



## General Certificate of Secondary Education

# Design and Technology (Graphic Products) Higher Tier 3553/H

## Mark Scheme

### *2006 examination – June series*

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

**Question 1 Signage (BE STRICT)**

Missing letters	For O F F I C E completed	<i>6 x 1 marks</i>	
	In same style (as given, e.g. O, I, E)	<i>6 x 1 marks</i>	
	Out of box /an attempt	<i>0 mark</i>	<b>12 marks</b>
Line Quality	Sharp, ruler, neat	<i>2 marks</i>	
	Some untidiness e.g. some off grid, double lines, over-shoots, gaps, incomplete.	<i>1 mark</i>	
	Very untidy, consistently not on grid, freehand	<i>0 marks</i>	<b>2 marks</b>
Spacing	One grid space between all letters	<i>1 mark</i>	
	Not completed, other spacing, etc.	<i>0 marks</i>	<b>1 mark</b>
			<b>15 marks</b>

**Question 2    Printing Effects**

(a) Complete Table 1

- e.g. Scratch & Sniff - scratch the surface releases smell
- Thermochromatic - image alters due to temperature change
- Holograph - a 3D picture on metal foil
- Embossed - part of picture is raised above paper level

Full, clear and complete understanding	<i>4 x 2 marks</i>	
Partial or general statement	<i>1 mark</i>	<b>8 marks</b>

(b) Reasons (*must relate to context of stamp for max. mark, accept other smart materials e.g. metallic foil, photo-chromatic inks, varnish*)

Clear explanation e.g. adds quality, visual appeal	<i>2 marks</i>	
Basic response answer e.g. descriptive or 'I like it'	<i>1 mark</i>	
One word, no explanation	<i>0 marks</i>	<b>2 marks</b>

(c) Sketch - *accept stamp or embossing process e.g. 'Ellison' or manual methods*

Good sketch, clear, 'bumps', dots – shading, shadows	<i>2 marks</i>	
Satisfactory, implied e.g. thick lines to give 3D effect	<i>1 mark</i>	
2-D, incorrect, not attempted	<i>0 marks</i>	
Notes - use of embossing, 'Braille' stated, or process		
Clear understanding uses key words, labels etc	<i>1 mark</i>	
Incorrect or not attempted	<i>0 marks</i>	<b>3 mark</b>

**13 marks**

### Question 3 Development & Presentation Drawing

*‘Starting Point’ is a resource, ‘initial idea’ could not necessarily relate directly to this picture. Accept promotional products but must be in the context of wind generated power*

(a) Development – **look for progression**

(i) Initial Sketch

Clearly related to given photo, elements obvious	2 marks
Some elements implied, not obvious, vague	1 mark
Photo not used, not attempted	0 marks

**2 marks**

*If incorrect e.g. geothermic, child’s windmill give 0 marks, then mark as given below*

(ii) Development of initial idea

Clear progression of idea	3 marks
Some progression, elements evident	2 marks
Little progression, minimal changes	1 mark
No progression, initial idea repeated, new idea, not attempted	0 marks

Further development– improvement of development sketch

Valid changes e.g. layout, refinement of detail	3 marks
Some minor changes that improve design	2 marks
Little modifications, almost a copy of Develop/Initial Sketch	1 mark
No modification, idea repeated, new idea, not attempted	0 marks

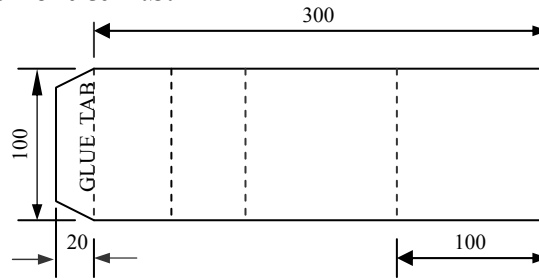
Thumbnail sketch - adapt rectangular design to triangle

Good layout, well spaced, balanced	2 marks
Adequate layout, some crowding, uneven	1 mark
Not attempted	0 marks

**8 marks**

(iii)	<p>Printing effect</p> <p>Any correct effect clearly stated – (<i>right or wrong</i>)</p> <p>Incorrect or not attempted</p>	<p>2 mark</p> <p>0 marks</p>	
	<p>Quality of sketching</p> <p>Very good, clear, neat, sharp line, etc.</p> <p>A fair attempt, lacks precision.</p> <p>Scribble / not attempted</p>	<p>2 marks</p> <p>1 mark</p> <p>0 marks</p>	
	<p>Use of colour – any evidence</p> <p>Colour used through out e.g. swatches, rendering – any evidence</p> <p>No colour used</p>	<p>1 mark</p> <p>0 marks</p>	
	<p>Notes – reward each</p> <p>Critical, relevant, related to design</p> <p>Descriptive, some relevance implied, labels</p> <p>Not attempted</p>	<p>3 x 2 marks</p> <p>1 mark</p> <p>0 marks</p>	<b>11 marks</b>
(b)	<p>Presentation Drawing</p> <p>Quality of line work</p> <p>Very good, clear, neat, sharp line, etc.</p> <p>A fair attempt, lacks precision</p> <p>Scribble/not attempted</p>	<p>2 marks</p> <p>1 mark</p> <p>0 marks</p>	
	<p>Colour rendering</p> <p>Good quality, enhances drg, visual impact, e.g. good tonal control, very good block colouring.</p> <p>Satisfactory, controlled use of media, some attempt at higher skills e.g. tone, block colour (good monochrome max)</p> <p>Moderate quality, some enhancement,</p> <p>Poor, no colour – line drawings only</p>	<p>3 marks</p> <p>2 marks</p> <p>1 mark</p> <p>0 marks</p>	
	<p>Layout</p> <p>Good visual impact, effective use of space</p> <p>Satisfactory, sense of composition,</p> <p>Adequate spacing, some imperfections</p> <p>An attempt but lacks clarity and/or poorly spaced, crowded</p> <p>Unrecognisable or not attempted</p>	<p>4 marks</p> <p>3 marks</p> <p>2 marks</p> <p>1 mark</p> <p>0 marks</p>	<b>9 marks</b>
			<b>30 marks</b>

**Question 4 Surface Development & B.S.**



- (a) Development
- |   |               |                |
|---|---------------|----------------|
| Correct length and width                                  | <i>1 mark</i> |                |
| Three fold lines - correct positions and dotted fold line | <i>1 mark</i> |                |
| Glue tab – correct position, fold, shape, correct size    | <i>1 mark</i> |                |
| labelled  | <i>1 mark</i> |                |
| Consistent neat and clear, straight lines                 | <i>1 mark</i> |                |
| Key used  | <i>1 mark</i> | <b>6 marks</b> |
- (b) B.S.
- |  |               |                |
|--|---------------|----------------|
| Leader lines - consistently not touching outline | <i>1 mark</i> |                |
| Arrow heads – all neat, touching leaders         | <i>1 mark</i> |                |
| Dimension lines – parallel, no gap, accept mm    | <i>1 mark</i> |                |
| Numbers – all correct size & orientation         | <i>1 mark</i> | <b>4 marks</b> |
- 10 marks**

**Question 5 Representation of Materials & Perspective**

- (a) Wooden Base (End and side only required)  
*(NB could be printed card – long/end grain not essential)*



- |  |                |                |
|--|----------------|----------------|
| Good representation, shows flair<br>e.g. colour, grain                                   | <i>4 marks</i> |                |
| Satisfactory representation of wood,<br>e.g. recognisable as grain.                      | <i>3 marks</i> |                |
| Could be wood, untidy<br>e.g. good mono-chrome, poor use of colour                       | <i>2 marks</i> |                |
| An attempt, hardly represents wood<br>e.g. scribble, inappropriate use of colour, untidy | <i>1 mark</i>  |                |
| Not attempted, obviously wrong material shown  | <i>0 marks</i> | <b>4 marks</b> |

- (b) Clear Plastic



or



- |  |                |                |
|--|----------------|----------------|
| Good representation of material, shows flair<br>e.g. good transparent effect, reflective lines, colour | <i>4 marks</i> |                |
| Satisfactory representation of material<br>e.g. recognisable, attempted at transparency/reflections    | <i>3 marks</i> |                |
| Could be clear plastic, but untidy<br>e.g. good mono-chrome, poor use of colour lines                  | <i>2 marks</i> |                |
| An attempt, hardly represents a transparent material<br>e.g. scribble, inappropriate use of colour     | <i>1 mark</i>  |                |
| Not attempted, obviously wrong material shown  | <i>0 marks</i> | <b>4 marks</b> |

**8 marks**

**Question 6 Materials and Industrial Processes**

(a)	(i)	Accept named thermoplastic e.g. PVC, PS, PP, PET, HIPS, acetate, etc.	<i>1 mark</i>	<b>1 mark</b>
	(ii)	Safety reason Clear reasons, logical statement e.g. soft, will not harm, non-toxic, non-shatter Simple statement, no reasoning e.g. is flexible One word answers or not related to safety, lightweight	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	<b>2 marks</b>
(b)	Material	Accept card, board, thick paper, etc.	<i>1 mark</i>	
	Property	Accept if appropriate to windmill e.g. ease of cutting, non-toxic, takes colour, bends easily, prevents injury  Appropriate, valid property Some confusion, not fully appropriate Incorrect, not for a toy, not attempted If material wrong the property is wrong.	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	<b>3 marks</b>
(c)	(i)	Stamp Book Answers focused on ‘self adhesive’ not booklets e.g. convenience, taste of gum, religious implications of gum, easier, saves time  Reasoned answers Partly understood, confused e.g. stick better Incorrect not attempted	<i>2 x 2 marks</i> <i>1 mark</i> <i>0 marks</i>	<b>4 marks</b>
	(ii)	‘Gloss paper’ e.g. ease of ‘unpeeling’, low take gum on this paper security, prevent tearing.  Reasoned answers Partly understood, confused Incorrect (keeps dry, better appearance) not attempted	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	<b>2 marks</b>
				<b>12 marks</b>

**Question 7 Culture and Industrial Practice**

(a) Franking strip

Mark A	Two facts e.g. time & place of posting,	2 marks	
	One fact e.g. either time OR place stated	1 mark	
	Incorrect, not attempted	0 marks	

Mark B *e.g. cost/charge price/customer code/country/Royal Mail*

	Two facts from above	2 marks	
	One fact from above	1 mark	
	Incorrect, not attempted	0 marks	

Mark C *e.g. A log /advertisement/promotion/supporting information*

	Full understanding – reasoned	2 marks	
	Partial understanding or descriptive	1 mark	
	Incorrect or not attempted	0 marks	

**6 marks**

(b) Logo design

Theme	‘Wind Farms’ easily identified	1 mark	
	Confused or incorrect, not attempted	0 marks	

Drawing	Good quality line drawing e.g. neat, clear	2 marks	
	Satisfactory quality	1 mark	
	Poor quality, lacks core, scribble	0 marks	

Layout	Well spaced	1 mark	
	Poor or not attempted	0 marks	

**4 marks**

(c) Advantages of franking strips

*Advantages e.g. promoting interests of sender’s organisation, security, convenience, ease of use, discounted price, credit on-line*

	Fully explained, reasoned	2 marks	
	Simple unsupported advantage	1 mark	
	Incorrect or not attempted	0 marks	

**2 marks**

**12 marks**

**Paper Total 100 Marks**