Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B1 Cell Biology

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Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Q1.

Pathogens are microorganisms that cause infectious diseases.

(a) What type of pathogen causes malaria?

Tick (✓) **one** box.

Bacterium ☐

Fungus ☐

Protist ☐

Virus ☐

(1)

(b) Give **two** methods used to prevent people catching malaria.

Give a reason why each method works.

Method 1 _____

_____

Reason _____

_____

_____

Method 2 _____

_____

Reason _____

_____

_____

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(4)

(c) Describe **two** differences between a bacterial cell and a eukaryotic cell.

1 _____

_____

_____

2 _____

_____

_____

(2)

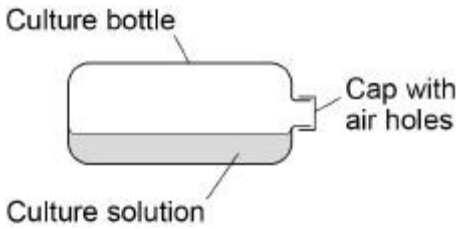
A scientist investigated the population growth of bacteria in a culture solution.

At the start of the investigation the culture solution contained all the nutrients the bacteria needed.

The scientist determined the number of living bacterial cells in the solution every hour over two days.

Figure 1 shows the apparatus used.

Figure 1



(d) Describe why there are air holes in the cap of the culture bottle.

_____

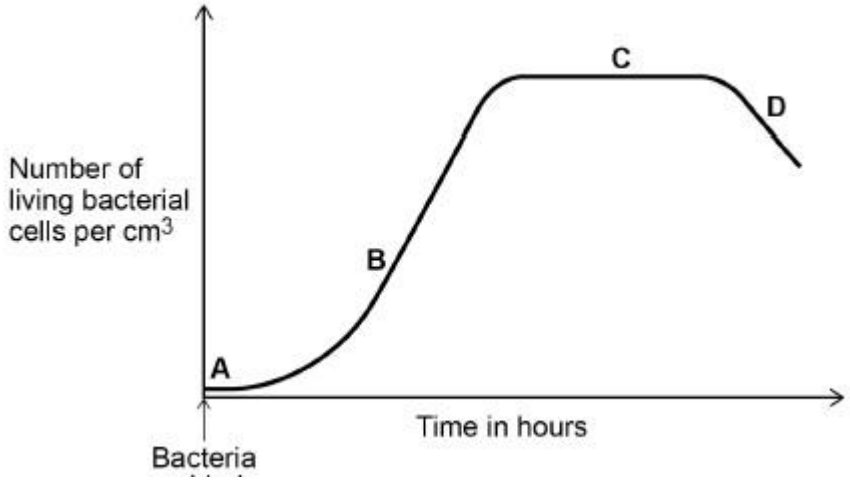
_____

(1)

Figure 2 shows the scientist's results.

Figure 2

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(e) Give **one** reason for what is happening to the number of bacteria at each of the stages.

Stage **A** _____

_____

_____

Stage **B** _____

_____

_____

Stage **C** _____

_____

_____

Stage **D** _____

_____

_____

(4)

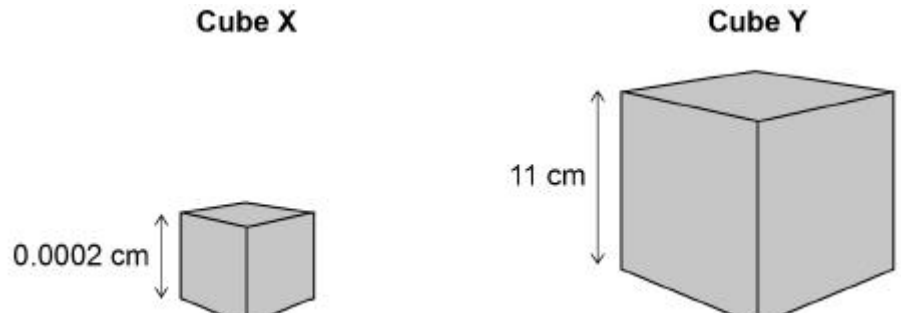
(f) **Figure 3** shows two cubes.

Cube **X** represents a bacterial cell.

Cube **Y** represents a small multicellular organism.

Figure 3

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A bacterial cell can absorb all the nutrients it needs by diffusion through its outer surface.

Explain why a multicellular organism **cannot** absorb all the nutrients it needs by diffusion through its outer surface.

You **must** include calculations in your answer.

Use **Figure 3**.

(5)

(Total 17 marks)

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