

Design and Technology

General Certificate of Secondary Education

Unit **A554**: Designing Influences

Mark Scheme for January 2011

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Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

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Question	Expected Answer	Mark	Additional information
2 (a)	People like reminders of holidays People interested in foreign cultures Insight into /embracing other cultures Britain becoming more ethnically diverse Something different / new / interesting Enables some people to “dream” Increased immigration Can be hand produced / traditional designs Supporting other counties / ethical trading Collectable Fashionable Follow “stories” [1] mark for each different point x 3 = [0-3]	[3]	Do not accept: unique, attractive, colourful, decorative, easy to hang, Look for duplication of answers
(b) (i)	Overseas / other countries manufacturing (accept “from” or “originates”) World trade Improved communications Improved transportation Cost of production Increased availability [1] mark for example + [1] mark for explanation or [0-2] for explanation/details	[2]	Do not accept: easier exports, bigger lorries, better roads If “rest of world or all over the world or different / other countries mentioned award [1] mark
(ii)	Lower purchase price More variety / choice More choice don’t have to travel overseas to buy products More interesting products	[2]	Do not accept generic answers such as: ‘cheaper’ unless qualified (e.g. cheaper to buy products).better quality or equivalent. Do not accept reference to cultural, sharing or understanding other cultures
(c)	A specific example is required for any award to this question. Any examples = [1] such as: Sandals now popular in the UK Sarong (wrap around skirts) Tamagotchi Curry Pasta Pizza Paella Sweet and Sour		Do not accept generic examples such as “buildings” or “scarves” unless qualified. “Indian silk scarves” is worth reward. If products from themes (question 4) are used as examples reward the marks. Examples: Sandals [1] originally from the Middle East [1] but generally popular throughout the more temperate countries have become very popular in the UK [1] and have been developed for fashion ware [1] and general use [1]. <u>Any [3] marks</u>

Question		Expected Answer	Mark	Additional information
3	(a)	<p>Ergonomically designed for comfort and reach Lightweight so easy to use Disposable / has replaceable heads Doesn't need sharpening so saves time / skill / quicker Low initial cost (accept cheaper in this instance) Less skill required to use Easy to hold / grip Easier to use Head swivels to the contour of the face Hygienic. Colourful, Moisturised strip Sophisticated/stylish Any point [1] mark each total [0-3]</p>	[3]	<p>Do not accept: Made of plastic, moulded, two blades, blades embedded in the moulding, easy to clean, easy to dry, portable, reference to safety (given), Improved aesthetics</p>
	(b)	<p>An explanation of two different points that justify the choice in part (a)</p> <p>One mark [1] for a simple explanation such as: easy to hold [1] Two marks [2] for a detailed explanation such as: The texture on the moulding (given in part (a)) gives grip so it doesn't slip [1] when in wet hands [1]</p>	[4]	<p>If the point given is incorrect e.g. cheap in part (a) but a clear explanation is given the marks can be awarded accordingly.</p> <p>The explanation requires an explained point as to the reason why the feature is successful.</p> <p>Do not accept references to safety/danger/risk of cuts/bleeding twin blades, ease of cleaning/drying, reference to blades less exposed (given 3b example)</p> <p>One mark for a simple explanation for easy to hold (given in part (a)) shape of the handle fits the hand [1] Two marks for a more detailed explanation for easy to hold (given in part (a)) moulded shape of the handle [1] fits a full finger and palm grip [1]</p> <p>One mark for a simple explanation of lightweight (given in part (a)) Less wrist ache when being used [1] Two marks for a detailed explanation of lightweight (given in part (a)) Less wrist fatigue when being used [1] so less tiring especially for older people [1]</p>

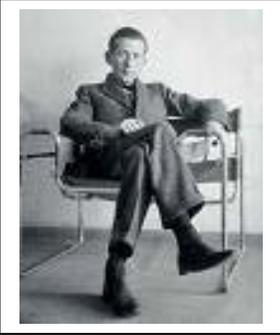
Question	Expected Answer	Mark	Additional information
(c)	<p>The 1900s razor will last for a very long time [1] and only needs to be re-sharpened [1] whereas the modern razor needs to be replaced [1]</p> <p>Sharpening is done on a natural stone [1] and a leather strop [1] materials that will also last a long time [1] and are sustainable [1].</p> <p>Accept recyclable if qualified for [1] mark</p> <p>Accept negative responses references to modern razor.</p> <p>Any [3] from the 940 points given.</p> <p>[1] mark any of the correct point plus [0-2] marks for explanation.</p> <p>OR</p> <p>[1] mark for up to two [0-2] correct points plus [1] for explanation</p>	[3]	<p>Do not accept: the traditional razor can be used over and over again.</p> <p>Do not accept references to “breaking” for either razor.</p>
Total		[10]	

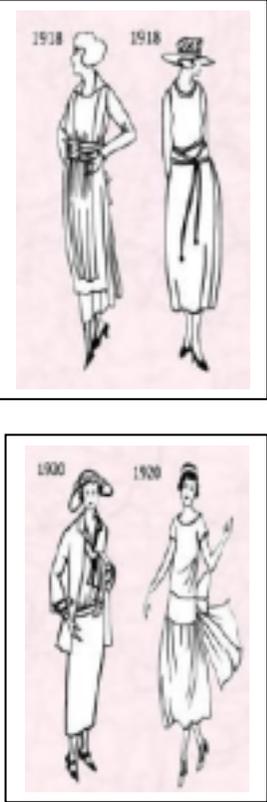
4a	<p>Continuous prose – question marked for quality of written communication (Look for reasoned argument) [6 marks] Bullet Point list maximum of 2 marks Only <u>one</u> Trend Setter must be referred to. Where the candidate talks about the product in part (a) up to 4 marks can be carried over to (b) and not awarded in part (a). Up to 2 marks if talking about iconic product in part (a) maximum.</p> <p>Level 1 (0 - 2 marks) Basic analysis showing <u>some</u> understanding of the meaning of influential in the context of the chosen iconic product. Can provide an explanation which makes some reference to design innovation and function. There will be little or no use of specialist terms. Answers may be ambiguous or disorganized. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>One general point made (1) Two general points made (2)</p> <p>Level 2 (3 - 4 marks) Adequate analysis, showing <u>an</u> understanding of the meaning of influential in the context of the chosen iconic product. Can provide an explanation which makes adequate reference to design, innovation and function. There will some use of specialist terms, although these may not always be used appropriately. The information will be presented for the most part in a structured format. There will be occasional errors in grammar, punctuation and spelling.</p> <p>Two general points well made (3) Two specific points well made (4)</p> <p>Level 3 (5 - 6 marks) Thorough analysis, showing a <u>clear</u> understanding of the meaning of influential in the context of the chosen iconic product. Can provide a clear explanation which makes detailed reference to design, innovation and function. Specialist terms will be used appropriately and correctly. The information will be presented in a structured format. The candidate can demonstrate the accurate use of grammar, punctuation and spelling.</p> <p>Two specific points about the trend setters influence well made (5) High quality argument made of the trend setters influence (6) [Maximum 6 in total]</p>
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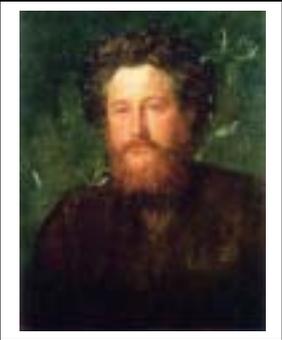
Question 4 overarching comments:

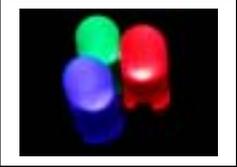
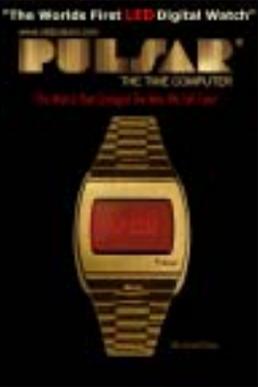
Irrespective of what “tick” response candidates have done, positively reward the content of 4 (a) and 4(b)
 Question 4 (a) and 4 (b) may use different trend-setters and / or iconic products from the current list.
 N.B. Trend setter / iconic product must be selected from the list given in question i.e. not trend- setter / iconic product of their own or from a previous OCR Product Design Theme.

Avoid giving credit for information gleaned from the examination paper, e.g. Coco Chanel influenced the Flapper fashion style

<p>4 a</p> <p>Marcel Breuer</p> 	<p>Taught at the Bauhaus in the 1920s. Pioneered the design of tubular steel furniture. Innovative and experimental wooden furniture Influential architect and designer Clear understanding and user of the "form follows function" principle First to use tubular steel in furniture Pioneer of Minimalism Experimenter with bent and formed plywood Commissioned for numerous monumental civic structures [with some of the more notable being <i>The UNESCO World Headquarters (Paris) The Whitney Museum of American Art (NYC) The University of Massachusetts Campus Centre in Amherst the headquarters of The Departments of HUD and HEW in Washington D.C. St. John's Abbey (Minnesota) and The Atlanta-Fulton Central Branch Public Library (Atlanta).</i>] Residential commissions [<i>The Wolfson House Breuer House and The Frank House.</i>] Concept of 'binuclear' house with separate wings for different functions (bedrooms / kitchen) Distinctive butterfly roof and use of concrete.</p>	<p>4 b</p> <p>Wassily Chair</p>	<p>Used tubular steel available in both a folding and a non-folding versions Black and white fabric available Pulled taught and held in tension with springs at rear Post war version that replaced the fabric with black leather straps Wire-mesh fabric version produced later Revolutionary in the use of the materials (bent tubular steel and canvas) and methods of manufacturing Only made possible by the development of the process for making seamless steel tubing Influencing other designs today Influenced on modern day sun beds and garden chairs</p> 
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<p>4 a Coco Chanel</p> 	<p>Pioneering French fashion designer Single-handedly launched a fashion empire Fans make pilgrimages to her Paris apartment She borrowed from menswear and introduced vogue sportswear and bell bottom pants <i>[accept jeans]</i> for women Steered women away from the fussy frilly corseted styles of post World War I and towards understated elegance simplicity and comfortable chic Created a new look for women in the 20th century Named in <i>Time's</i> one hundred most influential people of the twentieth century One the most important figures in the history of twentieth century fashion. Creating clothes that were primarily comfortable. Made fashion more affordable and accessible A Modernists A handbag is still seen as a landmark purchase for women of increasingly younger ages The Chanel No.5 scent is the best selling in the world Costume jewelry rather than showing off wealth The interlocking Cs of Coco Chanel remain one of the ultimate brand insignia Coco Chanel's bobbed hair bright red lips and outspoken manner also broke the mould. This smoking outspoken woman Had relations with the English industrialist <i>[Arthur "Boy" Capel - who lent her the money to buy Rue Cambon - Igor Stravinsky and the second Duke of Westminster Hugh "Bendor" Grosvenor the richest man in Europe.]</i> Currently the brand could not be more alive with watches, beauty fragrance, women's wear and new stores.</p>	<p>4 b The Flapper</p> 	<p><i>Flapper is the style but accept references to Flapper dress and other elements of the "Flapper style"</i></p> <p><i>The costume history image in our minds of a woman of the 'Roaring Twenties' is actually likely to be the image of a flapper.</i></p> <p>Flappers did not truly emerge until 1926 Flapper fashion embraced all things and styles modern. A fashionable flapper had: short sleek hair, a shorter than average shapeless shift dress, a chest as flat as a board, wore make up and applied it in public, smoked with a long cigarette holder, exposed her limbs and epitomised the spirit of a reckless rebel who danced the nights away in the Jazz Age.</p>
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<p>4 a</p> <p>William Morris</p> 	<p>English architect furniture and textile designer Artist and writer Socialist Associated with the Pre-Raphaelite Brotherhood and the English Arts and Crafts Movement. He founded the <i>Oxford and Cambridge Magazine</i> an outlet for his poetry and a forum for development of his theories of hand-craftsmanship in the decorative arts. Profound impact on the decoration of churches and houses in the 20h century Morris's chief contribution was as a designer of repeating patterns for wallpapers and textiles many based on a close observation of nature. He was also a major contributor to the resurgence of traditional textile arts and methods of production. Morris was an important figure in the emergence of socialism in Great Britain Founded the Socialist League in 1884 He devoted much of the rest of his life to the Kelmscott Press which he founded in 1891.</p>	<p>4 b</p> <p>Block Printed Wall Paper</p> 	<p>Inspired from nature, Reinstated the use of indigo dying, Used vegetable dyes Repeat patterns Reproduced and mass produced (Laura Ashley) Powerful Tasteful Designs brought drab rooms to life Hand carved from wooden blocks. Hand crafted Reintroduction of hand techniques</p>
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<p>4 a</p> <p>L.E.D</p> 	<p>A light-emitting diode (LED) is an electronic light source.</p> <p>The first LEDs became commercially available in late 1960s and were red. At the time they were used as replacements for incandescent indicators</p> <p>Also used in seven-segment displays firstly in laboratory and electronics test equipment then in a wider range of home appliances such as TVs radios telephones calculators and even watches. Unfortunately at the time they were not powerful enough to illuminate a certain area.</p> <p>All early devices emitted low-intensity red light but modern LEDs are available across the visible ultraviolet and infra red wavelengths with very high brightness</p> <p>LED's present many advantages over traditional light sources including lower energy consumption longer lifetime improved robustness smaller size and faster switching They are relatively expensive and require more precise current and heat management than traditional light sources.</p> <p>The compact size of LED's has allowed new text and video displays and sensors to be developed.</p> <p>Their high switching rates are useful in communications</p>	<p>4 b</p> <p>Pulsar Watch</p> 	<p>In the year 1972 the first Pulsar watch was made public by the Hamilton Watch Company Pulsar Watch a division of Seiko Watch Corporation is among the leading watch brands worldwide.</p> <p>Pulsar watches are extremely elegant, classy and sparkling.</p> <p>They are wrapped up in contemporary designs by the mean of an eternal appeal.</p> <p>The stunning thick range includes watches for almost all ages of people and their taste. Through the production of modern timepiece watches it has set up a unique customer category for its brand.</p> <p>By following the same line of parent Seiko Pulsar persists to innovate captivate and shine. The expertise and novelty through which it was created mesmerized some contemporary press reports to shower a huge amount of praise on it.</p> <p>At that time it was the first of its kind incorporating digital display and electronic quartz.</p> <p>In the midst of a light emitting diode it got a new space-age look.</p> <p>Incorporated the LED the first watch of its kind to do so.</p> <p>Used in James Bond Live and Let Die movie – became the must have design icon of the period.</p> <p>The LED were heavy power consumers hence the batteries ran down very quickly.</p> <p>Initially very expensive mass production techniques and the development of the LCD display led to the miniaturisation or electronics</p>
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<p>4 a</p> <p>Convenience foods</p>	<p>Easy to produce therefore convenience foods are time saving.</p> <p>Suited the change in families and the rise of the working 'single' woman.</p> <p>The development of new preservatives and drying and storage techniques led to a rise in dried (desiccated) and pre-packed ready to eat foods.</p> <p>Coincided with change in the nuclear family and the stay at home mother.</p> <p>More women went out to work people began to marry later in life and so the convenience food was born.</p> <p>The rise of Britain as a multi-cultural society also led to an greater interest in 'foreign cuisine'.</p>	<p>4 b</p> <p>Vesta Curry</p> 	<p>One of the first 'ethnic' convenience foods. Rode on the wave of the 1970s food revolution which introduced European and Asian food to the British diets.</p>
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<p>5a</p>	<p>One mark for each key specification point – no marks awarded for points identified in the question. (0-4)</p> <p style="text-align: right;">[4]</p> <p>Each point must relate specifically to the design situation.</p> <p>Examples:</p> <p>Phone Holder: <i>Must be easy to remove and replace phone.</i></p> <p>Handbag: <i>Must have tassels for decoration.</i></p> <p>Drinks mat: <i>Must be able to be cleaned easily</i></p> <p>Engaged display: <i>Must have a warning signal when battery is low.</i></p> <p>Convenience food Product: <i>Must include suitable vegetable content</i></p> <p>Not acceptable examples:</p> <ul style="list-style-type: none"> Must hold mobile phone Must be low carbohydrate Easy to use Needs to be safe 	<p>A Specification point is a positive statement about the form, the function, the user requirements, or the constraints of the situation.</p> <p>Together with the design need, the specification points should inform the design activity.</p> <p>Do not accept one/two word generic points such as: good quality, strong, aesthetically pleasing, light/lightweight, bright, eye catching, colourful, bold, comfortable, environmentally friendly, recyclable, without appropriate qualification.</p> <p>Do not accept “average”</p> <p>Example:</p> <p><i>Bold</i> (0)</p> <p><i>Bold colours to attract attention from a distance</i> (1).</p> <p><i>Comfortable</i> (0)</p> <p><i>Comfortable to wear</i> (1)</p> <p>Accept reference to paper/card coasters</p> <p>Do not accept ‘no’ points:</p> <p>no sharp edges, not too big, not too heavy, not too costly (cheap), no small/loose bits, no meat or fish.</p> <p>No reward for points extracted from the content of the question: e.g. 1920’s Flapper style.</p>
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5b	<p>Initial ideas</p> <p>One sketched idea No accompanying notes (1)</p> <p>One sketched idea with notes OR Two or more ideas drawn with no notes (2)</p> <p>Two or more ideas drawn with notes (3)</p> <p>A range of '<i>different ideas</i>' drawn, with notes, addressing at least two specification points, (4)</p> <p>A range of '<i>different ideas</i>', with notes, addressing at least two specification points, And a creative approach to designing (5)</p> <p>[5]</p>	<p>When awarding marks for addressing the specification points marks can be awarded in (b) and(c) irrespective of the quality of the candidates specification points</p> <p>A note about notes and labels:</p> <p>One word labels can identify and name, features on a sketch: e.g. base, aluminium, pattern, seam.</p> <p>Two and three word labels can qualify the feature: e.g. stainless steel tube, stable base.</p> <p>Notes are complete statements that can explain, justify, exemplify and quantify the feature: e.g. black polyester with white rayon stitching.</p> <p>Dimensions on a drawing and weights or quantities of ingredients come under the heading of notes.</p> <p>Different ideas refers to</p> <ol style="list-style-type: none"> 1. whole solutions or parts of a solution. 2. conceptually different thinking. 3. not just variations on a theme. <p>Addressing specification points</p> <ol style="list-style-type: none"> 1. may be explicitly evidenced in the notes. 2. implicitly evidenced in the idea. 3. the two specification points need to be evidenced only once each, in any of the notes or the ideas. <p>Creative approach to designing is judged in the context of an examination situation with strictly limited time. Do the ideas impress you enough for just ten minutes work from a 15 yr old?</p>
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5c	<p>Development of ideas – <u>must</u> reflect the product focus</p> <p>One solution may be presented in more than one view: top and front, inside and outside.</p> <p>One solution showing an idea from the initial ideas Minimal development/improvement No notes (1)</p> <p>One solution showing an idea from the initial ideas Minimal development/improvement With notes (2)</p> <p>One solution showing an idea from the initial ideas Some development/improvement Supporting developmental sketches With notes which refer to design needs and / or their specification points (3)</p> <p>Clear development of an idea Supporting developmental sketches With notes Link to at least two specification points (4)</p> <p>A range of development sketches With notes Link to at least three specification points (5)</p>	<p>In this part, candidates must address the requirements of the “design need in the situation” If both requirements of the design need are not met the maximum available is two marks.</p> <p><u>Example 1:</u> Both “Marcel Breuer” and the “phone holder” must be considered.</p> <p><u>Example 2:</u> The “handbag” and “1920’s ‘flapper’ style” must be considered</p> <p><u>Example 3:</u> The “William Morris styled” and ‘drinks mat’ must be considered.</p> <p><u>Example 4:</u> The “‘engaged’ display” and the “LED” must be considered. A system must be shown natural capping at [2] No marks to be awarded for aesthetic developments. Where there is clear development without a system design, 1 – 2 marks <u>may</u> be awarded according to specification points.</p> <p><u>Example 5:</u> The “convenience food” and “low carbohydrate” must be considered. Candidates need to show <u>some</u> knowledge of carbohydrate, fat and proteins appropriate for a convenience product.</p> <p>Where there are no creditable specification points in 5a maximum available is two marks.</p> <p>To move beyond two marks there must be evidence on the page of developmental activity/decision making.</p>
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5d	<p>Final proposal</p> <p>Look at the drawing on the page for 5d, and any detail from 5c:</p> <p>A simple solution with limited detail/notes (1)</p> <p>A solution with details of one or more bullet points from the list of materials/parts/sizes/tools/etc.(2) (2)</p> <p>Look at the writing on the page for 5d:</p> <p>Notes and associated sketches showing how the design meets spec point 1 (1) e.g. <i>the holder is made from stitched fabric, which will not damage the mobile phone in any way.</i></p> <p>Notes and associated sketches showing how the design meets spec point 2 (1) e.g. <i>The tassels are made of silk which indicates quality and the reflection of the flappers clothing</i></p> <p>Notes and associated sketches showing how the design meets spec point 3 (1) e.g. <i>The different coloured LED's indicate the unlocked and locked mechanism</i></p> <p>Notes and associated sketches showing how the design meets spec point 4 (1)</p> <p style="text-align: right;">[6]</p>	<p>Candidates should show relevant details for manufacture:</p> <ul style="list-style-type: none"> • materials/ingredients/components. • sizes / dimensions / quantities, • methods / joining / mixing techniques, • tools / equipment <p>for the award of the 6th mark.</p> <p>Accept justified points related to the candidates' own specification, even if not rewarded in 5(a), and/or any points given to the candidates in the design need of the actual question.</p> <p>If solution in 5(d) has no relationship with 5(c) then only award a maximum of 4 marks available against the specification.</p>
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