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

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Name of the Student:_____
Max. Marks : 25 Marks **Time : 25 Minutes**

Q1.

Pathogens cause infectious diseases.

(a) Draw **one** line from each disease to the type of pathogen that causes the disease.

Disease	Type of pathogen
	Bacterium
Gonorrhoea	
	Fungus
	Protist
Measles	
	Virus

(2)

The body defends itself against pathogens in different ways.

(b) Give **two** ways that the body prevents pathogens entering the body.

1. _____

_____

2. _____

_____

(2)

(c) If pathogens do enter the body the immune system tries to destroy the pathogens.

Describe how the immune system defends the body against disease.

_____

_____

_____

_____

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_____

_____

_____

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_____

_____

_____

_____

(6)

(d) Give **one** reason why antibiotics cannot be used to treat HIV infections.

_____

_____

(1)

(e) Give **two** ways to prevent the spread of HIV.

1. _____

_____

2. _____

_____

(2)

(f) Some people with a HIV infection develop AIDS.

Some people with AIDS may die from a different type of infection, such as a chest infection.

Why do people with AIDS die from a different type of infection?

Tick (✓) **one** box.

HIV damages the immune system.	☐
Pathogens enter the body more easily.	☐
People with AIDS are immune to HIV.	☐

(1)

(Total 14 marks)

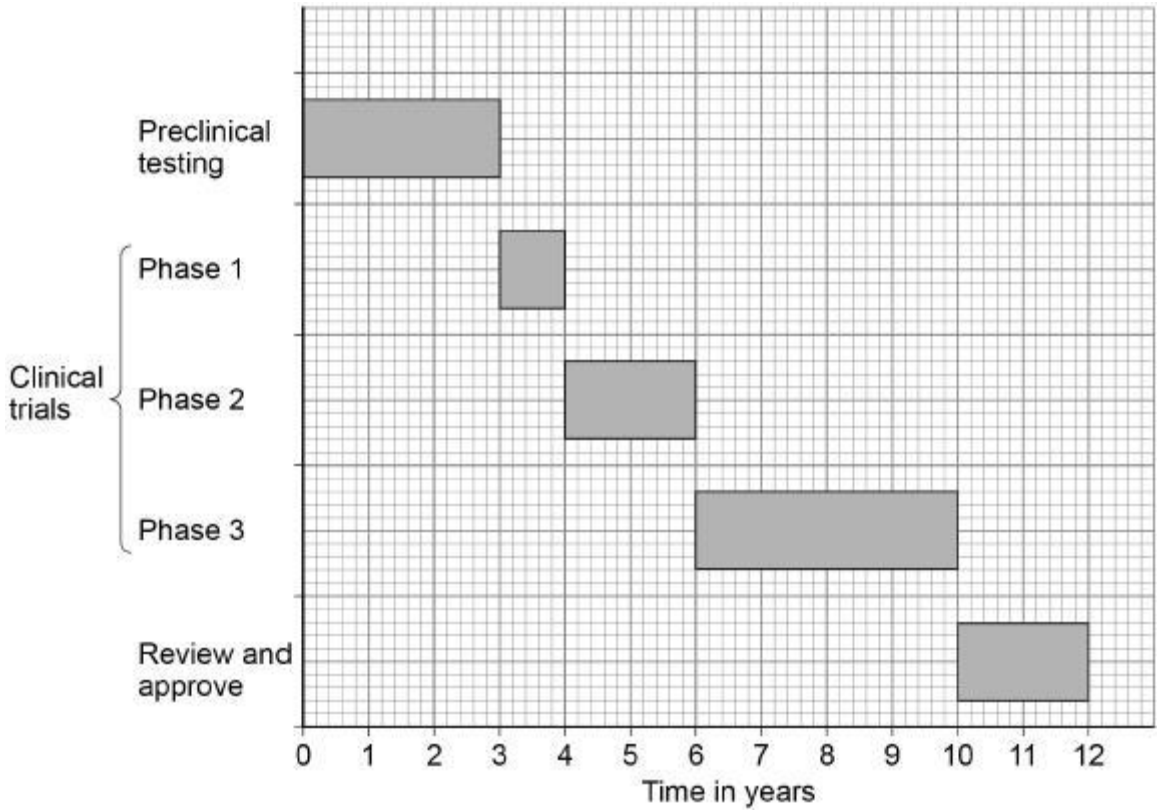
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Q2.

New drugs are tested before they can be licensed for use with patients.

Figure 1 shows how much time the different stages of testing took for one new drug.

Figure 1



(a) Preclinical testing is done in a laboratory.

What is the drug tested on in a laboratory?

Give **one** example.

_____

(1)

(b) How many years did the clinical trials take for the drug in **Figure 1**?

_____

_____

Time for clinical trials = _____ years

(1)

(c) During Phase 1 clinical trials, the drug is tested on **healthy** volunteers using **low** doses.

What is the main purpose of Phase 1 testing?

Tick (✓) **one** box.

To find the best dose to use. ☐

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To see if the drug is safe to use. ☐

To see if the drug works. ☐

(1)

During clinical trials, half of the patients are given a placebo in a double blind trial.

(d) What is a placebo?

_____

_____

(1)

(e) Who knows which patients are given the placebo and which patients are given the drug in a double blind trial?

Tick (✓) **one** box.

Not the patients or the doctors ☐

The patients and the doctors ☐

The patients but not the doctors ☐

(1)

Paracetamol and ibuprofen are two medicines used to reduce a high body temperature.

Doctors investigated which medicine was more effective at reducing high body temperature in 200 children who were ill.

The children were put into two groups, which were matched for:
- age
- gender
- body mass.

Each group had 100 children.

This is the method used.

1. Measure the body temperature of each child before any medicine is given.
2. Give children in Group 1 paracetamol.
3. Give children in Group 2 ibuprofen.
4. Measure the body temperature of each child every hour after the medicine is given.

(f) Give **two** control variables in this investigation.

1. _____

2. _____

(2)

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(g) None of the children was given a placebo.

Suggest **one** reason why.

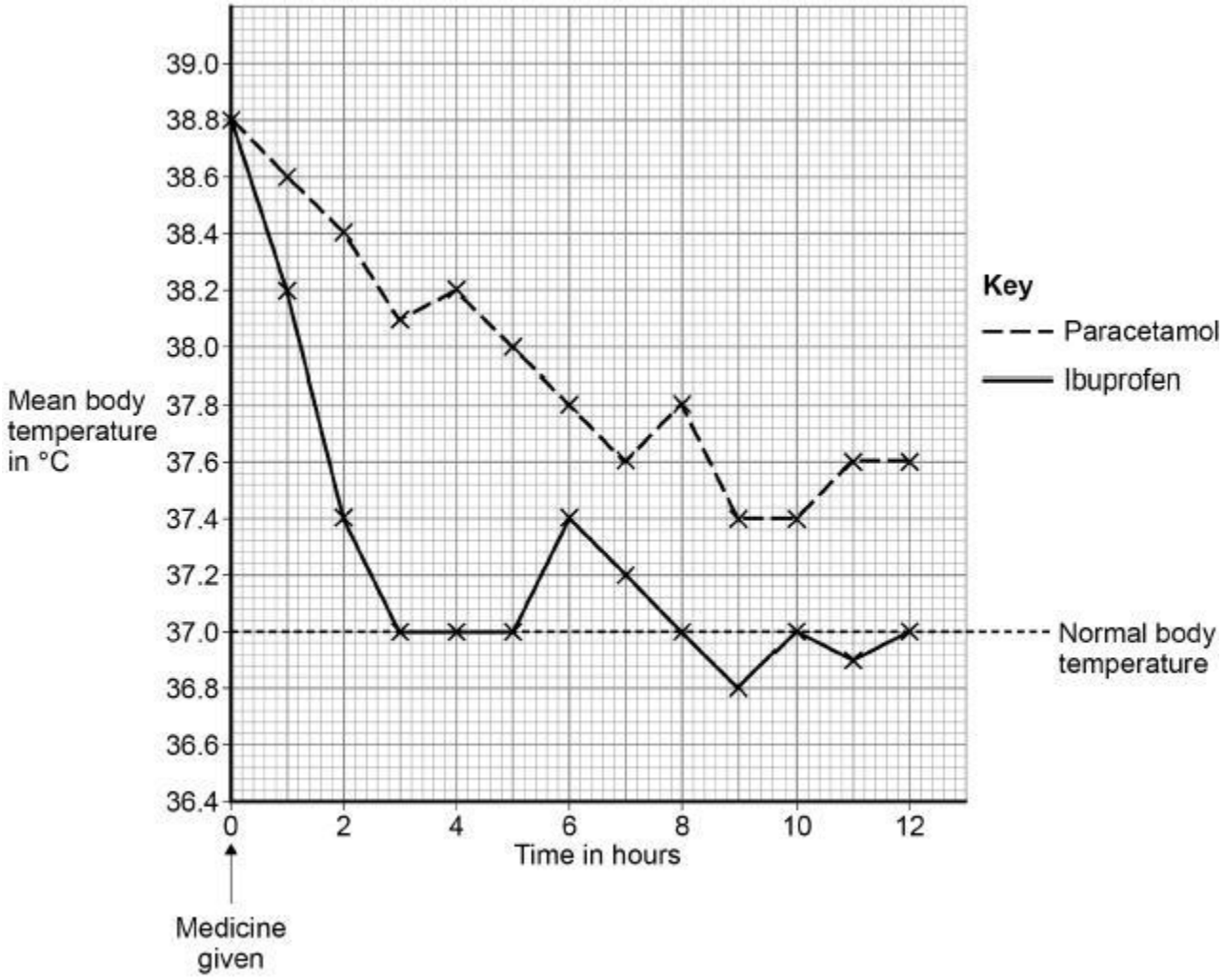
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_____

(1)

Figure 2 shows the results.

Figure 2



(h) What was the mean body temperature after 6 hours for the children given ibuprofen?

Mean body temperature = _____ °C

(1)

(i) The doctors concluded that children with a high body temperature should be given ibuprofen and not paracetamol.

Give **two** reasons for the doctors' conclusion.

Use **Figure 2**.

1. _____

_____

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2. _____

_____

(2)

(Total 11 marks)

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