

GCSE

**Design and Technology:  
Textiles Technology**

Unit 1 – Written Paper  
Mark scheme

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Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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**Section A**

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| <b>1</b> | <b>(a)</b> | <p>Give <b>two</b> types of research used to find out which textile products teenagers prefer to buy.</p> <p>An example is given below.<br/>Use shop sales data to find out what is selling well.</p> <p>Candidates will briefly make reference to questionnaires/surveys/interviews with target market, shop watch/shop profile, looking through magazines, internet websites/blogs, existing products, street fashion, teenagers in films/TV, trend forecast, mood board, visit to fairground.</p> <p>2 different methods, 1 mark each.<br/>If 2 different types of questionnaires/surveys/interviews are given, 2 marks can be awarded.</p> | (Max 2 marks) | <b>(2 marks)</b> |
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| <b>1</b>                                | <b>(b)</b>                   | <p>Look at the mood board on page 2.</p> <p>List and explain how the fairground images can provide ideas for <b>three</b> different decorative textile techniques.</p> <p>An example is given below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: left;">Fairground image</th> <th style="width: 50%; text-align: left;">Decorative technique</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">The light bulbs around the 'CANDY' sign</td> <td style="padding: 5px;">Decorative machine stitching</td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </tbody> </table> <p>Any three different decorative techniques that are inspired by a specific part of the mood board on page 2.<br/>Marks are not to be given for only a list of decorative techniques – they must be linked to these images. See 1(c) for examples of decorative techniques.</p> <p>1 mark for each linked image with any decorative technique. Mark given for the link between image and technique – no half marks. No link = no mark. Three different decorative techniques.</p> | Fairground image | Decorative technique | The light bulbs around the 'CANDY' sign | Decorative machine stitching |  |  |  |  |  |  | (Max 3 marks) |  |
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| Fairground image                        | Decorative technique         |   |                  |                      |   |                              |  |  |  |  |  |  |               |  |
| The light bulbs around the 'CANDY' sign | Decorative machine stitching |   |                  |                      |   |                              |  |  |  |  |  |  |               |  |
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|  |  | <p><b>(continued)</b></p> <p>No to repeat of example<br/>         No to 'drawing' for decorative technique.<br/>         No to 'CAD/CAM' unless linked to a specific textile technique eg embroidery.<br/>         Accept general comments about the fairground images such as 'colours on the rides'.<br/>         Accept using components in a decorative technique eg beads, buttons, LED lights.<br/>         Accept 'painting', 'printing'.</p> |  |  | <b>(3 marks)</b> |
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| <b>1</b> | <b>(c)</b> | <p><i>Sketch <b>two</b> different initial design ideas for a textile product.</i></p> <p><i>There are 6 marks for each design idea.</i></p> <ul style="list-style-type: none"> <li>• <i>Creativity and originality of idea based on theme</i></li> <li>• <i>Use of a range of decorative textile techniques</i></li> <li>• <i>Quality of notes and sketches</i></li> </ul> <p>Decorative textile techniques include:- surface decorative techniques e.g. fabric manipulation such as pleating, smocking, tucks, suffolk puffs, quilting, trapunto, patchwork etc., beading, sequins, decorative hand or machine stitching/embroidery, felting/embellishment machine use of decorative trims and components eg buttons, printing techniques e.g. block, screen, digital, stencil, transfer, plexifoil, dyeing techniques e.g. tie dye, batik, dip dye, silk painting.</p> <p>Up to 6 marks for each design idea.</p> <p>Two sketches to show different initial ideas for a textile product.</p> <p>Candidates should not be penalised if they do not use pencil.</p> <p>Designs should be neat and clear for full marks.</p> <p>If both ideas are similar, mark first as it stands; alter second (max 4 marks). Two different styles of the same product type, with different design features, can be awarded full marks.</p> | <p><i>(Max 12 marks)</i></p> <p><i>(2 marks)</i></p> <p><i>(2 marks)</i></p> <p><i>(2 marks)</i></p> |  |  |
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|  |  |  | <p><b>(continued)</b></p> <ul style="list-style-type: none"> <li>• <b>Creativity and originality of idea based on theme:</b> A design that is inspired by the theme 'fairground'; Imaginative design that is highly creative with original design features and inspiration taken from the theme of fairgrounds.</li> <li>• <b>Use of a range of decorative textile techniques:</b><br/>One or more named basic decorative techniques with little or no detail given;<br/>More than one named decorative technique with some detail to show effective use on textile product.</li> <li>• <b>Quality of notes and sketches:</b><br/>Little or no annotation, fairly well presented sketch;<br/>Candidate will communicate ideas very clearly with excellent presentation and annotation.<br/>If it is unclear what the textile product is, check 1(d)(i) page 5 and 1(d)(ii) for explanation. If it is still unclear, 2 marks should not be given.</li> </ul> | <p>(1 mark)</p> <p>(2 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> | <p><b>(12 marks)</b></p> |
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| 1 | (d) | (i) | <p><i>Use sketches, labelling and notes to present a final design in colour for your textile product.</i></p> <p><i>Use this page and the next page to show your textile product in a presentation drawing.</i></p> <p><i>Marks will be given for:</i></p> <ul style="list-style-type: none"> <li>• <i>use of the fairground theme</i></li> <li>• <i>use of a range of decorative textile techniques including one technique from question 1(b)</i></li> <li>• <i>use of fabrics and components</i></li> <li>• <i>creativity and quality of design for a teenager</i></li> <li>• <i>effective use of colour</i></li> <li>• <i>quality of presentation including different views of the textile product</i></li> <li>• <b>Use of the fairground theme:</b><br/>Little relevance to theme or it is used inappropriately. An existing design may have been copied.<br/>Thoughtful and/or imaginative use of theme which is totally appropriate for product. Little evidence that an existing design has been copied.</li> </ul> | <p>(2 marks)</p> <p>(3 marks)</p> <p>(3 marks)</p> <p>(4 marks)</p> <p>(2 marks)</p> <p>(2 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> |  |
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|  |  | <p><b>(continued)</b></p> <ul style="list-style-type: none"> <li> <p><b>Use of a range of decorative textile techniques including one technique from question 1(b):</b><br/>                     One or more decorative techniques have been included in the design but in a straight forward manner that has limited effectiveness and may not be appropriate.<br/>                     More than one decorative technique used to a very good effect.<br/>                     A detailed range of decorative techniques that are very effective and in keeping with the design of the product, including an idea from question 1(b). For 3 marks must use an idea from mood board inspiration, can still get 3 marks even if technique listed in 1(d)(i) is different to 1(b).</p> </li> <li> <p><b>Use of fabrics and components:</b><br/>                     One or more named/described fabric and/or components used in a straight forward way.<br/>                     More than one named fabric and component used effectively and in keeping with the theme.<br/>                     A detailed range of fabrics and components thoughtfully selected to reflect the theme and appropriate to use with given decorative techniques.</p> </li> </ul> | <p><i>(1 mark)</i></p> <p><i>(2 marks)</i></p> <p><i>(3 marks)</i></p> <p><i>(1 mark)</i></p> <p><i>(2 marks)</i></p> <p><i>(3 marks)</i></p> |  |
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|  |  | <p><b>(continued)</b></p> <ul style="list-style-type: none"> <li> <p><b>Creativity and quality of design for a teenager</b><br/>                     The following should be considered:<br/>                     Contemporary, creative, original and imaginative design for a textile product, balanced composition/effective use of space, effective proportions. Appropriate for intended use and for teenagers. Will the design work and be popular?</p> <p>Unimaginative design with some thought given to intended use though lack of detail. Relates to some areas of design brief but may not be clear, overall balance weak.</p> <p>Good design related to most aspects of design brief with clear detail about product. Design might lack some imagination. There may be some lack of clarity about materials.</p> <p>Imaginative design that clearly relates to all aspects of design brief. Likely to sell well to teenagers.</p> <p>Very original and highly creative textile product. This would be a very popular design with teenagers and shows imagination and/or innovation. Design clearly relates to all aspects of design brief.</p> </li> <li> <p><b>Effective use of colour:</b><br/>                     This is not about colouring in of the design idea. The following should be considered:<br/>                     How has colour been used? Are colours toning, contrasting, complementary? Do they work for the product? Do they promote the fairground theme?</p> <p>Use of colour is immature and not used to effect and does not make product exciting. Or colour is indicated in written notes only.</p> <p>Used effectively/imaginatively/thoughtfully, mature and sensitive choice.</p> </li> <li> <p><b>Quality of presentation including different views of the textile product:</b><br/>                     Lack of care in presenting work, candidate will not communicate detailed information about product.</p> <p>Candidate has taken care with presentation, quality of drawing and labelling and information about product is clear, there is more than one view point of the textile product.</p> <p>If it is unclear what the textile product is, check 1(d)(i) page 5 and 1(d)(ii) for explanation. If it is still unclear, 2 marks should not be given.</p> </li> </ul> | <p>(1 mark)</p> <p>(2 marks)</p> <p>(3 marks)</p> <p>(4 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> | <p><b>(16 marks)</b></p> |
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| 1 | (d) | (ii) | <p><i>Explain why your textile product will appeal to teenagers.</i></p> <p>Appeal to teenagers may be linked to the product style, shape, size, colour, materials used or special design features such as pockets, handles, straps, fastenings, decorative techniques or practical or functional reasons such as finishes, linings, sustainability, cost, easy care etc.</p> <p>Simple statement with one or more design features given as reason for appeal.</p> <p>More detailed explanation including reference to more than one design feature that will appeal linked to target market preferences.</p> | <p>(Max 2 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> | (2 marks) |
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| 2 | (a) | <p>Use a pen to link the text boxes to the correct part of the clothing worn by the cricketer.</p> <div data-bbox="311 1086 1157 1657"> </div> <p>1 mark for each correct link made to photo, up to 3 marks.<br/>If more than 1 link from box to picture is made, and one of the links is incorrect, then mark as incorrect.</p> | (Max 3 marks) | (3 marks) |
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| 2 | (b) | (i)   | <p><i>Circle the method of fabric construction for the sweater.</i></p> <p>Knitted drawing circled. Only 1 correct answer.</p>  |               | (1 mark)  |
| 2 | (b) | (ii)  | <p><i>Give the name for the construction method used for the sweater.</i></p> <p>Knitted/knitting/weft or warp knit – only correct answers.</p>   |               | (1 mark)  |
| 2 | (b) | (iii) | <p>The sweater is made from 100% wool fibre.<br/>Give <b>two</b> disadvantages of using wool for this cricket sweater.</p> <p>Expensive, too warm, not easily washed/shrinks in wash/takes a long time to dry/stain removal difficult, skin irritant, can smell when wet, heavy when wet, bulky, absorbent, pilling.</p> <p>Any 2 different points, 1 mark each up to 2 marks<br/>No to 'not durable' and references to fabric construction eg laddering, stretching.</p> | (Max 2 marks) | (2 marks) |
| 2 | (b) | (iv)  | <p>Name a synthetic fibre which could be used instead of wool.</p> <p>Must be a synthetic fibre relevant to the knitted sweater.</p> <p>Acrylic, polyester microfibre</p> <p>No to just polyester, cotton, bamboo, viscose, tencel</p>  |               | (1 mark)  |

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| 2 | (c) | <p>List and explain <b>three</b> points for the cricket trouser fabric specification.</p> <p><i>An example is given below.</i><br/> <i>Specification point: <b>Must be lightweight</b></i><br/> <i>Reason: <b>So that cricket player can move quickly.</b></i></p> <p>Do not give mark for repeat of example.<br/>                 Specification points :-<br/>                 must be:-<br/>                 hardwearing, stretchy, washable, durable, strong, stain resistant, breathable/comfortable/absorbent, non irritant/soft, white, drapes.<br/>                 Reason must link to use of trousers for sportswear. Must relate to fabric, not trouser style.</p> <p>1 mark for each correct specification point and 1 mark for each correct reason/explanation.</p> | (Max 6 marks) | (6 marks) |
| 2 | (d) | <p>Give one method of adding a team logo to the clothing worn by the cricketer.</p> <p>Print, embroider, appliqué, heat transfer, stitch on a badge or pre manufactured component.<br/>                 No to 'CAD/CAM' unless linked to a specific technique eg embroidery.</p>  |               | (1 mark)  |

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| 3 | (a) | <p>Explain why the items of clothing worn by the surgeon are suitable for work in the operating room.</p> <p>Reasons concerning style/fabric/function.<br/>Scrubsuit, trousers, tunic, top, hat, mask, shoe covers are suitable for reasons of:-</p> <ul style="list-style-type: none"> <li>• comfort/ease of movement – the loose fit.</li> <li>• Wearability – easy to fasten and adjust to fit</li> <li>• Cool/breathable – style and fabric allow for comfort</li> <li>• Absorbancy – fabric may wick away moisture</li> <li>• Durability – can be reused</li> <li>• After care – washable</li> <li>• Safety – hygienic and protective</li> <li>• Aesthetics – cool, plain colour</li> <li>• Disposable – clean each use</li> <li>• Strong – clothing doesn't rip easily</li> </ul> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Basic answer which may refer to one or more items of the clothing and gives one or more reasons for suitability.</li> <li>• A more detailed answer which refers to more than one item of clothing and gives more than one reason for suitability.</li> <li>• A detailed answer that considers a range of different reasons for suitability and reasons are linked to the operating room/surgeon's job and clothing items.</li> </ul> <p>No to cheap/cost less/less expensive unless explanation given.</p> | <p>(Max 3 marks)</p> <p>(0 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> <p>(3 marks)</p> | <p>(3 marks)</p> |
| 3 | (b) | <p><i>The blue fabric is made from a 67% polyester and 33% cotton blend.</i></p> <p><i>Give <b>three</b> reasons why this is a suitable fibre blend for the clothing.</i></p> <p>Cool/breathable/absorbent, light, strong, durable and wrinkle-resistant/non iron, soft/comfortable, easy to wash, less costly than pure cotton.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit. (0 marks)</li> <li>• 1 mark for each different reason.</li> <li>• Do not accept cheap/inexpensive unless a correct explanation is also given.</li> </ul>   | <p>(Max 3 marks)</p>  | <p>(3 marks)</p> |

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| 3 | (c) | (i)  | <p><i>The surgeon's clothing needs washing after each operation.</i></p> <p><i>Circle the correct wash care symbol shown below for washing this clothing.</i></p> <p>Only correct answer:-</p> <div style="text-align: center;">  </div> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Correct answer.</li> </ul>   | <p>(0 marks)<br/>(1 mark)</p>                                    | <p><b>(1 mark)</b></p>  |
| 3 | (c) | (ii) | <p><i>Explain why this wash temperature is the most suitable for this clothing.</i></p> <p>A higher temperature is required to clean clothing of dirt and blood etc. and to kill microbes. A very high temperature would not be suitable for polyester synthetic fibre as would be damaged. A low temperature would not kill microbes. Saving energy consumption with lower temperatures is not appropriate for this type of clothing as a very thorough clean is required.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Simple explanation that refers to cleaning/removing stains and killing microbes/bacteria/germs.</li> <li>• Detailed answer with an understanding of the need to have a higher temperature but without boiling and damaging the fabric due to the polyester fibre content.</li> </ul> <p>If 3(c)(i) is wrong but a correct reason for washing at the circled temperature is given, then up to 1 mark can be given for correct answer.</p> | <p>(Max 2 marks)</p> <p>(0 marks)<br/>(1 mark)<br/>(2 marks)</p> | <p><b>(2 marks)</b></p> |

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| 3 | (d) | (i)  | <p>Name a suitable fabric construction for disposable fabric.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>No answer worthy of credit.</li> <li>Non-woven or bonded.</li> </ul>   | <p>(0 marks)<br/>(1 mark)</p> | <p><b>(1 mark)</b></p>  |
| 3 | (d) | (ii) | <p>Give <b>two</b> advantages of disposable clothing for a surgeon.</p> <p>Lightweight, flexible, inexpensive, don't need to wash or iron clothing. Air and moisture permeability, a barrier to liquid and fine dust, hygienic, can be recycled, biodegradable.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>No answer worthy of credit.</li> <li>1 mark for each different advantage up to 2 marks.</li> <li>Accept 'can be thrown away' if further explanation is given.</li> </ul> <p>No to 'easy care'.</p> | <p>(Max 2 marks)</p>          | <p><b>(2 marks)</b></p> |
| 4 | (a) |      | <p>Circle the correct method of production.</p> <p style="text-align: center;"><i>Batch</i>                      <i>Mass</i>                      <i>One-off</i></p> <p>Batch is only correct answer.</p>   |                               | <p><b>(1 mark)</b></p>  |

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| 4 | (b) | (i)  | <p><i>Use notes and diagrams to explain how to make a pocket for the apron.</i></p> <p><i>Marks will be given for:</i></p> <ul style="list-style-type: none"> <li>• <i>step-by-step instructions</i></li> <li>• <i>quality of notes and diagrams</i></li> <li>• <i>list of equipment needed.</i></li> </ul> <p>Give credit for any appropriate pocket construction method.</p> <ul style="list-style-type: none"> <li>• <b>Step-by-step instructions:</b><br/>No answer worthy of credit.<br/>Explanation of method is adequate and would mostly work.<br/>If only notes or only diagrams then only 1 mark.<br/>Accurate explanation of method. Candidate understands method and can clearly explain it. May not show pocket on apron, just a detailed pocket made ready for applying to apron.</li> <li>• <b>Quality of notes and diagrams:</b><br/>No answer worthy of credit.<br/>Basic detail, simple diagrams, few steps, notes only or diagrams with no notes/labels.<br/>Detailed diagrams with clear labels, neat presentation.</li> <li>• <b>Equipment needed:</b><br/>No answer worthy of credit.<br/>More than 1 item such as sewing machine, pins, scissors, template, ruler. May appear as a list or as part of notes/diagrams.</li> </ul> <p>If raw edge of pocket not finished, then up to 4 marks.</p> | <p>(2 marks)<br/>(2 marks)<br/>(1 marks)</p> <p>(0 marks)<br/>(1 mark)</p> <p>(2 marks)</p> <p>(0 marks)<br/>(1 mark)</p> <p>(2 marks)</p> <p>(0 marks)<br/>(1 mark)</p> | <p>(5 marks)</p> |
| 4 | (b) | (ii) | <p><i>Give <b>two</b> ways to neaten the edge of the apron frill.</i></p> <p>Hem, overlock, bias binding.zig-zag stitch, laser cut edge.<br/>1 mark for each correct method, up to 2 marks.<br/>No to pinking shears, 'fold over', sewing by hand.</p>   | <p>(Max 2 marks)</p>   | <p>(2 marks)</p> |

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| 4 | (b) | (iii) | <p>List <b>three</b> different pieces of information that could be on the apron label.</p> <p>Wash instructions, fibre type, barcode/stock number, recycled, country of origin, fairtrade logo, organic cotton logo, size, brand, safety information eg keep away from fire.<br/>No to fabric content, CE/Lion mark.</p> <p>Any correct point 1 mark, up to 3 marks.<br/>1 mark only for washing instructions – even if different washing instructions are listed – 1 mark for all.</p>   | (Max 3 marks) | (3 marks) |
| 4 | (c) | (i)   | <p>Some of the aprons are checked for faults during production.</p> <p>Describe <b>three</b> faults that could be found in an apron.</p> <p>Pocket, ties, frill, apron wrong size, stitching in wrong place, coming undone, wrong thread, bias binding or fabric, pocket in wrong position, frill incorrectly gathered, stain/damage during production, fabric faults, fraying, loose threads, parts/components missing from apron.</p> <p>1 mark for every correct and different fault.<br/>No to 'not very good', just 'size' or 'stitching' unless further explanation, to pins in apron but accept broken needles.<br/>Accept 'size of apron/strap/pocket etc</p> | (Max 3 marks) | (3 marks) |
| 4 | (c) | (ii)  | <p>Give <b>two</b> reasons why it is important to make quality control checks.</p> <p>To ensure quality assurance, product safety, fitness for purpose, apron won't fall apart, meets the standard, conforms to product description, consumer has a right to expect a safe and functioning product, to check if there are any faults.</p> <p>1 mark for any correct answer.<br/>No to waste of fabric and time, best quality.<br/>Accept 'to make sure apron is correct'.</p>   | (Max 2 marks) | (2 marks) |

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| <p><b>4</b></p> | <p><b>(d)</b></p> | <p><i>List and explain how the use of computers can reduce textile production costs.</i></p> <p><i>An example is given below.</i><br/> <i>Computer use: Automatic steaming;</i><br/> <i>Explanation for cost reduction: Quicker to steam and lower labour costs.</i></p> <p><i>Do not award marks for just ‘quicker’ or ‘cheaper’ without saying what would be quicker/cheaper or without an explanation given for the cost reduction.</i></p> <ul style="list-style-type: none"> <li>• Layplan – more efficient use of fabric/less wastage.</li> <li>• Automatic spreading of fabric and cutting out – less labour and time.</li> <li>• Computerised knitting, weaving, printing and packaging – more accurate and faster production</li> <li>• Computerised stitching, making button holes and other tasks such as attaching pockets – speedy production, less faults.</li> <li>• Stock control – more efficient ordering and storage.</li> <li>• Quality monitoring – less faulty products.</li> <li>• Production scheduling and flow through production – more efficient and time saving.</li> <li>• Computerised embroidery/digital printing – more accurate and speedy production.</li> </ul> <p>1 mark for each correct use and explanation.<br/>                 No to designing points, to just ‘CAD/CAM’.<br/>                 If 3 explanations are the same eg quicker production time, 1 mark only.</p> | <p><i>(Max 6 marks)</i></p> | <p><b>(6 marks)</b></p> |
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| <p>5</p> | <p>(a)</p> | <p>(i)</p> | <p><i>Name and describe a modern high-technology sportswear fabric.</i></p> <p>Candidate will demonstrate knowledge of one type of high-tech fabric that is used in sportswear. It may be swimwear, fabric worn for athletics, team sports such as rugby etc.</p> <p>Name and describe any appropriate modern sportswear fabric to gain marks.</p> <p>E.g.: Gortex for outdoor sports – laminated with membrane layer, waterproof and breathable. Aquablade, Fastskin, LZR Racer or any other commercial high-tech swimwear fabric. This type of fabric usually features a biomimetic surface structure that imitates sharkskin, or has stripes to streamline passage through water, or compresses the body using elastane fibres. Hydrophobic fabric to repel water. Other high-tech sportswear fabric include anti microbial/bacteria fabric with Nano Silver Anti Bacteria treatment, Sun Block Fabric to protect from UV light, self-wicking fabric fast evaporation fabric to keep body cool and dry such as COOLMAX® fabric - perspiration is moved away from the body, and through the fabric, where it can evaporate quickly, allowing the wearer to feel cooler and more comfortable.</p> <p>The candidate may name a specific modern fabric or may describe the properties and characteristics of a type of modern fabric. Credit is given to those who show awareness of technological advances in textile materials. Candidates may refer to micro fibres and micro-encapsulated fabrics, nanotechnology. Candidates might refer to technical developments in traditional fibres or to non-traditional fibre sources for fabrics. Lycra is not to be considered a modern fabric however elastomeric fibres could well form part of modern fabrics. New methods of fabric construction might be mentioned or new fabric properties and functions including new fabric finishes eg Teflon. Ultra violet protection and moisture management could be referred to. Smart and interactive textiles such as those that can sense, monitor and react and transmit information. Reflective or biomimetic fabrics might be described or those fabrics which are aromatic, or antibacterial or anti-allergenic or easy care. This part of the question is open to the candidates to show their subject knowledge.</p> |  |  |
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|  |  | <p><b>(continued)</b></p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit. (0 marks)</li> <li>• Appropriate high-tech sportswear fabric name or simple description. (1 mark)</li> <li>• Appropriate high-tech sportswear fabric name and simple description, or a more detailed description without a specific fabric name. (2 marks)</li> <li>• Appropriate high-tech sportswear fabric name and a more detailed description of fabric. (3 marks)</li> <li>• Appropriate high-tech sportswear fabric name and a very detailed description of fabric properties and characteristics. (4 marks)</li> </ul> <p>No to lycra.<br/>                 If name is correct but description wrong, 1 mark only.<br/>                 If name is incorrect but description of a modern high-tech sportswear fabric is correct, up to 2 marks.</p> |  | <b>(4 marks)</b> |
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| <b>5</b> | <b>(a)</b> | <b>(ii)</b> | <p><i>Explain how this fabric improves the competitor's performance.</i></p> <p>Swimwear fabric with stripes or surface texture that creates a channelling effect to streamline water away from the body and improves speed of swimmer. Fabric panels compress the body using elastane fibres which improve muscular efficiency and make aerodynamic. Fabric that prevents the growth of bacteria &amp; mildew that may cause itching and unpleasant odour to maintain hygiene and comfort to allow for focus on the sport/non irritating. Fast wicking fabric to allow sweat to evaporate very quickly to prevent clothes from sticking to the body. Fabric with UV-Cut fibre could isolate UV ray and reduce thermal transmission to provide excellent skin protection and comfortable cool performance.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit. (0 marks)</li> <li>• Basic understanding eg faster/better/more flexible performance. (1 mark)</li> <li>• Simple explanation to include more than one point. (2 marks)</li> <li>• More detailed explanation which links fabric properties and characteristics with competitor's performance and sporting requirements/activity. (3 marks)</li> </ul> <p>If Lycra is the answer to 5(a)(i) and if the correct points are made about Lycra in 5(a)(ii), then up to 2 marks can be given.<br/>                 If answer to 5(a)(i) is incorrect but correct explanation for the named fabric is given in 5(a)(ii), then award up to 2 marks.</p> | <p>(Max 3 marks)</p> <p>(0 marks)</p> <p>(1 mark)</p> <p>(2 marks)</p> <p>(3 marks)</p> | <b>(3 marks)</b> |
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| 5 | (a) | (iii) | <p><i>Explain why some people are against the use of high-technology sportswear fabric in professional competitions.</i></p> <p><b>Marks awarded as follows:</b><br/>No answer worthy of credit. (0 marks)</p> <p>Unfair if only some competitors wear this fabric. High-tech sportswear is very expensive and some competitors will not be able to buy the most expensive products. Some brands sponsor particular athletes and work to develop a product for an individual which is not available to others. The capabilities of the sportsperson should be awarded rather than the properties of the fabric. Advertising is linked to new performance fabrics and is based on financial gain rather than sporting achievements.</p> <p>1 mark for each correct point up to 2 marks or 2 marks for expansion of one point.</p> <p>Accept 'cheating', 'all competitors should wear the same clothing'.</p> | (Max 2 marks) | (2 marks) |
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| 5 | (b) | (i) | <p><i>Explain why some consumers prefer to buy sustainable fashion clothing.</i></p> <p><b>Marks awarded as follows:</b><br/>No answer worthy of credit. (0 marks)</p> <p>Consumers wish to have less impact on the environment/eco friendly/green, reusing/recycling resources and reducing the need to use up the earth's natural resources. They want to reduce packaging and transportation distance of new clothing. They want to protect the environment from damage from toxic chemicals, waste in landfill sites and litter from plastics. Consumers are concerned that the textile workers are safe from dangers, paid a fair wage and their communities are supported so that a continued employment is made possible. Following a trend toward sustainable clothing. Want a quality product that will be durable/last a long time.</p> <p>1 mark for each correct point up to 3 marks or 3 marks for 2 points plus expansion.</p> <p>No to cheaper or costs less.</p> | (Max 3 marks) | (3 marks) |
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| 5 | (b) | (ii) | <p><i>Name and describe some sustainable fabrics and components that can be used to make fashionable clothing.</i></p> <p><i>You will be assessed on Quality of written communication (QWC) in this question.</i></p> <ul style="list-style-type: none"> <li>• Use recycled/reclaimed materials from deconstructed products</li> <li>• Select fabric which is made from recycled plastic/polyester</li> <li>• Use end of fabric rolls or waste fabric</li> <li>• Customise/upcycle existing textile products</li> <li>• Reuse second hand/vintage textile products, fabrics, components.</li> <li>• Reclaim wool fibres and re-spin into new yarn</li> <li>• Organic cotton grown without use of toxic chemicals such as pesticides, herbicides and chemical fertilisers</li> <li>• Fairtrade cotton</li> <li>• Biodegradable fabric</li> <li>• Modern fabric which has less impact on the environment e.g. Tencel</li> <li>• Biofibres which can be grown sustainably e.g. Bamboo</li> <li>• Easy-care finishes that will reduce laundering</li> <li>• Reduction of waste and pollution during fabric and component manufacturing</li> <li>• No toxic chemicals e.g. bleach, toxic dyes</li> <li>• Reduced carbon emissions in distribution e.g. fabric made locally.</li> </ul> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Simple statements or those that only include one or two basic ideas such as recycled fabric and components. Candidate will tend to concentrate superficially on only a few ideas and offers little information, little variety in or detail about sustainable fabrics and components suggested. There may be some confusion. Candidate may refer only to environmental issues. Response is structured poorly with little or no use of Design and Technology terminology and with numerous errors in grammar, punctuation and spelling.</li> </ul> |  |  |
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(0 marks)

(1 – 2 marks)

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|  |  | <p><b>(continued)</b></p> <ul style="list-style-type: none"> <li>• More detailed information. May only include a few different aspects of recycling and one other aspect e.g. organic cotton but some variety is described. This candidate has some understanding of different types of recycling and gives details. Response is fairly well structured with some use of Design and Technology terminology and with a small number of errors in grammar, punctuation and spelling.</li> <li>• Sound understanding of a variety of both environmental and also ethical aspects with detailed information. Sustainable fabric and components are described or named. Response is well structured with good use of appropriate Design and Technology terminology and shows a good grasp of grammar, punctuation and spelling.</li> <li>• Excellent understanding of a wide variety of environmental and ethical aspects with accurate and detailed information. Candidate will refer to sustainable fabric and component choice linked to the fashionable clothing. Response is well structured with good use of appropriate Design and Technology terminology and shows a good grasp of grammar, punctuation and spelling. If bullet points are used to structure answer, then full, detailed sentences must be employed.</li> </ul> <p>No to standard cotton or any other standard plant/animal fibres unless a reason linked to being natural/can re-grow is given.</p> <p>Reference to organic/produced without toxic chemicals/peace silk is required to gain 8 marks if plant/animal fibres have been included.</p> | <p><i>(3 – 4 marks)</i></p> <p><i>(5 – 6 marks)</i></p> <p><i>(7 – 8 marks)</i></p> | <p><b>(8 marks)</b></p> |
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| <p><b>6</b></p> | <p><b>(a)</b></p> | <p><i>Look at the design features of the clothing.</i></p> <p><i>Identify <b>three</b> different design features and explain why they are appropriate for royal clothing.</i></p> <p><i>An example is given below.</i><br/> <i>Design feature: Long flowing dress</i><br/> <i>Explanation: Large area of fabric gives impact as it covers full length of body.</i></p> <ul style="list-style-type: none"> <li>• Lace trims – to give luxurious pattern, texture and detail</li> <li>• Enlarged sleeves – to give status</li> <li>• Beading and jewels – to add precious and rich embellishment to show royal status</li> <li>• Silk/brocade/expensive fabric – Light is reflected/fabric drapes elegantly to show wealth</li> <li>• Long Trail/cape/cloak – to show status/class</li> <li>• Colour of clothing – to indicate position and power</li> <li>• Fur trim – to add traditional luxury.</li> <li>• High neckline –to cover body and give status</li> <li>• Padded shoulders – to add bulk and status</li> </ul> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• 3 design features with 3 correct and different explanations.</li> </ul> <p>If same explanation is given more than once, then 1 mark only for repeated explanation.</p> | <p><i>(Max 6 marks)</i></p> <p>(0 marks)</p> <p><i>(3 x 2 marks)</i></p> | <p><b>(6 marks)</b></p> |
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| 6 | (b) | (i)  | <p>List <b>four</b> design criteria for the costume for this role.</p> <p>Costume must:-</p> <ul style="list-style-type: none"> <li>• Be washable/cleanable</li> <li>• Be easy to put on/take off</li> <li>• Be able to be made within budget/cost</li> <li>• Have a bold/royal colour/bright/eye catching</li> <li>• Have rich pattern, texture, decoration</li> <li>• Feature lace</li> <li>• Feature fur</li> <li>• Include gold beads/jewels</li> <li>• Cover body in flowing fabric/cape/trail/cloak</li> <li>• Emphatic shape to signify power e.g. broad shoulders</li> <li>• Include a train.</li> <li>• Be lightweight/comfortable</li> <li>• Be traditional/ceremonial</li> <li>• Be sustainable</li> </ul> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit. (0 marks)</li> <li>• 1 mark for any appropriate design criteria.</li> <li>• To gain full marks at least one of the criteria must relate to the function of a stage costume, rather than merely repeat information given in 6(a). Up to 4 marks.</li> </ul> <p>No to elegant, heavy, fit for purpose, safe unless an explanation is given.</p> | (Max 4 marks)         | (4 marks) |
| 6 | (b) | (ii) | <p>Name a suitable fastening for a stage costume.</p> <p>Velcro, concealed zip – or any appropriate decorative fastening.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Correct answer.</li> </ul>   | (0 marks)<br>(1 mark) | (1 mark)  |

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| 6 | (b) | (iii) | <p><i>Explain the advantage of this fastening.</i></p> <p>Either quick release function or decorative quality, strong, secure, authentic/adjustable for different actors.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• Correct point linked to 6(b)(ii).</li> </ul>   | <p>(0 marks)<br/>(1 mark)</p>         | (1 mark)  |
| 6 | (c) | (i)   | <p><i>Describe <b>two</b> electronic components that could be included in a stage costume to add a special effect.</i></p> <p>Any appropriate electronic component or device such as music, sound, movement, light, scent release device etc</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• No answer worthy of credit.</li> <li>• 1 mark for any appropriate electronic component or device, up to 2 marks.</li> </ul> <p>No to stage lights/effects.</p>                   | <p>(Max 2 marks)</p> <p>(0 marks)</p> | (2 marks) |
| 6 | (c) | (ii)  | <p><i>Give 2 possible dangers of using electronic components in the costume.</i></p> <p>Any relevant dangers such as electric shock, burns, cuts/bruises, acid burn from battery, tripping over wires, temporary blindness/deafness, falling from stage, electrocution.</p> <p><b>Marks awarded as follows:</b></p> <p>No answer worthy of credit.</p> <p>1 mark for each different danger, up to 2 marks.</p> <p>No to damage, contact with water unless explanation given.<br/>No to 'not working properly'.</p> | <p>(Max 2 marks)</p> <p>(0 marks)</p> | (2 marks) |