

2009 HSC Textiles and Design

Sample Answers

This document contains 'sample answers', or, in the case of some questions, 'answer could include'. These are developed by the examination committee for two purposes. The committee does this:

- (a) as part of the development of the examination paper to ensure the questions will effectively assess students' knowledge and skills, and
- (b) in order to provide some advice to the Supervisor of Marking about the nature and scope of the responses expected of students.

The 'sample answers' or similar advice, are not intended to be exemplary or even complete responses. They have been reproduced in their original form as part of the examination committee's 'working document'. While the handwritten notes have been typed for legibility, no further editorial change or addition has occurred.

Section II

Question 11 (a)

Sample answer/Answers could include:

Promotional strategy:

- Store catalogues
- In-store displays/ promotions/ fashion parades
- Advertising in magazines/ television/ internet
- Websites
- Promotions
- Fashion Parades

Pricing structure:

- Discount pricing to establish sales
- Higher prices – is higher quality product
- Special introductory pricing offers

Question 11 (b)

Sample answer/Answers could include:

Recycling:

- Reduced landfill– especially of synthetic fibres, which do not decompose
- Reduced raw materials extracted from the environment
- Reduced processing– less power and water used

Organic production:

- Reduced use of chemicals– fertilisers and pesticides
- Use of predatory insects for pest control

Pad dyeing:

- Less efficient needs to be disposed of, water can be re-used
- Synthetic dyes that are colourfast and completely biodegradable and so have little impact on the environment.

Question 12 (a)***Sample answer/Answers could include:***

Japan:

- Seri culture– silk production for use in kimonos and obis
- Indigo dyeing– A hand dyeing technique which uses natural indigo dyes

Question 12 (b)***Sample answer/Answers could include:***

Kimono – characteristics

- Wrap around feature of the kimono incorporated into wrap tops and wrap around dresses
- Bathrobe designs based on wrap around style with tie around the waist
- Traditional motifs and designs have been adapted for interior designs such as print for fabrics, embroideries for cushions and wall hangings.

Question 12 (c)***Sample answer:***

Costume– the development of fastenings from fabric– lacing, buttoning, hooks and eyes to zippers, velcro, studs and metal punched eyelets.

Use of a variety of surface decoration techniques, including, machine embroidery and printing. Developments in interfacing allows for strong support without the need of boning.

Answers could include:**Sample answer 1**

Advances in fibre and fabric manufacture has changed clothing design due to the development of manufactured fibres and fabrics designed for specific end users eg Gortex. (Active outdoor clothing range)

Sample answer 2

Apparel – Swimwear

Textile design: With changing social expectations/norms the design of swimwear has changed from “neck to knee”, woollen, woven fabric to the contemporary bikini, sun-safe chlorine resistant fabric.

Traditional ‘neck to knee’ style at the beginning of the 20th century to the sun-safe design of the 21st Century.

Textile production: Development of synthetic fibres and manufacturing.

- lycra
- elastane
- circular knitting
- seamless/melding
- chlorine resistant dyes
- SPF – sunsafe fibres

Question 13 (a) (i)***Sample answer:***

Bed sheets

Answers could include:

Tablecloth, school/ business shirt, skirt, and hat

Question 13 (a) (ii)***Sample answer:***

Polyester contributes easy care properties of wrinkle resistance and cotton contributes comfort, as it is absorbent. In a staple spun yarn, polyester fibres are cut and blended with cotton, enhancing the comfort factor of the fabric. Plain weave is strong and will resist tearing and provides flat, uniform surface if the sheets are to be printed.

Answers could include:

Polyester contributes to easy care of school/ business shirts while cotton contributes to comfort.

Question 13 (b)***Sample answer/Answers could include:***

Yarns spun from microfibres are made from polyester or nylon and as such have hydrophobic properties.

The flexibility of the yarns spun from microfibres allows fabrics to be closely woven and compact to further enhance the water repellency and wind resistance for protective outerwear, yet allowing for the comfort of the wearer.

Question 13 (c) (i)***Sample answer/Answers could include:***

A yarn produced by the co extrusion of two different polymers

Question 13 (c) (ii)***Sample answer/Answers could include:***

Bicomponent yarns produce a crimp making item aesthetically more attractive as they reduce excessive bulk and excellent recovery.

Used in pantihose and coarse gauge knitwear.

Question 14 (a)***Sample answer/Answers could include:***

- Preparation of the dye bath
- Wetting and immersion
- Migration of the dye (heat/agitation)
- Location of the dye within the fibre

Question 14 (b)***Sample answer:***

- Rotary screen-printing on knitted fabric to be used for pyjamas or underwear
- Preparation of screens is relatively inexpensive
- Rotary screen-printing is used in mass production of textile fabrics. The fabric being easily distorted can be supported on the printing bed or stabilised with a pre-treatment
- Using a fibre reactive dye in the print paste the resulting design would be very durable for the repeated washing required for pyjamas or underwear

Answers could include:

Transfer digital printing for large image banners to be displayed outdoors for a coming event. The image for the banner can only be produced by digital printing as no other method of printing can produce images of this size. The image is either prepared on the computer or scanned.

Question 15 (a)***Sample answer/Answers could include:***

Automation for speed of production and accuracy.

CAD/CAM has allowed for multiple accurate cuts of textile items for mass production. After cutting, the cut pieces can be bundled with all components in preparation for Gerber production line. The pieces can be automatically taken to machinists in sequence. By bar-coding the items, production can be controlled and monitored for quality assurance purposes.

SYMAD – innovative system that is able to automatically digitise the body in 3D shape. Process takes less than 30 seconds.

Means clothes can no be tailor made to fit a person perfectly. Excellent for corporate and uniform clothing.

Computer-linked sewing machines

- less labour intensive as one person can remotely control many sewing machines reduces production costs.
- Seamless technology – removes one whole stage in manufacturing process.

Question 15 (b)***Sample answer/Answers could include:***

Computerised cutting produces cut component quickly, accurately and efficiently. Pattern pieces can be created on the computer or digitalised in from manually drafted pattern pieces. The computer determines the most efficient layout and use of fabric, which reduces the amount of waste material in the environment.

The main disadvantage is the reduced need for cutters and loss of jobs in the industry. By printing the cutting layout and placing it on top of the fabric layers when the cutting is completed, the fabric bundles are automatically labelled ready for bundling.

Seamless technology**Advantages for consumer**

- Comfortable, no seams
- Better fit
- Designs not limited by seams
- Comfort and softness incorporating antimicrobial and hydrophilic yarns for active wear
- Fewer lines under clothing
- No seam failures, hence less faulty goods
- Consumer satisfaction once consumer tries on seamless garment

Disadvantages

- Cannot alter seams or sizing of garments
- No seams could limit aesthetics of design
- Price of finished product is higher than other apparel
- Alterations not easily made to faulty garment

For consumers the advantages of seamless technology outweigh the higher cost disadvantage. Seamless technology for undergarments especially produces a more comfortable and longer lasting product.

Major advantage to the environment of seamless technology is the removal of one stage in the manufacturing process so therefore there is a huge reduction in the use of energy to power machinery. There are no disadvantages on the innovation in relation to the environment.