**B4 Organising animals and plants**

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| Question No | Mark |
| 1 |  |
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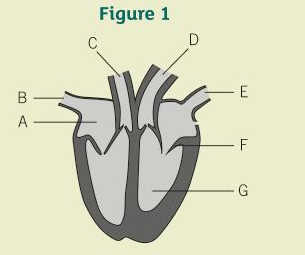
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Teacher………………………………………………………

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01 Figure 1 shows a diagram of the heart



01.1 Use the correct letter from Figure 1 to identify each of the following parts of the heart

|  |
| --- |
| Left ventricle |
| A valve |
| Vena cava |
| Vessel carrying blood containing the most oxygen |

(4marks)

01.2 What is the function of a valve?

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1. mark)

01.3 The coronary arteries carry blood to the heart muscle cells. In coronary heart disease layers of fatty material build up inside the coronary arteries.

Explain why this could be dangerous.

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(3 marks)

* 1. People who are at risk of developing coronary heart disease are often given drugs called statins.

Describe how statins reduce the risk of coronary heart disease.

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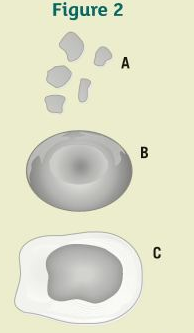
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(2 marks)

1. Figure 2 shows the components of the blood



02.1 Name the components A,B,C (3 marks)

02.2 Describe three ways that red blood cells are adapted to transport oxygen from the lungs to the cells of the body.

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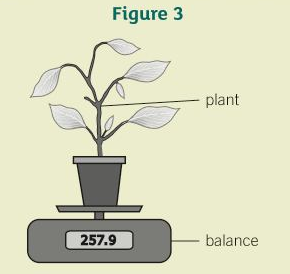
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(3 marks)

1. A student investigated the loss of water from a plant.

Figure 3 shows the apparatus he used.



03.1 What is the loss of water through the leaves of a plant called?

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(1 mark)

The student measured the mass of the plant and pot at the end of each day for five days.

His results are shown in table 1.

Table 1

|  |  |
| --- | --- |
| Day | Mass of pot and plant in g |
| 1 | 257.9 |
| 2 | 253.6 |
| 3 | 248.8 |
| 4 | 235.4 |
| 5 | 231.9 |

03.2 During which day did the plant lose the most water? Suggest a reason for this.

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(2 marks)

03.3 Calculate the mean rate of water loss in g/day.

Give your answer two significant figures.

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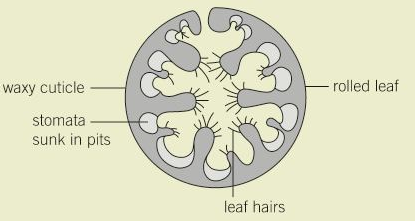
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(3 marks)

Marram grass grows on sand dunes where the conditions are dry and windy. The leaves are adapted to reduce the rate of water loss.

Figure 4 shows a cross section of a marram grass leaf.



03.4 Describe how two features of the marram grass leaf help to reduce the rate of water loss.

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(2 marks)