



General Certificate of Secondary Education

Design and Technology (Graphic Products) Higher Tier 3543/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>	12 marks
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>	2 marks
Spacing	One grid space between all letters	<i>1 mark</i>	
	Not completed, other spacing, etc.	<i>0 marks</i>	1 mark
			15 marks

Question 2 Printing Effects

- (a) Complete Table 1
- | | | | |
|----------------------|-----------------------------------------------|---------|--|
| e.g. Scratch & Sniff | - scratch the surface releases smell | 2 marks | |
| Thermochromatic | - image alters due to temperature change | 2 marks | |
| Holograph | - a 3D picture on metal foil | 2 marks | |
| Embossed | - part of picture is raised above paper level | 2 marks | |
-
- | | | |
|----------------------------------------|-------------|----------------|
| Full, clear and complete understanding | 4 x 2 marks | |
| Partial or general statement | 1 mark | 8 marks |
-
- (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 | 2 marks | |
| Basic response answer e.g. descriptive or 'I like it'. | 1 mark | |
| One word, no explanation. | 0 marks | 2 marks |
-
- (c) Sketch - *accept stamp or embossing process e.g. 'Ellison' or manual methods*
- | | | |
|----------------------------------------------------------|---------|--|
| Good sketch, clear, 'bumps', dots – shading, shadows | 2 marks | |
| Satisfactory, implied e.g. thick lines to give 3D effect | 1 mark | |
| 2-D, incorrect, not attempted | 0 marks | |
-
- | | | |
|------------------------------------------------|---------|---------------|
| Notes -Use of embossing, 'Braille' stated | | |
| Clear understanding uses key words, labels etc | 1 mark | |
| Incorrect or not attempted | 0 marks | 3 mark |
-
- 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) Printing effect | | | |
| Any correct effect clearly stated – (<i>right or wrong</i>) | 2 mark | | |
| Incorrect or not attempted | 0 marks | | |

Quality of sketching			
Very good, clear, neat, sharp line, etc.	2 marks		
A fair attempt, lacks precision	1 mark		
Scribble / not attempted	0 marks		

Use of colour – any evidence			
Colour used through out e.g. swatches, rendering – any evidence	1 mark		
No colour used	0 marks		

Notes – reward each			
Critical, relevant, related to design	3 x 2 marks		
Descriptive, some relevance implied, labels	1 mark		
Not attempted	0 marks	11 marks	

(b) Presentation Drawing

Quality of line work

Very good, clear, neat, sharp line, etc.	<i>2 marks</i>
A fair attempt, lacks precision.	<i>1 mark</i>
Scribble/not attempted	<i>0 marks</i>

Colour rendering

Good quality, enhances drg, visual impact, e.g. good tonal control, very good block colouring.	<i>3 marks</i>
Satisfactory, controlled use of media, some attempt at higher skills e.g. tone, block colour (good monochrome max)	<i>2 marks</i>
Moderate quality, some enhancement,	<i>1 mark</i>
Poor, no colour – line drawings only	<i>0 marks</i>

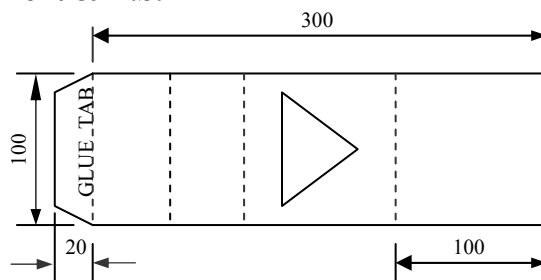
Layout

Good visual impact, effective use of space	<i>4 marks</i>
Satisfactory, sense of composition,	<i>3 marks</i>
Adequate spacing, some imperfections	<i>2 marks</i>
An attempt but lacks clarity and/or poorly spaced, crowded	<i>1 mark</i>
Unrecognisable or not attempted	<i>0 marks</i>

9 marks

30 marks

Question 4 Surface Development & B.S.



- (a) Development
- | | | |
|----------------------------------------------------------------------|---------------|----------------|
| Correct length & width (<i>e.g. 150 x 50</i>) | <i>1 mark</i> | |
| Three fold lines - correct positions (<i>e.g. 50</i>) | <i>1 mark</i> | |
| Glue tab (ALL – correct position, label, ‘taper’, fold line) | <i>1 mark</i> | |
| Triangle on correct face | <i>1 mark</i> | |
| Correct size (<i>e.g. 30 base</i>) | <i>1 mark</i> | |
| Correct orientation (<i>e.g. parallel nearest glue tab</i>) | <i>1 mark</i> | |
| Consistent neat and clear, straight lines | <i>1 mark</i> | 7 marks |
- (b) B.S.
- | | | |
|--------------------------------------------------|---------------|----------------|
| Leader lines - <u>all</u> not touching outline | <i>1 mark</i> | |
| Arrow heads – <u>all</u> neat, touching leaders. | <i>1 mark</i> | |
| Dimension lines – <u>all</u> parallel, no gap | <i>1 mark</i> | |
| Numbers – orientation and position | <i>1 mark</i> | 4 marks |
- (c) Varnishing
- | | | |
|--------------------------------------------------------------------------------|--------------------|-----------------|
| (i) U.V – Ultra Violet | <i>1 mark</i> | |
| Incorrect or not attempted | <i>0 marks</i> | 1 mark |
| (ii) Reasons from list e.g. | | |
| Full understanding, durability, add quality, gloss, smooth, protective surface | <i>2 x 2 marks</i> | |
| Partial understanding, no reasoning | <i>2 x 1 mark</i> | |
| Incorrect, not relevant, not attempted | <i>0 marks</i> | 4 marks |
| <i>Care not to double reward e.g. gloss and shiny</i> | | |
| | | 16 marks |

Question 5 Representation of Materials & Perspective

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



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

4 marks

- (ii) Clear Plastic



or

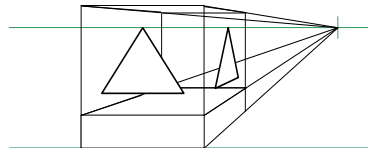


- Good representation of material, shows flair 4 marks
e.g. good transparent effect, reflective lines, colour
Satisfactory representation of material 3 marks
e.g. recognisable, attempted at transparency/reflections
Could be clear plastic, but untidy 2 marks
e.g. good mono-chrome, poor use of colour lines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

4 marks

- (b) One – point perspective sketch

- (i) Correctly labelled features
Single vanishing point
Eye level/horizon
Ground level



- 1 mark
1 mark
1 mark

3 marks

- (ii) Method – use of straight edge, ruler

- Consistent use of vanishing point 1 mark
Consistent use of horizontals & verticals 1 mark
including back right hand corner
Free-hand 0 mark

- Quality - Good proportions of block 2 marks
Proportions slightly elongated 1 mark
Out of proportion – shape distorted 0 marks
Sketch lined in, differentiation density of line 1 mark
No difference in line density of construct/outline 0 marks

5 marks

- (iii) Stamps

- Triangular stamps on both faces 1 mark
'A' Face – stamp base line parallel to block base 1 mark
'B' Face - Apex projected and aligned from 'A' 1 mark
Base projected and aligned from 'A' 1 mark

4 marks
20 marks

Question 6 Materials

Responses **must relate to safety** e.g. not environmental issues

(a)	Safety reasons		
	Clear reasons, logical statement e.g. soft, will not harm, non-toxic	2 x 2 marks	
	Simple statement, no reasoning e.g. is flexible,	1 mark	
	One word answers or not related to safety	0 marks	4 marks
(b)	Use of under-lay any quality		
	Seven or more complete shapes, not touching or over-lapping	4 marks	
	Six complete shapes, not touching or over-lapping	3 marks	
	Five complete shapes, not touching or over-lapping	2 marks	
	Less than five complete shapes, not touching or over-lapping	1 mark	
	Not attempted or very confused	0 marks	4 marks
(c)	(i) Circles 'A' e.g. <i>QC, QA, colour check, correct density/ quality/ print heads.</i>		
	Reasoned statement including consequences	2 marks	
	Some understanding, reason given but not expanded	1 mark	
	Incorrect or one word answers e.g. check, colour, etc.	0 marks	2 marks
	(ii) Perforations e.g. <i>separation, tearing without damage, scissors not required</i>		
	Reasoned statement	1 mark	
	Incorrect or one word, not attempted	0 marks	1 mark
			11 marks

Question 7 Culture and Industrial Practice

(a) Franking strip

Mark A	Two facts e.g. time & place of posting, One fact e.g. either time OR place stated Incorrect, not attempted	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	2 marks
Mark B	<i>e.g. cost charge/price/customer code/country/Royal Mail</i> Two facts from above One fact from above Incorrect, not attempted	 <i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	 2 marks
Mark C	<i>e.g. A logo/advertisement/promotion/supporting information</i> Full understanding – reasoned Partial understanding or descriptive Incorrect or not attempted	 <i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	 2 marks

(b) 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 Simple unsupported advantage Incorrect or not attempted	<i>2 x 2 marks</i> <i>1 mark</i> <i>0 marks</i>	4 marks
		10 marks

Question 8 Social Issues

(a) Gum (*Make from 'unclean' or 'forbidden' materials e.g. animal products*)

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

(b) (i) 'Self adhesive' (*e.g. wetting not required, no licking, tacky glue*)

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

(ii) Advantage (*e.g. convenience, clean, don't stick together, culturally acceptable*)

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

(c) (i) Beneficiary

Handicapped	1 marks	
Reason, e.g. charity benefits,	1 mark	
Other charity, not attempted	0 marks	2 marks

(ii) 30 + 5 (*e.g. 30p postal service, 5p compulsory contribution to charity*)

Both correctly explained, reasoned	2 marks	
One explained	1 mark	
Incorrect or not attempted	0 marks	2 marks

10 marks

Paper Total 125 Marks