## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

## MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

## 9705 DESIGN AND TECHNOLOGY

9705/11

Paper 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.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

• CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

			GCE A/A3 LEVEL - October/November 2010	9705	11	
1	e	uitable sheet material named g. mild steel, stainless steel, aluminium uitable reason related to strength and/or ease of maintenance/cleaning/finishing		(1) (1)	[2]	
	(b) (i	Usin	ing of template described g template described ails of tools, equipment and safety precautions (if nece	ssary)	(0-2) (0-2) (0-2)	[6]
	(ii	Bend	ing out shape and smoothing edges ding shape ails of tools equipment and safety precautions (if neces	ssary)	(0-2) (0-2) (0-2)	[6]
	(iii	e.g. Joini	appropriate method of joining identified s.g. riveting, soldering, welding oining method described Details of tools, equipment and safety precautions (if necessary)		(1) (0–3) (0–2)	[6]
				tal: 20]		
2	(a) (i	•	able sheet plastic named acrylic, perspex, polystyrene		(1)	
	(ii	•	able softwood named pine, spruce, cedar, parana pine, douglas fir		(1)	[2]
	(b) (i	Usin	ing jig described g jig described alls of tools, equipment and safety precautions (if nece	ssary)	(0–2) (0–2)	[6]
	(ii	e.g. Appı	ropriate method of making grooves identified router, plough plane ropriate method of making grooves described alls of tools, equipment and safety precautions (if necestics)	ssary)	(1) (0-3) (0-2)	[6]
	(iii	,	ropriate joining method identified mortise and tenon, dowel joint, screws		(1)	
		Appı	ropriate joining method described ails of tools, equipment and safety precautions		(0-3) (0-2)	[6]
				[То	tal: 20]	

Mark Scheme: Teachers' version

GCE A/AS LEVEL - October/November 2010

Page 2

**Syllabus** 

9705

**Paper** 

11

	Page 3		Mark Scheme: Teachers' version	Syllabus	Paper	
			GCE A/AS LEVEL – October/November 2010	9705	11	
3	Bottom a Sides Front Top and		riate scale used and back d fold over flap os (at least 2 correct tabs)		(1) (1) (1) (1) (1) (1)	[6]
		e. g. po Suitable	e sheet plastic named lystyrene e reason for choice given tible, ready coloured		(1) (1)	[2]
	(c)		propriate method described me details given about tools/equipment		(0 <del>-</del> 2) (1)	[3]
	(		propriate method described me details given about tools/equipment		(0 <del>-</del> 2) (1)	[3]
	(i	Ma	propriate method of securing top/flap identified king/attaching securing method described tails of tools, equipment and safety precautions (if necestals)	ssary)	(1) (0–3) (0–2)	[6]
				ı	[Total:	20]
4	(a)	Sketch	and notes explain how board slots in the back of contai	ner	(0–2)	[2]
	(b) Problem 1 described Problem 2 described e.g. Problems related to bags falling/blowing out of container, container being low down on ground		container being low	(0-2) (0-2)	[4]	
	` ,	Explana	ation of how problem 1 could be overcome ation of how problem 2 could be overcome d a lid/top, make sides higher, put container on a stand.		(0-3) (0-3)	[6]
	. ,	Explana	n has been analysed and relevant issues/points identification of why issues/points are considered relevant examples/evidence used to support conclusions		(0-3) (0-3) (0-3)	[8]
					[Total:	20]

		GCE A/AS LEVEL - October/November 2010 9705		
5	(a)	Sketches and notes explain what the male and female formers look like	(0–2)	[2]
	(b)	Problem 1 described Problem 2 described e.g. Problems related to the tray being hard to pick up and things being able to slide off the ends	(0–2) (0–2)	[4]
	(c)	Explanation of how problem 1 could be solved Explanation of how problem 2 could be solved e.g. hand holes made more accessible, lip goes all the way round the tray.	(0–3) (0–3)	[6]
	(d)	Situation has been analysed and relevant issues/points identified Explanation of why issues/points are considered relevant Specific examples/evidence used to support conclusions	(0-3) (0-3) (0-3)	[8]
		I	[Total:	20]
6	(a)	Appropriate explanation of function of feature X e.g. Related to helping to prevent steps slipping or damaging surfaces or people.	(0–2)	[2]
	(b)	Problem 1 described Problem 2 described e.g. Problems related to stability, safety, steps collapsing.	(0–2) (0–2)	[4]
	(c)	Explanation of how problem 1 could be overcome Explanation of how problem 2 could be overcome e.g. Extra bracing pieces need to be added to both sides and back legs.	(0-3) (0-3)	[6]
	(d)	Situation has been analysed and relevant issues/points identified Explanation of why issues/points are considered relevant Specific examples/evidence used to support conclusions	(0-3) (0-3) (0-3)	[8]
		J	[Total:	20]

Mark Scheme: Teachers' version

GCE A/AS LEVEL - October/November 2010

Page 4

**Syllabus** 

9705

**Paper** 

11

га	ge 5	Mark Scheme. Teachers Version	Syllabus	Рарег
		GCE A/AS LEVEL – October/November 2010	9705	11
(a)	One pre- OR	conceived idea presented		(0–3)
		elopment and selection of a range of ideas into a sing buld appear to work but lacks some technical detail	le design propos	al (4–7)
	The deve	The development and selection of a range of ideas into a single design proportion that includes sufficient technical detail to show that the proposed solution we clearly work		
	Clarity ar	nd quality of sketching and explanatory notes		(0-3)
	Evaluation	on (reasons for selection)		(0–3) [16]
(b)	As for pa	rt (a)		[16]
(c)	As for pa	rt (a)		[16]
(d)	As for pa	rt (a)		[16]
(e)		ving will exhibit a reasonable standard of outcome and design features	show some of th	ne (0-3)
	The drav	wing will exhibit a good standard of outcome and statures required to make the product function as intend		ne (4–7)
		ving will be completed to a high standard of outcome eatures required to make the product function as intend	_	ne (8–10)
	Some us	e made of colour and tone to enhance the visual impac	ct of the drawing	(0–2)
		e has been made of colour and tone to enhance the v	isual impact of th	ne (3–4)
	Very god	nd use has been made of colour, tone and material the visual impact of the drawing	representation	to (5–6) [16]

Mark Scheme: Teachers' version

**Syllabus** 

**Paper** 

[Total: 80]

Questions 8 and 9 as for Question 7

Page 5

7