



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]

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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]**

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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]

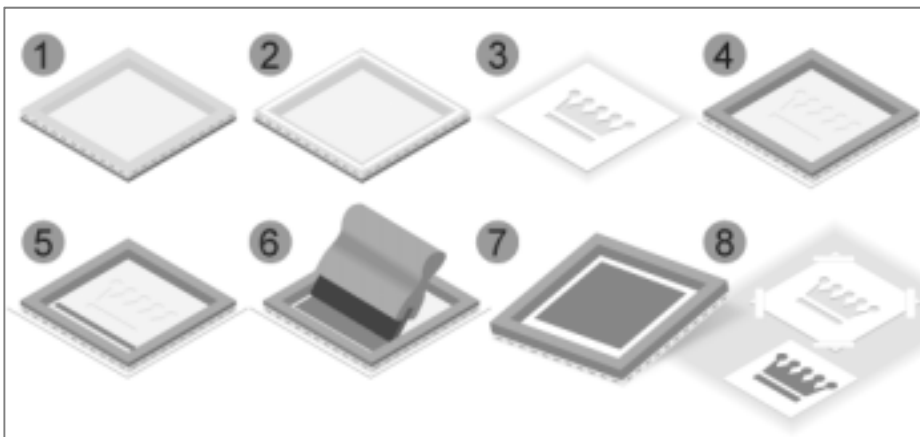
6 Ink [1]

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]

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

[3]

[Total: 25]