DESIGN AND TECHNOLOGY   **0445/21**

Paper 2 Graphic Products   **October/November 2017**

MARK SCHEME

Maximum Mark: 50

Published

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This document consists of **4** printed pages.

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Section A

Question	Answer	Marks
A1(a)(i)	Outline of the card completed [1] Outline of paper correct to overlay (148 mm × 105mm ± 2 mm) [1]	**2**
A1(a)(ii)	Centre fold added (to overlay or candidate outline) [1] Recognised convention or label used to show a fold line [1]	**2**
A1(a)(iii)	Rendering added to the balloons (not just shading) [1] Reflections make the balloons look three dimensional [1]	**2**
A1(b)	Sketches or notes clearly show: Understanding of a stencil being a sheet with the number cut out [1] Pen, pencil or brush used with the stencil [1] Stencil positioned over the card [1]	**3**

Question	Answer	Marks
A2(a)	Strip of card added to the birthday card [1] Left side of strip of card correct [1] Right side of strip of card correct [1] Glue tabs drawn (folded in or out) [1]	**4**
A2(b)	Any two from: Glue or a specific type of glue such as Pritt stick, PVA …[1] Double sided tape [1] Sellotape [1]	**Max 2**

Question	Answer	Marks
A3(a)	**End** Rectangle completed (any size) [1] Rectangle correct to overlay [1] **Front** Top right diagonal correct to overlay [1] Bottom right diagonal correct to overlay [1] Bottom left diagonal correct to overlay [1] Bottom seal correct to overlay [1]	**6**
A3(b)	Circle drawn [1] Two sectors correct to overlay [1 × 2] Labels correctly identify the sectors [1]	**4**

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Section B

Question	Answer	Marks
B4(a)	**Plan** Bottom horizontal line (above or below given line) [1] Four slots correct to overlay (position and line convention) [1 × 4] Dotted line used for at least one slot (ignore protrusions) [1] [max 6 marks] **Side view** Second slot added [1] Second slot correct to overlay [1] Hidden detail added (two horizontal lines) [1] Hidden detail added correctly (position and line convention) [1] Major axis 100 mm [1] Minor axis 20 mm or 40 mm if both halves drawn [1] Some evidence of ellipse construction [1] Clear evidence of method of ellipse construction [1] At least four points correctly plotted [1] Ellipse profile and two horizontal lines correct to overlay [1] [max 10 marks]	16
B4(b)(i)	Drawing shows three layers [1] Top and bottom layer labelled as paper or card [1] Middle layer labelled as foam or polystyrene [1]	3
B4(b)(ii)	Craft knife, Stanley knife or scalpel [1] Safety rule or steel rule [1]	**Max 2**
B4(c)	Bridge and road drawn [1] Securing method shown but may work loose [1] or securing method clearly works and will hold the parts in place [2] Appropriate notes/labels [1]	4

Question	Answer	Marks
B5(a)	**Model 1** Some fold lines added [1] Folds and curves correctly added (to candidate solution) [1] Some rendering added [1] Rendering looks like shiny plastic [1] **Model 2** Some evidence of understanding of how the five pieces of wood would go together [1] Clear understanding of the design being made from four sides (ignore the bottom as it could be inside) [1] Some evidence of grain [1] End and side grain correctly applied [1]	**8**
B5(b)	Acceptable answers include: Can be heated and folded [1] Available in a wide range of colours [1] High quality surface finish [1] Easy to wipe clean [1]	**Max 2**
B5(c)	Four lines projected at 30 degrees from the given end [1 × 4] Width approximately correct for a square box [1] Right side matches the left side [1] Thickness of material added [1] Thickness of material correctly added [1] Thickness of cut sloping edge wider than other edges [1] Some inner added [1] Inner detail parallel to outer [1] Inner detail allows for base [1]	**12**
B5(d)	Sketch shows part of the desk tidy and at least one letter [1] Notes name a method (label, drawing, printing, burning...)[1] Notes and sketches clearly show the method [1]	**3**