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This document consists of 3 printed sheets.

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above and on each of the A3 answer sheets inside this folder.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Write your answer to each question in the space provided.
- All diagrams should be drawn accurately unless otherwise stated. Drawing aids may be used. Colour or shading should only be used if asked for in the question. Use your discretion where dimensions are not given.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- Marks will be awarded for the use of correct conventions.
- The total number of marks for this paper is **50**.
- Dimensions are in mm unless otherwise stated.
- Question 2, product analysis, is based on the theme: **visitor guides** printed in the specification.

FOR EXAMINER'S USE	
1	
2	
3	
4	
5	
TOTAL	

Centre Number

Candidate Number

Candidate Forename

Candidate Surname

OCR RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

DESIGN AND TECHNOLOGY

GRAPHIC PRODUCTS

Paper 4 (Higher Tier)

THURSDAY 19 JUNE 2008


Afternoon

Time: 1 hour 30 minutes

Candidates answer on the question paper

Additional materials (enclosed): None

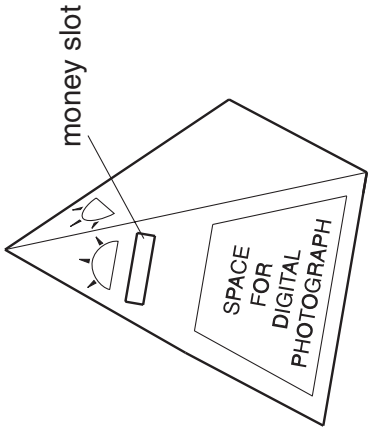
Additional materials (required): Drawing aids may be used



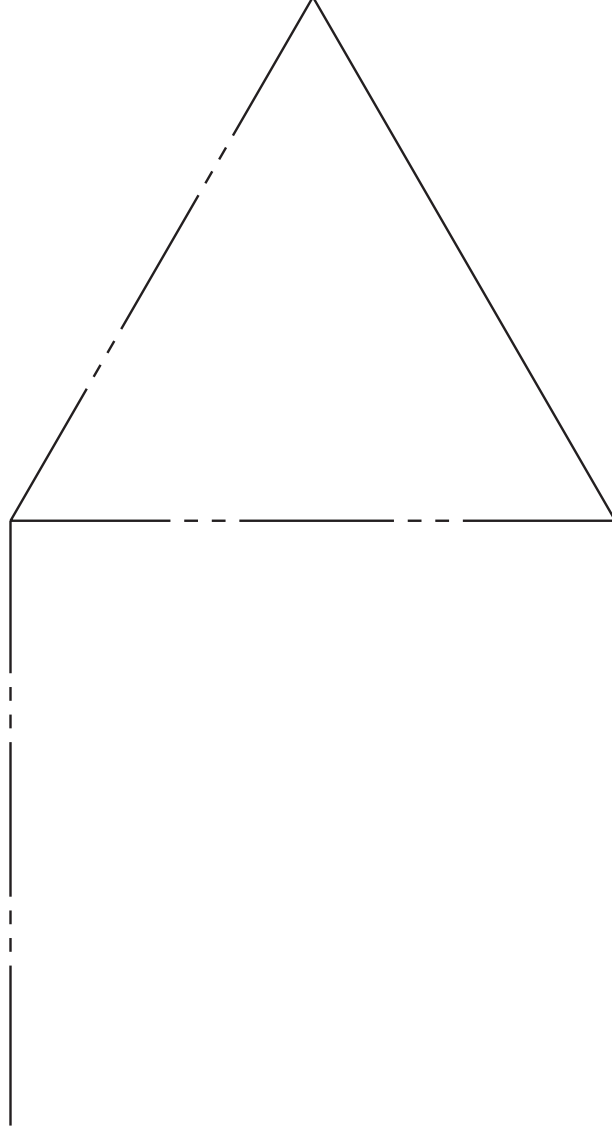
* C C U P / T 4 3 6 0 4 *

1 A holiday company 'SUN 4 US' supports an orphanage charity in Egypt. The sketch below shows a charity box which is given out to customers.

(a) Complete the drawing of the development (net) for the charity box. Include the money slot but **do not** add the graphics. Clearly show fold lines, cut lines and glue tabs.



Charity box in the form of a square based pyramid

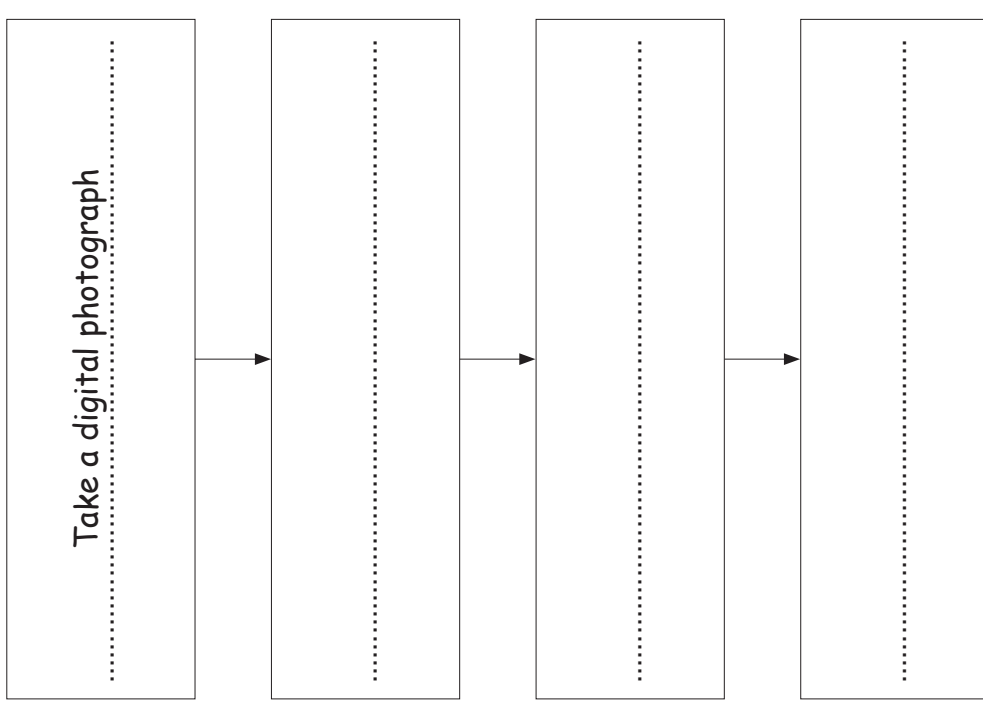


Development (net) of charity box

(b) Give **two** advantages of using a computer to arrange a number of the net designs on a large sheet of card before cutting out.

Advantage 1 [5]
 Advantage 2

(c) Complete the process chart to show how a digital photograph could be added to the space on the charity box. [3]



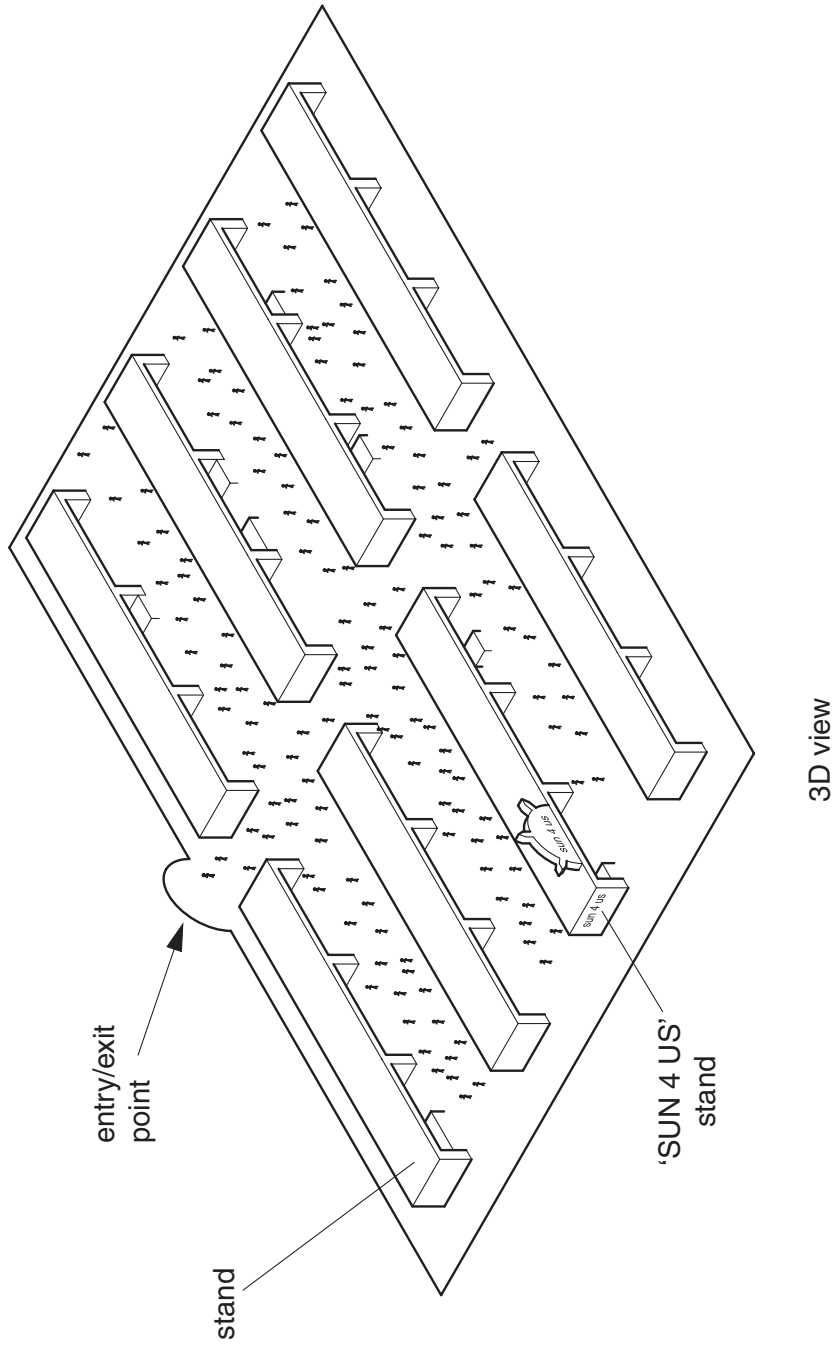
2 'SUN 4 US' are promoting their holidays at a show to be visited by the public. They plan to distribute **A5 size flyers** to get more people to visit their stand.

(a) The A5 flyers will be printed on A2 size sheets. Use a sketch and notes to show the arrangement for the maximum number of A5 flyers on the A2 sheet. [2]

(e) A simplified 2D plan showing the location of the stand at the show is to be included on the flyer. Use the 3D view of the show layout to produce a design for the simplified 2D plan. [5]

The 2D plan should clearly show:

- the position of the 'SUN 4 US' stand in relation to the other stands;
- the quickest route to the 'SUN 4 US' stand from the entry/exit point.



(b) State the number of flyers that can be produced from one A2 sheet. [1]

..... [1]

(c) Give **one** reason why the flyers would **not** be printed on 500 micron (0.5 mm) thick sheet. [1]

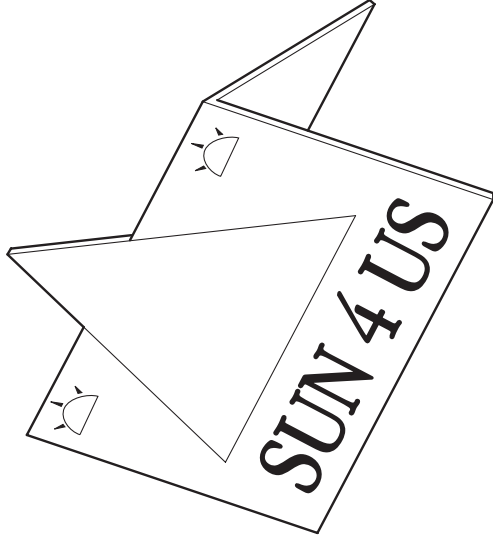
..... [1]

(d) Give a suitable weight of paper on which to print the flyers. [1]

.....(gsm or gm²) [1]

3 An isometric view of a card promoting holidays to Egypt is shown below.

The card is made from a single sheet.



(a) (i) Sketch a pictorial (3D) view of the **back** of the card. [4]

(ii) Use notes to explain where a die cutter has been used. [2]

(b) Give **two** reasons why UV varnishing would be preferred to laminating for the surface finish of the card.

Reason 1[1]

Reason 2[1]

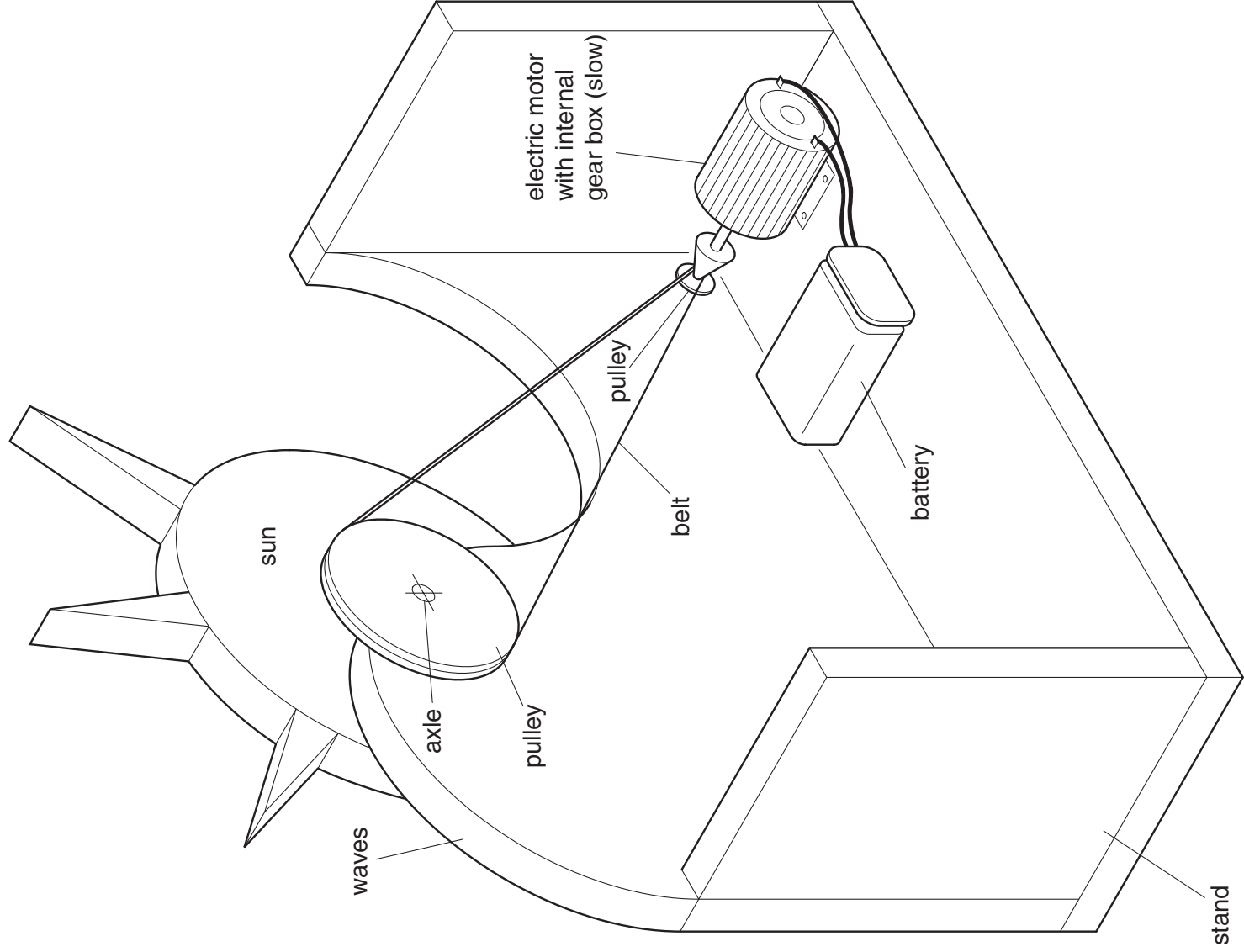
(c) Use a sketch and notes to show how embossing could be effectively used in the design of the card. [2]

A large rectangular box intended for a student to draw a sketch and add notes explaining how embossing could be used in the design of the card.

5 To add interest at the show, 'SUN 4 US' have designed a working 3D model of their logo. A battery operated electric motor drives a pulley mechanism, which makes the sun rotate.

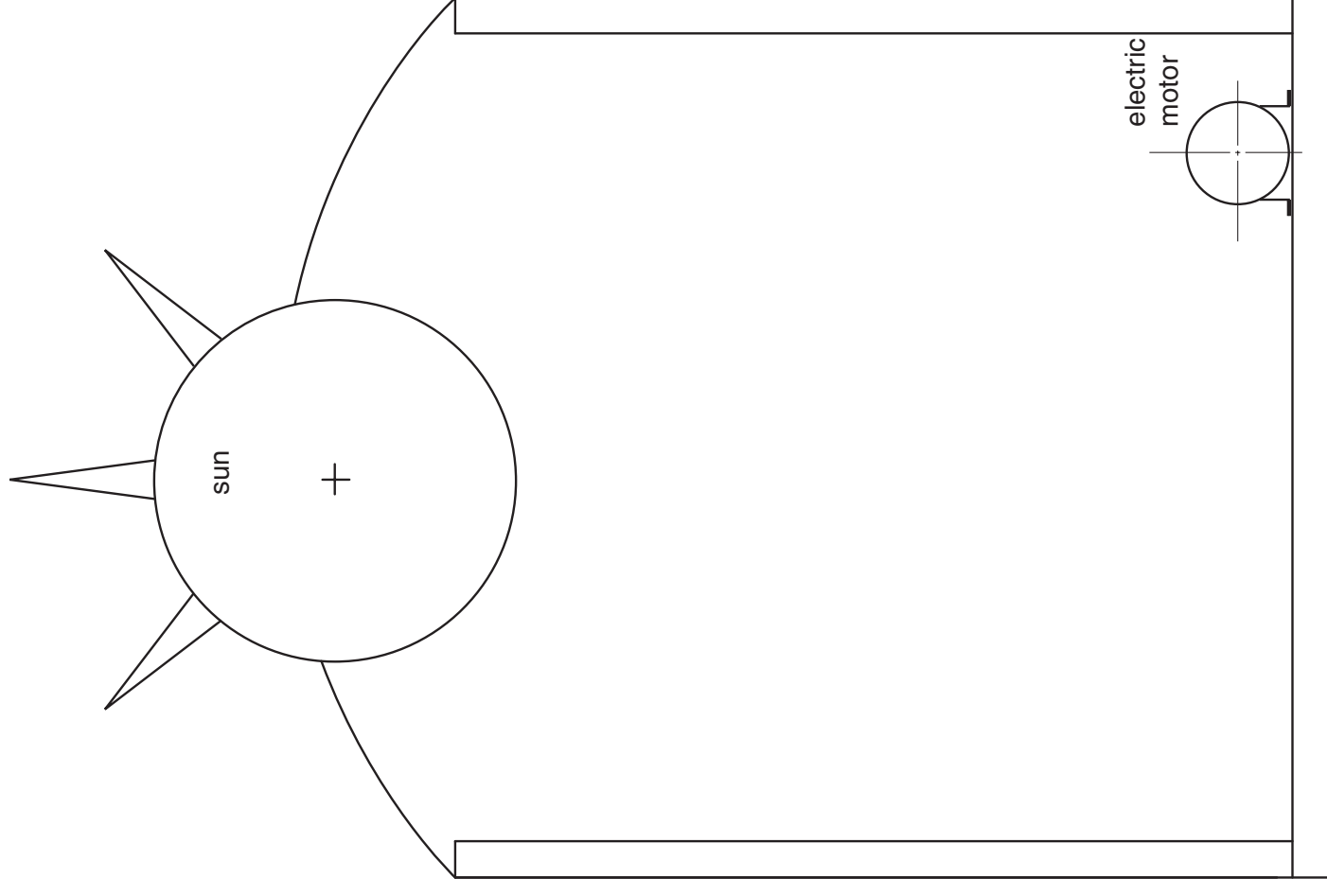
(a) On the sketch of the model, show the input and output motions of the mechanism. [2]

(b) Explain why the two pulleys are different diameters.
 [1]



(c) (i) A different model of the logo is required in which the sun rises and sets moving only in a vertical direction. The movement is provided by an electric motor. Complete the drawing below by adding a suitable mechanism between the sun and the motor. [6]

(ii) Name the type of motion of the sun.
 [1]



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