FOUNDATION

1.3 Infection and Response: 10-minute Pack

AQA 8461 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Some diseases are spread by vectors such as mosquitoes which transfer pathogens without being infected themselves.

(a) Give one example of a disease spread by a vector. **(1)**

(b) State one method to reduce the spread of vector-borne diseases. **(1)**

(Total for Question 1 is 2 marks)

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2 A student writes three simple rules to reduce spread of infection: wash hands often, cover mouth when coughing, and keep wounds covered.

(a) Explain how washing hands often reduces spread of pathogens. **(1)**

(b) Explain how covering the mouth when coughing reduces spread of pathogens. **(1)**

(c) Explain how keeping wounds covered reduces spread of pathogens. **(1)**

(Total for Question 2 is 3 marks)

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3 Bacteria can reproduce rapidly by binary fission under ideal conditions.

(a) State what is meant by binary fission. **(1)**

(b) Give one condition that speeds up bacterial reproduction. **(1)**

(Total for Question 3 is 2 marks)

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4 White blood cells help defend the body against pathogens by making antibodies and by ingesting pathogens.

(a) State one function of white blood cells in defending the body. **(1)**

(b) Name the substance white blood cells make to help destroy specific pathogens. **(1)**

(Total for Question 4 is 2 marks)

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Mark scheme · 1.3 Infection and Response: 10-minute Pack

Question 1

(a) correct example e.g. malaria spread by mosquitoes **B1**

(a) Answer: Malaria spread by mosquitoes.

(b) correct method such as using insect nets, removing standing water, using insect repellent, or spraying insects, oe **B1**

(b) Answer: Use insect nets or remove standing water where mosquitoes breed.

Question 2

(a) removes microbes and dirt from skin so fewer pathogens transferred to others or to mouth/food, oe **B1**

(a) Answer: Washing hands removes microbes and dirt, so fewer pathogens are transferred to others or to food.

(b) stops droplets containing pathogens spreading into the air and onto surfaces, so fewer people inhale or touch them, oe **B1**

(b) Answer: It stops droplets with pathogens spreading into the air and onto surfaces, reducing transmission.

(c) a dressing covers the wound so pathogens cannot enter or leave easily, reducing contamination and spread, oe **B1**

(c) Answer: A dressing covers the wound so pathogens cannot easily enter or leave, reducing contamination.

Question 3

(a) a single bacterial cell divides into two identical daughter cells, oe **B1**

(a) Answer: A single bacterial cell divides to form two identical daughter cells.

(b) a correct condition, e.g. warm temperature, plenty of nutrients, or moist environment, oe **B1**

(b) Answer: Warm temperature (or plenty of nutrients or moist conditions).

Question 4

(a) ingest and destroy pathogens (phagocytosis) or produce antibodies to target pathogens, oe **B1**

(a) Answer: They ingest and destroy pathogens (phagocytosis) or produce antibodies to target pathogens.

(b) antibodies cao **B1**

(b) Answer: Antibodies.

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