CAMBRIDGE
International Education

Cambridge IGCSE™

DESIGN & TECHNOLOGY **0445/53**

Paper 5 Graphic Products **October/November 2025**

MARK SCHEME

Maximum Mark: 50

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

PUBLISHED

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptions for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5: Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).
GENERIC MARKING PRINCIPLE 6: Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standard isation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

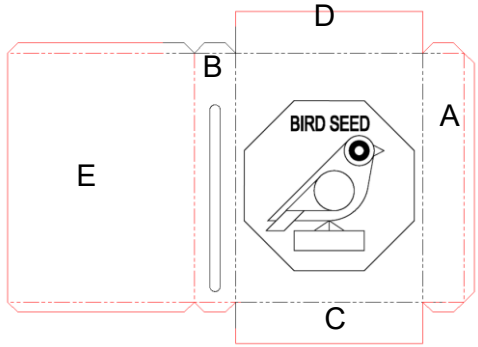
The annotations listed below were available to examiners marking this component in this series.

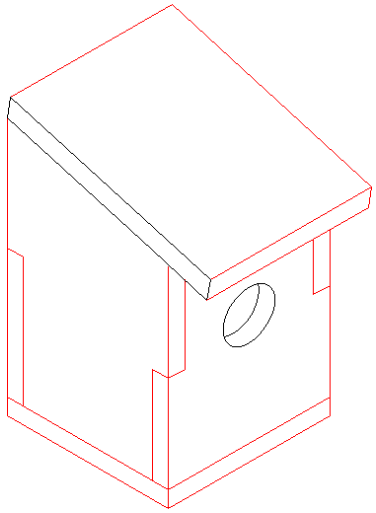
Annotations

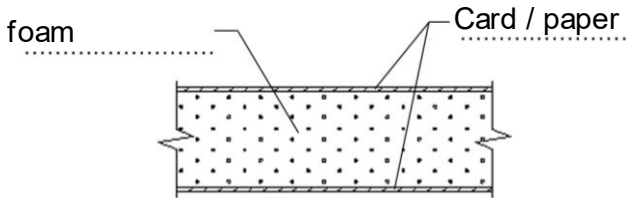
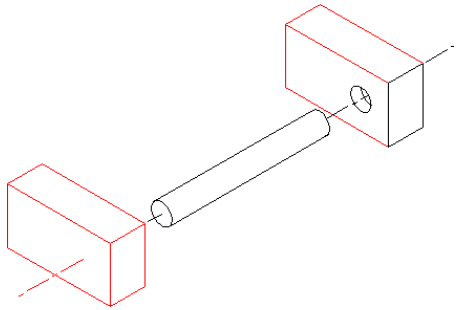
Annotation	Meaning
	Incorrect point
	Indicates that the point has been noted, but no credit has been given
	Correct point
Numbers	Indicating the mark allocated for the response

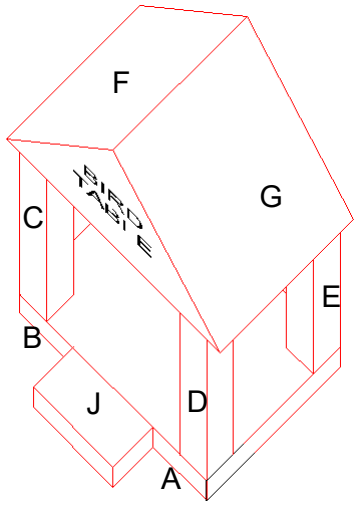
Question	Answer	Marks	Guidance
A1(a)	Circle ø30 in correct position [1] 45º line from circle in correct position and to correct length [1] Curve R40 added correct to overlay [1]	**3**	
A1(b)	Triangle 10 x 10 [1] Triangle drawn in correct position [1]	**2**	
A1(c)	Circle ø40 in correct position [1] Horizontal and 45º lines correct to overlay / candidate solution [1] Bottom portion of wing correct to overlay / level with branch [1]	**3**	
A1(d)	Rectangle correct size and central [1] Two angles lines at 45 or 30º added for feet [1]	**2**	
A1(e)	Any octagon added [1] Any regular octagon added [1] Octagon correct to overlay [1]	**3**	

Question	Answer	Marks	Guidance
A2(a)	Any one from: • Offset lithography [1] / Flexography [1] / Digital printing / xerography [1] / Gravure [1] / Laser [1]	**1**	
A2(b)	Die cutting [1]	**1**	

Question	Answer	Marks	Guidance
A3(a)	Side face ‘A’ correct to overlay [1] Side face ‘B’ correct to overlay [1] base face ‘C’ correct to overlay [1] Top face ‘D’ correct to overlay /candidate solution [1] Back face ‘E’ correct to overlay /candidate solution [1] Seven glue flaps added to candidate solution [1] Correct line convention used for folds [1]	**7**	
A3(b)	Clear plastic cut **bigger than hole** [1] Glued / attached to **inside of box** [1] High quality communication [1]	**3**	

Question	Answer	Marks	Guidance
B4(a)	Roof: Front face correct to overlay [1] Side view: Back vertical edge to correct length [1] Front vertical edge in correct position [1] Front vertical edge to correct length [1] Back cut-out correct to overlay [1] Front cut-out correct to overlay [1] Front: Right vertical edge correct to overlay [1] Left side cut-out correct to overlay / candidate solution [1] Right side cut-out correct to overlay / candidate solution (match left side) [1] Base: Base added correct position to front and side [1] Base correct thickness [1]	**11**	
B4(b)(i)	Quicker than by hand [1] once design has been drawn on computer [1] more accurate than by hand [1] due to consistency of CAM [1] can make modifications easily [1] rather than starting from scratch [1] or AOVR	**2**	
B4(b)(ii)	Extraction system is on [1] / filter is in date [1] No loose plastic in tray below [1] Speed settings are correct [1] Machine is not left unattended [1] Or AOVR	**1**	

Question	Answer	Marks	Guidance
B4(b)(iii)	Foam [1] Paper / card [1]	**2**	 Allow 1 mark for foam and card / paper added in wrong positions
B4(c)	Right end piece: Top face correct to overlay [1] Left side correct to overlay / candidate solution[1] Left end piece: Top face correct to overlay [1] Left side correct to overlay / candidate solution [1] Front face correct to overlay / candidate [1] Drawn in correct positon [1]	**6**	
B4(d)	One section drawn and labelled correctly [1] Two sections drawn and labelled correctly [1] Three sections drawn and labelled correctly [1]	**3**	Award 1 mark if all 3 sections correct but no labels added

Question	Answer	Marks	Guidance
B5(a)	Front sides ‘A’ and ‘B’ of base correct to candidate solution [1] Pillar ‘C’ correct height [1] Pillar ‘C’ correct width and depth to overlay [1] Pillar ‘D’ correct width and depth [1] Pillar ‘E’ correct width and depth [1] Roof correct width [1] Correct overhang each side [1] Roof correct height [1] Roof side ‘F’ correct to overlay/candidate solution [1] Roof side ‘G’ correct to overlay/candidate solution [1] Ledge in correct position on front of base [1] Top face ‘J’ correct length [1] Top face ‘J’ correct width to overlay [1] Front and side face correct to overlay [1]	**14**	
B5(b)(i)	Acrylic, HIPS, polystyrene, PVC, ABS, PET, PP or AOVR [1]	**1**	Must be a rigid plastic available in sheet form Do not accept: acetate, polythene, vinyl
B5(b)(ii)	Mark position of fold line [1] Heat along fold line using line bender / strip heater / hot wire / heat gun [1] Bend to correct angle using a former / roof shape [1]	**3**	1 mark for each stage Heating method / tool must be given for second mark Do not allow oven Former / roof shape must be given for 3rd mark

Question	Answer	Marks	Guidance
B5(c)	Side ‘A’ correct to overlay [1] Back edge side ‘B’ to VP1 [1] Vertical back edge ‘C’ correct to overlay / candidate solution [1] Two lines ‘E’ to VP2 [1] Two lines ‘F’ to VP1 correct to overlay/candidate solution [1] Line ‘G’ to VP2 correct to overlay/candidate solution [1] Bottom edge ‘D’ to VP2 correct to overlay / candidate solution [1]	**7**