Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

DESIGN AND TECHNOLOGY **0445/21**

Paper 2 Graphic Products **October/November 2016**

MARK SCHEME

Maximum Mark: 50

Published

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A1 (a) Isometric window added to right panel [1]
Isometric window to right to overlay [1]
Isometric window added to left panel [1]
Isometric window to left to overlay or candidate solution [1]
Inside detail correctly shown (to overlay or candidate solution) [1]

[5]

(b) **Front**
Rectangle complete [1]
Diagonal line TL-BR [1]
Plan
Diagonal line TR-BL [1]
End
Diagonal line TR-BL [1]

[4]

A2 (a) (i) Acceptable answers include:
Acetate, cellophane, acrylic, polypropylene… [1]

(ii) Acceptable reasons: (maximum 2 marks)
Easy to cut [1]
See through (not clear as this is in the question) [1]
Tough [1]
Can be folded into shape [1]

[3]

(b) Sketch shows clear sheet overlaps the opening in the package [1]
Notes show fixing method such as glue or double sided tape [1]

[2]

A3 (a) **To overlay**
40 mm diameter base circle [1]
40 mm diameter top of base circle [1]
Height of base 10 mm (regardless of diameter) [1]
30 mm base of cup [1]
60 mm top of cup [1]
80 mm height of cup from upper surface of base [1]

[6]

(b) **To Overlay**
Circle drawn [1]
Circle divided into three [1]
One mark for each sector the correct size [max 2 marks]
Appropriate colours or labels used [1]

[5]

[Total: 25]

Section B

B4 (a) Right side of bottle added [1]
Right side of bottle to overlay [1]

Label completed on left side (top, bottom and two sides) [1]
Label completed to overlay [1]

Top of bottle completed by adding:
line to VP1 [1]
line to VP2 [1]
(lines may only be partly seen due to cap)

Mid-point of each side established in perspective [1 × 4]
Bottom diamond drawn (overlay of candidate solution) [1]
Top diamond drawn (overlay or candidate solution) [1]

Height of cap 8 mm – 14 mm [1]
Cap correctly lined in [1]
Top of bottle correctly lined in [1]

[15]

(b) (i) Acceptable answers include:
Font [1]
Size [1]
Style (bold, italic etc.) [1]
Colour [1]

[2]

(ii) Notes and/or sketches show:
Lettering will change [1] colour [1] due to a change in temperature [1]

[3]

(c) (i) Top layer of paper/card drawn [1]
Corrugations drawn [1]
Bottom layer of paper/card drawn [1]
(hatching not required)

[3]

(ii) Acceptable answers include:
Gives protection to the bottle [1]
Smooth surface for printing [1]
Easy to cut (in one direction) and fold [1]
Can be recycled [1]

[2]

[Total: 25]

Section B

B5 (a) At least two points projected back from the enlargement through the original to the centre for enlargement [1 × 2]

Bottom left box enlarged [1]
Bottom left box correct to overlay [1]

Bottom right box enlarged [1]
Bottom right box correct to overlay [1]

Top left box enlarged [1]
Top left box correct to overlay [1]

Top right box enlarged [1]
Top right box correct to overlay [1]
Gap between bottom right and top left box correct to overlay [1]

Logo correctly lined in [1]

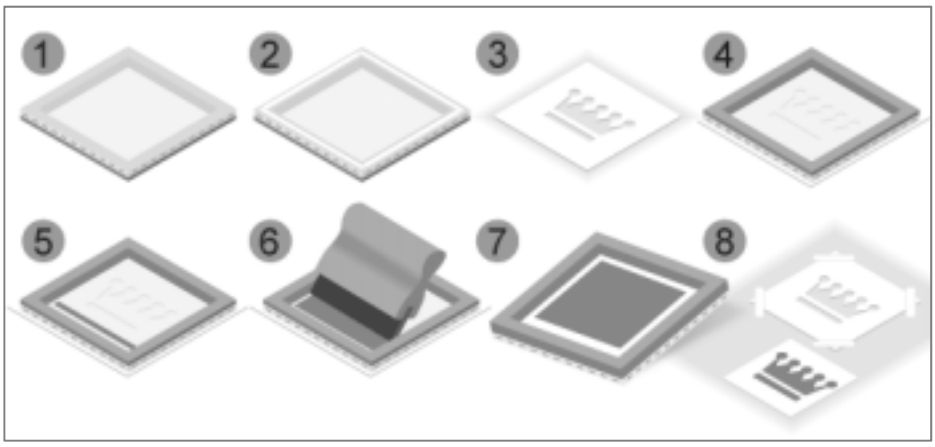
[12]

(b) Key stages in the process (tick to identify) :

1 Frame [1]
2 Mesh/screen [1]
3/4 Stencil [1]
5 Position screen over tee shirt [1]
6 Ink [1]
7 Draw squeegee across tee shirt [1]
8 Logo shown on tee shirt [1]

Any five of the above [5 × 1] Correct order [1] Quality of comm.[1]

[7]



Award similar marks for industrial screen printing methods

(c) Some thick and thin line added [1]
Thick line added to outer edges [1]
Thick lines added to internal ‘triangle’ [1]

[3]

(d) 100 mm [1]
150 mm [1]
500 mm [1]

[3]

[Total: 25]