

1 One gene can give rise to more than one protein.

(a) Give **three** differences between fibrous and globular proteins.

(3)

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* (b) Sex determination in *Drosophila* (fruit fly) is controlled by the *Sxl* gene that codes for the Sxl protein. The *Sxl* gene is the same in female and male *Drosophila*.

The length of the protein in the female *Drosophila* is different from the length of the protein in the male *Drosophila*.

Suggest how the same *Sxl* gene can give rise to these different proteins.

(6)

(Total for Question 1 = 9 marks)