Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B3 Infection And Response

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Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Q1.

Hepatitis B is a liver disease caused by a virus. The virus is found in body fluids such as blood, saliva and urine. Diagram **1** shows the structure of the virus in cross section.

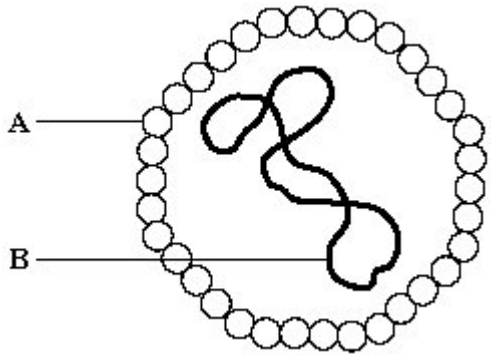
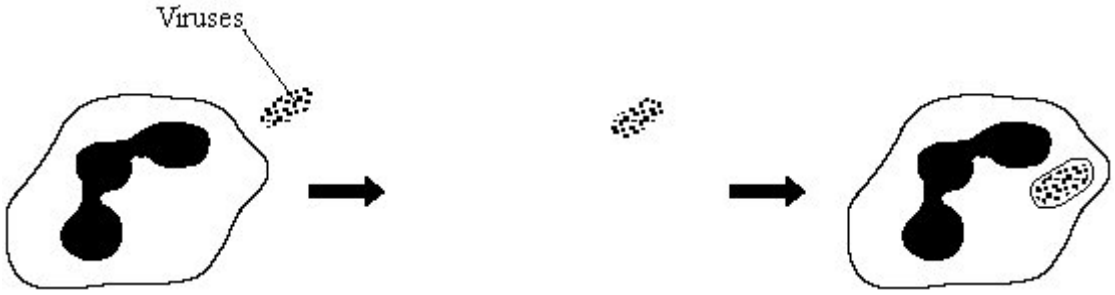


Diagram 1

(a) The human body has several natural defences against viruses. Some of these prevent viruses from entering the body. Others act once the viruses have entered.

(i) Diagram **2** shows a white blood cell attacking a group of viruses.

Complete diagram **2** by drawing the 2nd stage.



1st stage **2nd stage** **3rd Stage**

Diagram 2

(1)

(ii) What type of chemical is released by some white blood cells to attack viruses?

_____

(1)

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(b) Hepatitis B is more likely to be spread among people who share needles when they inject drugs. Use information given at the beginning of this question to explain why this is so.

_____

_____

_____

_____

(2)

(Total 4 marks)

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Q2.

The table shows changes in resistance to the antibiotic penicillin in one species of bacterium between 1991 and 1996.

Years	Percentage of cases where bacteria were resistant to penicillin
1991 – 92	7
1993 – 94	14
1995 – 96	22

A doctor was asked to treat a patient who had a sore throat.

(i) How does penicillin help to treat infection?

_____

(1)

(ii) Use the data in the table to suggest why the doctor should **not** prescribe penicillin.

_____

_____

_____

_____

(2)

(Total 3 marks)

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Q3.

Doctors give antibiotics to patients to kill bacteria in their bodies.

Explain how the overuse of antibiotics has led to the evolution of antibiotic-resistant bacteria.

To gain full marks in this question you should write your ideas in good English. Put them into a sensible order and use the correct scientific words.

_____

_____

_____

_____

_____

_____

(Total 3 marks)

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Q4.

(i) Give **two** ways in which white blood cells protect us from disease.

1. _____

_____

2. _____

_____

(2)

(ii) Explain, as fully as you can, how immunisation protects us from disease.

_____

_____

_____

_____

_____

_____

(3)

(Total 5 marks)

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Q5.

(a) Explain how diseases caused by bacteria are usually treated by doctors.

(2)

(b) Explain, as fully as you can, how white blood cells protect us from disease.

(5)

(Total 7 marks)

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