



General Certificate of Secondary Education

**Design and Technology
(Graphic Products)**

**Full Course Foundation Tier
(3543/F)**

Mark Scheme

2007 examination - June series

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1**Marketing & Product Analysis**Tick/cross in boxes, then total row. Question total in box. *8 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)
Value Phone			<i>e.g. has texting facilities, accept SMS,</i>
Fashion Phone	<i>e.g. girl, young woman, teenager etc Any reference to young person</i>	<i>e.g. poppy (flower) printed on the casing, clean shape, picture, logo etc</i>	<i>e.g. has built in camera (photography)</i>
Smart Phone		<i>e.g. contrasting colours of the casing, interesting layout keys</i>	
Disposable Phone	<i>e.g. student (from specification), hiker, adventurer, camper etc</i>	<i>e.g. simple, clean layout, uncluttered, metallic finish</i>	<i>e.g. direct to emergency services. Specify Police etc</i>

TOTAL**8 marks**

2	Modelling Materials & CAD			
	(a) Thermoplastic	e.g. PVC, HIPS, polystyrene, polypropylene, accept acrylic or Perspex	1 mark	1 mark
	(b) 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.	2 marks	2 marks
		Adequate relief, some details consistent or shadow around features	1 mark	
		Relief not attempted	0 marks	
		Very good rendering e.g. high quality, consistent – 3 tonal ranges	4 marks	4 marks
		Good rendering e.g. tonal control, good pencil skills – with boundaries, even covering.	3 marks	
		Satisfactory rendering e.g. attempt at some tonal control – not always successful.	2 marks	
		An attempt, untidy, little evidence of care or skill.	1 mark	
		Hatching, scribble, unworthy of reward, not attempted	0 marks	
	(c) CAD Icons			
	(i) Icon Number 2	Meaning: e.g. good understanding based on ‘meaning’: zoom in or magnifying glass	1 mark	1 mark
		Incorrect, not attempted	0 marks	
		Use: To ‘zoom in’, magnify, enlarge screen image, object or page.	2 marks	2 marks
		Good understanding clearly explained		
		Some understanding but less specific	1 mark	
		Incorrect, not attempted	0 marks	
		Icon Number 3		
		Meaning: e.g. good understanding based on ‘meaning’: rotate	1 mark	1 mark
		Incorrect, not attempted	0 marks	
		Use: Rotate thro’ 90 degrees OR change orientation portrait to landscape (<i>be specific</i>).	2 marks	2 marks
		Some understanding but less specific	1 mark	
		Incorrect, not attempted	0 marks	
		Icon Number 4		
		Meaning: e.g. fast colouring of closed area, fill	1 mark	1 mark
		Incorrect, not attempted	0 marks	
		Use: Colour fill OR fountain fill into area or space	2 marks	2 marks
		Some understanding but less specific	1 mark	
		Incorrect, not attempted	0 marks	

(ii) **Icon No 5 Print Command**

Good 2D representation of printer e.g. neat, clear.

2 marks **2 marks**

Adequate representation – less precise, 3D drawing

1 mark

Incorrect, not attempted

0 marks

Use of 'sketching space' relating to printer

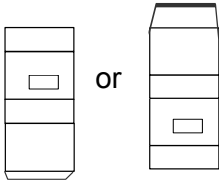
1 mark **1 mark**

TOTAL **19 marks**

3	Letter Styles		
	(a) Font (<i>be strict</i>)		
	Clear understanding of style of lettering e.g. computer letter style, from printing industry, shape and kerning	2 marks	2 marks
	Some understanding, one factor explained, fair attempt e.g. style of writing or lettering	1 mark	
	Confused, unclear, not attempted.	0 marks	
	(b) Letter style(s)		
	(i) Obvious use of grid lines	1 mark	1 mark
	Good quality letters (3 examples)	2 marks	2 marks
	Adequate letters including 'single lines' or unfinished	1 mark	
	Not attempted	0 marks	
	Good quality of line work of letters, e.g. clear sharp edges	3 marks	3 marks
	Satisfactory quality of line work of letters	2 mark	
	Poor or single line OR less than 3 ideas	1 marks	
	Not attempted	0 marks	
	(ii) Evaluation (in context of lettering on box)		
	Critical comment, relevant and reasoned statement	3 marks	3 marks
	Good attempt some relevant reasoning	2 marks	
	Superficial, not justified comment, unsupported statement e.g. eye catching	1 mark	
	Not relevant, not attempted.	0 marks	
		TOTAL	11 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 all 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
	Not attempted	<i>0 marks</i>	
	Labels to identify features	<i>1 mark</i>	1 mark
	Neatness of sketching e.g. clear, well communicated	<i>1 mark</i>	1 mark
	Illegible	<i>0 marks</i>	
	(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	<i>3 marks</i>	
	Adequate, block colour, some imperfections	<i>2 marks</i>	
	Poor, an attempt, basic colour skills, very untidy (good monochrome)	<i>1 marks</i>	
	No colour – line drawings only	<i>0 marks</i>	
	(iii) Layout:		
	Good visual impact, e.g. effective use of space, ‘margins’	<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’	<i>1 mark</i>	
	Very poor, no sense of composition, or not attempted	<i>0 mark</i>	
	(c) Feature identified	<i>1 mark</i>	1 mark
	Good reason, valid and well explained – because, why?	<i>2 marks</i>	2 marks
	Superficial reason, not explained, confused	<i>1 mark</i>	
	Not attempted, inappropriate statement	<i>0 marks</i>	
		TOTAL	17 marks

6	Surface Development & British Standard conventions		
(a)	Symbol for expanded polyurethane foam – ‘beads’ Correct understanding of material – neat beads clearly evident Some understanding of material – beads confused Unrecognisable or not attempted	2 marks 1 mark 0 marks	2 marks
(b)	Expanded polyurethane as a packing material Advantages e.g. lightweight, shock absorbent, re-useable, moulded to a particular shape Clear, relevant and logical reasoning Some understanding, not clearly explained Confused, misunderstanding, no reasoning, one word answer Very superficial, one word, not attempted	3 marks 2 marks 1 mark 0 marks	3 marks
	Disadvantages e.g. use of finite resource(oil), non-biodegradable, polluting not intended for continual use Clear, relevant and logical reasoning Some understanding, not clearly explained Confused, miss-understanding, no reasoning, one word answer Very superficial, one word, not attempted (Do not accept recycling for part (b))	3 marks 2 marks 1 mark 0 marks	3 marks
(c)	Surface development (<i>accept either orientation</i>)		
(i)			
	Correct overall height (4 squares down)		1 mark
	Correct overall width (3 squares in)		1 mark
	Correct positions of horizontal fold lines	(4 x 1 mark)	4 marks
	Glue tab attached to outer edge on top (5 mm)		1 mark
	Consistent correct use of line key		1 mark
	Cut out (<i>accept either face</i>)		
	Correct sizes 45mm x 20 mm (9 x 4 squ)		1 mark
	Equal spaced (e.g. 3 squares in and 2 squares down)		1 mark
(ii)	On given horizontal - neat arrow heads and the number 150 or 150mm above the line		1 mark
	On second dimension – leader lines and parallel dimension line		1 mark
	Neat arrow heads and correct dimension in mm above line and reading from the right hand side		1 mark
(iii)	ONLY CORRECT ANSWER: 1:2	1 mark	1 mark
	TOTAL		22 marks

7	Packaging, Materials and Components		
	(a) Type of package: blister pack	<i>1 mark</i>	1 mark
	(i) Incorrect or not attempted	<i>0 marks</i>	
	(ii) Advantage to customer e.g. product seen, security no missing parts. No reference to water. Reasoned response – look for ‘because’ – good understanding Some understanding, not fully explained e.g. can see what they’re buying Confused or not attempted	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	2 marks
	(iii) Environmentally unfriendly e.g. over use of materials, not all biodegradable, large pack – increased transport cost/pollution, not recyclable. Reasoned response – look for ‘because’ and example Reasoned response – look for ‘because’ or example Correct but lacks full reasoning e.g. implicit reasoning Some understanding, not explained, superficial Confused, or not attempted	<i>4 marks</i> <i>3 marks</i> <i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	4 marks
	(b) Will it work? Accept staple, ‘bent’ edges, a specific adhesive, heat bonded Good method, clearly communicated Could work, lacks detail or just a generic adhesive/glue Incorrect, not attempted.	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	2 marks
	Sketches that communicate idea clearly Satisfactory, general idea can be deduced An attempt lacks precision, untidy. Confused or not attempted	<i>3 marks</i> <i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	3 marks
	Notes: Aids communication, clear, concise, accurate Labels, or confused confused or not attempted	<i>2 marks</i> <i>1 mark</i> <i>0 marks</i>	2 marks
		TOTAL	14 marks

8 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	<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	<i>1 mark</i>	
Incorrect, confused, not attempted e.g. flammable or explosive	<i>0 marks</i>	

- (b) EC Flower logo (for full marks two clear factors must be identified, OR on identified **and** a correct justification given.

- (i) EC symbol *2, 1, 0 marks* **2 marks**

Factors

- stars
- e sign

Reasoning

- stars on EC flag,
- e representing Europe.

- (ii) Colours



Reason for

- Blue

Reasoning - on EC flag, sky.	<i>1 mark</i>	2 marks
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- Green

Reasoning - environment, growth	<i>1 mark</i>	
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(c) Signs, symbols, pictograms		
(i) e.g. international trade, unfamiliar language, not understanding written word, universal picture language, understanding at a glance. Space saving, ease of recognition		
Good understanding, very explicit, reasoned	<i>2 marks</i>	2 marks
Implied understanding, a little confused. Easier to understand/read – why?	<i>1 mark</i>	
Incorrect, very confused, not attempted	<i>0 marks</i>	
(ii)		
		
European (community, EU) standard safety	<i>1 mark</i>	2 marks
	<i>1 mark</i>	
Incorrect, confused, not attempted	<i>0 marks</i>	
		
British Standard (Kite Mark)	<i>1 mark</i>	2 marks
safety tested for safe use (inc electrical), fit for purpose (size)	<i>1 mark</i>	
Incorrect, confused, not attempted	<i>0 marks</i>	
	TOTAL	18 marks