UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2006 question paper

0445 DESIGN AND TECHNOLOGY

0445/02   Paper 2, 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 instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began.

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 grade thresholds for various grades are published in the report on the examination for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses.

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

CIE is publishing the mark schemes for the October/November 2006 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

				Breakdown of marks	Marks on script
1.	**(a)**	sides 40x160 (2x1)		2	
		R40 centre (1) arc (1)		2	
		Centre line @ 80		1	
		R200 centre		1	
		R200 arc		1	
		R60 centre		1	
		R60 arc		1	
		Width 280		1	10
		Semi ellipse			
		construction (3) orientation (1)			
		line quality (1)		3+1+1	5
	(b)	**(i)**	Hex 80 side	2	
			Hex 60 side	2	
			concentric alignment	1	
			position above peak	1	6
		(ii)	guidelines for letters (2x1)	2	
			spacing (0-2)	2	
			suitable size (0-2)	2	6
	(c)	suitable cross halving cut or slot and tab (0-2)		2	
		two length positions		1	3
					30
2.	**(a)**	division by construction		2	
		verticals 85 spacing +/-1mm (1)		1	3
	(b)	**(i)**	70 x 90 (1) + R17 (1)	2	
			Ø26 circle (2) body (1) Ø12 circle (2)	5	
			Shoulder curve (1) arm (2) angle(1)	4	
			Steering wheel (2) shaft (1) angle (1)	4	15
		(ii)	position (1) spacing (1)	2	2
	(c)	**(i)**	suitable chart/graph for types (0-2)		
			data represented correctly (0-2)	4	4
		(ii)	suitable chart/graph for rent periods (0-2)		
			data represented correctly (0-2)	4	4
	(d)	tab (0-2) slot (1)		2	2
					30

3. **(a)** **(i)**

height 140	1	
top 60 long	1	
top 10 deep	1	
side panel 80 wide	1	
side panel R20	1	
bottom 10 deep	1	
rod position (2x1)	2	
section lines on top	1	
section lines on bottom	1	
section lines on rod (2x1)	2	12

(ii)

width 60	1	
two rebates in top (2x1)	2	
two rebates in bottom (2x1)	2	
side thickness	1	
rod position	1	
rod thickness	1	8

(iii)

SQ 60 (1+1)	2	
Ø 30 circle	1	
Rod inside circle	1	
Rod to left of top	1	
Hidden detail of rods in sides (2x1)	2	
Side panel showing beyond top	1	8

(b)

match to projection	1	
correct symbol	1	2
		30

4. **(a)**

quality of sketching (0-2)	2	
two ideas representing the company (0-2)	2	4

(b)

remaining sides drawn accurately (6x1)	6	
sloping top 43 +/- 2mm (0-2)	2	
glue flaps (4x1)	4	
fold flaps (4x1)	4	16

(c)

position for logo on correct face	1	
lettering/view correct orientation	1	
approximate size to fit space	1	3

(d)

correct location/workable solution (1-2)	2	
two part joint (1-2)	2	4

(e)

quality of rendering (1-3)	3	3
		30