

Q6. This question is about materials and components. It is worth a total of 15 marks.

- (a) (i) Textile fibres can be classified as natural or man made.
Using the words from the list below, complete the table by placing each fibre under the correct source. [4]

Viscose		Linen	Wool	Polyester
<i>Natural</i>		<i>Man made</i>		
<i>Plant</i>	<i>Animal</i>	<i>Synthetic</i>	<i>Regenerated</i>	

- (ii) Tick (✓) which **two** of the following statements are correct. [2]

- Fabric properties can be improved when fibres are combined together.
- Wool fibres treated with chlorine become colourfast.
- Cellulosic fibres are considered more environmentally friendly.
- A Teflon finish prevents materials shrinking when washed.

- (b) Explain why each of the materials stated would be suitable for the products shown below.



(i) Material: *Knitted cotton*

Explanation:

[2]



(ii) Material: *Cordura*

Explanation:

[2]

(c) The picture below shows an example of a smart material.



(i) Complete the following sentence: [1]
.....dyes change colour in response to a change in the light.

(ii) Explain the meaning of the term micro-encapsulation. [4]
Exemplify your answer.

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