

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

MARK SCHEME for the October/November 2007 question paper

0445 DESIGN AND TECHNOLOGY

0445/02

Paper 2 (Communication), maximum raw mark 50

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.

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.

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Page 2	Mark Scheme	Syllabus	Paper
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	Breakdown of marks	Marks on script
A1 Rear Wheel Ø60	1	
Rectangular engine 100 x 40	1	
Square tractor cab 64 side	2	
Semi-circular roof of cab Ø64	2	
Diamond chimney 50 x 30	2	
Equilateral triangle 35 side	1	[9]
A2 Accuracy and Proportion of:		
A	1	
N	1	
C	1	
E	1	
Height	1	
Spacing	1	[6]
A3 (a) (i) Measurement to correct scale 500 long or 250 wide or 125 high	1	
(ii) Symbol correct way round (1) Quality drawing in projection (1)	2	[3]
(b) Length 100	1	
Width 50	1	
Height 25	1	
Correct orientation	1	[4]
(c) Means of location (1)/able to stack (1) Quality sketch and notes	2 1	[3]

[Section A Total: 25]

Page 3	Mark Scheme	Syllabus	Paper
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	Breakdown of marks	Marks on script
B4 (a) Semi ellipse:		
Correct width	1	
Correct height	1	
Construction (PR 1–2)	2	
Accuracy of outline	1	[5]
(b) Cup and Straw:		
Base (1) and side angle (1)	2	
Straw upright angle (1) + crank (1)	2	
Overall height of straw	1	[5]
(c) Semi-octagon:		
Correct number of sides	1	
Evidence of square (1)		
Construction of one side (1)	2	
Correct length of one constructed side	1	
Accuracy of outline	1	[5]
(d) Burger pictogram:		
Two R10 – arcs (1) construction (1)	2	
Straight lines to R10 arcs 1+1	2	
Complete rectangle filling end	1	[5]
(e) Direction arrow:		
Vanishing point evident	1	
Overall height projected	1	
Overall height correct	1	
Angles correct	1	
Arrow stem correct thickness	1	[5]

[Total: 25]

Page 4	Mark Scheme	Syllabus	Paper
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	Breakdown of marks	Marks on script
B5 (a) EV		
Two sides to hexagon	1	
1st angle projection	1	
In line from plan	1	
Overall height	1	
Angle of top 45°	1	
PLAN		
Hexagon correct size to scale	1	
Correct orientation	1	
Circle drawn for window	1	
Fin – height (1) width (1)	2	[10]
(b) Development sides		
Six sides same width as given	1	
Joint correct position (two sides to left)	1	
Two long sides (1) angle correct (1)	2	
Two short sides (1) angle correct (1)	2	
One tall rectangle 110 high	1	[7]
Development top		
True length from EV for hexagon lid	1	
Hex width plotted from Plan	1	
Construction of ellipse evident from Plan	1	
Ellipse drawn to reference points	1	[4]
(c) Sketch of support		
Tail fin correct size/proportion	1	
Satisfies brief	1	
Attaches without glue	1	
Quality of sketch (0–1) no notes	1	[4]
		[Total: 25]