Cambridge IGCSE®

DESIGN & TECHNOLOGY 0445/05
Paper 5 Graphic Products
SPECMEN PAPER
For examination from 2020
1 hour

You must answer on the two A3 pre-printed answer sheets.
You will need: Two A3 pre-printed answer sheets (enclosed)
Standard drawing equipment

INSTRUCTIONS
● Section A: answer all questions.
● Section B: answer one question.
● Write your name, centre number and candidate number in the boxes at the top of the page and on both pre-printed answer sheets.
● Answer in the space provided on the answer sheets.
● Do not use an erasable pen, staples, paper clips, glue or correction fluid.
● Do not write on any bar codes.
● You may use a calculator.
● You may use standard drawing equipment, including coloured pencils.
● You must show all construction and projection lines clearly where appropriate.
● At the end of the examination, insert both sheets into this booklet. Do not punch holes in the cover and sheets or tie with string.

INFORMATION
● The total mark for this paper is 50.
● The number of marks for each question or part question is shown in brackets [ ].
● All dimensions are in millimetres.

This document has 4 pages. Blank pages are indicated.
Section A
Answer all questions in this section.

The logo design for a new coffee shop is shown below.

1 Complete the full size view of the logo in the space provided to the right by drawing:

(a) the cup and crown outline [3]

(b) the face on the cup. [5]

2 The logo is to be printed on the front page of a menu. The page measures 210 × 140. The logo is positioned in the centre of the page. Draw the outline of the page around the logo. [3]
A holder for carrying four cups of coffee is shown below. The holder is made from 10 mm thick softwood.

(a) Complete the orthographic views of the holder to a scale of 1:2. [10]

(b) A table sign from the coffee shop is shown below. Use thick and thin line technique on the table sign. [4]
Section B
Answer one question, either question 4 or 5, from this section.

4 A coffee mug is shown below.

(a) Complete the drawing of the mug by constructing the elliptical shape of the top edge. [7]

(b) (i) Identify two pieces of anthropometric information the designer would use when deciding on the size and shape of the mug handle.

1 ............................................................................................................................................

2 ............................................................................................................................................ [2]

(ii) Explain how the two pieces of anthropometric information would be used in the design of the mug handle.

1 ............................................................................................................................................

2 ............................................................................................................................................ [2]

(c) An image is to be printed onto the mug using thermochromic ink. Describe how using thermochromic ink will affect the image.

............................................................................................................................................ [2]

(d) Orthographic views of a menu holder from the coffee shop are shown below.

Complete the full scale isometric view of the menu holder. [12]
A package for biscuits is shown below.

(a) Complete the scale 1:2 development (net) of the package for biscuits by drawing:

(i) the remaining surfaces and glue tabs for the development (net) [10]

(ii) the clear plastic window on the lid of the package. [4]

(b) The cardboard developments (nets) are to be produced in different quantities. Complete the table below by giving a suitable tool/item of equipment for cutting out the developments (nets) in the quantities given.

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Tool/Item of equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>8000</td>
<td></td>
</tr>
</tbody>
</table>

(c) The recycling symbol shown below is to be printed onto the package. State two reasons why symbols are used on packaging instead of written text.

1. 
2. 

(d) The results of a questionnaire on people’s favourite biscuit flavour are shown below.

<table>
<thead>
<tr>
<th>Biscuit</th>
<th>Chocolate</th>
<th>Custard</th>
<th>Jam</th>
<th>Ginger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>425</td>
<td>150</td>
<td>275</td>
<td>300</td>
</tr>
</tbody>
</table>

In the space below draw a bar chart to show the results of the questionnaire. Use labels and colour to enhance the appearance of the chart. [6]