



Cambridge International AS & A Level

DESIGN AND TEXTILES

9631/03

Paper 3 Textile Applications and Technology

October/November 2020

MARK SCHEME

Maximum Mark: 100

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

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This document consists of **20** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Section A

Question	Answer	Marks
1	Many factors have to be considered when designing children's clothing.	
1(a)	<p>Outline <u>four</u> factors a designer would consider when designing a range of children's clothing.</p> <p>Possible answer:</p> <ul style="list-style-type: none"> • age/gender of child; • climate in which garment will be worn/season; • comfort against skin and suitably flexible for energetic play; • safety (no sharp or loose fastenings, no components that could be choked on); • suitable fastenings for age of child (button size, zip safety in young boys clothing, etc.); • washability/aftercare – children's play can be messy and garment requires regular washing; • current fashions; • culture; • cost; • colour; • flammability of fabrics; • non-toxic dyes; • when/where to be worn/occasions; • any other relevant points. <p>One mark for each well explained point. Max one mark for a simple list.</p>	4

Question	Answer	Marks
1(b)	<p>Sketch and label a design for a young child's raincoat. Justify your choice of fabric and style features.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • front and back views could be shown. • style features: hood, pocket, fastenings, decorative features, seam lines, quilting, logos, etc. • labels: gender, safety, size, appropriate fastenings, press studs, buttons, colours, textures, linings for warmth, etc. • suitable fabrics: polyester and nylon for water resistant properties, easy care and quick drying, wool for warmth, blend of wool and polyester to combine water resistant, warmth, reduce fabric weight and aesthetic appeal, fabric should be light weight so comfortable for play. Nylon and cotton blend to combine water resistant, easy care and aesthetic appeal. Beneficial if the fabric is washable as children get dirty easily. Fleece lined for warmth and added comfort. Fabric may have a waterproof or/and stain resistant finish. Suitable fabrics could include modern breathable fabrics such as Gortex and cotton linings for comfort. • reasons for choice: safety issues for children/child friendly, no loose neck cords to reduce risk of strangling, easy for small children to open, colour choice suitable for gender, patterns/logos influenced by children's hobbies/interests/cartoon characters/media, hood for bad weather as children don't want to carry an umbrella during play, pockets for small toys/gloves. • any other relevant point. <p>Max three marks for suitable correctly labelled design. Max three marks for justification of fabric and style features related to young child's raincoat.</p>	6

Question	Answer	Marks
1(c)	<p>Explain the importance of having a detailed product specification for the manufacture of children’s clothing. Give specific examples.</p> <p>Possible answers: Specification must relate to child’s garment.</p> <ul style="list-style-type: none"> • ensures each garment is made/looks/performs identically; • ensures each garment is fit for purpose; • details/illustrations of front and back of garment so manufacturer knows what it should look like; • stitch details so manufacture knows what stitch type/length/width to use, each garment must be identical; • size so garment will fit standard sizes; • seam allowances so all garments fit well; • notions including threads; • amount of garments to be made; • timeframes for making garments; • fabric details and quantities required so manufacturer buys enough fabric for batch – avoids shade variations from different fabric suppliers or between batches; • fastenings to be used – specific details given on zip colour/length/teeth type specified, button size specified so correct fastening is used on all garments and is suitable for children. Incorrect sized buttons could mean the child cannot open buttons. Incorrect colours could mean the fastening doesn’t match fabric or style of clothing; • safety issues specifically for children, for example nightwear must be flame retardant, no loose fastenings or small items that could cause choking (quality control, QC). If the specification doesn’t include safety issues the clothing may not be safe to wear; • finishes required – for example if a waterproof finish is needed and it is not on the specification the garment may be made without the finish and not be waterproof so unfit for end use, similarly a stain resist finish or easy care; • any other appropriate point. <p>One mark for each well explained point. Max 5 marks.</p>	5

Question	Answer	Marks
1(d)	<p>Evaluate the use of <u>performance finishes</u> on children’s clothing. Give named examples.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • stain/soil resistant: prevents staining, useful for messy children/easier to care for. A silicone-based spray can stop stains being absorbed into the fabric; • water-repellent: prevents staining, useful for messy children/easier to care for etc. A water repellent finish is ideal on outdoor play clothes preventing children from getting wet. Scotchgard and Teflon are examples. Other benefits of Teflon are that it does not affect the feel, appearance or breathability of fabric so clothing remains comfortable, stain and crease resistant; • abrasion resist: during play fabrics can be tested in terms of their durability and strength, abrasion resist finishes increase the ability of the clothing to resist abrasion and tearing, therefore longer lasting; • flame retardant: safety is very important in children’s clothing, to reduce risk of burning a flame-retardant finish is useful in children’s clothes. Clothing for nightwear is required by law to be flame retardant. Proban and Pyrovatex are flame retardant finishes, but make the fabric stiff which can be less comfortable for children. Children can brush against candles or fires – flame retardant finish again reduces burning risks; • crease resist: playing can cause clothing to become easily creased and look untidy, therefore a crease resist finish would help prevent this. Aftercare would be time consuming if clothes needed ironing. These finishes can reduce fabric strength and their resistance to abrasion, which can be important for clothes used for play; • minimum care: children’s clothing gets dirty easily during play therefore requires frequent washing, often at high temperatures to remove stains. Not all fabrics can be washed at high temperatures without harming/shrinking fabric. Children may only have one coat that needs to be worn frequently so it must dry quickly to be ready for the next use; • anti-static finishes for fabrics from man-made fibres; • any other appropriate finish. <p>High Band: 8–10 marks A wide range of detailed points show thorough knowledge and understanding of the use of performance finishes on children’s clothing. Evaluation gives clear judgements on the use of finishes on children’s clothing. A wide range of suitable and detailed examples will be given to support the points made.</p> <p>Mid Band: 4–7 marks A range of points show thorough knowledge and understanding of the use of performance finishes on children’s clothing. Evaluation gives some judgements on the use of finishes on children’s clothing. A range of suitable examples will be given to support the points made.</p> <p>Low Band: 0–3 marks There will be little or no understanding of the use of performance finishes on children’s clothing. No or little evaluation. Few, if any, examples of suitable performance finishes.</p> <p>Max one mark if just listed different finishes with no explanation.</p>	10

Question	Answer	Marks												
2	There is a wide variety of yarns available for textile manufacturing.													
2(a)	<p>Describe <u>three</u> differences between staple fibre yarns and filament yarns.</p> <p>Possible answers:</p> <table border="1" data-bbox="316 448 1313 1680"> <thead> <tr> <th data-bbox="316 448 815 512">Staple fibre yarns</th> <th data-bbox="815 448 1313 512">Filament yarns</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 512 815 1216"> <p>Short staple fibres are from natural sources, e.g. cotton, wool:</p> <ol style="list-style-type: none"> Measurements: up to 12 cm long; medium thickness fibres up to 15 cm long, flax fibres (best quality) up to 40 cm long. The diameter of a natural staple fibre is irregular and varies from one part of fibre to another. Need to be carded/combed so fibres lie in the same direction. </td> <td data-bbox="815 512 1313 1216"> <p>Filament yarns are man-made from synthetic and regenerated fibres, e.g. viscose, lyocell, nylon and polyester.</p> <ol style="list-style-type: none"> Synthetic fibres can be cut into any length required. Shape of spinneret opening. The diameter can be controlled during the manufacturing process by changing the size of the opening in the spinneret. The diameter of the smooth, even manmade filament yarn is uniform throughout. Manmade continuous lengths chopped up into shorter staple fibres – the staple fibre length is determined in the factory and can be varied according to end use of filament yarn. </td> </tr> <tr> <td data-bbox="316 1216 815 1384"> <p>Long staple fibres, e.g. flax, wool. Duller in appearance due to hairiness.</p> </td> <td data-bbox="815 1216 1313 1384"> <p>Silk and any extruded man-made/synthetic fibres. More shine/lustre due to smoothness of yarn.</p> </td> </tr> <tr> <td data-bbox="316 1384 815 1480"> <p>Staple fibres need to be twisted together to form a yarn.</p> </td> <td data-bbox="815 1384 1313 1480"> <p>Once cut into staple length also need to be twisted together.</p> </td> </tr> <tr> <td data-bbox="316 1480 815 1576"> <p>Hairy and more textured so trap air – good insulators.</p> </td> <td data-bbox="815 1480 1313 1576"> <p>Smooth yarns – poor insulators.</p> </td> </tr> <tr> <td data-bbox="316 1576 815 1680"> <p>Cannot be modified by heat.</p> </td> <td data-bbox="815 1576 1313 1680"> <p>Can be heat set, e.g. texturing, crimping.</p> </td> </tr> </tbody> </table> <p>Any other relevant points.</p> <p>Two marks for each detailed comparison. One mark for each basic description.</p>	Staple fibre yarns	Filament yarns	<p>Short staple fibres are from natural sources, e.g. cotton, wool:</p> <ol style="list-style-type: none"> Measurements: up to 12 cm long; medium thickness fibres up to 15 cm long, flax fibres (best quality) up to 40 cm long. The diameter of a natural staple fibre is irregular and varies from one part of fibre to another. Need to be carded/combed so fibres lie in the same direction. 	<p>Filament yarns are man-made from synthetic and regenerated fibres, e.g. viscose, lyocell, nylon and polyester.</p> <ol style="list-style-type: none"> Synthetic fibres can be cut into any length required. Shape of spinneret opening. The diameter can be controlled during the manufacturing process by changing the size of the opening in the spinneret. The diameter of the smooth, even manmade filament yarn is uniform throughout. Manmade continuous lengths chopped up into shorter staple fibres – the staple fibre length is determined in the factory and can be varied according to end use of filament yarn. 	<p>Long staple fibres, e.g. flax, wool. Duller in appearance due to hairiness.</p>	<p>Silk and any extruded man-made/synthetic fibres. More shine/lustre due to smoothness of yarn.</p>	<p>Staple fibres need to be twisted together to form a yarn.</p>	<p>Once cut into staple length also need to be twisted together.</p>	<p>Hairy and more textured so trap air – good insulators.</p>	<p>Smooth yarns – poor insulators.</p>	<p>Cannot be modified by heat.</p>	<p>Can be heat set, e.g. texturing, crimping.</p>	6
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Question	Answer	Marks
2(b)(i)	<p>Sketch and label a special occasion bag which uses at least <u>two</u> speciality yarns in creative techniques for decoration.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • sketch – good quality, appropriate for special occasion, may include front and back views/zoom/detail. Accurate representation of speciality yarns incorporated into named creative techniques; • style features – pockets, fastenings – zip, buttons, velcro, straps, poppers, suitable fabrics – silk, velvet, cotton, etc.; • speciality yarns: chenille, boucle, slub, metallic, loop, spiral (corkscrew); • creative techniques: appliqué, couching, mola, soft sculpture, hand embroidery, free machine embroidery, shisha, kantha, beading, surface decoration, quilting; • any other relevant points. <p>Max two marks for sketch of suitable and correctly labelled special occasion bag.</p> <p>Max two marks for appropriate, effective and decorative use of speciality yarns in named creative techniques.</p>	4
2(b)(ii)	<p>Justify your choice of <u>two</u> named creative techniques in <u>(b)(i)</u>.</p> <p>Possible answers:</p> <p>Elaborate, suitable for special occasion, luxurious effect, 3D effect, lustrous, eye catching, traditional technique, culture, stands out from the fabric, fashionable, appeals to target customer, practical for use on a bag, suits the bag style, adds different textures, contrast to fabric, etc.</p> <p>Any other relevant point.</p> <p>One mark for justified choice of each creative technique.</p>	2

Question	Answer	Marks
2(b)(iii)	<p>Explain how <u>one</u> named creative technique in (b)(i) will be worked on the bag.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • accurate description of how each technique is carried out; • details of how the technique is used on the bag; • details of how speciality yarn is incorporated; • details of stitching type (hand and machine); • details of specialist equipment needed for chosen technique; • details of suitable fabrics for occasion wear. <p>For example: Couching</p> <p>Fancy yarns are laid across the fabric surface and fastened at regular intervals with small hand or machine stitches of the same or different yarn. On the bag, metallic fancy yarns in a variety of silvers, bronze and gold colours are laid in small circular patterns. A fine metallic gold thread is used for the couching thread to hand stitch the fancy yarn in place. The stitches are small and at regular intervals of approximately 1 cm. The couching threads may be either the same colour as the laid threads or a contrasting colour. Couching can be done by hand or sewing machine. A range of different metallic fancy yarns will be laid on top of a satin fabric to create different textures and a luxurious design suitable for occasion wear.</p> <p>Any other relevant point. Give credit for relevant diagram.</p> <p>One mark for each well explained point. Max 5 marks.</p>	5

Question	Answer	Marks
2(c)	<p>Assess the production methods of speciality yarns. Give named examples.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • speciality yarns definition – gives texture and an interesting appearance to fabrics. Special effects are added into the length of the yarn. Can be made from staple or continuous filament fibres; • loop/boucle – yarn that is usually made of three plies. One thread is usually looser than the others which creates an interesting texture and appearance, loops in the fabric; • chenille – fibres project from a central core yarn, velvety texture, thick and soft, fabric made from chenille yarn has a protruding pile; • slub – variations in thickness of the yarn created by a soft lump, or slub, of fibres. Interesting texture and style. Interesting effects can be produced for creative textiles using different colours of fibres; • metal effect – very decorative, sparkle, metallic, glossy, glamorous, luxurious effects. Fabrics made from metallic yarns include lamé and brocades; • speciality yarns can also be made by spinning different yarns together; • any other relevant point. <p>High Band: 6–8 marks A wide range of points will show detailed knowledge and understanding of the production methods of speciality yarns. Assessments of a wide range of detailed examples will be given to support the points made.</p> <p>Mid Band: 3–5 marks A range of detailed points will show some knowledge and understanding of the production methods of speciality yarns. Assessments of a range of examples will be given to support the points made although there may be errors or omissions.</p> <p>Low Band: 0–2 marks There will be little or no assessment/understanding of the production methods of speciality yarns. Few, if any, examples will be given.</p>	8

Section B

Question	Answer	Marks
3	Home furnishings are popular.	
3(a)(i)	<p>Sketch and label a design for a cushion that includes <u>one</u> named fabric and <u>two</u> decorative techniques achieved with the use of dyes.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • good quality sketch may include front and back views; • labelling: decorative techniques, details on how colour has been added and effect created, colour scheme; • fabrics: bleached denim, silk chiffon, raw silk, calico, canvas, linen-cotton mix, cotton sheeting, any silk, any cotton, any viscose; • decorative techniques must use dyes: batik, tie dye, space dyeing, discharge dyeing, silk painting, block printing, stencilling, airbrushing, sponging, use of guttas, shibori; • any other relevant points. <p>One mark for a well labelled sketch. One mark for fabric. Two marks for accurate representation of two named decorative techniques.</p>	4
3(a)(ii)	<p>Justify your choice of fabric and decorative techniques.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • Reasons for choice of fabric could include: cotton denim, cotton canvas, silk and linen all absorb dye well so give strong colours when dyed; • Reasons for choice of two decorative techniques: cultural trend, fashionable, country of manufacture, low cost, suit/match a decorative theme, delicate result (silk), bold bright result; • any other relevant point. <p>Reasons for choice of two decorative techniques must be different.</p> <p>One mark for each well justified reason for choice. Max 3 marks.</p>	3

Question	Answer	Marks
3(b)	<p>Assess how a range of named decorative <u>components</u> could be used to enhance home furnishings.</p> <p>Possible answers: Fringed edging, sequins, any named fancy yarn, buttons, lace, pompoms, tassels, beading, studs, ric rac, feathers, trimmings;</p> <p>The following points could be considered:</p> <ul style="list-style-type: none"> • cushions decorated with all over sequin designs/edged with pom poms/beading/lace; • curtain tie backs made from decorative cord/tassles/pom poms/fringes; • fringing and trimmings on lampshades; • fringed edgings on blind/curtains; • decorative buttons on bedding; • create different combinations of textures; • interesting colour combinations/schemes can be created that are seasonal or ‘fashionable’. For example, darker colours are favourable in winter; • home furnishings can be easily updated with the use of decorative components; • can be aimed at different genders/age range by simple modification of decorative components; • look and cost: components may make home furnishings look more expensive/luxury/glamorous (e.g. the use of silk can make a furnishing look more luxurious and costly); • consumers can buy/choose their own decorative components at reasonable cost to update/modify current home furnishings; • any other appropriate point. <p>Give credit for relevant diagram.</p> <p>High Band: 6–8 marks A wide range of points will show detailed knowledge and understanding of how decorative components could be used to enhance home furnishings. Assessments of a wide range of named and detailed examples will be given to support the points made.</p> <p>Mid Band: 3–5 marks A range of points will show some knowledge and understanding of how decorative components could be used to enhance home furnishings. Assessments of a range of named examples will be given to support the points made although there may be errors or omissions.</p> <p>Low Band: 0–2 marks There will be little or no assessment/understanding of how decorative components could be used to enhance home furnishings. Few, if any, examples will be given. Maybe written as a list.</p>	8

Question	Answer	Marks
3(c)	<p>Evaluate the importance of risk assessments and safety in the work place when constructing home furnishings. Give examples of safe working practices.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • factories in the textile industry can be very dangerous; • employers must ensure that employees work in a safe environment and must follow any rules and regulations to ensure safety; • unsafe working practices can cause hazards; • risk assessments are carried out to ascertain hazards to employees and the environment, areas of danger are identified and how they can be avoided. Risks are classified as low, medium or high; • designed to prevent employees from harm in the work place; • without risk assessments dangers can be left unidentified – potential for serious injuries; • if an employer failed to implement safe working practices employees could use harmful/hazardous chemicals incorrectly risking skin irritations, lung disease, asthma, eye irritations and inhalation of harmful fumes/ hazardous to environment. Machinery can be dangerous – designed to cut, pierce fabric, get very hot, moving parts – can cause serious injury; • by implementing safety rules and regulations, the employer removes the risk of legal action being taken against them, disputes and industrial action which would disrupt production and profitability; • employers can be liable for accidents in the workplace; • safety in the workplace, correct and safe storage and disposal of hazardous substances reduces health risks and improves well-being; • safe working practices include the use of warning labels, how hazardous substances should be used and stored correctly to prevent risk to employees; • adequate breaks required for workers should be provide so they do not lose concentration; • protective/safety clothing must be worn, e.g. masks, googles, safety gloves; • machinery should have guards where needed and emergency stop buttons; • workers should be trained to use machinery; • clean and tidy work areas to prevent tripping; • disposal of waste materials and substances should be safe and environmentally friendly; • no eating or drinking in work area because food could get contaminated by hazardous fumes or substances; • quality assurance – customers may demand some sort of quality assurance. Quality Controls are carried out to check machinery is working properly, work areas are clean and safe practices are followed; • fair trade ensures that factories follow safe working practices and conditions; • any other relevant point. 	10

Question	Answer	Marks
3(c)	<p>High Band: 8–10 marks A wide range of detailed points show thorough knowledge and understanding of risk assessments and safety in the work place. A wide range of judgements made as to the importance of risk assessments and safety in the work place. A wide range of examples of safe working practices. The answer must consider both employee and employer.</p> <p>Mid Band: 4–7 marks A range of points show thorough knowledge and understanding of risk assessments and safety in the work place. A range of judgements made as to the importance of risk assessments and safety in the work place. A range of examples of safe working practices. The answer may consider either employee or employer.</p> <p>Low Band: 0–3 marks There will be little or no understanding of risk assessments and safety in the work place. No or little evaluation. Few, if any, examples of safe working practices.</p>	

Question	Answer	Marks
4	It is important to consider environmental issues in the design and manufacture of textile products.	
4(a)	<p>Consider the possibilities for using recycling fabrics and components in the items you made for your coursework.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • identification of items made, one item a fashion garment the other an accessory; • buy used clothing from charity shops and remodel (description of how they could remodel); • reuse trimmings and fastenings from unwanted/second hand textiles; • for adding decoration or design features such as pockets, lace, panels, applique slogans; • make fabric out of recycled/scrap patchwork pieces; • different parts of garment/accessory can be made from a variety of reused garment/fabrics, e.g. collars, sleeves; • second hand curtains/bedsheets/quilts can be reused for prototype/fabric; • use second hand buttons; • any other relevant point. <p>Recycling ideas must relate and be appropriate to the specific items made.</p> <p>One mark for each well discussed opportunity. Max 5 marks.</p>	5

Question	Answer	Marks
4(b)	<p>Explain why the safe handling and disposal of dye stuffs and mordants are important for the environment.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • dyes can remain in the environment for a long period of time; • many dyes and their breakdown products are carcinogenic, mutagenic and/or toxic to life; • incorrect handling and use of harmful/hazardous chemicals can cause employees skin irritations, lung disease, asthma, eye irritations and inhalation of harmful fumes; • depending on exposure time and dye concentration, dyes can have acute and/or chronic effects on exposed animals/plants; • unnatural colouration of water/rivers/lakes; • dyes have negative effect on the food chain; • damage ecosystems when discharged into water systems by dyeing factories, predominantly in developing countries; • dye effluent has been connected to growth reduction, neurosensory damage, stress and death in fish, and plant growth; • manufacturers must set out good working practices for using hazardous substances, for example the use of warning labels, how hazardous substances should be used and stored correctly to prevent risk to employees; • any other relevant point. <p>High Band: 6–8 marks A wide range of points will show detailed knowledge and understanding of why the safe handling and disposal of dye stuffs and mordants are important for the environment. A good range of clear and detailed explanations will be given to support the points made.</p> <p>Mid Band: 3–5 marks A range of points will show some knowledge and understanding of why the safe handling and disposal of dye stuffs and mordants are important for the environment. A range of clear explanations will be given to support the points made.</p> <p>Low Band: 0–2 marks There will be little or no explanation/understanding of why the safe handling and disposal of dye stuffs and mordants are important for the environment. Few, if any, explanations will be given.</p>	8

Question	Answer	Marks
4(c)	<p>Discuss how consumer choice impacts on environmental issues related to the fashion industry. Give examples to support your answer.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • consumer demand drives the production of fashionable garments and fast fashions therefore responsibility of environmentally friendly textiles lies in hands of consumer as much as manufacturer; • rapidly changing trends means consumers discard garments after minimal wear due to the emergence of a new trend resulting in increased textile waste; • consumers demand low cost clothing fast, so manufacturers have to keep up with this demand. This puts pressure on manufacturers to cut costs which may mean workers are paid inadequately under poor working conditions; • many consumers, especially younger, are unaware of impact of fast fashion on the environment and well-being of workers; • a slowdown of fashion changes is needed to help conserve the environment; <p>Examples of how consumer choice impacts environmental issues:</p> <ul style="list-style-type: none"> • buy more garments made from recycled materials such as polyester fleece; • buy new clothing less frequently; • boycott shops that promote cheap, fast fashion; • support shops that sell fair trade fashions; • choose environmentally friendly fashion – garments made from organic fibres; • wear clothing and accessories with slogans that promote sustainable fashion; • to reduce water waste wash garments only when necessary, full loads, at low temperatures (30 degrees); • use eco-friendly detergents for washing garments; • buy only from shops that promote sustainable fashion; • hire clothes that will only be worn once, for example fancy dress or garments for one off special occasions; • buy second hand clothing from charity shops; • repair garments rather than throw away; • choose fashion garments made from sustainable fibres such as lyocell, bamboo, organic cotton, fairtrade textiles; • upcycle garments – remodel clothes by cutting trousers to make shorts, cut sleeves off tops to make vests, etc.; • choose locally produced fashion garments to reduce ‘fashion miles’ and carbon footprint; • donate to charity shops/homeless; • make some money – through Ebay by selling old clothes; • textiles in poor condition can be recycled into cloths; • choose locally produced garments/fabrics to avoid unnecessary transport; 	12

Question	Answer	Marks
4(c)	<ul style="list-style-type: none"> • do not choose synthetic fibres which shed minute particles when washed. These then enter the ecosystem. Can be avoided by modifying washing machine; • choosing cotton can mean that local populations in cotton growing areas may be deprived of water. Check the sources of cotton fibre in garments; • buy good quality and classic styles; • any other relevant point. <p>High Band: 9–12 marks A wide range of detailed points will show thorough knowledge and understanding of how consumer choice impacts on environmental issues related to the textile and fashion industry. There is an excellent/good understanding of the role and responsibilities of the consumer in environmentally friendly textiles. A wide range of detailed examples will be given.</p> <p>Mid Band: 4–8 marks A range of detailed points will show some knowledge and understanding of how consumer choice impacts on environmental issues related to the textile and fashion industry. There is some understanding of the role and responsibilities of the consumer in environmentally friendly textiles. A range of detailed examples will be given.</p> <p>Low Band: 0–3 marks There will be little or no discussion/understanding of how consumer choice impacts on environmental issues related to the textile and fashion industry. There is little/no understanding of the role and responsibilities of the consumer in environmentally friendly textiles. Few, if any, examples will be given.</p>	

Question	Answer	Marks
5	A designer is developing a range of evening shirts.	
5(a)	<p>Explain the importance of producing and testing prototypes.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • enables designers and manufacturers to trial a design or pattern before large investments are made in producing a final product; • tests how materials and components behave to enable correct choice; • trial production processes; • work out costs; • make decisions on viability; • allows prototype to be tested for consumer feedback; • important to check if the design is going to work/fit for purpose and meets the needs of consumers; • identifies problems/issues with the design at an early stage; • enables informed decision making about necessary modifications to make the most successful final product; • identifies production problems; • any other relevant point. <p>High Band: 6–7 marks A wide range of points will show detailed knowledge and understanding of the importance of producing and testing prototypes. Reference will be made throughout from the designer’s point of view. A good range of clear and detailed explanations will be given to support the points made.</p> <p>Mid Band: 3–5 marks A range of points will show some knowledge and understanding of the importance of producing and testing prototypes. Some reference will be made from the designer’s point of view. A range of clear and detailed explanations will be given to support the points made.</p> <p>Low Band: 0–2 marks There will be little or no explanation/understanding of the importance of producing and testing prototypes. Little or no reference will be made from the designer’s point of view. Few, if any, explanations will be given.</p>	7

Question	Answer	Marks
5(b)	<p>Analyse a range of seams and their suitability for evening shirts. Give examples of suitable fabrics and reasons for your choices.</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • suitable fabrics: satin, organza, chiffon, shirting, voile, velvet; • reasons for choice: lightweight, delicate, fine, luxurious, good drape and handle, washable, comfortable, crease resistant; • plain (open) seam: flat so can be used on most fabrics and garments without creating bulk. Bulk should be avoided when using more delicate fabrics such as silk. Raw edges will fray and look untidy so need to be neatened. Time consuming process, edges visible through sheer and delicate fabrics suitable for evening shirts. Suitable for knitted fabrics as seam lies flat but stretch stitch needed and overlocked edges to provide 'give' required by knitted fabric; • overlocked: seam is stitched and neatened in one process; suitable for most fabrics; time efficient; overlocked stitch has more 'give' than a straight seam allowing some stretch and comfort. Seam threads less likely to break than straight seam. Overlocking can look untidy if used on delicate/sheer fabrics suitable for evening wear. Satins and velvets snag easily so edges need to be finished quickly so would benefit from overlocked seams. Often used to save on costs as only one process is used instead of two to make and finish the seam.; • French seam: very neat finish as all edges are enclosed, most suitable for sheer, delicate lightweight fabrics such as chiffon and organza as seams are visible. More expensive, time consuming and labour intensive, but consumer willing to pay more for high quality evening/occasion wear where aesthetics more important; • lapped seam: flat and decorative, seam becomes part of the garment style. Due to overlapping of fabric, seam could be bulky on a delicate or fine shirt fabric; • double-stitched or fell seam: strong and flat seam, more suitable for garments where durability is important, two rows of stitching enclose raw edges and can look decorative; • an overlaid seam which is used on shirt yokes. <p>High Band: 6–8 marks A detailed and thorough analysis of a wide range of different seams and their appropriateness for the manufacture of a women's evening/occasion shirt. Evidence of technical terms used throughout. A wide range of named suitable fabrics with appropriate reasons for choice.</p> <p>Mid Band: 3–5 marks An analysis of a range of different seams and their appropriateness for the manufacture of a women's evening/occasion shirt. Evidence of some use of technical terms. A range of named suitable fabrics with appropriate reasons for choice.</p> <p>Low Band: 0–2 marks There will be little or no analysis/understanding of the different seams and their appropriateness for the manufacture of a women's evening/occasion shirt. Little use of technical terms. Few, if any, named suitable fabrics will be given and reasons for choice may be missing or incorrect.</p>	8

Question	Answer	Marks
5(c)	<p>Evaluate the value of the care labelling system and use of International Textile Care Labelling Codes (ITCLC).</p> <p>Possible answers:</p> <ul style="list-style-type: none"> • informs the consumer how to care for and clean the textile product; • codes are adapted to make the information relevant to the product; • information on a care label includes conditions of laundering/washing, drying, bleaching and ironing instructions; • symbols explain how to wash, dry and iron; • following the care label system enables consumer to keep their clothes/textile products looking their best; • enables consumer to have prior knowledge of ongoing costs such as dry cleaning; • allows consumers to understand how to clean textile products properly (e.g. cold hand wash only); • following the codes maximizes the useful life of textile products; • care codes are internationally recognized.; • care symbols or instructions in other languages may be provided; • if care label advice not followed fabric/textile product may be affected; • avoids damage such as dyes running (e.g. wash separately), burning (e.g. cool iron), shrinking and stretching textile products; • consumers may not understand the symbols on a care label and need extra information to explain the meaning of the codes; • not all consumers check the label before caring for textile product; • there are international standards to care labelling to ensure that clothes made anywhere in the world comply with the care standards/labelling of the consuming country; • dry cleaning solvents, tumble drying and whether the product may be bleached; • any other relevant point. <p>High Band: 8–10 marks A wide range of detailed points show thorough knowledge and understanding of the care labelling system and International Textile Care Labelling Code. A wide range of judgements made as to value of the care labelling system and ITCLC. Evidence of technical terms used throughout.</p> <p>Mid Band: 4–7 marks A range of points show some knowledge and understanding of the care labelling system and International Textile Care Labelling Code. A range of judgements made as to value of the care labelling system and ITCLC. Evidence of technical terms mostly used throughout.</p> <p>Low Band: 0–3 marks There will be little or no understanding of the care labelling system and International Textile Care Labelling Code. Few or no judgements made as to value of the care labelling system. Very little or no evidence of technical terms used.</p>	10