

Textiles and Design

Section II (continued)

Marks

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

- (a) Explain how a finishing technique can be used to enhance fabric performance for a specific end-use. 2

A finishing technique is used to help enhance fabric performance. For example a Mens business shirt has been had crease resistant chemicals + fibres put into it to avoid creasing also with the collars the keep it in shape and hard.

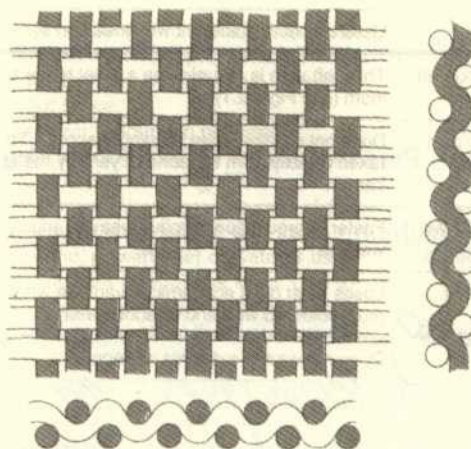
- (b) Explain the impact ONE technological advance in machinery has had on the production of textiles. 2

CAD + CAM → These new technological advances has help faster up the manufacturing process and reduced the cost of manufacturing all together. More jobs have been as result of this.
Computer Aided Design +
Computer Aided Manufacturing.

Question 13 continues on page 10

Question 13 (continued)

- (c) Identify the fabric structure in the diagram. Explain why it is an appropriate structure for a cotton hat. 2



Plain weave - this structure is suitable for a hat as it is a breathable material, lightweight. Not hot. Has small air pockets, won't lose shape, keep you shaded and protected from sun, light in feel.

- (d) (i) Identify a specific end-use that requires excellent abrasion resistance in a fabric. 1

Dimensional stability

- (ii) Describe how the fabric structure, yarn structure and fibre content optimise abrasion resistance. 3

- fabric structure: This is important to see if the fabric moves or rubs at all.
- Yarn structure - should be hard spun so it's more tightly compacted and smoother to avoid abrasion.
- fibre content - This would most probably be a synthetic fibre as it then would have stronger properties than a natural cellulosic fibre.

End of Question 13