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# 2022 HSC Textiles and Design Marking Guidelines

## Section I

### Multiple-choice Answer Key

Question	Answer
1	B
2	D
3	B
4	C
5	A
6	D
7	B
8	C
9	C
10	A

## Section II

### Question 11 (a)

Criteria	Marks
• Outlines ONE factor that can influence the sale price of a textile item	2
• Provides some relevant information	1

**Sample answer:**

The sale price can be influenced by the popularity and/or scarcity of the product. A highly desirable product can be sold at a high price, and especially if it is in short supply.

**Answers could include:**

- Cost of the product produced – too low may make consumer think poor quality; too high may make consumer think quality excels
- The competition within the marketplace
- Current market trends and fads
- The desire for the item can increase the price, affecting the price structure.

### Question 11 (b)

Criteria	Marks
• Demonstrates a sound understanding of TWO strategies that textile manufacturers could use to reduce their impact on the environment	3
• Demonstrates some understanding of strategy(ies) that textile manufacturers could use to reduce their impact on the environment	2
• Provides some relevant information	1

**Sample answer:**

Fibre manufacturers could utilise more recycled products as their raw material eg using PET to make polyester, reducing the amount of plastic that goes into landfill. Environmental impact can also be reduced using alternative fibres such as bamboo that do not use pesticides in their production, therefore limiting the amount of pollution that goes into the waterways.

**Answers could include:**

- Reduce pollution during dyeing
- Reduce energy use.

### Question 11 (c)

Criteria	Marks
• Describes how ONE current distribution issue has affected the Australian textile industry	3
• Outlines how ONE current distribution issue has affected the Australian textile industry	2
• Provides some relevant information	1

**Sample answer:**

An example of a current distribution issue is online shopping. This can lead to an expansion of target markets due to click and collect and/or online distribution nationally and/or globally. This change in consumer practice has an impact on employment, with a decrease in retail workers needed but an increase in packers to meet online demand. Moving to online sales can allow suppliers to be more competitive. However, delivery delays can cause consumer frustration.

### Question 12 (a)

Criteria	Marks
• Describes a suitable colouration method that can be used to produce the checked fabric, including an advantage and a disadvantage of the method	4
• Outlines a suitable colouration method that can be used to produce the checked fabric, including an advantage and/or disadvantage of the method	3
• Demonstrates some understanding of a colouration method	2
• Provides some relevant information	1

**Sample answer:**

A suitable method would be to dye the yarn prior to the fabric being woven. The checked fabric is woven using different coloured warp and weft yarns producing a fabric that appears the same on both sides. Because it is checked, the skeins will need to be dyed in the colours of the pattern.

An advantage of this method is that it produces an accurate design which may be simple or complicated. However, a disadvantage is that it may be time consuming and the colours need to be determined before starting as new/different colours cannot be introduced quickly.

### Question 12 (b)

Criteria	Marks
<ul style="list-style-type: none"> <li>Makes clearly evident the relationship between the work of a contemporary designer and the influence of current trends and/or the inspiration of new trends, supported with relevant examples</li> </ul>	4
<ul style="list-style-type: none"> <li>Provides a link between the work of a contemporary designer and the influence of current trends and/or the inspiration of new trends, with example(s)</li> </ul>	3
<ul style="list-style-type: none"> <li>Outlines the work of a contemporary designer</li> </ul> OR <ul style="list-style-type: none"> <li>Shows some understanding of trends in relation to a contemporary designer</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Akira Isogawa is a contemporary designer who has been influenced by social trends such as environmentally sustainable practices. He ensures that his designs are created using natural fibres that are environmentally and animal friendly. The trend of using sustainable practices such as reusing vintage fabrics can be seen in Akira's designs. His collection from 2018 captured the streetwear vibe and aspects of gender fluidity which were current trends at the time.

### Question 13 (a)

Criteria	Marks
<ul style="list-style-type: none"> <li>Identifies a regenerated fibre and outlines how its properties contribute to the functional requirements of a summer shirt</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

An example of a regenerated fibre is rayon. As a cellulosic fibre it is a good conductor of heat, so it is cool to wear. It has good moisture absorbency so the shirt will absorb perspiration on hot summer days.

### Question 13 (b)

Criteria	Marks
<ul style="list-style-type: none"> <li>• Outlines how the properties of microfibre enhance the performance of athletic wear</li> </ul>	2
<ul style="list-style-type: none"> <li>• Provides some relevant information</li> </ul>	1

**Sample answer:**

Microfibre is absorbent with good wicking properties allowing perspiration to be drawn away from the wearer's skin, making the garment feel cool and comfortable when exercising.

It is extra fine and so is lightweight, making the garment comfortable to wear.

**Answers could include:**

- Strength
- Shrink resistant
- Easy to clean.

### Question 13 (c)

Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates a sound understanding of the use of CAM in the production of textiles, with appropriate examples</li> </ul>	4
<ul style="list-style-type: none"> <li>• Demonstrates some understanding of the use of CAM in the production of textiles, with example(s)</li> </ul>	3
<ul style="list-style-type: none"> <li>• Outlines the use of CAM in the production of textiles</li> </ul>	2
<ul style="list-style-type: none"> <li>• Provides some relevant information</li> </ul>	1

**Sample answer:**

CAM has improved accuracy and speed. The increase in accuracy through more efficient pattern layout has had an environmental benefit by reducing waste fabric going into landfill. Using automated cutters has resulted in faster cutout, leading to an economic benefit to the manufacturer and as a result to consumers who have benefited as products can reach them sooner.

CAM has also had an impact on employment opportunities. For example, traditional production methods and the associated skills are being lost eg lace making, hand embroidery, knitting and weaving are now considered art forms. However, the introduction of CAM has resulted in a shift in employment opportunities. More highly-skilled workers are required to operate and maintain the equipment, reducing the need for unskilled workers.

## Section III

### Question 14

Criteria	Marks
<ul style="list-style-type: none"> <li>Provides a comprehensive comparison of the original production methods and/or art forms with their modern adaptations</li> </ul>	8
<ul style="list-style-type: none"> <li>Provides a sound comparison of the original production methods and/or art forms with their modern adaptations</li> </ul>	6–7
<ul style="list-style-type: none"> <li>Describes original and/or modern production methods and/or art forms</li> </ul>	4–5
<ul style="list-style-type: none"> <li>Demonstrates some knowledge of the original and/or modern production method(s) and/or art form(s)</li> </ul>	2–3
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Culture: Hmong

The Hmong people have used several traditional production methods and art forms to produce textile items, in particular indigo dyeing and the hand embroidery of story cloths.

Traditional indigo dyeing produces coloured fabric that is deep blue or black in colour. The pigment is extracted by soaking the leaves and stems of the indigo plant for several days resulting in a dye paste.

A contemporary designer of textiles could use a synthetic dye to achieve a similar deep blue or black colour. The synthetic dye is added to hot water and salt is added to enhance the colour. The fabric or yarn is then added to the dye bath and agitated to ensure even colouration. The contemporary process is therefore faster, less labour intensive than the traditional method and can be mass-produced by a manufacturer.

Story cloths are an embroidered art form produced by the Hmong people. They are an art form that depict generational stories and were used to record traditional daily life. The fabrics used were cotton, hemp and ramie as these were the fibres readily available.

A modern adaptation of a story cloth could be replicated as an Australian story. The embroidery could be completed using free motion machine embroidery or the designer could use a computer-linked embroidery machine where the pattern, stitch type and stitch positions are entered into the computer and stitched automatically.

This adapted modern story cloth could be produced from a variety of fibres or fabrics due to the expansion of the textile industry and the introduction of synthetics.

Therefore, when comparing traditional methods to modern adaptations, it can be concluded that the traditional methods are time consuming, strongly linked to culture and unique in design, whereas the modern adaptations are more time efficient, with the ability to produce more complicated designs that are easily replicated.

## Question 15

Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates comprehensive knowledge of the properties of the fibre and fabric structures of the two bags</li> <li>• Provides a comprehensive comparison of the two bags in relation to their end-use performance and care</li> </ul>	8
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge of the properties of the fibre and fabric structures of the two bags</li> <li>• Provides some comparison of the bags in relation to their end-use performance and care</li> </ul>	6–7
<ul style="list-style-type: none"> <li>• Demonstrates some knowledge of the properties of the fibre and/or fabric structures of the two bags</li> <li>• Describes the end-use performance and/or care of one or both bags</li> </ul>	4–5
<ul style="list-style-type: none"> <li>• Outlines some properties of the fibres and/or fabric structures</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Outlines some end-use performance and/or care requirements of shopping bags</li> </ul>	2–3
<ul style="list-style-type: none"> <li>• Provides some relevant information</li> </ul>	1

### **Sample answer:**

A shopping bag needs to be strong and not rip so the items do not fall out. Cotton fibre is strong and durable due to its crystalline structure. So, depending on the construction techniques used to make bag 1, it will be durable, will not rip and will be able to be used multiple times to carry heavy loads. Similarly, polyester is a strong fibre due to its crystalline structure. A bag made from polyester will also be durable, not rip and could be used multiple times. So, in terms of strength both fibres will produce a strong and durable bag that will withstand rough treatment and require similar care.

Cotton is not a very resilient fibre so it will crease easily, whereas polyester is a very resilient fibre. As a result, a bag made from polyester will not crush or wrinkle as easily, especially if crumpled or treated roughly, eg being thrown into a car boot.

A reusable shopping bag needs to be easy to clean or not soil easily. Cotton is hydrophilic and therefore very absorbent. As a result it is easy to wash. However, any spills will make the bag wet, which may be a problem if carrying cold or frozen items. However, it is stronger when wet so will not break under wet conditions.

Polyester on the other hand is hydrophobic so will not absorb water easily. This can be an advantage when compared to cotton as any spills will dry quickly. However, liquids from thawed frozen foods can pool at the bottom which could be a problem. Both fibres will therefore wash easily and provide equal strength under dry and wet conditions.

Cotton is a natural cellulose fibre and as a result is biodegradable. Polyester is a synthetic fibre and its raw material is petroleum. As a result it is not biodegradable and could contribute to landfill once it is no longer functional as a bag.

A plain weave calico fabric has a smooth surface that is dimensionally stable and strong. As a result, it will not stretch and distort when heavy items are placed inside. Its compact surface will not snag so can undergo rough treatment.

A non-woven web fabric bypasses the yarn stage as the fibres are bonded together using either chemical or heat as the adhesive medium. Webs are relatively strong and can be made to have a smooth surface so they too will not snag. Their construction, however, is not as dense so the bag can more easily rip.

# 2022 HSC Textiles and Design Mapping Grid

## Section I

Question	Marks	Content	Syllabus outcomes
1	1	Design — fabric colouration and decoration – embroidery	H1.3
2	1	Properties and performance of textiles — decorative techniques to enhance design – digital printing	H3.2
3	1	Design — cultural factors that influence design and designers – textiles as a medium for self-expression	H6.1
4	1	Design — historical design development	H6.1
5	1	ATCFAI — appropriate textile technology and environmental sustainability – appropriate and sustainable textile resources	H5.2
6	1	Properties and performance of textiles — innovations and emerging textile technologies – finishing techniques	H4.1
7	1	Properties and performance of textiles — innovations and emerging textile technologies – bicomponent yarns	H3.1
8	1	ATCFAI — marketplace – product life cycle	H5.1
9	1	ATCFAI — current issues – market place – place and distribution channels	H5.2
10	1	Properties and performance of textiles — end-use applications	H3.1

## Section II

Question	Marks	Content	Syllabus outcomes
11 (a)	2	ATCFAI — marketplace – price structure	H5.1
11 (b)	3	ATCFAI — appropriate textile technology and environmental sustainability – appropriate and sustainable resources	H5.2
11 (c)	3	ATCFAI — marketplace – place and distribution channels	H5.1
12 (a)	4	Design — fabric colouration and decoration – methods of fabric decoration including colouration – dyeing	H1.3
12 (b)	4	Design — contemporary designers and trends in society	H6.1
13 (a)	2	Properties and performance of textiles — end-use applications	H3.1
13 (b)	2	Properties and performance of textiles — innovations and emerging textile technologies – microfibre	H3.2
13 (c)	4	Properties and performance of textiles — innovations and emerging textile technologies – computer-aided manufacture	H3.2

## Section III

Question	Marks	Content	Syllabus outcomes
14	8	Design — cultural factors that influence design and designers	H6.1
15	8	Properties and performance of textiles — end-use applications	H4.1