

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

International General Certificate of Secondary Education

**MARK SCHEME for the November 2005 question paper**

**0445 DESIGN AND TECHNOLOGY**

**0445/03**

**Realisation**

**maximum raw mark 60**

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

The minimum marks in these components needed for various grades were previously published with these mark schemes, but are now instead included in the Report on the Examination for this session.

- CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the November 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

1	(a)	marking out. size. cutting. drilling. screwdriver. finishing. all necessary tools. <b>materials.</b> screws etc. good clear sequence. clear logical sketches and notes.	1	x	7	7	
	(b)	marking out. size. cutting. drilling. screwdriver. finishing. all necessary tools. <b>materials.</b> screws etc. good clear sequence. clear logical sketches and notes.	1	x	8	8	
	(c)	look for a number of possibilities. clear sketches and notes. sensible choice of material. full details and final idea fit for the purpose.	1	x	10	10	
	(d)	any five correct	1	x	5	5	
							<b>30</b>
2	(a)	(i) correct method. 1 material 1 list tools. 2 clear sketches 2	1	x	6		
	(ii)	marking out. use of drilling machine. safety issues	1	x	7		
	(iii)	use of heat. vice. folding bars. tools etc.	1	x	7	20	
	(b)	drilling position. correct bolts. washers. spanners etc.	1	x	4	4	
	(c)	good clear sensible ideas which solve the problem in a correct manner	1	x	6	6	
							<b>30</b>

3	(a)	(i)	avoid slipping	1	x	2			
		(ii)	safety/accuracy	1	x	2			
		(iii)	Protection avoid damage	1	x	2	6		
	(b)		weld chem./action together using solvents. safety issues	1	x	3	3		
	(c)		Draw filing abrasives polish safety/presentation	1	x	3	3		
	(d)	(i)	Any two examples of thermoplastic	1	x	2			
		(ii)	Any two examples of thermosetting	1	x	2			
		(iii)	difference fully explained	1	x	2	6		
	(e)		Slot cut in front of container. Interior slightly larger	1	x	3	3		
	(f)		Correct use of strip heater. Accuracy templates	1	x	9	9		<b>30</b>
			Tools etc						
4	(a)		waterproof, can be made from one piece, easy to join	1	x	2	2		
	(b)		well sketched development. [net]	1	x	8	8		
	(c)	(i)	any two marking out tools. tool 2. quality 1.	1	x	3			
		(ii)	'' '' ''	1	x	3	6		
	(d)	(i)	good description of use of shears, tab, accuracy	1	x	5			
		(ii)	turning edges , draw filing, safety	1	x	3			
		(iii)	use guide strips, folding bars	1	x	3			
		(iv)	pop riveting, suitable glue.	1	x	3	14		<b>30</b>