



General Certificate of Secondary Education

**Design and Technology
(Graphic Products)**

**Short Course Higher Tier
(3553/H)**

Mark Scheme

2007 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.

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1

Marketing & Product Analysis

Tick/cross in boxes, then total row. Question total in box. 9 x 1 mark

Mobile Phones	Typical user/buyer (avoid repeat answers)	Aesthetic feature (avoid repeat answers) Look for pleasing, layout, comments.	Function symbol on box (one word answers OK) Accept one word answers
Value Phone			(a) has texting facilities, accept SMS (b) has ringtones (accept plays music), MP3,
Fashion Phone	e.g. girl, young woman, teenager etc	e.g. flower printed on the casing, clean shape	(c) has built in camera (photography) (d) access to the internet
Disposable Phone	e.g. student (from specification), hiker, adventurer, camper etc	e.g. simple, clean layout, uncluttered, metallic finish, bronze finish, large buttons	(e) direct to emergency services

TOTAL**9 marks**

2	Lighting Effects & CAD		
(a)	Light source		
	Symbol copied and positioned so as to illuminate drawing.	<i>1 mark</i>	1 mark
	Not used	<i>0 marks</i>	
	Rendering – high and low on features e.g. buttons, AQA and screen		
	Very good relief shown, e.g. consistent good quality, highs & lows evident, same angle shadow.	<i>2 marks</i>	2 marks
	Adequate relief, some details consistent	<i>1 mark</i>	
	Relief not attempted	<i>0 marks</i>	
	Very good rendering e.g. high quality, consistent – 3 tonal ranges	<i>4 marks</i>	4 marks
	Good rendering e.g. tonal control, minimum range of colour, good pencil skills – with boundaries, even covering.	<i>3 marks</i>	
	Satisfactory rendering e.g. attempt at some tonal control – not always successful.	<i>2 marks</i>	
	An attempt, untidy, little evidence of care or skill.	<i>1 mark</i>	
	Hatching, scribble, unworthy of reward, not attempted	<i>0 marks</i>	
	If light source is inconsistent with shading, maximum = 2 marks		
(b)	CAD Icons		
	Icon Number 1		
	Good understanding clearly explained	<i>2 marks</i>	2 marks
	Some understanding but less specific	<i>1 mark</i>	
	Incorrect, not attempted	<i>0 marks</i>	
	Icon Number 2		
	Meaning:		
	e.g. good understanding based on ‘meaning’ - rotate	<i>1 mark</i>	1 mark
	Incorrect, not attempted	<i>0 marks</i>	
	Use:		
	Rotate thro’ 90 degrees OR change orientation portrait to landscape (<i>be specific</i>).	<i>2 marks</i>	2 marks
	Some understanding but less specific	<i>1 mark</i>	
	Icon Number 3		
	Meaning:		
	e.g. Add text, lettering, edit text	<i>1 mark</i>	1 mark
	Incorrect, not attempted	<i>0 marks</i>	
	Use:		
	e.g. good understanding based on ‘meaning’	<i>2 marks</i>	2 marks
	Some understanding but less specific	<i>1 mark</i>	
	Incorrect, not attempted	<i>0 marks</i>	
(ii)	Print Command		
	Good 2D representation of printer e.g. neat, clear.	<i>2 marks</i>	2 marks
	Adequate representation – less precise, 3D drg	<i>1 mark</i>	
	Incorrect, not attempted	<i>0 marks</i>	

Use of 'sketching space' relating to printer

1 mark

1 mark

TOTAL

18 marks

3 Letter Styles

(a) Bar		
(i) Part accurately identified and coloured	<i>1 mark</i>	1 mark
Incorrect	<i>0 marks</i>	
(ii) Serif		
Part accurately identified and coloured	<i>1 mark</i>	1 mark
Incorrect	<i>0 marks</i>	
(b) Letter style(s) (don't have to be coloured)		
(i) Good quality letters, consistent	<i>2 marks</i>	2 marks
Adequate letters including 'single lines'	<i>1 mark</i>	
Not attempted	<i>0 marks</i>	
Obvious use of grid lines and/or guidelines	<i>1 mark</i>	1 mark
Satisfactory quality of draw letters	<i>2 marks</i>	2 mark
Poor line work, blunt, untidy, very uneven	<i>1 mark</i>	
Not attempted, scribble etc	<i>0 marks</i>	
(ii) Evaluation (in context of lettering on box)		
Critical comment, relevant and reasoned statement	<i>3 marks</i>	3 marks
Good attempt some relevant reasoning	<i>2 marks</i>	
Superficial, not justified comment, unsupported statement e.g. eyecatching	<i>1 mark</i>	
Not relevant, not attempted.	<i>0 marks</i>	
	TOTAL	10 marks

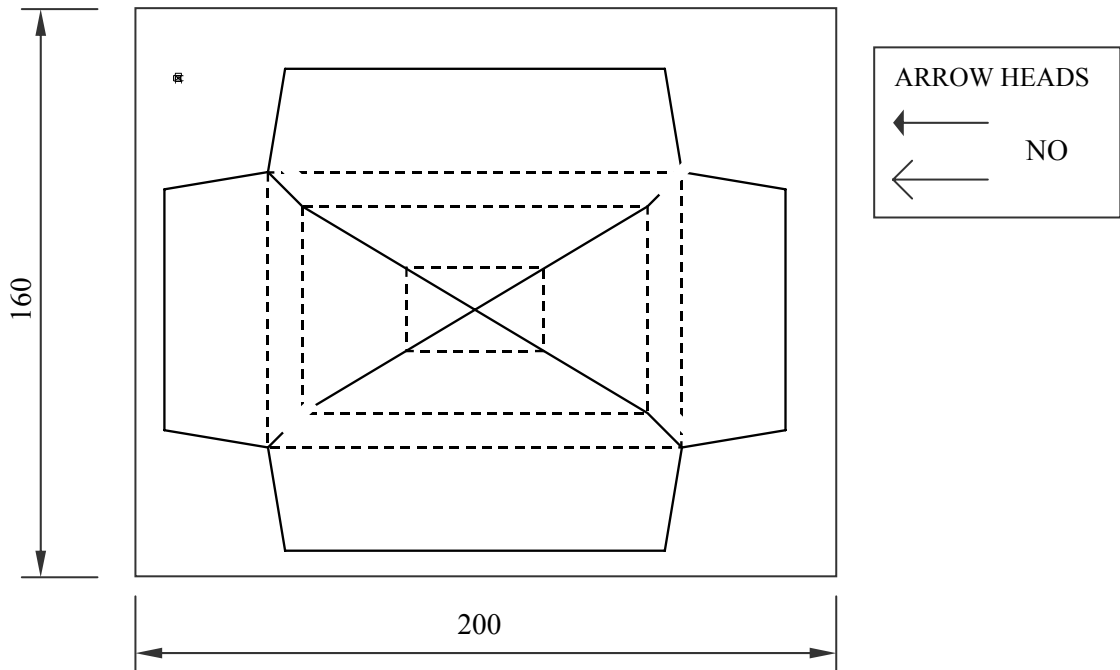
4	Development of Ideas		
(a)	Images (do not accept lettering on its own):		
(i)	Three or more different discrete images on theme	<i>3 marks</i>	3 marks
	Two discrete images, may include some development	<i>2 marks</i>	
	One image.	<i>1 mark</i>	
	Incorrect theme. Not attempted	<i>0 marks</i>	
(ii)	Colour - <i>swatches, labels, full colour</i>		
	Colour indicated through designs	<i>2 marks</i>	2 marks
	Some features indicated	<i>1 mark</i>	
	Not attempted or minimum use	<i>0 marks</i>	
(iii)	Notes		
	Critical, relevant, related to design – why?	<i>3 marks</i>	3 marks
	Descriptive, some relevance implied	<i>2 marks</i>	
	An attempted, some relevance to ideas or labels only	<i>1 mark</i>	
	Confused, unclear, not attempted.	<i>0 marks</i>	
(b)	Image		
(i)	Recognisable image transferred from (a)	<i>1 mark</i>	1 mark
	New image, not attempted	<i>0 marks</i>	
(ii)	Development		
	Clear evidence of development – progression evident	<i>4 marks</i>	4 marks
	Some development but limited stages/images, incremental	<i>3 marks</i>	
	Development implied, not obvious or single sketch including changes	<i>2 marks</i>	
	One idea, no development or discrete ideas	<i>1 mark</i>	
	Confused, unclear, not attempted.	<i>0 marks</i>	
(iii)	Evaluation		
	Critical, relevant, related to design – why?	<i>3 marks</i>	3 marks
	Descriptive, some relevance implied	<i>2 marks</i>	
	An attempted, some relevance to ideas or labelling only	<i>1 mark</i>	
	Confused, unclear, not attempted.	<i>0 marks</i>	
		TOTAL	16 marks

5	Lay out & Presentation Drawing		
(a)	Specification:		
	All three specification points or boxed areas/features applied to all boxes (3 x 1 mark)	<i>3 marks</i>	3 marks
	Block areas used to represent spec (can be words)	<i>1 mark</i>	1 mark
(b)	Line quality:		
(i)	Very good, clear, consistently neat, sharp line etc.	<i>2 marks</i>	2 marks
	A fair attempt, lacks precision	<i>1 mark</i>	
	Very blunt / scribble / not attempted	<i>0 mark</i>	
(ii)	Colour rendering:		
	Good quality, enhances drawing, visual impact, e.g. good tonal control, very good block colouring.	<i>4 marks</i>	4 marks
	Satisfactory, controlled use of media, e.g. some attempt at higher skills - tone, good block colour (good monochrome max.)	<i>3 marks</i>	
	Adequate, block colour, some imperfections	<i>2 marks</i>	
	Poor, an attempt, basic colour skills, very untidy	<i>1 marks</i>	
	No colour – line drawings only	<i>0 marks</i>	
(iii)	Layout on box lid:		
	Good visual impact, e.g. effective use of space, 'margins', using full specification.	<i>3 marks</i>	3 marks
	Satisfactory, some sense of composition, or incomplete	<i>2 marks</i>	
	Adequate spacing, some imperfections e.g. crowded, 'unbalanced', 1 specification feature only.	<i>1 mark</i>	
	Very poor, no sense of composition, or not attempted	<i>0 mark</i>	
		TOTAL	13 marks

6 Materials and Components




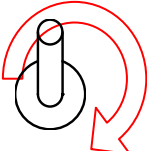
- (a) Fastening
Will it work?
- | | | |
|--|----------------|----------------|
| Good understanding of tab/slip locking mechanism | <i>3 marks</i> | 3 marks |
| Some understanding, but details missing (not quite work) | <i>2 marks</i> | |
| An attempt at locking (in context of question) | <i>1 mark</i> | |
- Drawing quality
- | | | |
|--|----------------|----------------|
| Good communication, easy to understand, informative | <i>2 marks</i> | 2 marks |
| Adequate communication, e.g. some mis-alignment | <i>1 mark</i> | |
| Confused, hard to follow, wrong context, not attempted | <i>0 marks</i> | |

- (b) Surface Development
e.g.



- (i) Cut lines
- | | | |
|---|---------------|----------------|
| All outside edges inc line symbol | <i>1 mark</i> | 2 marks |
| Both inside 'diagonals' inc line symbol | <i>1 mark</i> | |
- (ii) Fold lines
- | | | |
|--|---------------|----------------|
| All outer folds correct inc line symbol | <i>1 mark</i> | 3 marks |
| All middle folds correct inc line symbol | <i>1 mark</i> | |
| All inner folds correct inc line symbol | <i>1 mark</i> | |
- Neat and accurate, freehand OK
- | | | |
|--|---------------|---------------|
| | <i>1 mark</i> | 1 mark |
|--|---------------|---------------|
- Untidy, inaccurate, careless
- | | | |
|--|----------------|--|
| | <i>0 marks</i> | |
|--|----------------|--|

(c) B.S. (see above for guidance)		4 marks
Card out line identified (length x width) plus size 200 x 160 and orientation	<i>1 mark</i>	
Leader lines - consistently not touching outline	<i>1 mark</i>	
Arrow heads – all neat, touching leaders	<i>1 mark</i>	
Dimension lines – parallel, no gaps	<i>1 mark</i>	
		15 marks

- 7 Cultural, Social & Environmental**
- (a) **Signs** – with reference to batteries
- 
- Meaning:
- | | | |
|---|----------------|----------------|
| Do not put in household rubbish, bin, wheelie | <i>2 marks</i> | 2 marks |
| Some understanding, not explicit, generalisation e.g. do not throw away | <i>1 mark</i> | |
| Incorrect, confused, not attempted | <i>0 marks</i> | |
- Reason:
- | | | |
|--|----------------|----------------|
| Good understanding e.g. contamination of earth, poisons, danger in land fill etc | <i>2 marks</i> | 2 marks |
| Some understanding e.g. a danger | <i>1 mark</i> | |
| Incorrect, confused, not attempted, recycle | <i>0 marks</i> | |
-
- 
- Meaning:
- | | | |
|--|----------------|----------------|
| Do not burn, do not put in fire, do not incinerate | <i>2 marks</i> | 2 marks |
| Some understanding, not explicit, generalisation, away from fire | <i>1 mark</i> | |
| Incorrect, confused, not attempted, flammable | <i>0 marks</i> | |
- Reason:
- | | | |
|--|----------------|----------------|
| Good understanding e.g. danger, poison, contamination of air | <i>2 marks</i> | 2 marks |
| Some understanding e.g. a danger, keep away from fire | <i>1 mark</i> | |
| Incorrect, confused, not attempted | <i>0 marks</i> | |
- (b) 
- Meaning:
- | | | |
|------------------------------------|----------------|----------------|
| European standard (or Safety) | <i>1 mark</i> | 1 marks |
| Incorrect, confused, not attempted | <i>0 marks</i> | |
- (c) EC Flower *3, 2, 1, 0 marks* **3 marks**
- For full marks, reward three features e.g.
- colour** – green/blue for environment e.g. clean, recycle, etc.
 - flower** – growth, health, etc
 - Stars/e mark** – Europe, flag etc
- OR** if one or two features reward reasoning pro rata.
e.g. stars – symbol on EC flag, identified as European standard.
- (d) **'Wind up symbol'** *1 mark* **1 mark**
- Use of Designing Space – related to symbol
- 

Is meaning clear and well communicated e.g. crank, turn,	<i>3 marks</i>	3 marks
Some understanding, generally communicates idea	<i>2 marks</i>	
An attempt related to question	<i>1 mark</i>	
Incorrect, confused, not attempted	<i>0 marks</i>	
Style:		
2 – Dimensional	<i>1 mark</i>	1 mark
Block coloured (incl white)	<i>1 mark</i>	1 mark
e.g. single line arrows = 0 marks		
Word-less, no text, no instructions	<i>1 mark</i>	1 mark
	TOTAL	19 marks