



General Certificate of Secondary Education

Design and Technology (Graphic Products) Foundation Tier 3543/F

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

(a)	Missing letters:	For O F F C E completed	<i>5 x 1 marks</i>	10 marks
		In same style (be strict)	<i>5 x 1 marks</i>	
		Out of box /an attempt	<i>0 mark</i>	
(b)	Line Quality:	Sharp, ruler, neat	<i>2 marks</i>	2 marks
		Some untidiness, some off grid lines, double Lines or over shoots, gaps, incomplete	<i>1 mark</i>	
		Very untidy, consistently not on grid, freehand	<i>0 marks</i>	
(c)	Spacing:	One grid space between all letters	<i>1 mark</i>	1 mark
		Not completed, other spacing etc	<i>0 marks</i>	
				13 marks

Question 2 CAD/CAM

(a) Block diagram

Images of given process – no ambiguity	<i>3 x 2 marks</i>	
Recognisable images of given process-possibly confused	<i>1 mark</i>	
Unrecognisable, very untidy, little/no understanding (Lettering can be positive and negative format).	<i>0 marks</i>	6 marks

Quality, neat, clarity, good sketch/drawing	<i>3 marks</i>	
Reasonable sketching, possible confusion	<i>2 marks</i>	
Poor sketching	<i>1 mark</i>	
No evidence	<i>0 marks</i>	3 marks

(b) Quality Control

Appropriate method well explained e.g. gauge, position, flat.	<i>2 marks</i>	
Some understanding, confusion	<i>1 mark</i>	
Not appropriate, not attempted	<i>0 marks</i>	2 marks

Stage 1 - spelling, size, space, font, style and layout.

Stage 2 - transfer of letter style, consistent depth of cut, vinyl lined up correctly, machine settings.

Stage 3 - Letters lifted without damage, correct tape, maintain letter spacing.

Stage 4 - Alignment, position. No bubbles in vinyl or faults.

(c) Transfer tape, low sticky, easy to peel of vinyl, no damage, positioning, removes letters only, keeps spacing and shape etc.

Good understanding, relevant to tape's adhesive	<i>2 marks</i>	
Some understanding, some confusion	<i>1 mark</i>	
Not related to adhesive, not attempted	<i>0 marks</i>	2 marks

13 marks

Question 3 Development & Presentation Drawing

Development - must be in context of wind generated/promotional power

- (a) (i) Initial Sketch (Fig 5 is a resource picture)
- | | | |
|--|---------|----------------|
| Clearly related to given photo, elements obvious | 2 marks | |
| Some elements implied, not obvious, | 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 below

- (ii) Development of initial idea - even if wrong theme in (i)
- | | | |
|--|---------|----------------|
| 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 | 3 marks |
- (iii) Final Modification – 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 Dev. Sketch or initial idea. | 1 mark | |
| No modification, idea repeated, new idea, not attempted | 0 marks | 3 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 | 2 marks |
- Use of colour – any evidence
- | | | |
|--|---------|---------------|
| Colour used through out e.g. swatches, rendering etc | 1 mark | |
| No colour used | 0 marks | 1 mark |
- Notes – reward each (pro rata 3 x 2mks)
- | | | |
|---|-------------|----------------|
| Critical, relevant, related to design | 3 x 2 marks | |
| Descriptive, some relevance implied, labels | 1 mark | |
| Not attempted | 0 marks | 6 marks |

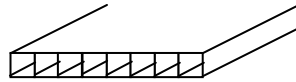
(b)	Presentation Drawing, independent of final modifications		
	Quality of line work		
	Very good, clear, neat, sharp line etc.	<i>2 marks</i>	
	A fair attempt, lacks precision	<i>1 mark</i>	
	Scribble / not attempted	<i>0 marks</i>	2 marks
	Colour rendering		
	Good quality, enhances drg, visual impact, 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>	3 marks
	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>	4 marks
			26 marks

Question 4 Printing Effects

(a)	Reason appropriate to selected effect e.g. add quality, adds interest, visually impaired, Noticeable, 3D effect		
	Reasoning clear and logical, descriptive	<i>2 marks</i>	
	Reasoning evident but some confusion, misunderstanding, visual impaired	<i>1 mark</i>	
	Very superficial, one word, not attempted	<i>0 marks</i>	2 marks
(b)	Scratch & Sniff		
	Clear, neat, tidy and relevant sketches, well communicated	<i>3 marks</i>	
	Satisfactory, communicates concept adequately	<i>2 marks</i>	
	An attempt, some confusion but relevant	<i>1 mark</i>	
	Not ‘scratch & sniff’, not attempted	<i>0 marks</i>	3 marks
	Notes that help understanding	<i>1 mark</i>	
	Not ‘scratch & sniff’, not attempted or labels	<i>0 marks</i>	1 mark
(c)	(i) Example correct e.g. child’s book, promotion of perfumes, etc.	<i>1 mark</i>	1 mark
	(ii) Advantage; e.g. entertaining, sample, added interest, educational, smell before purchase		
	Clear, relevant and logical reasoning	<i>2 marks</i>	
	Some confusion, misunderstanding	<i>1 mark</i>	
	Very superficial, one word, not attempted	<i>0 marks</i>	2 marks
			9 marks

Question 5 Construction & B.S.

- (a) Corrugated Plastic Sheet
Accept 2D or 3D sketch



Clear sketch showing structure, e.g. good proportion	<i>3 marks</i>
Structure evident, some errors e.g. lose of scale/proportion	<i>2 marks</i>
An attempt, some confusion e.g. 'wavy' or 'squ' on both sides	<i>1 mark</i>
Incorrect e.g. laminated foam board, not attempted	<i>0 marks</i>

Notes/labels that aid sketch, relevant to corrugated plastic	<i>1 mark</i>	
Not attempted, incorrect, very confused	<i>0 marks</i>	4 marks

- (b) Hanging
Good quality sketch, e.g. balanced sign or thread on each arm with details evident of thread attachment *2 marks*
An attempt, some understanding, poorly communicated, details omitted-just a thread *1 mark*
Incorrect joint or not attempted *0 marks*

Notes (<i>Reward if incorrect method given</i>)		
Assist understanding of sketch	<i>1 mark</i>	3 marks

- (c) (i) Joining
Halving joint will fit e.g. slot width 1mm, position, neat lines *3 marks*
Some minor inaccuracy e.g. slot width large/small, some untidiness *2 marks*
An attempt using a slot *1 mark*
Incorrect method, not attempted *0 marks*

3 marks

- (ii) B.S.
Leader lines - all not touching outline *1 mark*
Arrow heads – all neat, touching leaders *1 mark*
Dimension lines – all parallel, no gap *1 mark*
Numbers – all correct dimension & orientation *1 mark*

4 marks

14 marks

Question 6 Representation of Materials

- (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, attempting grain
 Could be wood, grain evident, 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**
 Good representation of material, shows flair *4 marks*

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

- (b) (i) **Non-biodegradable e.g. will not rot down, not bio-friendly,**
 Clear reasons, logical statement, not descriptive. *2 marks*
 Simple statement *1 mark*
 One word answers or not related to safety *0 marks* **2 marks**
- (ii) **'re-cycle' symbol (reward quality of drawing of 're-cycle' sign)**
 Well drawn – clean line, neat, good representation. *2 marks*
 (arrows in a cycle)
 Satisfactory- recognisable, fair representation, bin *1 mark*
 Incorrect, not attempted *0 marks* **2 marks**

(c)	One – point perspective sketch		
(i)	Correctly labelled features		
	Single vanishing point (VP)	<i>1 mark</i>	
	Eye level / horizon (EL)	<i>1 mark</i>	
	Ground level (GL)	<i>1 mark</i>	3 marks
(ii)	Method – use of straight edge, ruler		
	Consistent use of vanishing point	<i>1 mark</i>	
	Consistent use of horizontals & verticals		
	Including back left corner	<i>1 mark</i>	
	Freehand	<i>0 marks</i>	
	Quality		
	Good proportions of block	<i>2 marks</i>	
	Proportions slightly elongated or incomplete	<i>1 mark</i>	
	Out of proportion – shape distorted	<i>0 marks</i>	
	Sketch lined in, differentiation density of line	<i>1 mark</i>	
	No difference in line density of construct/outline	<i>0 marks</i>	5 marks
			20 marks

Question 7 Materials and Industrial Practices

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

(a)	(i)	Clear reasons, logical statement	2 marks	
		e.g. soft, will not harm, non-toxic, hygienic		
		Simple statement, no reasoning	1 mark	
		e.g. if flexible, confusing		
		One word answers or not related to safety	0 marks	2 marks
	(ii)	Advantage		
		Reasoned answer e.g. availability, easy to form, environmental	2 marks	
		decorated by child, inexpensive		
		Some understanding, less clear, easy to make or use	1 mark	
		Incorrect, one word answer e.g. cheap, not attempted	0 marks	
		Disadvantage		
		Reasoned answer e.g. not durable, weak structure	2 marks	
		Some understanding, less clear, rip, break.	1 mark	
		Incorrect, one word answer e.g. soft, not attempted	0 marks	4 marks
(b)	(i)	Example of mass		
		Suitable large quantity product e.g. stamps, newspapers magazines, best selling books	1 mark	1 mark
	(ii)	Batch		
		Clear, correct understanding e.g. large number/group	2 marks	
		Set for production run		
		Some understanding but with omissions	1 mark	
		Incorrect method or not attempted	0 marks	2 marks
(c)	(i)	CAM		
		e.g. Vinyl cutter, CAMM 1, CAMM 3, MDX500, STIKA, laser plotter etc	1 mark	1 mark
	(ii)	More than 4 outlines on development.		
		Neat drawings, sharp lines, not touching or overlapping	3 marks	
		Satisfactory with minor imperfections, order evident, no overlapping or touching	2 marks	
		An attempt at layout, poor layout, untidy	1 mark	
		Copy of example, untidy, no attempt, four or less	0 marks	
		Use of under-lay evident for all shapes	1 mark	4 marks
	(iii)	<u>Reasoned</u> statement e.g. economic, waste reduction	2 marks	
		Unsupported statements, cheap or quicker etc.	1 mark	
		One word answers e.g. cheap, cost, more	0 marks	2 marks
				16 marks

Question 8 Evaluations

(a)	Air Mail	Features from list		3 marks
		Symbol of flight	<i>1 mark</i>	
		Block colour	<i>1 mark</i>	
		Reference to airmail	<i>1 mark</i>	
(b)	New design	Using all three specification points	<i>1 mark</i>	
		Effectiveness of the new sticker as an air mail stamp		
		Effective	<i>2 marks</i>	
		Confusing	<i>1 mark</i>	
		Copy or poor attempt	<i>0 marks</i>	
		Quality		
		Neat, well drawn, good quality and colour	<i>2 marks</i>	
Satisfactory, clear and recognisable, some imperfections	<i>1 mark</i>			
		Untidy, near scribble, confused, or not attempted	<i>0 marks</i>	5 marks
(c)	Evaluation	<i>For each feature (2 marks per feature)</i>		
		Critical evaluation, relevant comment of feature	<i>2 marks</i>	
		Superficial, self - congratulatory	<i>1 mark</i>	
		Comment not from (a), one word, not attempted	<i>0 marks</i>	6 marks
				14 marks

Paper Total 125 Marks