

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
International General Certificate of Secondary Education

**MARK SCHEME for the May/June 2008 question paper**

**0445 DESIGN AND TECHNOLOGY**

**0445/01**

Paper 1 (Design), 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.

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

CIE is publishing the mark schemes for the May/June 2008 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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- 1 (a) Accept any **four** suitable points – tools accessible, lightweight, easy to move, comfortable to carry, easy to store, etc. No repeats of question. 1
- (b) Accept drawings of any **two** appropriate handles – holes, slots, additions, ledges, fixtures, etc. 2x2 [4]
- (c) Any suitable ideas. At least **three different** ideas for maximum marks. Pro rata if fewer.
- Communication**
- Simple drawings displaying a low standard or limited range of techniques 0–2
- Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc. 3–4
- High quality drawings using a wide range of techniques with clear annotation and detail 5–6
- Suitability**
- Simplistic designs showing outlines only 0–2
- Rather more detail, sensible solutions that could work 3–4
- Accurate solutions, good fitness for purpose, detailed construction 5–6 [12]
- (d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each Selection and justification. (1+1) 0–6  
2 [8]
- (e) **Quality of drawing**
- Poor line quality, proportions, little detail 1
- Good line work, use of colour, proportions, some detail 2–3
- High standard throughout with a range of techniques that show clearly all detail 4
- Dimensions** 2 or 3 overall dimensions only – 1  
Additional detail dimensions – 2 2
- Construction details**
- A simplistic approach showing little or no detail of construction to be used 0–2
- Most constructional detail may be obvious from overall views or with some annotation 3–4
- All constructional detail will be clear with good annotation and additional detail drawings as necessary 5–6 [12]
- (f) Suitable materials stated. 2  
Appropriate reasons for choice. 2 [4]
- (g) Suitable method stated. 1  
Detailed description of process, including: **processes** 3  
and **tools**. 2 [6]

[Total: 50]

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2	<p>(a) Accept any <b>four</b> suitable points – stable when opened, easy to assemble, hygienic, easy to transport, attract attention, etc. No repeats of question.</p> <p>(b) Accept drawings of any <b>two</b> flexible methods – scored card, tape, plastic hinges, slots/tabs, etc.</p> <p>(c) Any suitable ideas. At least <b>three different</b> ideas for maximum marks. Pro rata if fewer.</p> <p><b>Communication</b>                  Simple drawings displaying a low standard or limited range of techniques                  Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc.                  High quality drawings using a wide range of techniques with clear annotation and detail</p> <p><b>Suitability</b>                  Simplistic designs showing outlines only                  Rather more detail, sensible solutions that could work                  Accurate solutions, good fitness for purpose, detailed construction</p> <p>(d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each                  Selection and justification. (1+1)</p> <p>(e) <b>Quality of drawing</b>                  Poor line quality, proportions, little detail                  Good line work, use of colour, proportions, some detail                  High standard throughout with a range of techniques that show clearly all detail</p> <p><b>Dimensions</b> 2 or 3 overall dimensions only – 1                  Additional detail dimensions – 2</p> <p><b>Construction details</b>                  A simplistic approach showing little or no detail of construction to be used                  Most constructional detail may be obvious from overall views or with some annotation                  All constructional detail will be clear with good annotation and additional detail drawings as necessary</p> <p>(f) Suitable materials stated.                  Appropriate reasons for choice.</p> <p>(g) Suitable method stated.                  Detailed description of process, including: <b>processes</b> and <b>tools</b>.</p>	<p>1</p> <p>2x2 [4]</p> <p>0–2 3–4 5–6</p> <p>0–2 3–4 5–6 [12]</p> <p>0–6 2 [8]</p> <p>1 2–3 4 2</p> <p>0–2 3–4 5–6 [12]</p> <p>2 2 [4]</p> <p>1 3 2 [6]</p>
<b>[Total: 50]</b>		

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- 3 (a) Accept any **four** suitable points – lightweight, easy to erect, easy to transport, doesn't damage clothes, correct height, etc. No repeats of question. 1
- (b) Accept any **two** suitable temporary joining methods – bolts/nuts, slot-in, screws, push together, KD fittings, etc. 2x2 [4]
- (c) Any suitable ideas. At least **three different** ideas for maximum marks. Pro rata if fewer.
- Communication**
- Simple drawings displaying a low standard or limited range of techniques 0–2
- Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc. 3–4
- High quality drawings using a wide range of techniques with clear annotation and detail 5–6
- Suitability**
- Simplistic designs showing outlines only 0–2
- Rather more detail, sensible solutions that could work 3–4
- Accurate solutions, good fitness for purpose, detailed construction 5–6 [12]
- (d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each Selection and justification. (1+1) 0–6  
2 [8]
- (e) **Quality of drawing**
- Poor line quality, proportions, little detail 1
- Good line work, use of colour, proportions, some detail 2–3
- High standard throughout with a range of techniques that show clearly all detail 4
- Dimensions** 2 or 3 overall dimensions only – 1  
Additional detail dimensions – 2 2
- Construction details**
- A simplistic approach showing little or no detail of construction to be used 0–2
- Most constructional detail may be obvious from overall views or with some annotation 3–4
- All constructional detail will be clear with good annotation and additional detail drawings as necessary 5–6 [12]
- (f) Suitable materials stated. 2  
Appropriate reasons for choice. 2 [4]
- (g) Suitable method stated. 1  
Detailed description of process, including: **processes** 3  
and **tools**. 2 [6]

[Total: 50]