

Human Influences on Ecosystems

Question Paper 3

Level	IGCSE
Subject	Biology
Exam Board	CIE
Topic	Human Influences on Ecosystems
Paper Type	(Extended) Theory Paper
Booklet	Question Paper 3

Time Allowed: 58 minutes

Score: /48

Percentage: /100

(c) Sulfur dioxide dissolves in rain water to form acid rain.

Describe **two** measures that can be taken to reduce the effects of acid rain.

1

2

[2]

[Total: 12]

2 Fig. 3.1 is a diagram of the water cycle.

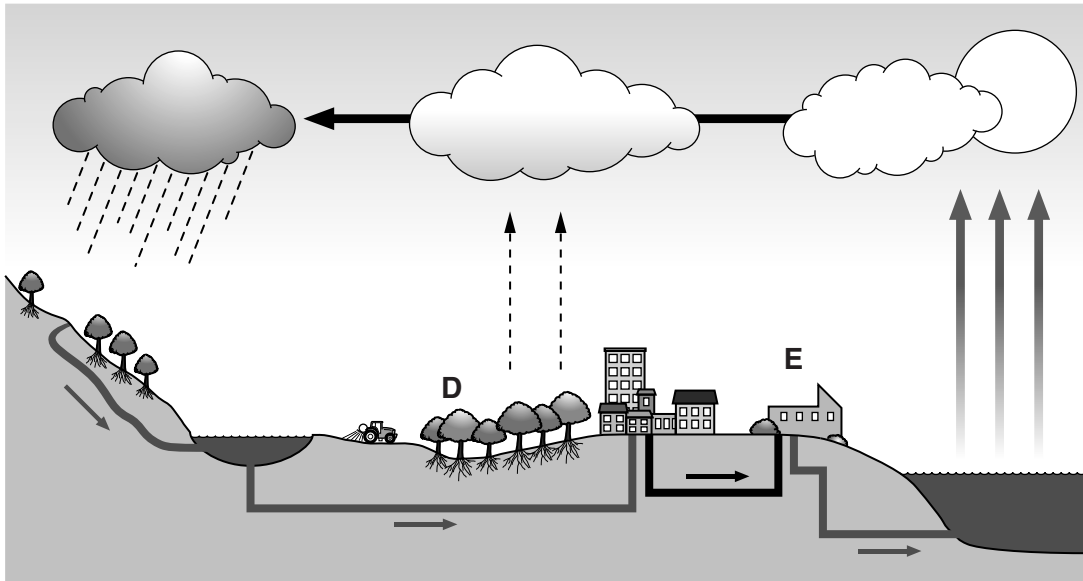


Fig. 3.1

(a) Water is a large component of the cells in the leaves of trees, as labelled **D** on Fig. 3.1.

Explain how water passes from a leaf cell to the atmosphere.

..... [4]

(b) Explain how the loss of water from the leaves helps to move water from the roots to the leaves.

..... [4]

(c) Explain how water enters the roots of the trees from the soil.

.....
.....
.....
.....
.....
..... [3]

(d) Fig. 3.1 shows a sewage treatment works, labelled E.

Describe **three** processes used in the treatment of sewage.

1
.....
2
.....
3
..... [3]

(e) Herbicides are used by farmers to control weeds.

Explain the environmental damage that may be caused by herbicides.

.....
.....
.....
.....
.....
..... [3]

[Total: 17]

3 Sulfur dioxide (SO₂) can cause acid rain.

(a) Name **one** other pollutant that can cause acid rain.

.....[1]

(b) Describe the effects of acid rain on the environment.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....[3]

(c) State **three** methods to reduce atmospheric SO₂ pollution.

1
.....
2
.....
3
.....
.....[3]

- (ii) Suggest why the concentration of sulfur in the plant tissues was calculated as a **percentage** of the **dry mass** of the plant tissue.

.....

.....

.....

.....

.....[2]

[Total: 12]

- 4 Sewage treatment works use bacteria to digest the waste matter. Waste matter contains complex organic compounds, such as starch, cellulose, protein and fat.

Fig. 3.1 shows a diagram of a sewage works with an aerobic digestion tank.

The sewage works discharges clean water into a river. Downstream from the sewage works, water is removed to be used as drinking water for a nearby village.

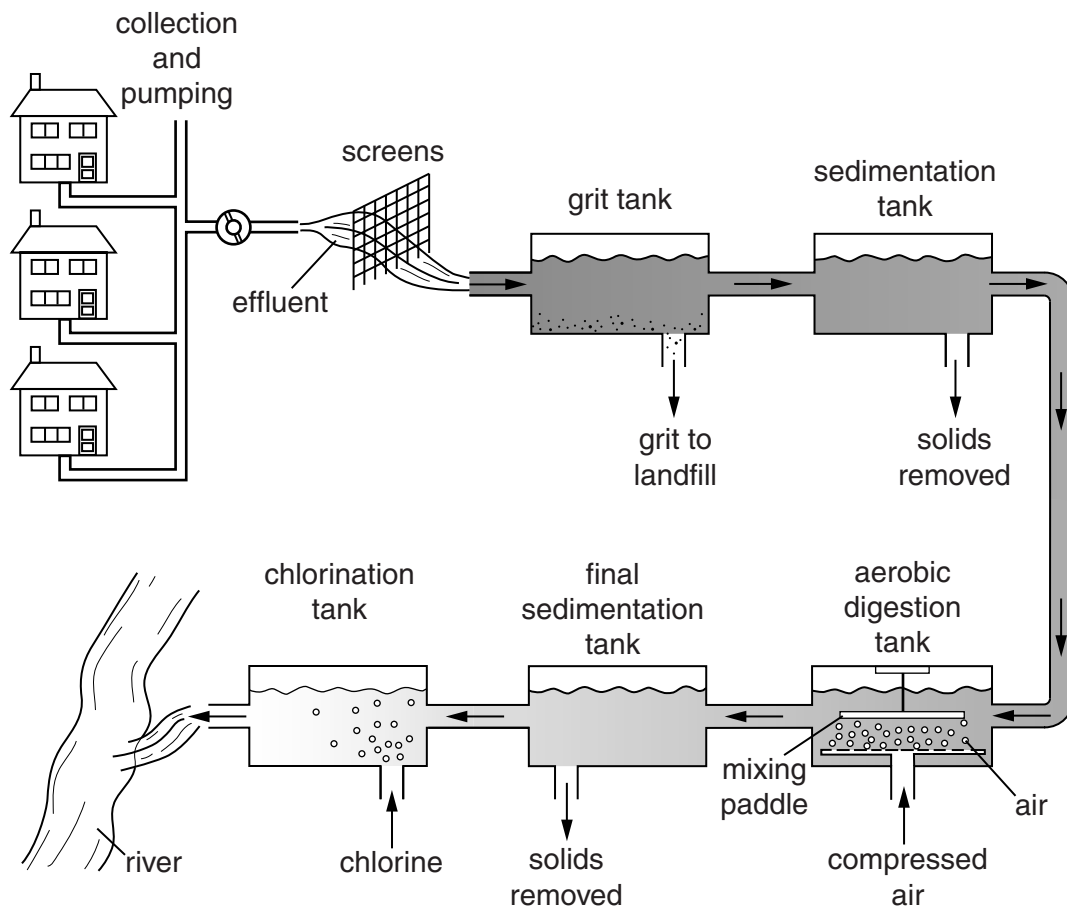


Fig. 3.1

