

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
GCE Advanced Subsidiary Level and GCE Advanced Level

**MARK SCHEME for the October/November 2009 question paper  
for the guidance of teachers**

**9705 DESIGN AND TECHNOLOGY**

**9705/11**

Paper 11 (Written 1), maximum raw mark 120

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.

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Page 2	Mark Scheme: Teachers' version	Syllabus
	GCE A/AS LEVEL – October/November 2009	9705

- 1 (a) (i) Suitable sheet material named  
e.g. stainless steel, aluminium, mild steel  
Suitable reason for choice given  
e.g. easy to clean, can withstand heat (1)
- (b) (i) Cutting and finishing described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- (ii) use of template and drilling process described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- (iii) Joining of method described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- [Total: 20]**
- 2 (a) Suitable material named  
e.g. plywood, MDF (1)  
Suitable reason for choice given  
e.g. easily shaped, low cost, good surface for painting (1) [2]
- (b) (i) Cutting and finishing described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- (ii) Joining of method described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- (iii) Applying painted finish described (0–3)  
Details of tools, equipment and safety precautions (if appropriate) (0–3) [6]
- [Total: 20]**
- 3 (a) Suitable thickness stated  
e.g. 1 – 2 mm, 1000 – 2000 microns (1)  
Suitable reason for choice given  
e.g. related to strength /stability of material and its ability to support weight of leaflets (1) [2]
- (b) (i) Appropriate slots shown in part B (0–2)  
Method shows how given slots in part A slot into part B (1)  
Slot and tab to fix base in place (1)  
Clear description of method (0–2) [6]
- (ii) Making and using stencil described (0–3)  
Details of tools, equipment and safety precautions (0–3) [6]
- (c) Appropriate scale used (1)  
Front (1)  
Sides (0–2)  
Base (1)  
Slots and tab (1) [6]
- [Total: 20]**

Page 3	Mark Scheme: Teachers' version	Syllabus
	GCE A/AS LEVEL – October/November 2009	9705

## Section B

- 4 (a) Appropriate explanation  
e.g. related to improved stability and providing support for top frame (0–2)
- (b) Problem 1 described (0–2)  
Problem 2 described (0–2) [4]  
e.g. problems related to poor stability and weak support for top
- (c) Explanation of how problem 1 could be overcome (0–3)  
Explanation of how problem 2 could be overcome (0–3) [6]  
e.g. making bottom frame larger, adding additional support for top
- (d) Situation has been analysed and relevant issues / points identified (0–3)  
Explanation of why issues / points are considered relevant (0–3)  
Specific example or evidence used to support answer (0–2) [8]
- [Total: 20]**
- 5 (a) Appropriate explanation  
e.g. related to enabling packaging to hang from a display rack (0–2) [2]
- (b) Problem 1 described (0–2)  
Problem 2 described (0–2) [4]  
e.g. related to packaging not hanging straight and poor security for MP3 player
- (c) Explanation of how problem 1 could be overcome (0–3)  
Explanation of how problem 2 could be overcome (0–3) [6]  
e.g. solutions related to moving position of hanging slot so that packaging will balance. Packaging is secured by gluing or shrink wrapping.
- (d) Situation has been analysed and relevant issues / points identified (0–3)  
Explanation of why issues / points are considered relevant (0–3)  
Specific example or evidence used to support answer (0–2) [8]
- [Total: 20]**
- 6 (a) Appropriate explanation  
e.g. enables parts to be assembled and disassembled (0–2) [2]
- (b) Problem 1 described (0–2)  
Problem 2 described (0–2) [4]  
e.g. problems related to small area for attaching top and rail, poor stability

Page 4	Mark Scheme: Teachers' version	Syllabus
	GCE A/AS LEVEL – October/November 2009	9705

- (c) Explanation of how problem 1 could be overcome (0)  
 Explanation of how problem 2 could be overcome (0)  
 e.g. solutions related to adding rails to attach / support top  
 Changing design to give more surface area in contact with the floor and possible top
- (d) Situation has been analysed and relevant issues / points identified (0–3)  
 Explanation of why issues / points are considered relevant (0–3)  
 Specific example or evidence used to support answer (0–2) [8]
- [Total: 20]**

### Section C

- 7 (a) One pre-conceived idea presented (0–3)  
**OR**  
 The development and selection of a range of ideas into a single design proposal which would appear to work but lacks some technical details (4–7)  
**OR**  
 The development and selection of a range of ideas into a single design proposal that includes sufficient technical details to show that the proposed solution would clearly work (8–10)  
 Clarity and quality of sketching and explanatory notes (0–3)  
 Evaluation (reasons for selection) (0–3) [16]
- (b) As for part (a) [16]
- (c) As for part (a) [16]
- (d) As for part (a) [16]
- (e) The drawing will exhibit a reasonable standard of outcome and show some of the required design features (0–3)  
**OR**  
 The drawing will exhibit a good standard of outcome and show the design features required to make the product function as intended (4–7)  
**OR**  
 The drawing will be completed to a high standard of outcome and fully show the design features required to make the product function as intended (8–10)
- Some use made of colour and tone to enhance the visual impact of the drawing (0–2)  
**OR**  
 Good use has been made of the colour and tone to enhance the visual impact of the drawing (3–4)  
**OR**  
 Very good use has been made of colour, tone and material representation to enhance the visual impact of the drawing (5–6) [16]
- [Total: 80]**

Questions 8 and 9 as for Question 7