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# **GCE A LEVEL MARKING SCHEME**

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**SUMMER 2024**

**A LEVEL  
DESIGN AND TECHNOLOGY  
FASHION AND TEXTILES  
1602U30-1**

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## About this marking scheme

The purpose of this marking scheme is to provide teachers, learners, and other interested parties, with an understanding of the assessment criteria used to assess this specific assessment.

This marking scheme reflects the criteria by which this assessment was marked in a live series and was finalised following detailed discussion at an examiners' conference. A team of qualified examiners were trained specifically in the application of this marking scheme. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners. It may not be possible, or appropriate, to capture every variation that a candidate may present in their responses within this marking scheme. However, during the training conference, examiners were guided in using their professional judgement to credit alternative valid responses as instructed by the document, and through reviewing exemplar responses.

Without the benefit of participation in the examiners' conference, teachers, learners and other users, may have different views on certain matters of detail or interpretation. Therefore, it is strongly recommended that this marking scheme is used alongside other guidance, such as published exemplar materials or Guidance for Teaching. This marking scheme is final and will not be changed, unless in the event that a clear error is identified, as it reflects the criteria used to assess candidate responses during the live series.

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## Guidance for examiners

### Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision made.

### Banded mark schemes

For band marked questions mark schemes are in two parts, the indicative content and the assessment grid.

The indicative content suggests the range of issues which may be included in the learner's answers. It can be used to assess the quality of the learner's response. Indicative content is **not** intended to be exhaustive, and learners **do not** have to include all the indicative content to reach the highest level of the mark scheme.

In order to reach the highest levels of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that it contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

In Design and Technology, each question addresses one assessment objective: either AO3 or AO4. The assessment grid sub-divides the total mark to allocate for a question. These are shown in bands in the mark scheme. For each question, descriptors will indicate the different skills and qualities at the appropriate level.

Examiners should first read and place a tick in the learner's answer/s to indicate the evidence that is being assessed in that question; the mark scheme can then be applied. This is done as a two-stage process.

## **Stage 1 – Deciding on the band**

Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptors for that band. If the descriptors at the lowest band are satisfied, examiners should move up to the next band and repeat this process for each band until the descriptors match the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance, if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark learners down as a result of small omissions in minor areas of an answer.

## **Stage 2 – Deciding on the mark**

During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

# GCE A LEVEL DESIGN AND TECHNOLOGY

## FASHION AND TEXTILES

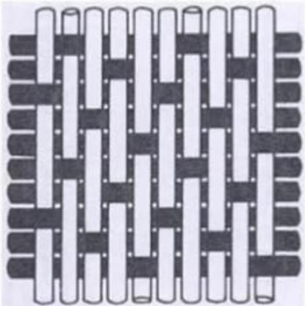
### SUMMER 2024 MARK SCHEME

Question 1		AO3	AO4	Mark
A brushed cotton material has been used to make the duvet set shown below which is aimed at a younger target market.				
(a)	Explain why the aesthetics of the duvet set would appeal to potential users.		✓	2
<p><i>Answers that indicate an understanding of the appeal of the duvet set should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• A simple but appealing design/ almost childlike quality</li> <li>• The sheep design has wide appeal to a wide range of age groups</li> <li>• It is slightly more feminine in its design although not exclusively</li> <li>• Lambs/sheep are often seen as cute</li> <li>• The soft almost neutral colour palette/co-ordinated look would appeal the potential users more than any other user group</li> <li>• Universal appeal, but more suited to younger users</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p style="text-align: right;">0</p> <p><i>Brief description of the products aesthetic appeal for example:</i> Sheep and/or lambs are often considered cute, cuddly friendly so the design would appeal to the stated user group.</p> <p style="text-align: right;">1</p> <p><i>A detailed explanation of the products aesthetic appeal for example:</i> The sheep and/or lambs are often considered cuddly and friendly so the design would appeal to the stated user group. The design might also encourage potential users to want to cuddle up/sleep in this duvet set.</p> <p style="text-align: right;">2</p> <p><i>Credit any other appropriate response.</i></p>				
(b)	Describe the process of brushing a material.		✓	2
<p><i>Answers that indicate an understanding of the process of brushing should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• During the process of brushing, material is passed over wire brushes</li> <li>• The wire brushes gently tease the fibres leaving a fluffier surface</li> <li>• During the mechanical brushing process fine wire/metal brushes carefully rub the fabric to produce fine fibres from the woven yarns</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i></p> <p style="text-align: right;">0</p> <p><i>Brief reason with little understanding for example:</i> The material is passed over a series of wire brushes.</p> <p style="text-align: right;">1</p> <p><i>A detailed reason, with clear understanding for example:</i> During the process of brushing, the material is passed over wire brushes which gently tease the fibres of the fabric to raise them and create a fluffier surface.</p> <p style="text-align: right;">2</p> <p><i>Credit any other appropriate response.</i></p>				

(c)	Discuss the advantages and disadvantages of using a brushed cotton material for the duvet set.		✓	4
<p><i>Answers that indicate an understanding of how brushing impacts the material should be awarded up to 4 marks based on:</i></p> <p><b>ADVANTAGES:</b></p> <ul style="list-style-type: none"> <li>• During use while sleeping, warm air from the body is trapped within the raised fluffy fibres – in the air pockets created during the process of brushing</li> <li>• If warm air cannot escape it forms an insulative barrier within the brushed fibres which will keep the wearer warm which is the function of the duvet set</li> <li>• Brushed materials are warmer than plain ones</li> <li>• It is also more comfortable as it is softer against the skin</li> </ul> <p><b>DISADVANTAGES:</b></p> <ul style="list-style-type: none"> <li>• Brushed materials are often subject to pilling (bobbles) which can detract from the appearance of the duvet set</li> <li>• Brushed materials can be prone to shrinkage</li> <li>• Seasonal use – not suitable for summer use (perhaps)</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/ no answer</i> 0</p> <p><i>Brief description, little understanding for example:</i> 1 The brushed cotton materials will be warmer when in use.</p> <p><i>More detailed description with some understanding for example:</i> 2 The brushed cotton material will be warmer when in use as the raised fibres will trap and retain body heat.</p> <p><i>A more detailed explanation with understanding for example:</i> 3 The brushed cotton material will be warmer when in use whilst sleeping as the raised fibres will trap and retain body heat. Brushed fabrics are also much softer next to the skin.</p> <p><i>A clear and more detailed explanation with clear understanding for example:</i> 4 The brushed cotton material will be warmer when in use, whilst sleeping, as the raised fibres will trap and retain body heat. Brushed fabrics are also much softer next to the skin. However brushed fabrics are prone to pilling over time which may detract from the aesthetic appearance of the product.</p> <p><i>Credit any other appropriate response.</i></p>				
<b>Total</b>				<b>8</b>

**Question 2**

British designer Julien McDonald is often referred to as the 'King of Glamour'.		AO3	AO4	Mark
(a)	Justify the use of the title 'King of glamour' when used to describe Julien McDonald's work.		✓	4
<p><i>Answers that indicate an understanding of Julien McDonald's work should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Intricate use of embellishments – beads, sequins, diamantes</li> <li>• Use of high gloss /almost transparent fabrics - heavily embellished</li> <li>• Use of lustrous fabrics that drape well and help create a statement</li> <li>• The cut of his clothing makes a statement: cut-outs which expose parts of the body, thigh high legs slits, off the shoulder, asymmetric necklines, strapless</li> <li>• Beautifully cut and well fitted outfits</li> <li>• 'Glittery' sums up his work as King of glamour</li> <li>• In his words, the Julien McDonald woman is someone who always wants to be glamorous, whether she's 20 or 90. Someone who has a taste for the most exquisite things in life. Someone who walks into a room and wants everyone to say 'Wow! Where did you get that from?'</li> <li>• Julien McDonald was quoted as describing his work as 'Sparkling, glamorous and absolutely fabulous.'</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description, a simple fact for example:</i> 1 Most of the fabrics he uses are shiny and lustrous and are embellished with beads and sequins.</p> <p><i>More detailed description with some understanding for example:</i> 2 He uses fabrics that are shiny and lustrous, which drape well and are heavily embellished with beads, diamantes and sequins.</p> <p><i>A more detailed description with understanding some justification for example:</i> 3 He creates beautifully cut and well fitted garments from fabrics that are shiny and lustrous and drape well. His outfits are heavily embellished with beads, diamantes and sequins which create a very glamorous statement justifying the statement King of glamour.</p> <p><i>A clear and more detailed description with understanding fully justified for example:</i> 4 He creates beautifully cut and well fitted garments from fabrics that are glossy and lustrous with excellent draping qualities with the aim of making a statement. His outfits are also heavily embellished with beads, sequins and diamantes. His aim is, for the women who wear his gowns to make a statement – sparkling and glamorous, fully justifying the title of king of glamour.</p> <p><i>Credit any other appropriate response.</i></p>				

(b)	Designers like Julien McDonald often use satin weave fabrics in their collections. Using notes and sketches, explain how satin weave fabrics are constructed and how this lends itself to glamorous clothing.		✓	4
<p><i>Answers that indicate an understanding of satin weave should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>•</li> <li>• Diagrams should be as pictured opposite</li> <li>• Warp yarns (white in diagram) lie over at least 3 or 4 weft yarns (black in diagram) and under a single weft yarn</li> <li>• Satin weave produces a characteristically glossy, smooth or lustrous material</li> <li>• Warp yarns mostly lying on top of the weft yarns, (floating yarns) create a much shinier appearance - considered more glamorous</li> <li>• This structure drapes well – a good quality for glamorous clothing</li> <li>• Satin weave is wrinkle resistant</li> </ul> <div style="text-align: center;">  </div> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>A brief description of the weave, a very simple sketch that demonstrates a basic understanding. Overall little understanding of the construction of the weave or how it lends itself to glamorous clothing.</i> 1</p> <p><i>A basic description of the weave, a simple sketch with some annotation that demonstrates some understanding. Overall, there is some evidence of understanding how the construction of the weave lends itself to glamorous clothing.</i> 2</p> <p><i>A good description of the weave, a good sketch with annotation that demonstrates sound understanding. Overall, there is clear evidence of understanding how the construction of the weave lends itself to glamorous clothing.</i> 3</p> <p><i>An excellent description of the weave, excellent sketch(es) with annotation that support the description of the weave. Overall, there is very clear evidence of understanding how the construction of the weave lends itself to glamorous clothing.</i> 4</p>				
<b>Total</b>				<b>8</b>

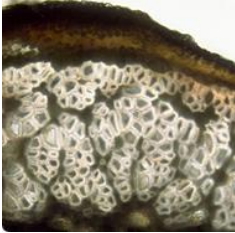
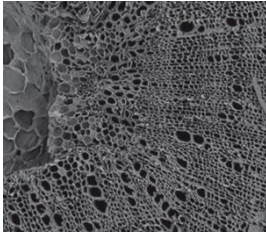
**Question 3**

The graph below shows the life cycles of different categories of products.		AO3	AO4	Mark
(a)	Explain when a fashion product is considered obsolete.		✓	2
	<p><i>Answers that indicate an understanding of product life cycles should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• A product that is no longer wanted – hence no sales</li> <li>• Refers to a product that is out of fashion/not trendy/no longer desired</li> <li>• Following a steady decline in sales, no further sales are made, not even on sales racks/events</li> <li>• Obsolete products may have been replaced by a new product</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p><i>Brief description, very little understanding for example:</i> A fashion product is obsolete when it no longer sells as it is considered out of fashion.</p> <p><i>A detailed reason with clear understanding for example:</i> A fashion product can be considered obsolete when it is no longer ‘in fashion’, sales have declined to a point that the product is no longer on sale as no one wants to buy it.</p> <p><i>Credit any other appropriate response.</i></p>			0
				1
				2
(b)	Explain what is meant by the term fashion Fad.		✓	2
(i)	<p><i>Answers that indicate an understanding of the term Fad should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• A fashion product that makes an impact very quickly with a high level of sales - initially</li> <li>• A fashion product where sales decline almost as quickly as first introduced</li> <li>• A fashion product with a short life span in terms of being on trend and popular</li> <li>• The market for the fashion products reaches saturation very quickly and sales decline just as quickly – everyone who wants the product has bought it – no longer desired/ has been replaced</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i></p> <p><i>Brief reason with little understanding for example:</i> A fashion product that becomes popular very quickly but goes out of fashion just as quickly.</p> <p><i>A detailed reason, with clear understanding for example:</i> A fashion product that becomes popular and bought by many people very quickly but goes out of fashion and no longer sells just as quickly, may only be on trend for one season.</p> <p><i>Credit any other appropriate response.</i></p>			0
				1
				2

(ii)	Explain why fashion Fad products have a negative impact on the environment.		✓	4
<i>Answers that indicate an understanding of the impact of Fad fashions on the environment should be awarded up to 4 marks based on:</i>				
<ul style="list-style-type: none"> <li>• Fad fashion products could also be considered as fast fashion – cheaply made products with a planned limited shelf life</li> <li>• Materials and components use up resources – irrelevant whether they are from a sustainable source or not</li> <li>• Some of these products may not be viable for recycling</li> <li>• If discarded will most likely end up in landfill with the associated consequences for the environment</li> <li>• Cheaply made products that are not built to last – use of resources</li> <li>• Fad products encourage consumers to buy more/ to have the latest trends – wasteful</li> <li>• Energy costs for manufacture, transport etc may not be from a sustainable source</li> <li>• Carbon footprint of goods being manufactured/transported increases impact on environment.</li> </ul>				
<b>Guidance to markers</b>				
<i>Incorrect/ no answer</i>				
0				
<i>Brief reason with little understanding for example:</i>				
Fad fashion products use up resources regardless of their source with little or no consideration for the environmental impact.				
1				
<i>Some detail with some understanding for example:</i>				
Fad fashion products use up resources regardless of their source with little or no consideration for the environmental impact. It may not be possible to recycle these products therefore it could be considered a waste of resources.				
2				
<i>A more detailed explanation with clear understanding for example:</i>				
Fashion Fad products use up resources regardless of their source with little or no consideration for the environmental impact. It may not be possible to recycle these products therefore it could be considered a waste of resources. If the products are made from synthetic fibres, they will not biodegrade if they end up in landfill when discarded.				
3				
<i>Fully detailed explanation with very clear understanding for example:</i>				
Fashion Fad products use up resources regardless of their source with little or no consideration for the environmental impact. If the products are made from synthetic fibres, they will not biodegrade if they end up in landfill. It may not be possible to recycle these products therefore it could be considered a waste of valuable resources in the first place – further depleting finite resources. The carbon footprint associated with Fad fashion or fast fashion adds to global warming and further increases the impact the fashion industry has on the environment.				
4				
<i>Credit any other appropriate response.</i>				

(c)	Explain how influencers and trendsetters can impact the sales of a fashion product.		✓	4
<i>Answers that indicate an understanding of influencers or trendsetter should be awarded up to 4 marks based on:</i>				
<ul style="list-style-type: none"> <li>• Trendsetters are individuals who have a strong sense of style and fashion who often trigger new trends, celebrities for example.</li> <li>• Trendsetters often start popular movements in fashion.</li> <li>• A fashion influencer is someone in the industry that can sway consumers to buy a particular product.</li> <li>• Influencers may have specialised knowledge in a particular area of the fashion industry.</li> <li>• If influencers have a pre-existing presence in a niche market, it makes them a useful launching pad for brands in search of credibility.</li> <li>• Products endorsed by known trendsetters e.g. celebrities, help boost sales in a fashion product as their fans may want to emulate them by wearing the same products.</li> <li>• influencers with large followers help boost sales by endorsing a product, their followers will buy the same products.</li> <li>• If a trendsetter or influencer has a negative comment about a product then further sales could be impacted.</li> </ul>				
<b>Guidance to markers</b>				
<i>Incorrect/ no answer</i>				
0				
<i>Brief reason with little understanding for example:</i>				
Consumers are influenced by the people they admire and will often buy the same or similar fashion to their idols.				
1				
<i>Some detail with some understanding for example:</i>				
Consumers are influenced by the people they admire; this could be celebrities or influencers that they follow online. They will often buy the same or similar fashions that have been endorsed by their idols.				
2				
<i>A more detailed explanation with clear understanding for example:</i>				
Consumers are influenced by the people they admire; this could be celebrities or influencers that they follow online. They will often buy the same or similar fashions that have been endorsed by their idols. This in turn will have an impact on the sales of a product in a positive way.				
3				
<i>Fully detailed explanation with clear understanding for example:</i>				
Consumers are influenced by the people they admire; this could be celebrities or influencers that they follow online. They will often buy the same or similar fashions that have been endorsed by their idols. This in turn will have an impact on the sales of a product in a positive way. Equally if influencers or trendsetters offer any negative comments about a product then sales could be adversely affected.				
4				
<i>Credit any other appropriate response.</i>				
<b>Total</b>				<b>12</b>

**Question 4**

Hemp shares very similar properties and qualities with other cellulosic fibres.		AO3	AO4	Mark
(a)	Using notes and sketches explain how hemp fibre is able to absorb up to 20% water vapour without feeling damp.		✓	4
<p><i>Answers that indicate an understanding of the structure of hemp should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Diagrams should reflect the pictures below.</li> <li>• Multiple air pockets (critical feature)</li> <li>• Hemp has a hollow core which allows it to absorb up to 20% water vapour without feeling damp</li> <li>• All the air pockets or hollow sections allow a large quantity of moisture to be stored and released later</li> </ul> <div style="display: flex; justify-content: space-around;">   </div> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>A brief description of the structure of hemp fibre, a very simple sketch that demonstrates a basic understanding. Overall little understanding of how the structure of hemp makes it highly absorbent.</i> 1</p> <p><i>A basic description of the structure of hemp fibre, a simple sketch with some annotation that demonstrates some understanding. Overall, there is some evidence of understanding how the structure of hemp makes it highly absorbent.</i> 2</p> <p><i>A good description of the structure of hemp fibre, a good sketch with annotation that demonstrates sound understanding. Overall, there is clear evidence of understanding how the structure of hemp makes it highly absorbent.</i> 3</p> <p><i>An excellent description of the structure of hemp fibre, an excellent sketch or sketches with annotation that support the description of the fibre. Overall, there is very clear evidence of understanding how the structure of hemp makes it highly absorbent.</i> 4</p>				

(b)	Explain how hemp fibre crops have less of an environmental impact when compared with other cellulosic fibres.		✓	3	
<p><i>Answers that indicate an understanding of the environmental impact of hemp fibre should be awarded up to 3 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Hemp crops replenish the soil with nutrients from falling leaves unlike cotton crops for example.</li> <li>• Hemp roots absorb and dissipate rain and runoff, helping to prevent soil erosion.</li> <li>• Cotton fibre crops for example requires huge volumes of water to grow which is often diverted away from natural water sources such as rivers leaving them dry thereby creating soil erosion unlike hemp.</li> <li>• Hemp can grow in any climate so the issues of water to grow are not a problem.</li> <li>• Hemp only needs a third of the amount of water to grow the same quantity as a cotton crop.</li> <li>• Hemp requires little fertiliser and grows well almost anywhere.</li> <li>• Hemp resists pests whereas industrial size scale crops of cotton require fertilisers and pesticides to increase yields which are detrimental to eco-systems.</li> <li>• Hemp is unique among other crops in that every part of the plant has utility and potential market value whereas for example it's only the fibre from the cotton boll that is the valuable commodity for cotton.</li> </ul>					
<p><b>Guidance to markers</b></p>					
<p><i>Incorrect / no answer</i></p>					0
<p><i>Brief description, very little understanding for example:</i> Hemp does not need as much water to grow unlike cotton for example.</p>					1
<p><i>A more detailed explanation with clear understanding of hemp fibre for example:</i> Hemp does not require as much water as for example cotton so there is no need to divert water from elsewhere which causes water shortages, is detrimental to the soil and contributes to soil erosion. The root system for hemp crops absorbs and helps dissipate rain and run off which prevents soil erosion.</p>					2
<p><i>Fully detailed explanation with clear understanding of hemp fibre for example:</i> The root system for hemp crops absorbs and helps dissipate rain and run off which prevents soil erosion. Hemp does not require as much water as for example cotton so there is no need to divert water from elsewhere which causes water shortages, is detrimental to the soil and contributes to soil erosion. Falling leaves from the hemp plant also add nutrients and help replenish the soil.</p>					3
<p><i>Credit any other appropriate response.</i></p>					

(c)	Hemp fibre has additional properties when compared with cotton fibre. Discuss how hemp's additional properties make it a potentially superior fabric for use in summer clothing		✓	5
<p><i>Answers that indicate an understanding of hems additional properties should be awarded up to 5 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Hemp has excellent thermo-regulating properties, ideal for keeping cool in warm weather or warm in cool weather.</li> <li>• Hemp is non-static as it contains some moisture meaning it will not cling to the body during wear.</li> <li>• Hemp is crease resistant requiring less ironing.</li> <li>• It is anti-bacterial and is resistant to mould meaning its appearance will not be affected if exposed to moisture and not allowed to dry properly as bacteria and mould cannot grow on it.</li> <li>• It is effective at blocking out UV rays lessening the risk of sun burn.</li> <li>• It resists degradation by heat and is less prone to fading therefore keeps its colour despite exposure to the sun.</li> </ul>				
<p><b>Guidance to markers</b></p>				
<p>Incorrect/no answer</p>		0		
<p>Candidate has a simplistic knowledge. The use of terminology and technical language is basic. Very little detail relating to hemp fibres additional properties or benefits in summer clothing.</p>		1-2		
<p>Candidate has some basic understanding of the issues associated with the question. The use of terminology and technical language is reasonably accurate. Some evidence relating to hemp fibres additional properties and/or benefits in summer clothing.</p>		3		
<p>The candidate has clear understanding of the issues associated with the question. The use of terminology and technical language is mostly accurate. More detailed evidence relating to hemp fibres additional properties and benefits in summer clothing.</p>		4		
<p>The candidate demonstrates a very clear understanding of the issues associated with the question. The use of terminology and technical language is accurate. Detailed explanation and understanding relating to hemp fibres additional properties and benefits in summer clothing.</p>		5		
<p><i>Credit any other appropriate response.</i></p>				
		<b>Total</b>		<b>12</b>

**Question 5**

The two 100% wool jumpers shown below were originally the same size. Through lack of care during washing, the darker jumper shrunk.		AO3	AO4	Mark
(a)	Explain what causes wool fibres to shrink.		✓	4
<p><i>Answers that indicate an understanding of wool fibres in this context should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• The scales on the surface of wool fibres are responsible for felting shrinkage</li> <li>• Heat from hot water and moisture cause the scales on the fibres to open and move apart</li> <li>• Mechanical action from the machine agitates the fibres causing friction between the fibres</li> <li>• As a result, the scales on the fibres interlock or hook together</li> <li>• Once interlocked together they cannot separate and return to their original position</li> <li>• The scaly fibres mat together forming a dense felt</li> <li>• Once dried the scales cannot open up and move apart; this causes the shrinkage</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description, very little detail for example:</i> 1 The scales on wool fibres open and lock together if washed in hot water.</p> <p><i>Some detail with some understanding related to wool fibres for example:</i> 2 If wool is washed in too hot a temperature the scales move apart and lock together which causes shrinkage.</p> <p><i>A detailed level of understanding and explanation related to wool fibres for example:</i> 3 Heat from hot water and moisture cause the scales on the fibres to open and move apart during washing. Agitation during washing causes the fibres to lock together which causes wool to shrink.</p> <p><i>A very detailed level of understanding and clear explanation related to wool fibres for example:</i> 4 Heat from hot water and moisture cause the scales on the fibres to open and move apart during washing. Mechanical action from the machine agitate the fibres which lock together. Once dry the scales cannot separate and 'unlock'. This causes shrinkage in wool.</p>				

(b)	State the name of a finish that would prevent wool fibres from shrinking and explain how this finish works.		✓	4
<p><i>Answers that indicate an understanding of wool finishes should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Finish: treatment with chlorine (Chlorination treatment)</li> <li>• Chlorine partially destroys the scales on wool fibres preventing them from interlocking during friction and agitation in the wash</li> <li>• If the scales on wool fibres are destroyed, wool cannot shrink</li> <li>• The chlorine smooths out the surface of the wool fibre increasing resistance to the natural tendency of wool to felt</li> <li>• Other methods include coating with resins that attach to the scales in order to discourage felting and shrinkage</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect / no answer</i> 0</p> <p><i>Brief description, very little detail <u>or</u> a suitable named finish for example:</i> 1 Treatment with chlorine prevents shrinkage in wool fibres.</p> <p><i>A suitable named finish but with little detail and understanding related to wool fibres for example:</i> 2 Treatment with chlorine prevents the scales on wool from opening up and interlocking during washing so the wool doesn't 'felt' together.</p> <p><i>An appropriate named finish with some understanding and explanation related to wool fibres for example:</i> 3 Treatment with chlorine prevents the scales on wool fibres from opening up and interlocking during washing so the wool doesn't 'felt' together. The chlorine finish smooths out the surface of the fibres so they cannot interlock.</p> <p><i>An appropriate named finish with a clear and detailed level of understanding and explanation related wool fibres for example:</i> 4 The scales on wool fibres open up and interlock during a hot wash cycle. The chlorine finish smooths out the surface of the fibres so they cannot open up and interlock together during washing. If the scales on the fibres are prevented from interlocking, the wool fibres will not 'felt' together and shrinkage is prevented.</p>				
<b>Total</b>				<b>8</b>

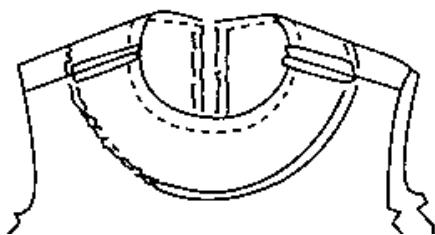
**Question 6**

The Health and Safety at Work Act requires all employers to supply workers with PPE (Personal Protective Equipment) where appropriate.		AO3	AO4	Mark
(a)	The chain mail glove shown below would be listed as PPE. Explain who would be supplied with the chain mail glove and how it would protect them.		✓	4
<p><i>Answers that indicate an understanding of the benefits of chain mail gloves in this context should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Worn by workers using cutting machines in the fabric cutting section of the textile industry</li> <li>• Used with a band knife when several plies of fabric are being cut</li> <li>• Worn on the hand that is closest to the knife</li> <li>• Protects the hand if it comes into contact with the knife</li> <li>• The knife cannot cut through the chain mail – protects the worker’s hand</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, very little detail for example:</i> Worn by workers who use cutting tools. 1</p> <p><i>Some detail with some understanding related to the chain mail glove in this context for example:</i> Worn by workers who use cutting tools to cut fabric in the textile industry. 2</p> <p><i>A more detailed level of understanding related to the chain mail glove in this context for example:</i> Worn by workers in the textile industry who use cutting tools such as a band knife to cut several layers of fabric. The chain mail prevents injury if the hand comes into contact with the knife. 3</p> <p><i>Full and detailed knowledge and explanation related to the chain mail glove in this context for example:</i> Worn by workers in the textile industry who use cutting tools such as a band knife when cutting through several layers of fabric. The chain mail prevents injury if the hand comes into contact with the knife as the knife cannot cut through the chain mail. 4</p>				

(b)	Vests like the ones shown below would be worn by workers in many industrial environments such as road construction and building sites as part of their PPE. Explain the significance of the fluorescent colours and reflective strips used on the vests.		✓	4
<p><i>Answers that indicate an understanding of the use of fluorescent colours and reflective strips in this context should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Vests shown form part of Personal Protective Equipment at Work Regulations (PPE)</li> <li>• Public operation construction workers need a much higher standard of visibility</li> <li>• High Visibility clothing is essential in some jobs such as construction especially where vehicles operate</li> <li>• Fluorescent colours ensure visibility in the daytime, ineffective at night</li> <li>• Fluorescent colours look bright because of the way they absorb and emit different light. During the day, fluorescent clothing takes ultraviolet (UV) light from the sun - light we can't see - and converts it into light we <u>can</u> see.</li> <li>• Fluorescent colours do not show up in the dark or glow in the dark - at night, there's no UV sunlight to convert</li> <li>• Reflective strips are included for nighttime use or low light – they bounce back the light from a source, for example, a worker who is working on a road at night will reflect the light emitted from headlights.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, very little detail for example:</i> 1 Fluorescent colours on clothing such as the vests ensure workers are visible during the day.</p> <p><i>Some detail with some understanding related to the use of fluorescent colours and reflective strips for example:</i> 2 Fluorescent colours on clothing such as the vests ensure workers are visible during the day and reflective strips ensure they are visible during the night.</p> <p><i>A more detailed level of understanding related to the use of fluorescent colours and reflective strips for example:</i> 3 Workers in industrial environments need to be safe and seen at all times during the day and night. Fluorescent colours ensure the workers are visible in the daytime and reflective strips are included for nighttime use.</p> <p><i>Full and detailed knowledge and explanation related to the use of fluorescent colours and reflective strips for example:</i> 4 Workers in industrial environments need to be safe and seen at all times during the day and night. Fluorescent colours work by absorbing and emitting different light ensuring visibility in the daytime. Reflective strips bounce back the light from a source such as headlights from a vehicle for example and are included for nighttime use ensuring the safety of workers when it is dark.</p>				
<b>Total</b>				<b>8</b>

### Question 7

The iconic Yves St. Laurent dress pictured below was inspired by the work of the artist Mondrian.		AO3	AO4	Mark
(a)	The dress was constructed by using panels to create the look. Explain the importance of accuracy and precision when constructing the Mondrian-inspired dress.		✓	2
<p><i>Answers that indicate an understanding of the importance of accuracy and precision during construction should be awarded up to 2 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Style demands accurate corners and thick black lines that match and line up perfectly</li> <li>• Visually and aesthetically, it would be unacceptable to have any mismatched seams/lines</li> <li>• Consistent seam allowances must be used throughout to achieve the look</li> <li>• If one panel is out of line, it could impact on other seams</li> <li>• Precision is key to keeping everything in line.</li> <li>• The black strips (2 widths in the overall design) need to be a consistent width otherwise proportion would be affected.</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i></p> <p><i>Brief description, not explained for example:</i> If the squares and black lines are not accurately sewn it will affect the look of the overall design.</p> <p><i>More detailed description with understanding for example:</i> If accurate seam allowances and precise measurements are not used consistently, the squares and black bands will not line up which will have a detrimental impact on the aesthetics and style of the dress.</p>				0
				1
				2

(b)	Using notes and sketches, describe a process that could be used to finish the neckline that is neat and not visible on the outside of the dress.		✓	6	
<p><i>Answers that indicate an understanding of a suitable finish for the neckline of the dress should be awarded up to 6 marks based on:</i></p> <ul style="list-style-type: none"> <li>• A facing is the most suitable finish for the neckline (a lining would also give the same finish) and would not be visible on the outside</li> <li>• A facing is a curved piece, the same shape as the neckline – see below</li> <li>• The facing would be strengthened with interfacing</li> <li>• Facing would be applied to the neckline on the outside but with right sides facing each other, then stitched in place (1.5cm S/A)</li> <li>• S/A would be snipped to help it lie flat</li> <li>• Facing would then be turned to the inside and pressed</li> <li>• No stitching visible on the outside</li> </ul>					
					
<p><b>Guidance to markers</b></p>					
<p>Incorrect/no answer</p>					0
<p>Candidate has a simplistic knowledge. The use of terminology and technical language is basic. Very little detail or explanation. No sketch or a basic sketch of a process that could work</p>					1-2
<p>Candidate has some basic understanding of the issues associated with the question. The use of terminology and technical language is variable. A simple sketch of a process that could work. Limited annotation.</p>					3
<p>The candidate has some understanding of the issues associated with the question. The use of terminology and technical language is reasonably accurate, some logic in the description. A good sketch or sketches of a suitable process with some annotation to explain the process.</p>					4
<p>The candidate demonstrates a clear understanding of the issues associated with the question. The use of terminology and technical language is mostly accurate with evidence of a logic in the description. A detailed annotated sketch or series of annotated sketches that explain a suitable process.</p>					5
<p>The candidate demonstrates a very clear understanding of the issues associated with the question. Uses correct terminology and technical language. Fully annotated detailed sketches or sketch that describe a highly appropriate process.</p>					6

(c)	Explain how the work of designers like Yves St. Laurent influence mainstream fashion.		✓	4
<p><i>Answers that indicate an understanding of the influence of top designers on mainstream fashion should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Top fashion designers showcase their collections twice yearly.</li> <li>• Buyers, celebrities, photographers attend these shows.</li> <li>• The photos and fashion features the writers and photographers produce as well as the purchasing action taken by retail buyers and fashion-forward celebrities influence the way in which the mass population receives the designer's work.</li> <li>• Other designers draw their inspiration from the top fashion designers and create affordable designs for the mass market.</li> <li>• Celebrities who wear designer labels influence the mass market who are able to emulate their idols but through the mass-produced versions of the top designers' work.</li> <li>• The fashion trend continues in retail outlets. Some trends start in one country and span multiple countries, while others remain confined to one region.</li> <li>• The process of simplifying designs to suit the mass market is often referred to as the trickle-down effect.</li> <li>• Historical influences inspiring other designers and consequently contemporary trends</li> </ul> <p><b>Guidance to markers</b></p> <p><i>Incorrect/no answer</i> 0</p> <p><i>Brief description, little detail for example:</i> 1 Designers take inspiration from fashion shows and make simplified versions of the top designers' work.</p> <p><i>Some detail with some understanding in this context for example:</i> 2 Designers take inspiration from fashion shows and make simplified versions of the top designers' work. This makes the collections more affordable to a wider range of consumers.</p> <p><i>A more detailed level of understanding in this context for example:</i> 3 Designers take inspiration from fashion shows of top designers like Yves St. Laurent and make simplified versions of their work. This makes the collections more affordable to a wider range of consumers who wish to wear clothing that reflects the latest catwalk collections.</p> <p><i>Full and detailed understanding in this context for example:</i> 4 Designers take inspiration from fashion shows of top designers like Yves St. Laurent and make simplified versions of their work. This makes the collections more affordable to a wider range of consumers who wish to wear clothing that reflects the latest catwalk collections. This is often referred to as the trickle-down effect.</p>				
<b>Total</b>				<b>12</b>

### Question 8

		AO3	AO4	Mark
A feasibility study was carried out before manufacture to determine the commercial viability of the new ergonomically designed backpack shown below.				
(a)	Explain what a feasibility study involves and why it would have been carried out before designing the backpack shown.		✓	4
<p><i>Answers that indicate an understanding of feasibility studies in this context should be awarded up to 4 marks based on:</i></p> <ul style="list-style-type: none"> <li>• Feasibility studies help formulate the most important and critical considerations for a new product - the ergonomically designed backpack.</li> <li>• Feasibility studies help set out guidelines for the design and the development stages that follow.</li> <li>• The design brief and specification for the new product - the ergonomically designed backpack, are often arrived at because of a feasibility study.</li> <li>• Ultimately feasibility studies will establish whether a product is commercially viable or not.</li> <li>• Feasibility study also include using market research teams to gather the opinions of potential users.</li> <li>• Feasibility studies also include analysis and evaluation of prototype products. Many iterations of a product are often needed before the product meets the needs of users and stakeholders.</li> <li>• Feasibility studies support manufacturers in their decision making and whether to go ahead with developing and manufacturing a new product - the ergonomically designed backpack.</li> <li>• Feasibility studies examine whether there is a place in the market for the new product.</li> <li>• Feasibility studies identify who the target market is, their buying patterns and habits, and if there is a worthwhile market for the new product.</li> <li>• Feasibility studies look at the likely commercial success of the proposed product, the potential volume of sales and profit</li> <li>• Feasibility studies could identify risks with the launch of a new product but do allow manufacturers to prepare in advance and for the best ways to minimise the risk.</li> </ul>				

<b>Guidance to markers</b>	
<i>Incorrect / no answer</i>	0
<p><i>Brief description of a feasibility study, basic level of understanding for example:</i></p> <p>A feasibility study will look at whether the ergonomically designed backpack is commercially viable.</p>	1
<p><i>Some detail in description with some understanding of feasibility studies in this context, for example:</i></p> <p>A feasibility study will look at whether the ergonomically designed backpack is commercially viable and will include engaging with potential users to ensure it meets their needs and wants.</p>	2
<p><i>A more detailed level of understanding of feasibility studies in this context for example:</i></p> <p>A feasibility study will look at whether the ergonomically designed backpack is commercially viable and will include engaging with potential users to ensure it meets their needs and wants. It will also look at the risks involved in launching the new ergonomically designed backpack.</p>	3
<p><i>Full and detailed understanding of feasibility studies in this context for example:</i></p> <p>A feasibility study will look at whether the ergonomically designed backpack is commercially viable and will include engaging with potential users to ensure it meets their needs and wants. It will also look at the risks involved in launching the new ergonomically designed backpack, and whether there is a worthwhile market for it. Manufacturers can then decide whether to manufacture the new product or not.</p>	4

(b)	The backpack is available in three different sizes. Explain how anthropometrics and ergonomics have been used in the design of the backpack so that it fits the users comfortably.		✓	8
<p>Candidates should demonstrate knowledge and understanding and apply it to <i>designing and making principles</i> to be awarded up to <b>8</b> marks based on:</p> <p><u>Anthropometrics:</u></p> <ul style="list-style-type: none"> <li>• The 3 different sizes for the backpack are based on average human sizes, in this case height – a range from a tall adult to small child.</li> <li>• Three sizes allow for more or less products to be carried inside according to need.</li> <li>• The size of products most likely to be carried in the backpack would be considered</li> <li>• The strap is adjustable to suit height of user</li> </ul> <p><u>Ergonomics</u></p> <ul style="list-style-type: none"> <li>• The shape of the backpack is designed to fit into the small of the back (lower back) in line with human shape, curve of the spine</li> <li>• Cross body design distributes the weight more evenly across the spine</li> <li>• This design is intended to be more comfortable to wear as it hugs the curve of the spine</li> <li>• The cross body ergonomic design puts less stress on the neck, back and shoulders</li> <li>• The tear drop shape fits into the curve of the body whichever way your wear it – doesn't pull on the shoulder</li> </ul> <p>Accept other factually correct points</p> <p><b>Guidance to markers</b></p> <p>Incorrect/no answer</p> <p>Brief description with little detail in the response. Very basic level of knowledge and understanding of anthropometrics and/or ergonomics in this context.</p> <p>Basic description with some knowledge and understanding of anthropometrics and ergonomics in this context.</p> <p>A more detailed explanation with clear evidence of knowledge and understanding relating to anthropometrics and ergonomics in this context.</p> <p>A full and detailed description, with very clear evidence of knowledge and understanding relating to anthropometrics and ergonomics in this context</p>				
<b>Total</b>				<b>12</b>

**Question 9**

The little black dress (LBD) has been a design classic since it was made famous by actress Audrey Hepburn who wore one designed by Givenchy in the film <i>Breakfast at Tiffany's</i> although historians attribute its origins to Coco Chanel in the 1920s.	AO3	AO4	Mark
Analyse the relevance of the little black dress as a design classic for women in modern society.	✓		8
<p>Candidates should demonstrate knowledge and understanding of design classics and apply it to <i>designing and making principles</i> to be awarded up to <b>8</b> marks based on:</p> <ul style="list-style-type: none"> <li>• The LBD is a versatile wardrobe staple</li> <li>• The LBD will stand the test of time</li> <li>• The simple design of a classic LBD does not date – look old fashioned over time</li> <li>• It is intended to be long lasting, versatile, affordable and widely accessible</li> <li>• The LBD is accessible to women of all social classes</li> <li>• Can be dressed up with accessories such as jewellery or pared down to suit a variety of occasions – day or night</li> <li>• A black dress works for all women, regardless of height or weight or ethnicity</li> <li>• It is a flattering dress that slims the figure</li> <li>• You can wear it with any other colour</li> <li>• It can symbolize understated grace and timeless style</li> <li>• The LBD is considered essential to a complete wardrobe</li> <li>• When Coco Chanel first designed it, it symbolised freedom and strength – qualities still important to women today.</li> <li>• Considered a party staple – when you have nothing else to wear but accessorised carefully works for the occasion</li> <li>• Affordability and adaptability make the LBD an essential in modern society</li> <li>• Cost and value for money, sustainability (wearing several times) are important values in today's society – a versatile LBD meets that requirement.</li> </ul>			

<b>Guidance to markers</b>		
Incorrect/no answer		0
<p>Candidate has a simplistic knowledge; basic. The use of terminology and technical language is basic. Brief description of the design classic and its relevance in modern society. Little evidence of reasoning.</p>		1-2
<p>Candidate has some basic understanding of the issues associated with the question. The use of terminology and technical language is variable. Some detail in the description of the design classic and its relevance in modern society. Some evidence of reasoning.</p>		3-4
<p>The candidate has clear understanding of the issues associated with the question. The use of terminology and technical language is mostly accurate. More detailed description with understanding of the design classic and its relevance in modern society. There is a line of reasoning which is generally coherent and relevant.</p>		5-6
<p>The candidate demonstrates very clear understanding of the issues associated with the question. Uses correct terminology and technical language. Full and detailed description and understanding of the design classic and its relevance in modern society. There is a sustained line of reasoning which is generally coherent, relevant and substantiated.</p>		7-8
	<b>Total</b>	<b>8</b>

**Question 10**

The demand from consumers for more ethically and sustainably resourced fashion and textile products continues to rise.	AO3	AO4	Mark
Evaluate how current manufacturing practices in the fashion and textile industry are being adapted to meet the ethical and sustainable demands from consumers.	✓		12
<p>Candidates should demonstrate knowledge and understanding and apply it to <i>designing and making principles</i> to be awarded up to <b>12</b> marks based on:</p> <ul style="list-style-type: none"> <li>• Cleaner greener energy sources (solar, wind, electric vehicles) replacing fossil fuels throughout manufacturing</li> <li>• Cleaner processes leading to a reduction in pollution and contamination of waterways/environment from toxic chemicals following dyeing for example</li> <li>• Use of sustainably sourced materials and components</li> <li>• Reduction in the use of finite materials that harm the environment</li> <li>• Reduction in products that will potentially end up as landfill</li> <li>• Reduction in over production</li> <li>• Development in the use of new environmentally friendly materials including vegan options</li> <li>• Development of materials that require less washing or at low temperatures</li> <li>• Products designed for a longer useable shelf life – well made</li> <li>• Products designed to be easily recycled, reused or repaired</li> <li>• Reference to the circular economy and how this addresses ethical and sustainable issues</li> <li>• Reference to Fair Trade</li> <li>• Safe working practices throughout the supply chain</li> <li>• Equal opportunities, fair wages and rights for workers in the supply chain</li> <li>• Working towards abolishing child labour</li> <li>• Reduction/prevention in the exploitation of human, animal (fur for example) and natural resources</li> <li>• Re-education of consumers away from fast fashion</li> <li>• Designers for example, Stella McCartney – strong ethical and moral credentials – promotes sustainability in high fashion</li> </ul>			

<b>Guidance to markers</b>		
Incorrect/no answer		<b>0</b>
Limited understanding and application of knowledge and understanding of ethical issues and sustainability within the fashion and textile design industry. Limited understanding and application of knowledge and understanding of designing and making principles within the fashion industry. There is little evidence of appraisal. Quality of Written Communication is limited, presenting material with limited coherence, many errors of grammar, punctuation and spelling.		<b>1-3</b>
Generally good understanding and application of knowledge and understanding of ethical issues and sustainability within the fashion and textile design industry. Generally good understanding and application of knowledge and understanding of designing and making principles within the fashion industry. There is some evidence of appraisal which is generally coherent and relevant. Quality of Written Communication is basic, presenting occasional appropriate material with some coherence, some errors of grammar, punctuation and spelling.		<b>4-6</b>
Very good understanding and application of knowledge and understanding of ethical issues and sustainability within the fashion and textile design industry. Very good understanding and application of knowledge and understanding of designing and making principles within the fashion industry. There is clear evidence of appraisal, which is generally coherent, relevant and substantiated. Quality of Written Communication is good, presenting mainly appropriate material in a coherent manner, few errors of grammar, punctuation and spelling.		<b>7-9</b>
Excellent understanding and application of knowledge and understanding of ethical issues and sustainability within the fashion and textile design industry. Excellent understanding and application of knowledge and understanding of designing and making principles within the fashion industry. There is a clear and detailed evidence of appraisal which is coherent, relevant and substantiated. Quality of Written Communication is excellent, presenting wholly appropriate material in a coherent and logical manner, hardly any errors of grammar, punctuation and spelling.		<b>10-12</b>
<b>Total</b>		<b>12</b>