

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the November 2005 question paper

0445 DESIGN AND TECHNOLOGY

0445/02

Communication 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.

Page 1	Mark Scheme	Syllabus	Paper
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Q1	(a) Sketching quality	up to	3
		Investigation of at least two suitable developments (max. 2 for one idea only)	up to <u>4</u> 7
	(b) Development – would hold 6 bars		2
	– accuracy of sizes	up to	6
	– gluing flaps sufficient 2, adequate size 2,		4
	– flaps for lid	up to	<u>2</u> 14
(c)	Effective used of colour/shading	up to	3
	Quality of presentation	up to	3
	Design suitable for purpose	up to	<u>3</u> 9 30
Q2	(a) Same height and width as given letters 2 x 1		2
		Accuracy of three letters 3 x 1	3
		Letters equi-spaced	1
		Same style (Give credit for straight-sided O)	<u>1</u> 7
(b)	Plan – correctly projected above FV		2
	– accuracy – base 2 x 1		2
	– shown partly as hidden detail		1
	– hexagonal prism – 6 sides		1
	– regular		1
	– correctly located on base		1
	– rectangular prism – size 2 x 1		2
	– correctly located on hexagonal prism		1
	– cylinder - size		1
	– correctly located		1
	– centre lines shown 2 x 1		<u>2</u> 15
	(c)	Dimensioning – all shown (allow up to 2 omitted)	
– in accordance with BS		up to	<u>3</u> 8 30
Q3	(a) Sketching quality	up to	2
		Suitable investigation	up to <u>3</u> 5
(b)	Accuracy of – square		1
	– circles 2 x 1		2
	– diamond	up to	2
	– triangle (any way round)	up to	2
	– hexagon	up to	2
	– octagon	up to	<u>2</u> 11
	– ellipse – construction	up to	3
	– accuracy		1
	– correctly positioned		<u>1</u> 5
	8mm spacing as a specified	up to	2
Quality of layout	up to	5	
Line quality/presentation	up to	<u>2</u> 9 30	

Page 2	Mark Scheme	Syllabus	Paper
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Q4	(a)	(i) Hexagonal 1, prism 1	<u>2</u>	<u>2</u>
		(ii) Cylinder	<u>1</u>	<u>1</u>
(b)	Line quality		1	
	Correct scale		1	
	Accuracy of cylinder 2 x 1		2	
	Touches the other two pots		1	
	Accuracy of hexagonal prism	– size 2 x 1	2	
		– six-sided shape	1	
		– regular	1	
	– touches the other 2 pots	<u>1</u>	<u>10</u>	
(c)	Sketching quality	up to	2	
	Suitable pictorial view	up to	2	
	Pot A to the front		1	
	Same arrangement as (b)		<u>1</u>	<u>6</u>
	Good proportions of A, B and C	up to 3 x 3	9	
	All on the same base	up to	<u>2</u>	<u>11</u>
<u>Total for Paper</u>				<u>60</u>