

Textiles and Design

Section II (continued)

Question 13 — Properties and Performance of Textiles (10 marks) **Marks**

- (a) (i) Identify a recent innovation in decorative techniques used in the production of textiles. **1**

..... *Injet Dyeing - Textile Jet TX 1600S,*

- (ii) Discuss the impact of this innovation for each of the following: **4**

Consumer .. *Positive impact → fabric/clothing which reflects high quality design and vibrant colours.*

Accurate, intricate designs produced using 7 colours simultaneously

Negative → Due to high tech machinery, this could attract a higher cost to the consumer due to cost of machinery to the manufacturer.

Manufacturer .. *Positive impact → Short production time,*

Quick response, overall better design due to machinery

allowing 7 colours simultaneously and fine detail. Good for manufacturing sample production runs. ↑ profit due ↓ workers.

Negative → high cost initially for manufacturer, if successful should cover for the cost. New skills needed, train staff.

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Question 13 (continued)

- (b) (i) Name a recent innovation in fibre, yarn or fabric that enhances fabric performance. 1

Fabric innovation - Sportswool Pro

- (ii) Describe the innovation named and explain how it enhances the performance of a fabric. 4

Sportswool Pro came about through the collaboration of CSIRO scientists and the Woolmark Company.
It consists of two layers that are, a fine Australian Merino wool that is worn close to the skin and a polyester fabric on the outside. This fabric enhances its performance through the unique 'wicking' behaviour it performs when comes into contact with moisture (sweat). This 'wicking' property of Sportswool Pro attracts the moisture from the Wool layer to the outer Polyester layer which is then evenly distributed for fast evaporation. Post-exercise it will work to keep athlete warm → prevent post exercise chill. The combination of the fibres, wool and polyester and this unique 'wicking' behaviour are what enhances this fabric's performance to allow for comfort and temperature control during and after exercise.

End of Question 13