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# 2018 HSC Textiles and Design Marking Guidelines

## Section I

### Multiple-choice Answer Key

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

## Section II

### Question 11 (a)

Criteria	Marks
<ul style="list-style-type: none"> <li>Explains how changes to the production of TWO textile fibres can reduce pollution</li> </ul>	4
<ul style="list-style-type: none"> <li>Outlines how changes to the production of TWO textile fibres can reduce pollution</li> </ul>	3
<ul style="list-style-type: none"> <li>Explains how changes to the production of ONE textile fibre can reduce pollution</li> </ul> OR <ul style="list-style-type: none"> <li>Identifies some relevant changes to the production of textile fibre(s) to reduce pollution</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Growing cotton organically, rather than using herbicides, insecticides and pesticides, can minimise chemicals leaching into the soil and polluting the environment. Making polyester fibre out of recycled PET bottles, rather than non-renewable petrochemicals, can reduce landfill caused by PET bottles.

**Answers could include:**

Regenerated fibres eg tencel and bamboo.

### Question 11 (b)

Criteria	Marks
• Describes how the price of a textile product is determined during the maturity stage with reference to a range of factors	4
• Outlines how the price of a textile product is determined during the maturity stage with reference to one or more factors	3
• Shows some understanding of how the price of a textile product is determined and/or the maturity stage	2
• Provides some relevant information	1

**Sample answer:**

During the maturity stage the product has the greatest amount of sales and profit. Supply of the product meets demand and the marketplace becomes saturated with the product. The price of the product is at its highest and consumers are prepared to pay this price. During this stage competition then increases so marketing strategies, such as increasing advertising and bargain sales, are often required to ensure sales remain high.

**Answers could include:**

- Current trends may increase the price
- Profit margin.

### Question 12 (a)

Criteria	Marks
• Provides characteristics that show the difference between embroidery and appliqué	2
• Provides some relevant information	1

**Sample answer:**

Embroidery is the method of decorating or embellishing a base fabric with yarns, whereas appliqué is the technique of applying fabric shapes to a fabric backing.

### Question 12 (b)

Criteria	Marks
<ul style="list-style-type: none"> <li>Describes how sources of inspiration have been used by a contemporary designer</li> </ul>	3
<ul style="list-style-type: none"> <li>Outlines a source of inspiration used by a contemporary designer</li> </ul> OR <ul style="list-style-type: none"> <li>Identifies some sources of inspiration used by a contemporary designer</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Peter Alexander is a contemporary designer who takes inspiration from popular culture and movies. For example, seasonal events such as Halloween and Christmas has inspired Alexander to create sleepwear and accessories featuring digital prints on boxer shorts, t-shirts and underwear of pumpkins (Jack-o-lanterns) and Christmas trees. At Christmas time he has a range including the Grinch which is popular with children.

### Question 12 (c)

Criteria	Marks
<ul style="list-style-type: none"> <li>Demonstrates how religious practices have influenced textile design in a culture</li> </ul>	3
<ul style="list-style-type: none"> <li>Outlines some information about textiles in a culture</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

*Hmong Culture*

Hmong myth and ritual beliefs relate to their relationship to the natural environment and with the spirits that affect the wellbeing of their communities.

Red topknots on hats worn by men and boys defend the wearer against illness, injury and death.

Baby carriers are highly embellished with red, yellow and pink embroidery to protect the child from bad spirits.

**Answers could include:**

Funeral robes that are appropriate to the tribe are used to dress their dead, so their ancestors can recognise and claim them after death.

**Question 13 (a)**

Criteria	Marks
• Outlines how a finishing technique can enhance a fabric's performance	2
• Provides some relevant information	1

**Sample answer:**

Teflon fabric protector is an application that provides a long-lasting protection barrier against oil and water-based stains. Teflon reduces the need for laundering and dry cleaning.

**Question 13 (b)**

Criteria	Marks
• Explains why a nylon/elastomeric yarn is suitable for swimwear	3
• Outlines why a nylon/elastomeric yarn is suitable for swimwear AND/OR • Outlines the functional requirement(s) of swimwear AND/OR • Outlines the characteristic(s) of a nylon/elastomeric yarn	2
• Provides some relevant information	1

**Sample answer:**

Blending nylon and elastomeric yarn helps swimwear fabric retain its shape. The elastomeric fibre gives the blend superior stretch and recovery allowing for a comfortable fit. Nylon provides the fabric with its strength and low absorbency characteristics which give the finished product quick drying and durable properties.

**Answers could include:**

Nylon also provides good sunlight resistance.

**Question 13 (c)**

Criteria	Marks
• Describes how an innovation in textile machinery has benefited the consumer	3
• Outlines how an innovation in textile machinery has benefited the consumer OR • Outlines an innovation in textile machinery	2
• Provides some relevant information	1

**Sample answer:**

Seamless technology produces fully-fashioned knitwear. The benefits for the consumer include better fit, shape and comfort. Without the use of seams and darts, garments can be form fitting and visually appealing especially in underwear or figure-hugging clothes.

## Section III

### Question 14

Criteria	Marks
<ul style="list-style-type: none"> <li>Demonstrates extensive knowledge of advantages and disadvantages of dyeing at each stage</li> </ul>	8
<ul style="list-style-type: none"> <li>Demonstrates thorough knowledge of advantages and disadvantages of dyeing for at least two stages</li> </ul> AND/OR <ul style="list-style-type: none"> <li>Outlines advantages and disadvantages of dyeing at each stage</li> </ul>	6–7
<ul style="list-style-type: none"> <li>Demonstrates some knowledge of advantages and disadvantages of dyeing</li> </ul> AND/OR <ul style="list-style-type: none"> <li>Outlines some advantages and disadvantages of dyeing</li> </ul>	4–5
<ul style="list-style-type: none"> <li>Outlines at least one advantage and/or disadvantage of dyeing</li> </ul> AND/OR <ul style="list-style-type: none"> <li>Identifies some advantages and/or disadvantages of dyeing</li> </ul>	2–3
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Fibre dyeing has the advantage of having good dye penetration and excellent dye quality as the process occurs before the fibre is spun. When two tones are then blended together a mottled or tweed pattern can be produced providing more design possibilities. However, two disadvantages of fibre dyeing are that it is expensive and there is a slower response time to fashion colour trends.

Yarn dyeing is done in skeins after the spinning process. When yarns are dyed in large quantities, the dyeing process becomes very cost effective. However, the manufacturer needs to be sure of the colour choice as large quantities are generally produced and may be difficult to re-dye. Another advantage is, when these coloured yarns are woven or knitted into fabric, design possibilities include stripes, plaids and jacquards. However, a disadvantage is that these processes will add to the cost of the fabric as more time is required to thread the loom or knitting machine.

Fabric dyeing is when a large quantity of fabric is dyed which produces a solid colour. For large quantities, fabric dyeing is the most cost-effective method of dyeing. Smaller fabric quantities may be more expensive to dye which is a disadvantage. When fabric dyeing, colour decisions can also be made more quickly in response to fashion trends.

**Answers could include:**

Pigments can be added to the fibre solution of manufactured fibres. The advantages of this method include consistent colour, good penetration and fastness of colour.

## Question 15

Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge of the properties of microfibre, multifilament yarn, warp knit fabric</li> <li>• Relates the properties to the performance requirements for the upper part of a walking shoe</li> </ul>	8
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge of the properties of a microfibre, multifilament yarn, warp knit fabric</li> <li>• Links the properties to the performance requirements of a walking shoe</li> </ul>	6–7
<ul style="list-style-type: none"> <li>• Demonstrates some knowledge of the properties of microfibrils AND/OR multifilament yarns and/or warp knit fabrics</li> <li>• Provides a link between these properties and the performance requirements of a walking shoe</li> </ul>	4–5
<ul style="list-style-type: none"> <li>• Identifies some properties of microfibrils and/or multifilament yarns AND/OR warp knit fabrics</li> </ul> <p>AND/OR</p> <ul style="list-style-type: none"> <li>• Identifies some performance requirements of a walking shoe</li> </ul>	2–3
<ul style="list-style-type: none"> <li>• Provides some relevant information</li> </ul>	1

### **Sample answer:**

The upper part of a walking shoe needs to firmly hold the foot in place but still provide flexibility to allow for movement. A warp knit can be made to provide support as it does not have a lot of stretch so helps to keep the feet in position. However, it does have some 'give' so this allows it to be form fitting and comfortable as well as providing for movement as one walks. A warp knit structure would provide breathability that will keep the feet cool. Warp knits do not ladder so will resist snagging.

A multifilament yarn is a yarn that has more than one filament. It is an even yarn that provides a smooth surface for the shoe. The yarn has good resiliency that allows it to maintain its shape. This yarn is strong and very durable which adds to the strength requirements of the shoe. The smooth surface of the yarn makes the shoe comfortable on the skin when worn without socks.

The microfibre would be a suitable fibre for the upper part of the shoe as it is strong, and durable, so it can withstand the wear and tear that a shoe will go through. It can be either nylon or polyester as both are lightweight fibres. This will contribute to the comfort of the shoe by making the shoe light in weight. It has excellent wicking properties allowing the feet to stay cool in hot weather as perspiration can wick away easily. It is also quick drying which means that it will help keep the feet dry in wet weather. Microfibrils are easy to wash so the shoe can be cleaned with water to maintain a fresh look.

### **Answers could include:**

Microfibrils are very fine fibres – less than one denier in thickness.

# 2018 HSC Textiles and Design Mapping Grid

## Section I

Question	Marks	Content	Syllabus outcomes
1	1	The use of textiles to enhance performance – bicomponent yarns	H3.2
2	1	Innovations and emerging textiles – washable webs	H3.2
3	1	Digital printing – fabric colouration and decoration	H1.3
4	1	Current Issues – distribution channels	H5.2
5	1	Globalisation of design	H5.2
6	1	Cultural factors that influence design	H6.1
7	1	Fibre, yarn, fabric – end use application	H3.1
8	1	Contemporary designers – external	H6.1
9	1	Fabric colouration and decoration	H1.3
10	1	Fibre, yarn, fabric – end use application, carpet	H3.1

## Section II

Question	Marks	Content	Syllabus outcomes
11 (a)	4	Appropriate and sustainable textiles – pollution	H5.2
11 (b)	4	Market place – price structure/life cycle	H5.1
12 (a)	2	Fabric colouration and decoration – appliqué and embroidery	H1.3
12 (b)	3	Contemporary designers – sources of inspiration	H6.1
12 (c)	3	Cultural factors that influence design and designers – religious practices	H6.1
13 (a)	2	Innovations and emerging technologies – finishing techniques	H4.1
13 (b)	3	End-use application	H4.1
13 (c)	3	Innovations and emerging textile technologies – innovations and advances in textile machinery	H3.2

## Section III

Question	Marks	Content	Syllabus outcomes
14	8	Fabric colouration – principles of dyeing	H1.3
15	8	Innovations and emerging textile technologies – microfibres, the use of textiles to enhance performance, advantages and disadvantages	H4.1