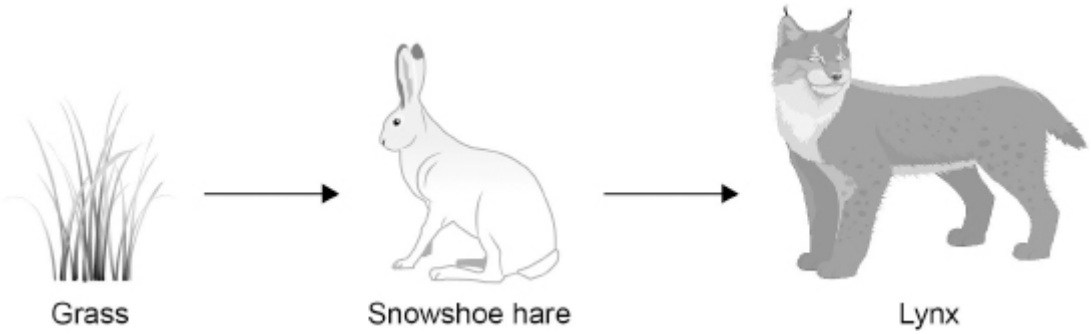
Questions are for separate science science students only

Q1.

Different species in a habitat may depend on each other for food.

Figure 1 shows a food chain.

Figure 1



(a) The grass needs energy to grow.

What is the source of energy for the grass?

_____

(1)

(b) The table below lists different types of feeding relationship.

Feeding relationship	Organism
Secondary consumer	Lynx
Primary consumer	
Producer	
Herbivore	
Carnivore	
Prey	
Predator	

Write the name of **one** organism from **Figure 1** in each box in the table above.

Each organism may be written in one box or in more than one box.

The first box has been completed for you.

(3)

(c) **Figure 2** shows the appearance of the snowshoe hare in the summer and in the winter.

Figure 2

Snowshoe hare in summer

Snowshoe hare in winter

The snowshoe hare has a different fur colour in the summer than in the winter.

Explain how the different fur colour increases the chance of survival of the snowshoe hare.

_____

_____

_____

_____

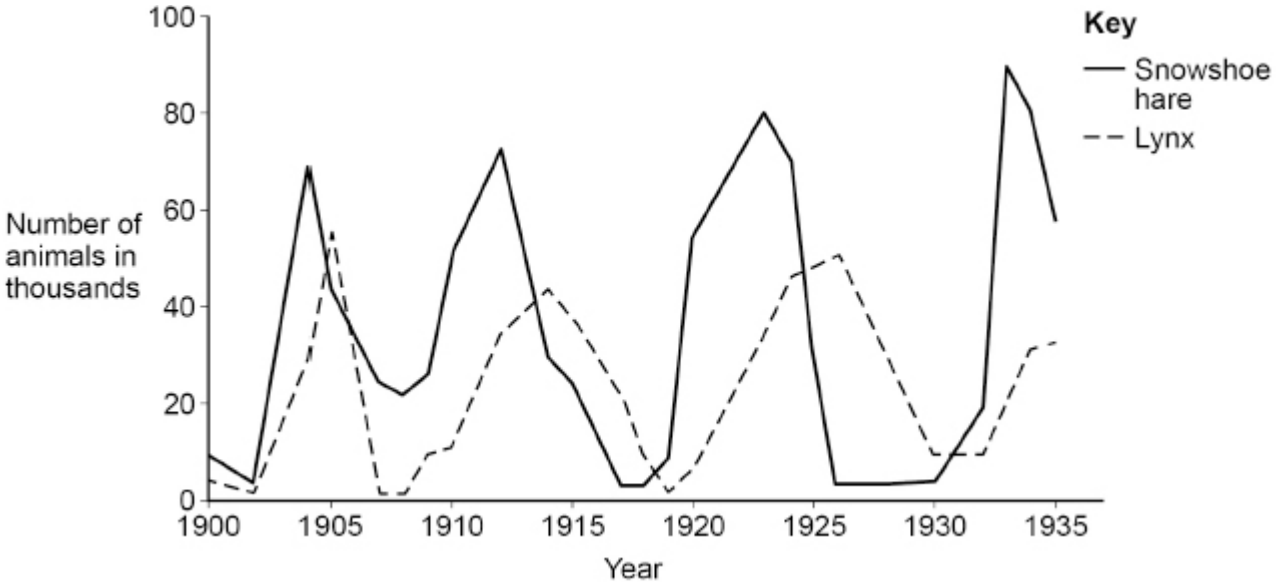
_____

_____

(3)

Figure 3 shows how the number of snowshoe hares and the number of lynx varied in one area between 1900 and 1935.

Figure 3



(d) **Figure 3** shows that the number of snowshoe hares and the number of lynx increase and decrease several times.

Suggest **two** reasons why the number of **snowshoe hares** increases.

1 _____

_____

2 _____

_____

(2)

(e) The number of snowshoe hares increased and decreased four times between 1900 and 1935.

What effect does an **increase** in the number of snowshoe hares have on the number of lynx?

_____

_____

(1)

(f) Suggest **one** reason why the number of lynx decreased from 1915 to 1919.

Use information from **Figure 3**.

_____

_____

(1)

(g) When the snowshoe hare eats grass, about 90% of the biomass of the grass is lost.

Give **two** ways the biomass is lost. **(biology only)**

1 _____

_____

2 _____

_____

(2)

(Total 13 marks)