10.1 Infectious Diseases

Question Paper

| Course | CIE A Level Biology (9700) exams from 2022 | | |
|------------|--|--|--|
| Section | 10. Infectious Diseases | | |
| Topic | 10.1 Infectious Diseases | | |
| Difficulty | Medium | | |

Time allowed: 10

Score: /10

Percentage: /100

The table below shows some statements about diseases.

| Statements | 1 | 2 | 3 | 4 | |
|-----------------------|----------|---|----------|----------|----------|
| degeneration of lung | √ | | | ✓ | |
| caused by virus | | ✓ | | | |
| can be treated with a | | | √ | √ | |
| infectious disease | | | √ | \ | √ |

key: √ = true

Match the 4 names diseases below to the statements above.

Which row gives the correct name for each disease?

| | 1 | 2 | 3 | 4 |
|---|--------------------|----------|---------|-------------|
| Α | bronchitis measles | | ТВ | smallpox |
| В | emphysema | measles | cholera | lung cancer |
| С | emphysema | HIV/AIDS | cholera | ТВ |
| D | lung cancer | HIV/AIDS | measles | lung cancer |
| | | | | |

Improvements in the supply of clean water, sewage treatment, insect control and a milk pasteurisation programme have all been undertaken in a village.

Which of these diseases that are present in the village will not be controlled by these actions?

- A cholera
- **B** HIV/AIDS
- C tuberculosis
- D Malaria

[1 mark]

Question 3

These are all methods of infectious disease transmission

| 1 | Vector |
|---|---------|
| 2 | contact |
| 3 | Food |
| 4 | droplet |

Which row correctly matches the organism with the mode of transmission of each of the diseases?

| | Malaria | ТВ | HIV |
|---|---------------|--------------------|--------------------|
| Α | bacterium, 3 | protoctist, 1 | bacterium, 1 and 3 |
| В | protoctist, 3 | virus, 1 | bacterium, 3 |
| С | protoctist, 1 | bacterium, 3 and 4 | virus, 2 |
| D | bacterium, 1 | virus, 3 and 2 | virus, 2 and 4 |
| | | | |

The following statements are about people infected with HIV/AIDS.

| 1 | They will have symptoms | | | |
|---|--|--|--|--|
| 2 | They can be treated and completely cured | | | |
| 3 | They may live for many years after infection | | | |

Which ones are correct?

- A 1 only
- **B** 1 and 2
- **C** 1 and 3
- **D** 3 only

[1 mark]

Question 5

After visiting a foreign country, a traveller starts to have fevers at regular intervals. They have blood tests during the fevers, these show a decrease in erythrocytes (anaemia).

Which disease does this person have?

- A cholera
- **B** HIV/AIDS
- C tuberculosis
- D Malaria

Which row shows the causative agent, the transmission method and method of control of each disease?

| | Disease | causative agent | transmission method | method of control |
|---|----------|--------------------|------------------------|--------------------------------|
| Α | ТВ | bacterium | air-borne | vaccination |
| В | malaria | bacterium | insect vector | antimalarial drugs |
| С | cholera | virus | waterborne | oral rehydration therapy (ORT) |
| D | HIV/AIDS | virus | intimate contact | antibiotics |
| | | | | |

[1 mark]

Question 7

Avian bird flu is caused by H5N1 virus. Scientists are concerned that this could affect humans and cause a pandemic.

Which of these measures would help prevent the spread of disease in humans?

| 1 | reducing the number of flights |
|---|--------------------------------|
| 2 | killing all birds |
| 3 | taking a course of antibiotics |

| | | " | | | | | | | |
|---|-----|-----|----|----------|------------|------|---------|----------|-------|
| ١ | л | Ir | ٦I | \sim r | $^{\circ}$ | nac | ara | α | rect? |
| ١ | / 1 | , , | | u | | 1162 | a_{1} | L J J J | 1561 |

A 1 only **B** 1 and 2 **C** 1 and 3 **D** 3 only

One of the most effective methods for preventing and controlling some diseases is tracking and tracing people who have been in contact with infected people.

Which of these diseases would this be the most effective method for?

- Sickle cell anaemia, as it is genetically inherited, so there is time to act Α before more individuals are affected.
- В Malaria, as it is transmitted by animals, so the transmission cycle of the pathogen can be broken.
- C Cholera, as it can be treated successfully with carefully selected antibiotics.
- Measles, as it can cause an epidemic and can be controlled by other D methods.

[1 mark]

Question 9

Which of the measures listed below would be a reason for increasing the spread of malaria?

| 1 | increasing resistance to antibiotics and other drugs |
|---|---|
| 2 | continued migration of people due to war and civil unrest |
| 3 increasing carbon dioxide levels causing global warming | |

Which of the statements above are correct?

A 1 and 2

B 1 and 3 **C** 2 and 3

D 1, 2 and 3

Which of the following is the best definition for non-infectious disease?

- A all diseases of old age
- **B** diseases caused by malnutrition
- **C** all diseases that are not caused by a pathogen
- **D** all diseases that can be transmitted from mother to child

