Paper 9631/01

Fibres, Fabrics and Design

## **Key Messages**

- Candidates should have a good understanding of the range of fibres and fabrics in the syllabus.
   They should know the properties and characteristics of these fibres and fabrics and how the choice of materials for textiles items is influenced by these properties.
- Candidates who choose the design question should give named and relevant examples to support their answers.

#### **General comments**

There were some excellent responses. All candidates attempted the three questions required but did not always give a response to every part of each question. Responses to question two, which was compulsory, often showed some weakness on this part of the syllabus.

Some answers contained irrelevant information because candidates had not read the question carefully enough. Fibres and fabrics are still confused by some candidates and candidates often did not know the names of a range of fabrics.

#### Comments on specific questions

#### Section A

#### **Question 1**

- (a) Almost all candidates gained at least 1 mark for this question. The names of the chemicals used to make polyester were required for the full 2 marks.
- (b) (i) To gain full marks candidates needed to name two fabrics with different weaves and briefly describe the way in which the fabric is woven. Some candidates chose two fabrics woven in the same way and some did not describe the construction, limiting the marks they were awarded. Candidates should note that fibre names are not accepted as fabrics. e.g. polyester/cotton.
  - (ii) This question is mainly about the characteristics of fabrics made from polyester. As the fabrics are all made from the same fibre the responses should focus on the differences in characteristics of the fabric construction with relevant reference to the properties of polyester.
- (c) Candidates showed a good understanding of how microscope and burning tests are carried out and how to assess the results. Few candidates went on to assess the value of carrying out these tests.
- (d) This question was well answered with candidates showing a good understanding of different methods of making non-woven fabrics and their end uses.

CAMBRIDGE
International Examinations

#### Question 2

- (a) Candidates were able to name a range of knitted fabrics but the two different construction methods were not well known. Many candidates named a weft knit fabric and then named rib knit as the second fabric.
- (b) Most responses were illustrated with clear diagrams. Weft knitting was explained well by most candidates with answers about warp knitting containing less detail.
- (c) Candidates generally understood the differences in elasticity between the two fabrics. Some answers were confused and few referred to the aftercare of the fabrics.
- (d) Responses to this question showed that candidates knew that there are many different types of yarns. Candidates tended to concentrate on the use of colour. To gain high marks answers should show knowledge of technical terms and the names of different yarns.

#### Section B

#### **Question 3**

- (a) A general knowledge of influences on contemporary fashion was shown. For high marks candidates should give examples and name three different influences.
- **(b)** Most candidates produced two good designs. Drawings were well labelled and sketched.
- (c) Answers to this part of the question generally lacked sufficient detail to gain high marks.
- (d) Most responses to this question showed knowledge of some retro fashion styles. For full marks candidates should give specific examples with dates and designer names. The term retro refers to fashion revivals based on previous fashion trends.

#### **Question 4**

- (a) This question was well answered with candidates achieving full marks.
- (b) Most candidates showed a good understanding of the differences between the processes used to spread and cut when making a single item or manufacturing in bulk.
- (c) This question was well answered with a good range of advantages given.
- (d) This question was generally well answered. To achieve high marks candidates needed to give examples of fabrics as well as explaining the hemming process.

CAMBRIDGE
International Examinations

Paper 9631/02 Practical Test

## **Key Message**

 To achieve good results, candidates need to carefully plan their purchase of fabrics and notions at the Preparation stage. This is so that they have all the necessary materials needed for the Implementation Stage of the examination. Many candidates lost time due to weak organisation and time management at the Preparation Stage.

#### **General comments**

Centres should indicate the brand name and number of any commercial pattern used for the examination. Most Centres chose to make skirts using commercial patterns but some candidates did not make any definite stylistic adaptations or alterations to the commercial design. Centres who drafted their own skirt patterns achieved a high standard of work.

Candidates used a variety of plain and printed fabrics, which were easy to handle, e.g. cottons, linens and polyester/cotton mixes. Some candidates chose a more difficult fabric to handle, e.g. viscose, which made the task more challenging for them.

#### Comments on specific questions

# **Question 1 Task Analysis and Planning**

## (a) Analysis of task

Most Centres provided candidates with clear instructions and diagrams of the pattern adaptation required. Candidates generally showed a good understanding of the adaptations or alterations to be made.

# (b) Planning of requirements

Some candidates did not purchase enough fabric. Shopping lists need to clearly state dimensions and quantities required and Centres should check the availability of fabric and notions. Prices should be included in the shopping lists.

## (c) Justification of choice

Many candidates showed good knowledge of fibre and fabric properties, in relation to their choice of fabric, for the design and its purpose. Choice of weight for the interfacing was not always suitable, since some of the fusible interfacings were much too heavy for the outer fabric.

CAMBRIDGE
International Examinations

## **Question 2 Preparation**

#### (a) Alteration to pattern

Some complex pattern adaptations and alterations were made. Those candidates who attempted to change the sizing on their patterns, by removing or adding large sections to the seam allowances, experienced poor fitted garments. This is an incorrect method of changing sizing and produces incorrect shaping as well as sizing. Candidates should be provided with a pattern that is suitable for their size.

Alterations and adaptations using commercial patterns included

(i) Shortening a gored flared skirt.

Many candidates did not use the lengthening and shortening lines printed on the pattern pieces, and shortened the pattern by cutting off a section of the hem, therefore removing the flare and shaping.

- (ii) Removing pockets from the side seams and adding 2 patch pockets at the front.
- (iii) Altering a plain sleeve head, to a gathered sleeve head.
- (iv) Inserting a kick pleat with an inset at the Centre Back of a skirt.
- (v) Altering the front skirt to include right-angled, side hip pockets.

Candidates understood the stylistic changes needed in the pattern adaptation. A dart was drafted into the pocket bag, this may have been suppressed and concealed at the pocket opening, or placed further along the waistline. Another alternative could have been, easing in the extra fullness into the waistline.

Patterns drafted by the Centres included

- (vi) Drafting tuck (knife) pleats into a skirt. There were some excellent results achieved.
- (vii) Drafting a yoke to the Front and Back of a skirt. Adding an inverted pleat at the Centre Front. There were some excellent results achieved.
- (viii) Drafting a sleeveless tunic with a lined bodice. Candidates attempted a complex design and had difficulty in achieving a smooth curve on the underarm line. The "V" neckline was often interpreted with a softer curve.

## (b) Production plan/order of work/time plan for cutting and assembly

Candidates had difficulty in utilising the two hour preparation time allocated and the three hour Implementation time allocated. The total time should be listed in the time plans. Candidates should list the order of work in table format.

#### (c) Layout, cutting and marking

Those candidates who produced cutting layout diagrams, showed their understanding of fabric grain, placing pattern pieces on the fold and quantities needing to be cut. Candidates who experienced problems with the cutting stage, had usually mistakenly cut too few garment pieces or had placed the pattern pieces with the straight of grain on the cross grain. More or different fabrics had to be used to complete the cutting stage.

The majority of candidates using commercial paper patterns cut the notches off. These should be used for accuracy in matching points on the corresponding sections of the garment.

Where carbon paper is used for transferring markings, this should be used sparingly and not used for drawing in in seam lines on the fabric. Some candidates lost valuable time by pencilling in seam lines on the paper patterns.

CAMBRIDGE
International Examinations

Individual cut fabric pieces should not be overlocked (serged) before assembling the garment as this cuts off seam allowances and creates inaccuracies.

Pattern pieces should not be placed on the fabric selvedges and used as a seam allowance finish or edge. The selvedges are woven more tightly and may effect the drape of the garment or create puckering.

#### (d) Testing (fit)

The majority of Centres provided a mark and comment on the fit of a candidate's garment, which was carried through. Candidates who made errors at the cutting stage found it difficult to gain time or correct their errors for the fitting stage, even after receiving extra time. Some candidates did not fit their garments.

## **Question 3 Implementation**

#### (a) Organisation and time management

Candidates should be aware they should not spend too much time on one task in order to avoid losing marks on unfinished sections. Instructions need to be read carefully in order to avoid focusing solely on one task, e.g. finishing seam allowances if not requested to.

#### **Tasks**

A varied range of tasks or processes were completed according to the garments made.

<u>Darts</u> Tunics included, horizontal bust darts at the side seams which need to be pressed downwards and should be on the same level as each other. Vertical bust darts running through the waistline. Also back shoulder darts at the shoulder seam. The stitching lines were inaccurate and darts were not secured at the points.

In skirts, darts were stitched at the waistline, which were generally, stitched and pressed well but not secured at the points. Machine thread ends, knotted by hand, do not secure the dart ends. A quicker and secure method is to reverse the machine stitching at the point of the dart.

<u>Seams and seam allowances</u> Candidates are advised to test the stitch type, length, width and tension, on their choice of fabric before machining any seams. A plain seam was used throughout all the garments and seam allowances were finished with overlocking (serging) to give a professional finish. Zigzagging tended to be too open leaving frayed edges. Pinking the seam allowances does not provide a strong enough finish for garments.

<u>Inverted and knife pleats</u> These were generally completed to a very good standard, well pressed and stitched. Problems occurred where the pleats varied in width and were not set evenly, showing lack of accuracy.

Zippers Zip application was extremely varied.

Candidates were not familiar with inserting a zip, into a side seam with a yoke and facing. Candidates may find that tacking the opening before inserting a standard dress zip provides a more accurate application. Some candidates tried to insert an invisible zip with a standard dress zip application. Tops of zips need to be positioned, at the start, so as to avoid zips protruding at the top, or disappearing down the seam. A few candidates adapted their zip insertion as a design feature displaying the zip on the outside of the garment.

The most frequent errors were holes appearing at the bottom of the zip. Additionally, sometimes raw seam allowances appearing in a lapped application, because the machine stitching was to far away from the centre of the zip.

<u>Waistbands</u> An extension on a waistband overlap is not a challenging pattern alteration for AS Level. Some waistbands were too short and there was no overlap. Seam allowances need to be graded to eliminate bulk.

<u>Skirt yokes and facings</u> The outer yoke section needed to be interfaced/fused. The fused yoke sections were sometimes used for the facing. Some of the fusible interfacings were not fused with a high enough temperature, and came away from the fabric.

CAMBRIDGE
International Examinations

## Frequent errors were:

- Variation in the yoke depth.
- Seams misaligned at the sides and opening.
- · Yokes stitched on upside down.
- Stitching the front yoke to the front skirt, the back yoke to the back skirt and then joining the sides as
  one seam. Yokes should be stitched in a continuous seam around the skirt front and back.

Some vokes were not prepared or completed.

<u>Lined Sleeveless Tunic</u> This was a complicated garment to make, as the lining had to be joined at both the armholes and neckline. Candidates did well in their understanding of the construction. The underarm shaping was too steep, providing a very curved edge, which needed careful trimming and clipping of the seam allowances. Understitching, the lining to the seam allowances would have helped to roll back the lining from the outside of the garment.

<u>Neckline Facings</u> The Front and Back facings needed to be joined together and then attached to the neckline. Seam allowances need to be carefully trimmed and clipped to obtain a good curve. Understitching the facings to the seam allowances would have helped to roll back the facing from the outside of the garment.

Pockets A variety of pockets were made.

- (i) Concealed pockets on a skirt, were successfully constructed. More attention to detail, e.g. accurate stitching was a common improvement that could have been made.
- (ii) Side seam pockets were replaced with patch pockets at the front of a dressing gown. These were a good shape. The stitching needed attention, i.e. securing the ends. The top corners needed strengthening.
- (iii) A gathered pocket set into a gored skirt was adapted by removing a tying feature. The majority of candidates understood how to set the pocket into the seams of the gored skirt and completed this successfully. A few candidates mistook the pocket to be a patch pocket. Some pockets were set too high or unevenly.

<u>Sleeve insertion</u> Sleeve heads were set in well. Underarm seams matched. The underarm seam is usually stitched first and then the sleeve hem is completed as a continuous finish along the hemline.

Belt Loops and Tie Fastenings The fabric belt was stitched evenly. The ends needed to have the seam allowances graded, trimmed and secured. The belt loops were very well made with edge stitching and secured into the side seams. Extra strengthening could have been placed with a line of stitching through the seam allowances. The twill tape, inside tie ends, needed the ends secured otherwise they would fray during wear.

<u>Neck and Front Band edge</u> There was some insecure stitching at the Centre Back hem of the neckband. The band at the bottom of the hem was uneven with raw edges showing and uneven stitching, also some small pleating had formed. The inside of the left band was twisting and not lying flat.

Skirt pleats A variety of pleats were made.

- (i) Kick pleats inserted into the back of skirts were made very accurately.
- (ii) Inverted pleats added to the Centre Front of skirts were set well.
- (iii) Knife (tuck) pleats were combined highly successfully with a Centre Front and Centre Back box pleat. There was a little irregularity in the pleat widths.

<u>Hems</u> These were not often completed. Most candidates stitched a narrow machined or hand slip stitched hem. On heavier weight fabrics and straight skirts the hems were overlocked and straight stitched successfully.

CAMBRIDGE
International Examinations

## **Question 4 Evaluation**

# (a) Conclusion

Few candidates wrote a conclusive paragraph. Those who did usually commented on the examination being a useful experience; having to work to a limited time and knowing how to organise their time.

## (b) Findings

Candidates made a thorough analysis of their strengths and weaknesses, with positive suggestions for improvement. Reference was made to the problems encountered and how they were resolved. Time management was often mentioned. Weaker responses gave descriptive accounts of what they had made and were unable to recognise their mistakes and how they could have made improvements.

# (c) Results achieved

Candidates produced a wide range of results from those who worked with challenging fabrics and processes making garments to a very high standard, through to very weak practical outcomes.

CAMBRIDGE
International Examinations

# Paper 9631/03

**Textile Applications and Technology** 

#### **Key Messages:**

- Use the correct terms for 'fibres' and 'fabrics' when answering questions.
- Give as much detail as possible about fabrics when answering questions.
- Include construction lines of processes and design features when sketching.
- Label all sketches accurately.

# **General Comments**

Candidates can improve on explaining the difference between 'fibres' and 'fabrics': 'fibres' are the smallest part of a yarn or thread (or bonded/felted types of fabrics only where no yarn is used). Examples of fibres include cotton, silk, viscose, polyester, etc. A 'fabric' usually refers to the construction type (e.g. woven type such as denim, or knitted type such as jersey, etc.) and would also have the name of the fibre used (e.g. cotton, wool, polyester etc.); fabric examples would be cotton denim, cotton calico, polyester jersey, cotton/polyester gabardine, etc. as this includes the fibre name (e.g. cotton) as well as the fabric construction name (e.g. jersey).

Some sketches this year did not give enough details and this is an area which can be improved. Some sketches showed only the outline of the garment with few if any seam lines/joins or design features which meant that few marks could be awarded due to lack of detail. Candidates can improve their answers by including front and back views and all construction lines should be shown so that it is possible to label style/design features accurately. Examples of construction lines includes patch pocket, side seams, waistlines, shoulder seams, sleeve seams, collar joins etc. It is recommended that candidates should practice sketching during their course, using any suitable silhouette/template.

#### Section A

# **Question 1**

- (a) Most candidates gave a 'fibre' name (e.g. cotton, or polyester) although not a relevant 'fabric' name (e.g. jersey or gabardine). Many answers had included "Lycra" as a fabric and although this is normally used in sports wear, only a small percentage is used with another fibre (e.g. Nylon and Lycra). Swimwear, T shirts and jogging trousers were popular choices.
- (b) Sketches were usually good and the majority of answers had used the silhouette provided on the question paper. Back and front views had been provided in most answers. Good justifiction had been given for fabrics and designs, although a large number of answers referred to 'fibre' type rather than 'fabric' and construction, which is a relevant point because sports items are often made using knitted construction for flexibility/easy movement of the garments.
- (c) Answers varied and many gave only a list of points rather than discussing them, so marks were awarded in the lower bands in this case. Some answers gave a 'garment' specification rather than a 'fabric' specification as was asked for in the question. More detailed answers included discussion about components to be used especially choice of fastenings which needed to be flat/comfortable so examples included elastic, lightweight zips and Velcro. Other points could have included bindings, pre-manufactured logos/trims, reflective tapes for safety, etc.
- (d) There were some very good answers, although a few answers gave fabric finishes which were irrelevant for sports clothing. Popular choices inclued crease resistant finishes, anti-static, brushed finish, easy-care, anti-bacterial etc.

CAMBRIDGE
International Examinations

#### Question 2

- (a) This question was usually well-answered.
- (b) Answers varied, with very clear well-labelled sketches where the silhouette had been used, the sketches were of a good size which allowed for design features to be show clearly. It is not essential to use the silhouette but it is provided in case the candidates wish to use it. The named occasion was not always included. Most answers had chosen standard appliqué rather than reverse appliqué and hand stitched embroidery was often chosen as the other surface decoration.
- (c) (i) and (ii) gave some good answers with many details included.
- d) This question was not attempted by a number of candidates. Where it was answered, details were given and it was well discussed. Examples of deterioration included snagging of threads, fading caused by sunlight, surface abrasion etc.

#### Section B

#### **Question 3**

- (a) Most candidates knew four factors which designer needs to consider when choosing colour for fashion items.
- (b) This question was generally well answered with appropriate designs being used for silk painting. Some sketches were rather small which meant that candidates were not able to show the design to best advantage. Justification of design and colour was usually provided, although more detail could have been given in some of the answers.
- (c) Caring for silk painted textile items was known, although the amount of detail given varied. In some cases, only a list of points was written and detailed discussion was not included so marks awarded were low in these cases.
- (d) Answers varied and some were very detailed, indicating very good knowledge of natural and synthetic dyes. Some candidates knew information about natural dyes very well, although answers about synthetic dyes was less well-known. In a few answers, points were just listed with little assessment of the suitability of the two types of dyes for colouring fabrics. High scoring answers were able to include details about the types of fabrics used, mordants used, effectiveness of the colour fastness and whether the dyes are toxic or not.

#### **Question 4**

- (a) Sketches were generally good, although some answers gave two separate items rather than one item with two fabrics. Choice of accessories included fashion items e.g. bags as well as accessories for the home such as cushions.
- (b) Justification of aesthetic appeal and cost was usually written, and full marks were awarded for answers which were detailed.
- (c) Answers of the main factors to be considered when selecting materials for a textiles accessory varied with few candidates giving informed discussion. Many answers gave only a list of points; it is expected that discussion questions will be answered to show well-informed understanding of the main factors, rather than just a list.
- (d) Fastenings/closures were well known and some answers gave a detailed assessment of types and applications available to the garment/accessory manufacturer. Some answers gave a list of fastenings and did not always explain how they could be utlised by the manufacturer for different products, so could only score low marks in this section.

CAMBRIDGE
International Examinations

#### **Question 5**

- (a) Most answers gave two reasons why good design is important.
- (b) This was less well answered and sketches often small, showing little detail or adequate labelling. Better answers were able to include seam/construction lines in the correct position e.g. for sleeve joins and where buttons were shown, buttonholes were also included. Detailed answers gained higher marks. Justification of design, fabric and colour was usually known.
- (c) Answers relating to the factors which need to be considered when selecting construction processes for one of the jackets in b) were variable. Better answers including knowledge about fabrics, skills available, quality of finish, machinery available, etc. and were able to discuss various points, showing good understanding of the factors to be considered.
- (d) There were some very good answers which indicated good knowledge and understanding of the stitches available for use in the production of a batch of jackets. Other answers were variable with names of machine stitches not always well-known e.g. straight stitch and zig-zag stitch not always included. Other points could have included different types of decorative stitches, overlocking, blind hemming, buttonholes etc.

CAMBRIDGE
International Examinations

Paper 9631/04 Coursework

## **Key Messages**

- Centres recommending candidates to keep to one theme and one folder has again been extremely
  successful and is an effective use of time and evidencing research. This way of working, in many cases,
  clearly shows much better time management in terms of the third product.
- Many products have been manufactured and finished to a high standard with a clear focus on the
  marketability of the products. This in turn demonstrates the quality and knowledge of candidates when
  collating images of current and existing products logged in the majority of folders.
- Although many Centres have adopted a one folder approach there is still a lot of unnecessary weight
  and bulk to the folders. We would, therefore, encourage candidates to use both sides of the A3 paper
  and try to produce busy detailed pages rather than creating 2 small pieces of work on 1 page.

## **General Comments**

- This year's folders have demonstrated extremely creative sets of design work and products.
- All candidates must carefully consider the weight and size of their fabric/products as any repetition does
  not add any more marks and may even hinder their access to higher marks. This could have negative
  repercussions on their time management.
- Skill in the use of ICT is still clear in many candidates' work, which demonstrates a professional finish.
- Once folders are complete, it is important that product No.1 is at the front and the rest of the folder follows logically in its subsequent numerical presentation and format.
- It is important that all cover sheets/forms are completed carefully with relevant Centre and candidate numbers provided.
- It is helpful to wrap work in plastic bags and not in tissue paper; pins must not be used to reinforce or help present any of the pieces of work.

# **Comments On Assessment Objectives**

#### Research, Aims and Analysis

It is evident that most candidates spend a significant amount of time setting the scene to their project with clear aims and numerous inspired images which feed into their design work. To access the higher marks candidates need to use these resources to make informed judgements and select relevant information which will allow them to, not only, analyse the task in detail but also to explore a range of issues and factors which will move them on in the 'design process'. The use of annotation throughout the folder is an effective tool and helps to evidence the candidate's consistent approach to the 'design process'.

CAMBRIDGE
International Examinations

### **Planning and Development**

Many candidates included the use of design specifications which showed good evidence of industrial practice. Although creativity was strongly evident in many folders, the use of annotation and the communication of design work, other than drawing, was not apparent in all folders. To access the higher marks within this area it is important to justify choices made with fully detailed reasons alongside a well ordered plan of action. Gannt charts and production flow charts, will help with timings, organisation of materials, development of patterns, production and so forth.

#### Process - carrying out the coursework tasks

The Examiner is guided by the teacher in marking this section. Annotations and marks by the teacher are most helpful and indeed welcome.

It was good to see photographic evidence of practical tasks being carried out and the attached toiles and patterns in many candidates' folders. It is important to try and keep the skill level at an high over all three products.

## Realisation - Quality of the outcome

Many candidates continue to demonstrate outstanding technical skills coupled with detailed decorative embellishments. However, in some cases the third product does not fulfil the practical execution of the other two products. Therefore it is imperative that candidates address and manage their use of time and limit the number of folders and themes used in order for them to access the higher marks.

#### **Evaluation**

The majority of folders have been created with a great deal of passion and enthusiasm for the subject. However the evaluation, in many cases, is still very limited with not enough time or emphasis being given to show an understanding of this. To fulfil the criteria for a well written evaluation it needs to incorporate the following points; draw informed conclusions throughout the folder work, interpret the outcome against the original aim, analyse strengths and weaknesses, and consider a range of possible future developments that could be explored. Time management is the key in allowing candidates to successfully fulfil these. Adhering to the inclusion of Gannt charts and other evidencing criteria would be beneficial and help with the organisation of projects.

CAMBRIDGE
International Examinations