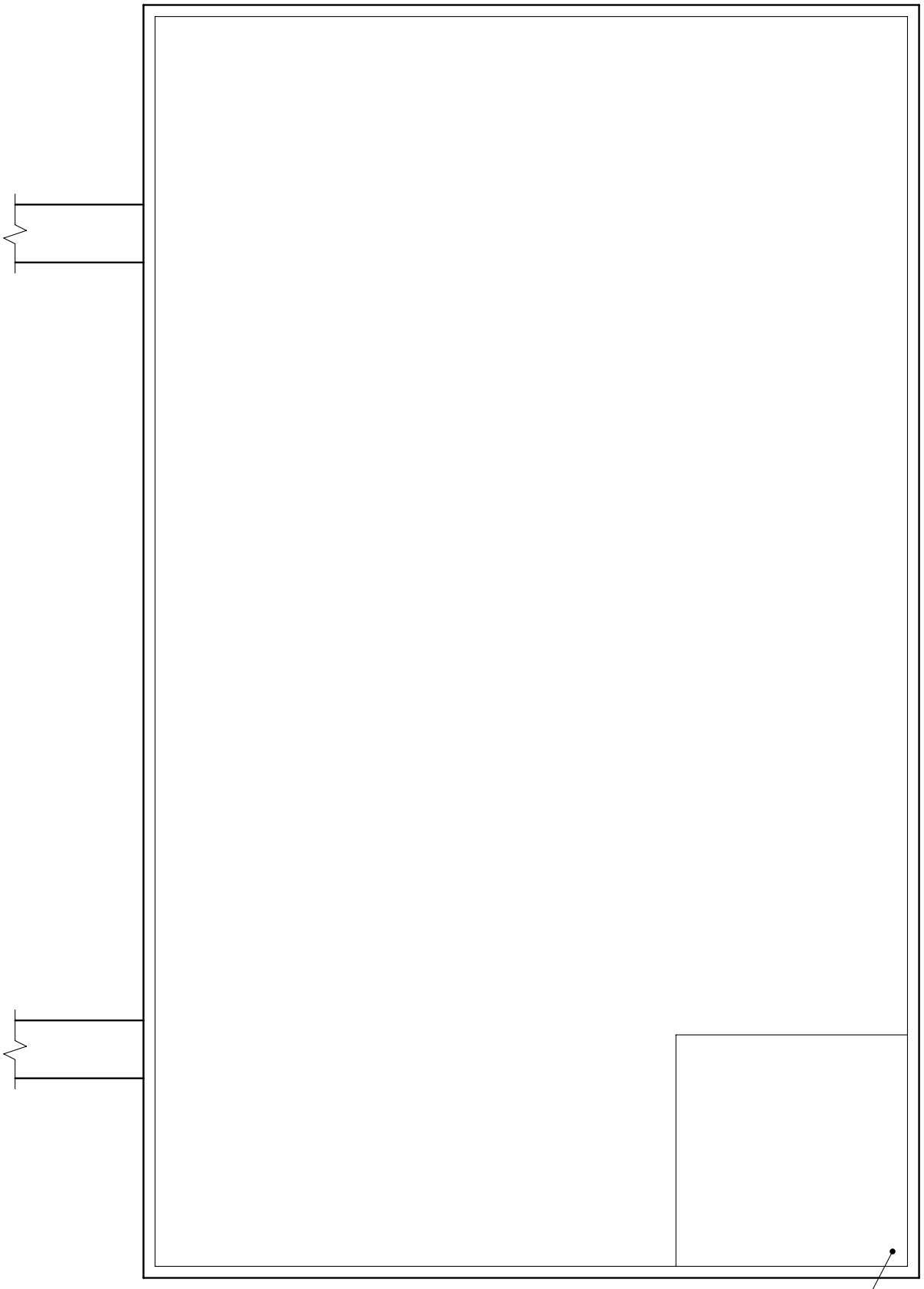
Using instruments, complete the view of the notice board below by:

(a) drawing a logo for the hospital, made up from the two letters *O* and *H*, in the square indicated. Marks will be given for design sketches.   [10]

(b) drawing a diagram showing the layout of the hospital which will help visitors find their way about. Include arrows showing the way round the traffic island to the car park.   [16]

(c) printing *CAR PARK* and *MEDICAL WARDS* in appropriate positions on your diagram.   [4]

DRAW YOUR DESIGN SKETCHES FOR **(a)** HERE

ANSWER **(b)** AND **(c)** HERE

DRAW LOGO
IN THIS
SQUARE

road way in road

medical wards
surgical wards
traffic island
out patients
notice board here
office
car park

---

2 An electricity-producing company called *ENEDEX* is to place an advertisement in a newspaper giving details of its sources of energy in 2003.
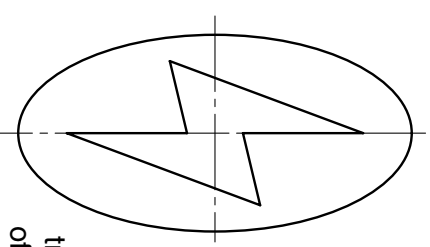
You are required to complete the advertisement started at the bottom of the page by:

(a) using any accurate method to draw an enlarged view of the trademark of the company in the space indicated. The trademark consists of an ellipse with a symbol in it as shown in the smaller view given. The centre lines and the positions of the top, bottom and sides of the ellipse are given.   [13]

(b) drawing a suitable graph, chart or diagram to illustrate the following figures:

Source of Energy	Percentage of Total
Water	32.5
Oil	40
Coal	15
Wind	12.5

[11]

(c) using suitably positioned symbols on your illustration to represent each of the four sources of energy. Marks will be given for design sketches of the symbols.
[6]

Do not colour your answer.

DRAW YOUR DESIGN SKETCHES HERE

ANSWER **(a)** HERE

trademark
of company

ENEDEX

ANSWER **(b)** AND **(c)** HERE

3 A hanging basket is shown in the sketch. An incomplete plan of the basket, drawn to a scale of 1:10 is given below.

(a) Give the geometrical name for the container of the basket.

.... [3]

(b) Project a front view of the basket, including the support wires, above the given plan. Do **not** draw the holes in the basket. [8]

(c) Use a geometrical method to find the true length of one of the support wires and print your answer in the box provided. [4]

(d) The container of the hanging basket is made of eight thin panels. Use a geometrical construction to draw the true shape of **one** of the panels. [4]

(e) There is a 300 mm diameter hole in each panel. The centre of the hole is at the intersection of the lines which bisect the three angles of the triangle.
Use a geometrical construction to draw the hole in **one only** of the panels on the given plan. [11]

support wires

600

800

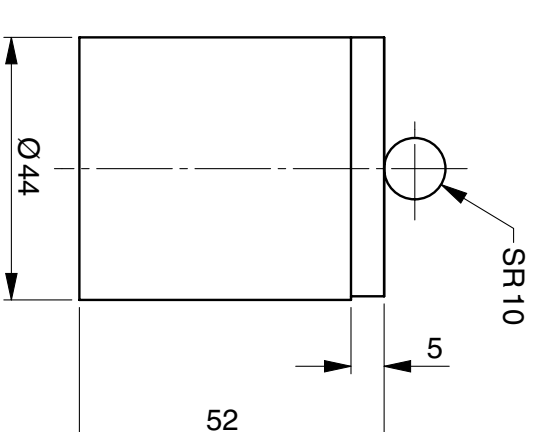container
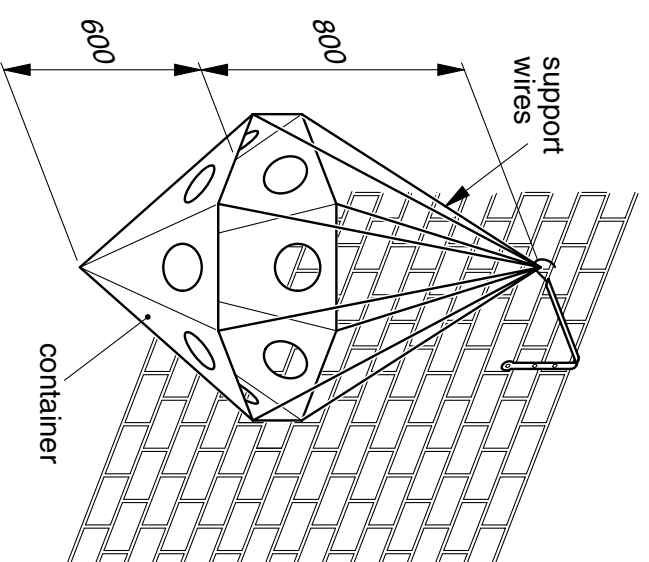
TRUE LENGTH OF SUPPORT WIRE ....
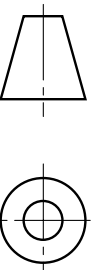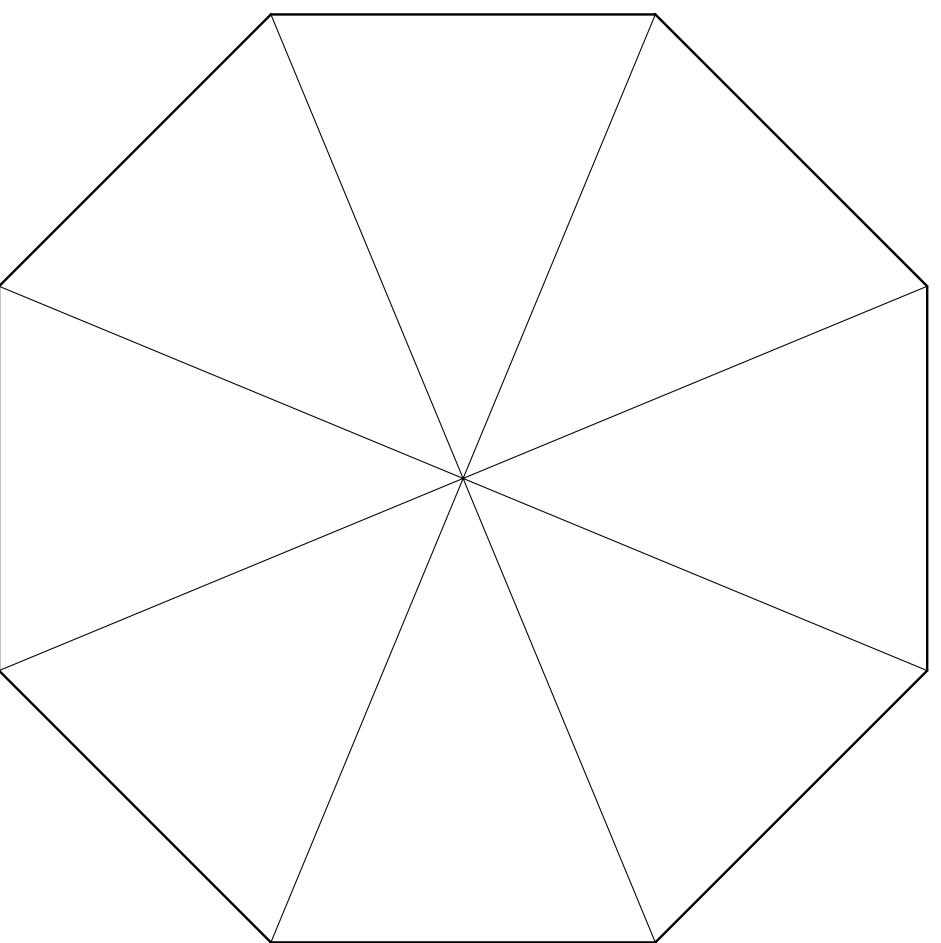
4 A wooden base is needed to hold a salt, a pepper and a mustard pot. Orthographic views of the pots are given to the right. The salt and pepper pots are the same size and shape.
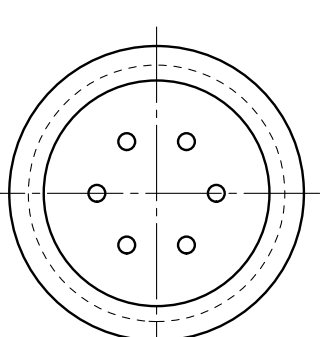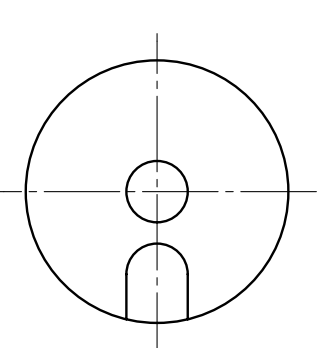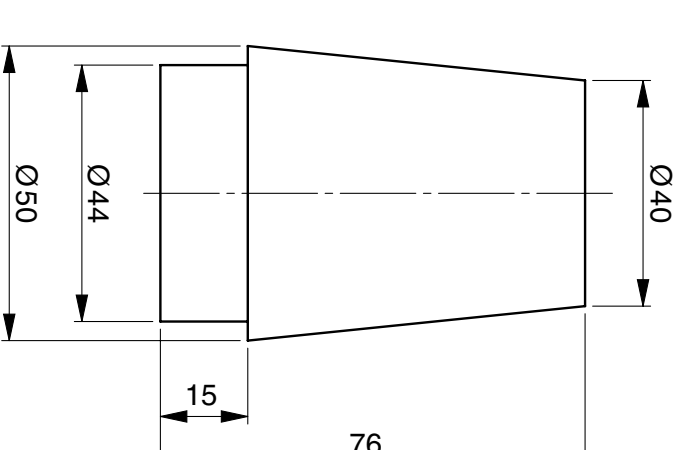
In the positions indicated:

(a) design a suitable wooden base to hold the three pots; [4]

(b) **sketch freehand**, approximately full size, an **isometric view** of your chosen design for the base with the three pots in it; [20]

(c) colour and shade:

  (i) the base to show that it is made from wood; [3]

  (ii) the mustard pot only to show that it is made from shiny plastics. [3]

ANSWER (a) HERE

ANSWER (b) HERE

MUSTARD

Ø44

SR10

5

52

SALT / PEPPER

Ø50

Ø44

Ø40

15

76