Cambridge Assessment International Education

Cambridge International AS & A Level

DESIGN & TEXTILES **9631/03**

Paper 3 Textile Applications and Technology **October/November 2023**

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.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

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.

Social Science-Specific Marking Principles
(for point-based marking)

1 Components using point-based marking:

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

a DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
b DO credit alternative answers/examples which are not written in the mark scheme if they are correct
c DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons …).
d DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
e DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
g DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

3 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

4 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

Question	Answer	Marks
1(a)	**Children's schoolwear should be fit for purpose.** **Explain <u>three</u> factors to consider when designing children's schoolwear.** **Answer could include:** • Age of child; • Type of schoolwear being designed e.g. dress/trousers/shirt/sportswear • Climate/season being designed for e.g. in hot climates, absorbent fabrics may be preferable such as cotton types; • Religious/cultural requirements; • Colours required, could be different in each school; • Cost of individual items; • Types of fabrics available; • Performance characteristics e.g. durability, comfort, etc.; • Fastenings/Components • Washability/laundering of fabrics; • Specific requirements of schools e.g. logos, or specific items e.g. jackets. Any other relevant point. 1 mark for each brief point, 2 marks for a well explained point for each factor.	**6**

Question	Answer	Marks
1(b)	**Assess the fabric finishes suitable for children's schoolwear.** **Answer could include:** • Crease resistance – would help to keep uniforms presentable and un-creased/better presentation/may last longer; • Minimum-iron finishes – less work needed at home to care for items/may not have all laundering facilities; • Permanent creases e.g. crease in front of trousers or pleats in a skirt – even after washing, the pleats would stay in place and look good; for thermos-plastic fibres/fabrics/less care needed; • Soil release/Stain resistant – it is likely that uniforms will get soiled so when laundered, the garments will shed stains more easily/less laundering and cleaning needed; • Fabric finishes will be suitable for different fibres/fabrics – correct examples to be given e.g. fabrics which crease badly are cottons, linens and viscose, most polyester and nylon-based fabrics do not crease much; • Abrasion resistant – some parts of garments will wear more than others e.g. knee area on trousers, elbow areas on jumpers, finish will reduce abrasion; examples of fabrics which may wear more easily – wool, some acrylics can bobble and look unattractive, etc. • Anti-static – if synthetic fibres/fabrics are used (e.g. polyesters, nylons), this finish will reduce static charge and make the garments more pleasant to wear especially in hot dry conditions; can be effective in blended fabrics which have a high percentage of synthetics e.g. polyester 65%, cotton 35%, etc. • Durable press, often used for trousers/skirts with pleats; • Minimum care, used on shirts which need less care during laundering; • Showerproof/Water-repellent/resistant for light raincoats, keep the wearer dry in light showers but not heavy rain. Don't accept Flame proofing or Mildew resistant finish. Any other relevant points. Credit specific examples of relevant fibres and fabrics. **High band** (8–11 marks): demonstrates detailed knowledge and understanding when assessing and justifying the fabric finishes that would be suitable for children's schoolwear. Shows a good range of skill in the selection of relevant examples to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (4–7 marks): a good attempt showing knowledge when assessing and justifying the fabric finishes that would be suitable for children's schoolwear. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–3 marks): satisfactory attempt at the answer and a fair knowledge of some of the points relevant to fabric finishes. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	**11**

Question	Answer	Marks
1(c)	**Discuss how a consumer should dispose of unwanted children's schoolwear in an environmentally responsible way.** **Answer could include:** • Hand clothing down to younger siblings/friends/family; give to charity so it can be either re-sold or disposed of in an environmentally friendly way e.g. can be sorted and distributed according to condition of items; • Reuse the fabrics e.g. cut up shorts and use for patchwork/make into another item/dye fabric, etc.; • Sell the items on e-Bay/Facebook marketplace/other online marketplace; • Take items to recycling centre where items are sorted according to condition/colour/resalebility, etc., and know they will be disposed of appropriately if the company has a good reputation; • Doorstep collection of unwanted items – can be recycled (shredded to make new fabrics e.g. padding, blankets, cleaning cloths, etc.) or made into new items; • Give items to the school for redistributing to those who need the garments or reselling them e.g. pop-up shop; • use as cleaning cloths/rags; • shred and use as mattress fillings; • upcycle/embellish; • make the item into a smaller size e.g. adult's dress into a child's; • Change of use e.g. use for sleepwear Any other appropriate/relevant examples. **Reasons why:** • Reduced landfill; • Reduces need for new materials; • Reduces pollution; • Reduces use of fuel; • Reduces carbon footprint; Any other appropriate/relevant examples. **High band** (6–8 marks): demonstrates detailed knowledge and understanding when discussing how a consumer should dispose of unwanted children's schoolwear in an environmentally responsible way. Shows a good range of skill in the selection of examples and benefits to the environment to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (3–5 marks): a good attempt showing knowledge when discussing how a consumer would be able to dispose of unwanted children's schoolwear in an environmentally responsible way. Some suitable examples will be given although there may be omissions and errors. Shows a good use of technical terms and good organisation of the answer. **Low band** (0–2 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant factors in the disposal of unwanted schoolwear. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	**8**

Question	Answer	Marks
2(a)	**A manufacturer has many factors to consider when producing fashion items.** **Explain how a manufacturer would decide on the best production method to use for producing fashion tops.** **Answer could include:** • How many items need to be produced, if a specific number, batch production could be suitable; • Is the fashion top a specific style for e.g. summer, so styles may change in future years therefore batch production is likely to be the best option; • If the fashion top is a regular best seller, mass production may be suitable e.g. white t-shirt type top which is always in fashion; • What sort of processes are included and whether the manufacturer has enough skilled staff to produce them; • Availability of equipment e.g.. Machines; • Availability of materials and components; • Whether there is enough skilled labour to carry out the manufacture; • The cost of production e.g. if the fashion top is simple and does not require many processes, mass production could be used, especially if the manufacturer could modify an existing design easily; Any other relevant points. **High band** (5–6 marks): demonstrates detailed knowledge and understanding when explaining how a manufacturer would decide on the best production method to use for fashion tops. Shows a good range of skill in the selection of examples to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (3–4 marks): a good attempt showing some knowledge when explaining how a manufacturer would decide on the best production method to use for fashion tops. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–2 marks): satisfactory attempt at the answer and a fair knowledge of some relevant points. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	**6**

Question	Answer	Marks
2(b)	**Compare hand embroidery with free machine stitching when adding a design to a fashion top in a creative way. You may include sketches in your answer.** **Answer could include:** • Hand embroidery could use only one stitch throughout e.g. running stitch or chain stitch, or several different stitches together e.g. fly stitch, running stitch, etc. Could be more expensive, slower to produce, inconsistency in stitches. No electricity is needed and doesn't require machines or much equipment to produce. Less skilled staff. • Free machine stitching – easier to stitch if the design is continuous so less stop/start in the stitching. More consistent stitches, quicker, staff need to be more skilled to use machines. **Factors affecting both** • The type of fabric would need to be considered, if light and floaty (e.g. viscose georgette), heavy stitching may not be appropriate; • Any stabilisers needed for the fabric e.g. iron-on interfacing, stitch and tear, soluble fabrics, • Equipment needed e.g. special foot, frame, needle, hoop, different types of needles, • Different types of thread e.g. machine, hand, thick/thin, textured, metallic, colours, embroidery floss, soluble threads, electronic threads, conductive threads, etc. • Size of designs need to be considered, e.g. small detailed designs might be easier to produce continuously/multiple times by machine so would be more cost effective; • Design could be stitched separately and then attached on to the fabric. This could be done for both the hand stitched version or the free-machine stitched version. • Sketches to show different ideas of how hand stitching can be used; • A continuous design could be suitable for hand stitching or free stitching; • A larger design could be easier to free-machine, hand stitching has more control and a small detailed design could be worked; Any other relevant points. **High band** (7–9 marks): demonstrates detailed knowledge and understanding when comparing how hand embroidery and free machine stitching can be used when adding a design to a fashion top in a creative way. The answer shows a good range of skill in the selection of examples to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (4–6 marks): a good attempt showing some knowledge when comparing how hand embroidery and free machine stitching can be used when adding a design to a fashion top in a creative way. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer.	**9**

Question	Answer	Marks
2(b)	**Low band** (0–3 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant points of how hand embroidery and free machine stitching can be used when adding a design to a fashion top in a creative way. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	
2(c)	**Assess the range of threads available to the manufacturer when constructing fashion garments.** **Answer could include:** • Usual machine threads e.g. polyester types which are strong, cheap to produce and available in large spools; these would be cost effective; cotton polyester blends; 100% cotton; • Threads must be suitable for the machines available; • Range of colours – e.g. polyester threads usually come in a wide range of colours; the nearest colour to the fabric will be used for manufacture. • These threads will be used for sewing the garments together; • Threads suitable for overlockers e.g. polyester 3-ply, used to sew garments together and neaten at the same time. Matching colour may not always be used. Large spools so cost effective and the same colour can be used even if a different coloured batch of garments is being stitched; • Different weight of threads could be used if some areas; • Threads could be used for specific purposes e.g. if buttonholes are part of the design, a thicker stronger thread may be used. This will depend on the fabric being used; • Silk threads could be used but more expensive; sheen on the yarns so attractive to look at if used for embroidery; • Use of threads for decorative stitching e.g. rows of automatic patterns, shiny colourful threads may be used so the design stands out/contrasts with the fabric. • Content of each thread e.g. 100% polyester, cotton core and polyester, 100% cotton, 100% silk, to match the fabric, because of washing issues, shrinkage • Top stitching; • Invisible threads; • Stretch threads; • Metallic threads; • Shirring elastic used on bobbin for shirring; • Embroidery threads used on the bobbin; • Tacking threads. Not yarns e.g. novelty, boucle, etc. Any other relevant points. **High band** (8–10 marks): demonstrates detailed knowledge and understanding when assessing the range of threads available to the manufacturer of fashion tops. Shows a good range of skill in the selection of suitable examples to illustrate understanding. Very good organisation of answer with skilled use of technical terms.	**10**

Question	Answer	Marks
2(c)	**Middle band** (4–7 marks): a good attempt showing knowledge when assessing the range of threads available to the manufacturer of fashion tops. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–3 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant factors. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	

Question	Answer	Marks
3(a)	**Colour is important in textiles.** **Discuss why it is important to understand colour theory when dyeing fabrics. Include specific examples in your answer.** **Answer could include:** • Colour theory includes the knowledge of primary (red, yellow, blue), secondary (orange, purple, green) and tertiary colours (mix of one primary and one secondary colour). Give credit for examples of colours in each group. • A knowledge of colour theory will reduce disappointing results on the fabrics after dyeing. • Consumers will have to judge colours themselves based on dye packets, etc.; • If items for the home are being designed, with a specific colour scheme in mind, the fabrics being dyed need to be the correct colour according to the specification. Importance of knowing which colours go together i.e. tone/shade/tint, etc. • If the dyes do not produce the correct colour according to the description of the item, the consumer may be disappointed. • Manufacturers need to make sure the colours are as described when producing items to order. Knowledge of specific colours/names of colours are important as consumers will have expectations of what to expect. They may complain if the colour is not the same. • Manufacturers will have a data base of possible colours and will be able to match colours accurately (digital choices); scan fabric and match the colour. • Dyes can be used to produce different colours on fabrics. This will depend on the colour of the fabric before dyeing e.g. if a white fabric is dyed, the dye will be true to the expected colour after dyeing. If the fabric is a pale blue before dyeing, any dye which is used will 'mix' with the blue to produce a colour different to that expected. This may be used when recycled fabrics/garments are being re-used. • Manufacturers will make sure the fabrics to be dyed will be white with no dressings on the fabric which may affect the colour. This will ensure the accurate colours will be produced. • If patterned fabrics are overdyed with a different colour e.g. a multi-coloured fabric being over dyed with a blue machine dye all the colours will be changed as the dye will mix with the colours already there. For example, pink colours dyed with blue will give a pinky/purple colour. • If fabrics/garments are dyed in batches, the same dye/fabric needs to be used each time to make sure they are identical, if that is what is expected. This is easier if dye mixes are produced digitally. • Knowledge of colours for different spaces in the home and how light may affect it e.g. number of windows in a room as the light will affect how the colour of the dyed fabric e.g. curtains/cushions will appear. • It is important to make sure the correct amount of dye is used in proportion to the fabric, for the expected colour after dyeing. • Fabrics can be dyed using various different dyes which are available for home or for manufacturers use e.g. direct dyes, procion dyes, natural dyes; these behave differently and the correct fabric type needs to be used.	**12**

Question	Answer	Marks
3(a)	**Types of dyes** • Procion dyes used for cellulosic fabrics (cottons, linens, viscose, etc.); • Direct dyes can be used on any fabrics (cellulosics, wool, silk); • Acid dyes are used for animal fibres such as silk or wool; • Some dyes are suitable for machine dyeing; • Mordants are needed to make sure the dyes are fast to washing and light and do not fade. This will affect the colour on the fabrics. Any other appropriate points. **High band** (9–12 marks): demonstrates detailed knowledge and understanding when discussing why it is important to understand colour theory when dyeing fabrics. Shows a good range of skill in the selection of examples to illustrate the answer. Very good organisation of answer with skilled use of technical terms. **Middle band** (5–8 marks): a good attempt showing knowledge with some discussion of why it is important to understand colour theory when dyeing fabrics. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–4 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant factors. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	

Question	Answer	Marks
3(b)	**Compare the creative effects that can be achieved with fabric paints on cushions for the home.** Answer could include: • **Painting directly** onto fabric to achieve the required design e.g. fabric paints or acrylic paints with textile medium added to make it suitable for fabric. • **Add metallic colours** to normal fabric paint to give variety of surface on the fabric; • **Different equipment** can be used to produce different effects e.g. brushes of various sizes, sponges, textured block prints, etc.; • **Screen print** the fabric paint through a suitable silk screen using a squeegee. This will give multiple images although different colours of fabric paint can be used to give further variety; • **Sponge** the fabric paint through a stencil (home-made with card/plastic or purchased), this will give a regular design and different colours of fabric paint can be used; home-made stencils will give unique designs. • **Stencilling** • **Airbrushing** • **Use block prints** with fabric paints to produce patterns on the surface of the fabric; block prints can be purchased or home-made with simple materials (e.g. bottle top) for a more original look, vegetable printing; • Fabric paints **can be mixed** to give different colours; • **Silk paint** – Some fabric paints are designed to be used with one type of fabric only • **Textile medium can be added** to make the fabric dye more transparent so that layers of different colours/designs can be painted to give more variety; • Fabric paints are available which can **produce textile/bubbled surfaces** when they are heated with a heat gun. This is a specialist technique and would be most suitable on fabrics which are not affected by heat so silks, cottons, linens. • 3-D paints • Devore • Marbling • Some **synthetics** (e.g. polyesters) **may shrivel** if heated. • Fabric paints can be applied on top of dyed fabrics to give more variety to the design. • Some fabrics for cushions are more suitable for printing with fabric paints than others e.g. hairy surface may not take the colour well. Any other relevant points.	**13**

Question	Answer	Marks
3(b)	Credit relevant labelled diagrams. **High band** (10–13 marks): demonstrates detailed knowledge and understanding when comparing the different effects that can be achieved with the use of fabric paints on cushions for the home. Shows a good range of skill in the selection of suitable examples and an understanding of the use of fabric paints. Very good organisation of answer with skilled use of technical terms. **Middle band** (5–9 marks): a good attempt showing knowledge when comparing the different effects that can be achieved with the use of fabric paints on cushions for the home. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–4 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant factors. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	

Question	Answer	Marks
4(a)	**The manufacturer has many factors to consider when planning production.** **Discuss the importance to the manufacturer of following specifications when producing textile items.** **Answer could include:** • Cost of production will be affected if the item does not follow the garment specification. There may be more cost if too much fabric is purchased/cut; • The specification will list all the materials required to make the textile items so the manufacturer will order everything and be sure that no production is held up due to a lack of specific items. This will include fabrics, thread, components such as zips/buttons, pre-manufactured components such as pockets, etc. • No time will be lost if the production runs smoothly. • The labour force knows exactly how to produce the garment as they will follow the detailed specification. • Any specific staff training of processes will be carried out as needed by the specification. • The manufacturer can make sure the machines/equipment needed are ready and there is enough available to produce textiles items by the deadline. • The specification may have diagrams as well as text so easy to follow/understand. • Quality control will be more accurate as the garments will be easier to check with a detailed specification; • The reputation of the company will be good if the textile items produced are accurate and no returns are made. • The designer may give the company future orders if they are assured that the textile items are made exactly to their specification. Any other appropriate point. **High band** (9–12 marks): demonstrates detailed knowledge and understanding when discussing the importance to the manufacturer of following specifications when producing textile items. The answer shows a good range of skill in the selection of suitable examples of factors to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (4–8 marks): a good attempt showing knowledge when discussing the importance to the manufacturer of following specifications when producing textile items. Some suitable examples will be given although there may be omissions and errors. The answer shows good use of technical terms and good organisation of the answer. **Low band** (0–3 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant factors. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	**12**

Question	Answer	Marks
4(b)	**Assess the suitability of a range of closures for different styles of jackets. Include labelled sketches and examples of fabrics in your answer.** **Answer could include:** • **Closures/fastenings** for jackets will vary according to which style of jacket garment is being produced. For example, tight-fitting/figure-hugging jacket may need zips and a button/buttonhole for fastenings. Loose fitting jackets such as winter over jackets may have buttons and buttonholes with a flap covering them to reduce draughts in cold weather. • **Different methods of fastening** include zips, Velcro, buttons and loops, press studs, ties, ribbons, lacing, etc. • The fastenings/closures will be made from different materials e.g. zips from nylon with nylon tape (good for lightweight fabrics), to metal teeth with cotton tape (for heavier fabrics e.g. cotton denim). • Buttons can be made from a wide range of materials e.g. plastic, polyester, wood, ceramic, shell, etc. • Press studs are usually made from metal although can also be plastic. • The **method of stitching of the fastening** will depend on the fabric but usually the easiest method will be used for manufactured garments e.g. zip seams will be overlocked and the zip will be stitched with straight stitch. • The **type of fabric** to be used will also determine which fastenings/closures are the most suitable. For example, thick fabrics (e.g. cotton denim) will not take folds well as they may be too bulky so a close-fitting zip with a small seam allowance/fold would be more appropriate than buttons and buttonholes which would overlap and be bulker. Thin fabrics for summer jackets (e.g. cotton satin) will be suitable for zips or even buttons and buttonholes as the extra layer of interfacing will not make the fabric too bulky. • **Showerproof/waterproof** jackets are usually made from lightweight/medium weight nylon fabric which does not absorb much water. The fastenings could be a zip fastening with a flap covering. • The **choice of materials for the fastenings/closures** will depend on the fabric being used for the jacket. For example, lightweight fabric could have plastic/nylon fastenings as they are lightweight and would not weight the fabric down. • **Styles of jackets** could include: evening jackets in luxurious fabrics e.g. silk satin could have buttons/loops as the fastenings/closures; outdoor jackets e.g. wool type fabric, medium to heavyweight; suit jacket as part of a uniform will have buttons and buttonholes, the fabric often mediumweight. • Styles of light summery jackets could be loosely fastened with ribbon ties, the fabrics could be lightweight cotton types, silks, viscose georgette, viscose satin, etc. Any other appropriate point.	**13**

Question	Answer	Marks
4(b)	**High band** (10–13 marks): demonstrates detailed knowledge and understanding when assessing the range of closures for different styles of jackets. A good range of skills shown in the selection of examples to illustrate understanding. Very good organisation of answer with skilled use of technical terms. **Middle band** (5–9 marks): a good attempt showing knowledge when assessing the range of closures for different styles of jackets. Some suitable examples will be given although there may be omissions and errors. Shows good use of technical terms and good organisation of the answer. **Low band** (0–4 marks): satisfactory attempt at the answer and a fair knowledge of some of the closures for different styles of jackets. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	

Question	Answer	Marks
5(a)	**Environmental factors should be considered when producing textile items.** **Discuss the importance of Eco-labels on fashion items. Include examples to illustrate your answer.** **Answer could include:** • Eco-labels can be used as a marketing point to persuade consumers to buy that item; • Eco-labels are an EU label but is also used worldwide; • Eco-labels used for clothing, etc.; • better for environment to use eco labelled textile products, restricts waste water/hazardous substances, etc. • Trend for environmentally friendly products; • Encourages the reduction of pollution; • Recycling material to make the label; • consumers may look for the logo as a positive choice for reducing emissions, etc. • Can often trace the origin of the raw materials if there is an eco-label. This can assure that all raw materials used are from sustainable sources. • High quality product as environmental standards have been followed. This can reassure the consumer that illegal practices should have been eliminated; • Provide the consumer with information about the origin of the product; • Products may cost more due to being a higher value product; • Eco labels claim to reduce environmental impact during their lifetime, may encourage consumers to buy the product. • Ethical trade system e.g. Fairtrade • Examples of eco-labels: better cotton initiative; EU Ecolabel; Oeko Tex standard 100; Organic, soil association logo. Any other appropriate points. **High band** (9–12 marks): demonstrates detailed knowledge and understanding when discussing the importance of Eco-labels on fashion items. The answer shows a good range of suitable examples Very good organisation of answer with skilled use of technical terms. **Middle band** (4–8 marks): a good attempt showing knowledge when discussing the importance of Eco-labels on fashion items. Suitable examples may be given although there may be omissions and errors. The answer shows good use of technical terms and good organisation of the answer. **Low band** (0–3 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant points. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	**12**

Question	Answer	Marks
5(b)	**Evaluate whether consumers and manufacturers would choose natural dyestuffs or synthetic dyes in one-off garment production.** Answer could include: **Natural dyestuffs** can include mainly plants although cochineal may be used (animal source). • Many plant materials have restricted uses due to rarity or availability. This will restrict their use although there may be enough for a small amount to be used for one item. • Trend for natural dyes from local sources e.g. local bark (birch, apple), leaves, twigs, walnut husks, avocado skins, etc. • Indigo dye, woad, which uses oxidation • Some roots may be used e.g. madder. • If the products are grown locally and are not endangered, it may be possible to use these. Some may be grown on allotments, etc. and the customer may have access to this; • Natural dyes are usually more expensive; • Many natural dyes are purchased over the internet from suppliers although it is not always known where the plant materials have come from. • One-off production is usually expensive and it is likely that the cost of dyestuffs may not be relevant/significant. • Colours may not be reliable as pigments will vary according to growing conditions, time of year, etc. • Colours are muted, not very strong. • Restricted range of colours, often many yellows and browns, reds from madder, blues available from indigo or woad plants. Other colours also available. • Time taken to produce the dye although a specialist dyer could dye the fabric. • Not all fabrics can be dyed with natural dyes, e.g. synthetic fibres/fabrics only take pale colours. • Customer may not be able to have an exact colour match as natural dye colours vary. • Mordants are needed to fix the dye into the fabric and these will be chemicals e.g. vinegar (acetic acid), tannin, alum, soya milk, iron, chrome, copper, potassium acetate, salt, potassium permanganate, aluminium acetate, potassium aluminium sulphate, etc. • Environmentally friendly. • Not as harmful as synthetics so less protective clothing needs to be worn. **Synthetic dyes** are plentiful, strong colours • Colours/batches can be replicated exactly; • manufacturers can fulfil orders reliably; • synthetic dyes are usually permanent and colours don't run in laundering; • Variety of synthetic dyes according to fibres/fabrics being used e.g. polyesters are difficult to dye so often mass pigmentation is used at the spinning (liquid) stage, this gives more reliable and permanent colour; • Very easy to obtain dyes and they are much cheaper than natural dyes;	**13**

Question	Answer	Marks
5(b)	• Vibrant colours which are not possible with most natural dyes e.g. pinks, greens, etc. • Any fabric/mixed/blended can be dyed; • use of computers can make sure the dye 'recipe' is very accurate; • Some customers may not be happy to use synthetic dyes as it uses chemicals which may harm the environment, in their production; • they are very likely to be from petroleum origin; • heavy metals often used (usually in small quantities) e.g. copper, chrome • protective clothing would need to be worn (often not necessary with natural dyeing); • low impact dyes (fibre-reactive) claimed to be better for the environment (less water used and free from heavy metals); • Examples of fibres and fabrics to illustrate points in the answer. Any other relevant points. Credit specific examples; **High band** (10–13 marks): demonstrates detailed knowledge and understanding when evaluating whether consumers and manufacturers would choose natural dyestuffs or synthetic dyes for one-off garment production. The answer shows a good range of skill in the discussion of the issues. Suitable examples will be included. Very good organisation of answer with skilled use of technical terms **Middle band** (5–9 marks): a good attempt showing knowledge when assessing whether consumers and manufacturers would choose natural dyestuffs or synthetic dyes for one-off garment production. Suitable examples may be given although there may be omissions and errors. The answer shows good use of technical terms and good organisation of the answer. **Low band** (0–4 marks): satisfactory attempt at the answer and a fair knowledge of some of the relevant points. The answer may be presented as a list and not all information may be relevant. There may be few or no examples and some use of technical terms.	