

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education Ordinary Level

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**CDT:DESIGN AND COMMUNICATION**

**7048/01**

Paper 1

**October/November 2007**

MARK SCHEME

Maximum Mark : 100

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**IMPORTANT NOTICE**

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and **two** copies per Team Leader.



CDT: Design and Communication 7048/01  
2007 Paper 1 Mark all questions to a tolerance of +/- 2mm

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## **CDT: Design and Communication 7048/01**

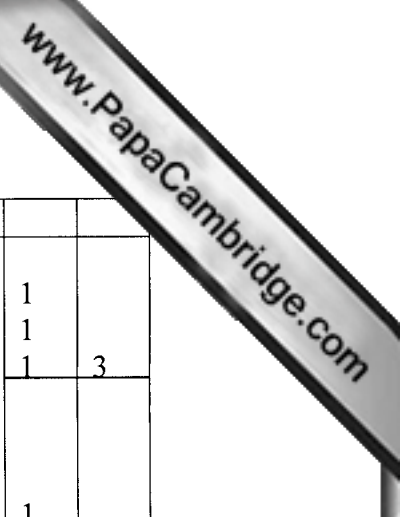
**Mark scheme - 2007**

**Question 1**

1 (a)	<b>Front elevation</b> Width - correct to overlay Height of wall - correct to overlay Height of roof - correct to overlay Windows - correct to overlay (1 mark each) Door - correct to overlay Porch width and pitch – of a suitable size (1 mark each)	1 1 1 2 1 2	8
	<b>End elevation</b> Width - correct to overlay Height of walls - correct to overlay Pitch - correct to overlay Chimney shown of a suitable size	1 1 1 1	4
	<b>Plan</b> Width - correct to overlay Ridge - correct to overlay Porch - correctly shown projected from front elevation Porch - correctly shown projected from end elevation	1 1 1 1	4
	Scale 1:2 used throughout First/third angle projection used (symbol not required)	1 1	2
			18
1 (b)	Front - height correct to overlay End (left) - height of walls and pitch correct to overlay (1 mark for each) End (right)- height of walls and pitch correct to overlay (1 mark for each) Roof - correct width and ridge shown (1 mark for each) Back - height correct to overlay Glue tabs - sufficient to hold net together Slots - 6 shown in an appropriate position	1 2 2 2 1 1 1	10
			10
1 (c)	All surfaces shown and the correct shape Net holds together and fastens to roof Quality of sketch - high quality for mark	1 1 1	3
			3
1 (d)	All surfaces shown and the correct shape Net holds together and fastens to roof Quality of sketch - high quality for mark	1 1 1	3
			3
			<b>34</b>

**Question 2**

Question			
2 (a) (i)	<p><b>No overlay - perspective sketch. No marks for 2D</b></p> <p>Drawing in perspective VP1 used VP2 used</p> <p>Overall proportions of drawing (L140, H80+ &amp; W80) Good 2, satisfactory 1 or poor 0</p> <p>Marks above <b>only</b> available for <b>perspective drawings</b>. Isometric and planometric can be awarded marks below.</p> <p>Base of lorry and protruding at front and back</p> <p>Basic shape of cab</p> <p>Sloping front of cab</p> <p>Basic shape of back of lorry</p> <p>Wheel with thickness</p> <p>Quality of curve of profile of wheel 2 - good, 1 - reasonable or 0 - poor</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2</p> <p>1</p> <p>2</p> <p>3</p>	<p>3</p> <p>4</p> <p>3</p> <p>6</p> <p>16</p>
2 (b) (i)	<p>Wheel position - touching side of lorry (ignore size)</p> <p>Front profile of wheel correct to overlay</p> <p>Depth of wheel correct to overlay</p> <p>Construction method visible in (i) or (ii)</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p>
2 (b) (ii)	<p>Axle - 8mm protruding from body and correct diameter</p> <p>Wheel position - 30mm away from lorry (ignore size)</p> <p>Front profile of wheel correct to overlay</p> <p>Depth of wheel correct to overlay</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p> <p>8</p>
2 (c) (i)	<p>Side window the correct shape</p> <p>Side window the correct orientation (mark to overlay)</p> <p>Side window the correct size</p>	<p>1</p> <p>1</p> <p>1</p>	<p>3</p>
2 (c) (ii)	<p>Windscreen height (mark to overlay)</p> <p>Windscreen width (mark to overlay)</p>	<p>1</p> <p>1</p>	<p>2</p>
2 (c) (iii)	<p>Two parallel sides of correct width</p> <p>Overall length correct</p> <p>16mm radius curve at end – mark best one</p> <p>Name added but not same style or size as example given</p> <p>Name added accurately – height and depth matches example</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>5</p> <p>10</p>
<b>Total</b>			<b>34</b>



**Question 3**

3 (a)	Correct size acrylic strip added at top	1	
	Correct size acrylic strip added at bottom	1	
	Correct size acrylic strip added at right	1	
	Correct size acrylic strip added at left	1	4
	Inside 'track' completed and works	1	
	Inside 'track' completed and works well - coin rolls right, left and then right	1	
	Width of inner track correct (coin will fit - 17mm minimum)	1	
	Width of inner acrylic strip correct (6mm)	1	4
			8
3 (b)	Back and front acrylic sheet shown	1	
	Disc shown	1	
	Suitable design for disc shown (up to)	2	
	Appropriate position of pivot shown	1	
	Coin 'contained' - will not roll out (up to)	2	
	Path/route of coin shown	1	
	Notes describe the design (up to)	2	10
		10	
3 (c)	Ideas relate to the theme 'Sea world'	1	
	Strong association (fishes or other images present)	1	2
	Quality of sketching of ideas for sticker 3 - excellent, 2 - good, 1 - reasonable or 0 - poor	3	
	Notes describe the design for the sticker 2 - good, 1 - reasonable or 0 - poor	2	5
	Development of ideas 2 - good, 1 - reasonable or 0 - poor	2	2
		9	
3 (d)	Quality of letter and images on sticker 2 - excellent, 1 - good or 0 - poor	2	
	Use of colour on sticker 2 - excellent, 1 - good or 0 - poor	2	
	Overall effectiveness of design on sticker 2 - excellent, 1 - good or 0 - poor	2	6
			6
<b>Total</b>			<b>33</b>

<b>Quest. 4</b>			
4 (a)	Sketch of part (a) Approx. 45 degree lines (parallel) Front surface Back surface Edge	1 1 1 1	4
	Sketch of part (b) Approx. 45 degree lines (parallel) Bottom surface Top surface Back Inner block	1 1 1 1 1	5
			9
4 (b)	Drawing of block (a) (must be accurate to overlay) Height (60mm) Depths (10mm, 60mm & 10mm) Front surface complete Top 'U' completed Two inner surfaces completed Two front edges completed	1 3 1 1 1 1	8
	Drawing of block (b) (must be accurate to overlay) Height (80mm) Depths (10mm & 80mm) Front 'U' surface complete Top completed End completed Inner block completed	1 2 1 1 1 1	7
	Overall quality of line work 3 - excellent, 2 - good, 1 - reasonable or 0 - poor	3	3
			18
4 (c)	Appropriate colour selected (brown, yellow...) End grain shown Grain shown Overall effectiveness of rendering 3 - excellent, 2 - good, 1 - reasonable or 0 - poor	1 1 1 3	6
			6
			<b>33</b>

**Question 5**

5 (a)	41 mm radius circle - centre	1	
	41 mm radius circle - size to overlay	1	
	Left top curve correct to overlay - 1 mark	1	
	Left top centre correct to overlay - 1 mark	1	
	Right top curve to overlay - 1 mark	1	
	Right top centre correct to overlay - 1 mark	1	6
	Top - position	1	
	Top - length	1	2
	Base - position	1	
	Base - length	1	2
	Handle width - 41mm	1	
	Handle top right curve to overlay - 1 mark	1	
	Handle top right curve centre to overlay - 1 mark	1	
	Handle bottom right curve to overlay - 1 mark	1	
	Handle bottom right centre to overlay - 1 mark	1	5
			15
5 (b)	Circle correct to overlay (1)	1	
	Hexagon - any size (1) or correct to overlay (2)	2	3
	Handle shown in the middle of a face	1	
	Handle correct to overlay - length	1	
	- width	1	3
			6
5 (c)	3D sketch of an hexagonal box	1	
	3D lid of correct shape (hexagon)	1	
	Fold flaps	1	
	Overall quality of sketch (must be 3D)		
	Excellent 3, good - 2 marks, satisfactory - 1 mark or poor - 0 marks	3	6
		6	
5 (d)	Vertical axis of ellipse 80mm	1	
	Horizontal axis of ellipse 44mm	1	
	Construction method Clear and accurate - 2 marks	2	
	Some construction - 1 mark		
	No evidence - 0 marks		
	Quality of profile Accurate to overlay - 2 marks	2	
Reasonably accurate - 1 mark			
Poor - 0 marks		6	
		6	
			<b>33</b>

**Question 6**

6 a)	Circle drawn (2D or 3D) Circle divided into 5 Circle divided correctly (D30, L90, R45, P120 & M75) Appropriate use of colour Labels clearly identify the different parts	1 1 1 1 1	5
			5
6 b)	Appropriate graphical method selected (bar chart or graph) Suitable scale/s selected Information correctly plotted Appropriate use of colour Labels clearly identify the different parts	1 1 1 1 1	5
			5
6 c) (i)	Correct data used from the table Ideas relate to the toys 2 - excellent, 1 - good or 0 - poor Ideas 3 dimensional Overall quality of ideas 2 - excellent, 1 - good or 0 - poor Notes clearly explain the ideas 2 - excellent, 1 - good or 0 - poor	1 2 1 2 2	8
			8
6 c) (ii)	All the toys represented Overall level of sales accurately represented Overall idea 3 dimensional Appropriate use of colour Labels clearly identify the different parts  Representation (quality) 2 - excellent, 1 - good & 0 - poor Duck Lorry Rocket Puzzle Money box	1 1 1 1 1  2 2 2 2 2	5 5  10
			15
<b>Total</b>			<b><u>33</u></b>



**Final Check of Mark Scheme**

When you have checked the mark scheme, please fill in the following form and return it together with the mark scheme.

Date of Examination	Name of Paper	Syllabus / Component	Maximum Mark
October/November 2007	CDT: Design & Communication	7048/01	100

- No changes are required to the mark scheme and disk sent to me
- Changes are required: I have marked the changes on the mark scheme and revised the disk sent to me
- Changes are required: I enclose new pages to add to the mark scheme and revised the disk sent to me
- Changes are required: I enclose a new version of the mark scheme and disk

Other Changes highlighted on paper copy - you have an electronic copy

For Principal Examiners who work with Team Leaders and/or Assistant Examiners:

Do you want the mark scheme to be distributed to all Examiners? Yes  No   
If no, please give instructions for distribution:

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Do you want any other document to be distributed with the mark scheme? Yes  No   
If yes, please give instructions:

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Name (Please print) K A CRAMPTON

Signed 

Date 10/10/2006