Diseases and immunity - 2020 IGCSE 0610

1. March/2020/Paper 12/No.21

Which disease is transmissible?

- A cholera
- B chronic obstructive pulmonary disease
- C lung cancer
- D scurvy

2. March/2020/Paper_22/No.14

The list shows some human health problems.

- 1 chronic obstructive pulmonary disease
- 2 constipation
- 3 coronary heart disease
- 4 obesity

Which problems can be caused by malnutrition?

- **A** 1, 2 and 3
- **B** 1 and 3 only
- C 2, 3 and 4
- D 2 and 4 only

3. March/2020/Paper_22/No.15

Cholera infection can cause the following events:

- 1 cells lining the small intestine secrete chloride ions
- 2 cholera bacteria produce a toxin
- 3 chloride ions move into the small intestine
- 4 water from the blood moves into the small intestine by osmosis
- 5 water potential of fluid in the small intestine becomes lower.

Which sequence of events will cause diarrhoea?

- $A \quad 1 \rightarrow 3 \rightarrow 2 \rightarrow 4 \rightarrow 5$
- $\textbf{B} \quad 2 \,\rightarrow\, 1 \,\rightarrow\, 3 \,\rightarrow\, 5 \,\rightarrow\, 4$
- $\mathbf{C} \quad 3 \rightarrow 1 \rightarrow 4 \rightarrow 5 \rightarrow 2$
- $\textbf{D} \quad 2 \,\rightarrow\, 3 \,\rightarrow\, 1 \,\rightarrow\, 4 \,\rightarrow\, 5$

4. March/2020/Paper_22/No.2

Using the binomial naming system, the Arctic fox is called Vulpes lagopus.

Which row is correct?

	Vulpes	lagopus	
Α	genus	kingdom	
В	genus	species	
С	species	genus	
D	species	kingdom	

5. June/2020/Paper_11/No.17

What is a chemical barrier to pathogens?

- A nose hairs
- B skin
- C stomach acid
- D white blood cells

6. June/2020/Paper_11/No.26

Which type of infection could be treated successfully with antibiotics?

abildoe

	infection caused by			
	bacteria	resistant bacteria	viruses	•
Α	✓	10	X	key
В	✓	X	×	√ = yes
С	X	1	✓	x = no
D	X	X	✓	

7. June/2020/Paper_12/No.17

What is a chemical barrier to pathogens?

- A nose hairs
- B skin
- C stomach acid
- D white blood cells

8. June/2020/Paper_12/No.26

Which statement about antibiotic use in humans is correct?

A Different types of antibiotic are used to remove antibodies from the body.

B Antibiotics are injected in childhood to prevent diseases in adults.

C Antibiotics are used to treat diseases caused by viruses.

D Different types of antibiotic are used because bacteria can become resistant.

9. June/2020/Paper_13/No.17

What is a chemical barrier to pathogens?

A nose hairs

B skin

C stomach acid

D white blood cells

10. June/2020/Paper_13/No.30

Which disease is an example of an STI?

A cholera

B COPD

C HIV

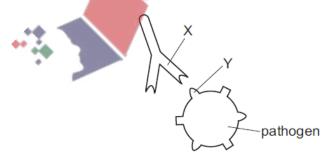
D lung cancer

11. June/2020/Paper 21/No.19

When a pathogen enters the blood, the immune system uses different mechanisms to destroy the pathogen.

Cambildoe

The diagram shows one of these mechanisms.



Which row describes the structures involved?

	structure X	X is made by	structure Y
Α	antigen	lymphocytes	antibody
В	antigen	phagocytes	antibody
С	antibody	lymphocytes	antigen
D	antibody	phagocytes	antigen

12. June/2020/Paper_21/No.27 The statements are about the use of antibiotics. using an antibiotic to prevent infection 1 2 using an antibiotic known to kill the bacteria causing an infection 3 using an antibiotic only when essential 4 using an antibiotic to treat a viral infection Which practices will increase the chance of the development of antibiotic resistance in bacteria? **A** 1, 2, 3 and 4 **B** 1 and 4 only **C** 2 and 3 only **D** 2 and 4 only **13.** June/2020/Paper_22/No.20 The formula C_2H_5OH represents a chemical produced during anaerobic respiration. What is this chemical? alcohol B glucose С glycogen D lactic acid 14. June/2020/Paper 22/No.19 The following are statements about immunity. The transfer of antibodies from mother to baby in breast milk is an example of passive immunity. 2 Passive immunity results in long term immunity because of the production of memory cells. Active immunity is gained after vaccination with antigens. Which statements are correct? **A** 1, 2 and 3 B 1 and 2 only C 1 and 3 only **D** 2 and 3 only

15. June/2020/Paper 23/No.19

Vaccinations can be given to gain active immunity.

Which statement about this type of vaccination is correct?

- A The vaccination contains antibodies.
- **B** The vaccination must contain harmful pathogens.
- **C** The vaccination triggers antibody production in the body.
- **D** The vaccination triggers antigen production in the body.

16.		e/2020/Paper_23/No.26 ich disease is caused by a virus?	
	Α	AIDS	
	В	kwashiorkor	
	С	cholera	
	D	MRSA infection	
17.	Bad	e/2020/Paper_43/No.5 cteria are classified in the Prokaryote kingdom. State two features of animal and plant cells that are not found in prokaryotes.	
		2	
			[2]

- **(b)** Methicillin-resistant *Staphylococcus aureus* (MRSA) is a type of bacterium that is resistant to some antibiotics.
 - Fig. 5.1 shows how a population of bacteria may develop antibiotic resistance and how the antibiotic resistance can be passed from one strain of bacterium to another.

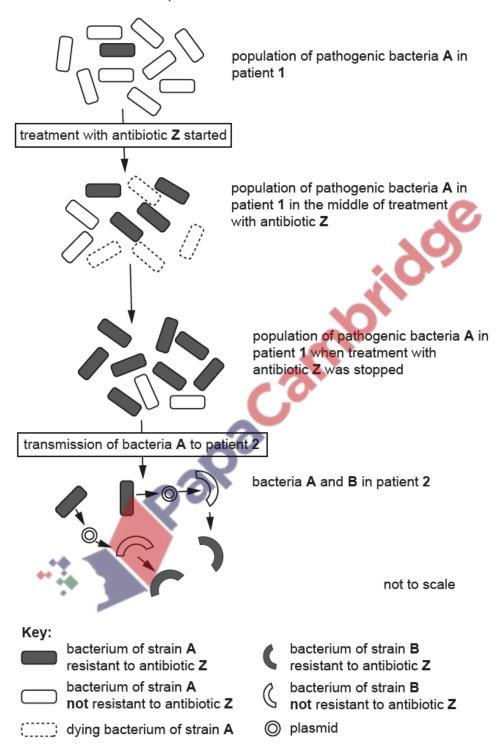


Fig. 5.1

the	plain how resistance to an antibiotic develops in a population of bacteria and spreads in human population.
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••	40
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x	plain how the development of resistant bacteria, such as MRSA, can be minimised.
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