

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**Specimen for Examination from 2008**

**GCE A/AS LEVEL**

<b>MARK SCHEME</b>
<b>MAXIMUM MARK: 75</b>
<b>SYLLABUS/COMPONENT: 9631/01</b>  Design and Textiles Fashion and Fabrics Design



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- 1 (a) Describe the basic method of weaving. [4]

**Answer could include:**

Warp threads set up on loom; weft threads are wound onto shuttle (or water-jet/air jet etc); weft threads are interwoven with warp threads to form pattern on fabric. Selvedge produced at both edges of fabric;

Diagram could be included to illustrate construction.

- (b) Explain, using sectional diagrams, how plain, twill and satin weaves are produced. [6]

**Answer could include:**

Diagrams should show the warp and weft thread positions (labelled) in each case:

plain weave:

twill weave:

satin weave:

- (c) Compare the performance characteristics of twill weave fabrics with satin weave fabrics. [6]

The candidate is able to compare the performance characteristics of twill weave and satin weave fabrics, and can give examples to illustrate.

**Answer could include:**

Twill weave fabrics are hardwearing, strong and drape well; more tightly woven; do not get dirty quickly, but can be more difficult to clean.

Satin weave - diagonal lines are not obvious like in twill weave; flat, smooth; lustrous surface; warp more visible on right side of fabric; these floats are more susceptible to snagging; weaker fabric; the longer the float, the more likely it is to snag; shows signs of wear quickly; drape well; fabric is warmer than twill as it traps air between threads, so is good for lining fabrics.

High band: 5 -6 marks

Middle band: 2 - 4 marks

Low band: 0 - 1 marks

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- (d) **Assess how fibre composition and yarn type may affect the performance characteristics of three named woven fabrics.** [9]

The candidate is able to assess how fibre composition and yarn type can affect the performance characteristics of three named woven fabrics.

**Answer could include:**

**Fibre composition** could include whether it is natural fibres (cotton, linen, silk or wool) or man-made fibres (Cellulosic e.g. viscose, acetate or synthetic e.g. nylon, polyester, acrylic).

**Yarn type** could include whether it is a smooth yarn crepe yarn, “s” or “z” twist yarn; ply or fancy yarn.

Performance characteristics could include: drape, handle, porosity; strength; durability etc.

High band: 7 - 9 marks

Middle band: 3 - 6 marks

Low band: 0 - 2 marks

## 2 **Fibres are widely used for textiles.**

- (a) **Describe briefly how one cellulosic and one protein fibre are obtained from their source.** [2]

The candidate should be able to state how one cellulosic and one protein fibre is obtained from its source.

**Answer could include:**

Cellulosic fibres could include: cotton, linen, viscose

Protein fibres could include: wool and silk.

For example, wool is obtained from sheep and the fleece is shorn; it is scoured to remove impurities and then sorted into length and colour; it is carded and combed; then it is produced into sliver, and spun into yarn.

- (b) **Explain why there may be variations in fibre length and fineness in the fibres chosen in (a).** [4]

The candidate is able to give an explanation as to why there may be fibre variations in the fibres chosen in (a).

**Answers could include:**

Variations can occur in food/water consumed; climate; region where produced; method of obtaining fibres; variety of animal/plant.

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- (c) **Compare the differences between a range of natural and man-made fibres when carrying out microscopic examination.** [9]

The candidate is able to distinguish between the different fibres when carrying out microscopic examination.

**Answer could include:**

Fibres such as: Cotton, linen, silk, wool, viscose, acetate, nylon, polyester and acrylic. Microscopic examination could include longitudinal and cross section of each fibre. For example: cotton under microscope has bean-shaped cross section and LS looks like flattened twisted ribbon.

High band: 7 - 9 marks

Middle band: 3 - 6 marks

Low band: 0 - 2 marks

- (d) **Discuss why it is useful to know the moisture absorbency of fibres when relating it to (i) comfort and (ii) ease of care.** [10]

The candidate is able to discuss the reasons why it is useful to know the moisture absorbency of fibres for (i) comfort and (ii) ease of care.

**Answer could include:**

Comfort - next to skin comfort important especially in hot weather; cotton and viscose fibres have high absorbency rate, at 12% and 13% so they are able to absorb body moisture and allow it to evaporate into the air, so keeping the body cool.

Ease of care - when a fabric has a low absorbency rate such as nylon is 4%, it means that less moisture is absorbed and less has to evaporate, so it is quicker drying.

**3 Fashion is important to some people in today's society.**

- (a) **Briefly outline what is meant by the term "fashion".** [2]

The candidate will be able to outline what is meant by the term fashion.

**Answer could include:**

Clothing which covers the human body to provide a micro-climate but is also aesthetically pleasing. Can also show an individual's status in society. Fashion changes regularly to keep up with latest trends and technological advances.

- (b) **Describe four factors which can influence aspects of fashion in contemporary society.** [4]

The candidate will be able to describe four factors which can influence the choice of fashion designs in contemporary society.

**Answer could include:**

Season; colour trends; fabric trends; seasons (winter/summer); type of clothing to be designed (e.g. evening/sports wear); cultural influences; Examples could be included.

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- (c) **Discuss how fashion trends may be revived from past years, giving specific examples.** [9]

The candidate will be able to discuss how fashion trends may be revived from past years and give specific examples.

**Answer could include:**

“Retro” fashion trends in Autumn 2005, based on colours and styles from 1940’s British and American movies. Fabrics used, are wool tweed, in a variety of colours. Colours used are browns and beiges; Garments include tailored jackets and skirts.

High band: 7 - 9 marks

Middle band: 3 - 6 marks

Low band: 0 -2 marks

- (d) **Assess the merits of a range of retail outlets available in the high street or main shopping area, for fashion goods.** [10]

The candidate will be able to assess the merits of a range of retail outlets available in the high street or main shopping area, for fashion goods.

**Answer could include:**

Retail outlets could include department stores, chain stores in the capital city and major towns; individual boutiques; market stalls. A discussion of the advantages and disadvantages of a range of examples given.

High band: 8 - 10 marks

Middle band: 4 - 7 marks

Low band: 0 - 3 marks

**4 A variety of processes are used in clothing manufacture.**

- (a) **Briefly outline how lay planning is carried out in the clothing industry (home-based and industrial).** [3]

The candidate will be able to outline how lay planning is carried out in the clothing industry.

**Answer could include:**

Computer used to store pattern piece shapes; moved using the mouse; most economical layout can be calculated; one-way designs can be shown on screen; different fabric widths can be calculated.

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- (b) **Compare the methods of marking fabrics before assembly, for a one-off item and a mass produced item.** [4]

The candidate will be able to compare the methods of marking fabrics before assembly for a one-off item and a mass produced item.

**Answer could include:**

One-off item: tailor-tacking by hand; slow and only one marking can be done at a time; marking may not be accurate; markings may dislodge during making-up of item;  
 Mass produced item: many layers are marked at a time; very accurate; notched edge of fabric may be used; mark is permanent but not visible on right side of garment.

- (c) **Assess the range of sewing machines available at home and in industry, for product assembly.** [6]

The candidate will be able to assess the range of sewing machine available in industry, for product assembly.

**Answer could include:**

Overlocking machine used to finish edges, carry out gathering, top stitch jersey fabrics  
 Straight stitch sewing machine to sew seams and carry out top stitching;  
 Zig-zag machines - used to attach lace and sew other motifs;  
 Buttonhole machine to sew buttonholes;  
 Bar tack machine to stitch bar tacks on corners of pockets;

High band: 5 -6 marks

Middle band: 3 - 4 marks

Low band: 0 - 2 marks

- (d) **Explain how a range of edge finishes can be carried out by machine in the clothing industry.** [12]

The candidate will be able to explain how a range of edge finishes can be carried out by machine in the clothing industry.

**Answer could include:**

Finishes can be achieved: top-stitched hem may be overlocked using an overlocking machine, the top edge will be turned towards wrong side and a row of top-stitching will be stitched using a straight-stitch machine.

A lace hem may be overlocked, using an overlocker; then the lace will be attached using a zig-zag machine and the edge will remain flat.

Sketches could be included to illustrate different methods of carrying out hems by machine.

High band: 9 - 12 marks

Middle band: 5 - 8 marks

Low band: 0 - 4 marks