

Name of the Student: _____

Max. Marks : 12 Marks

Time : 12 Minutes

Mark Schemes

Q1.

- (a) any **four** from:
- bacterial cell is smaller (than a plant cell)
allow converse statements 'it' refers to bacteria
 - bacterial cell does **not** have chloroplasts (plant cell does)
ignore chlorophyll
 - bacterial cell does **not** have its DNA / genetic material inside a nucleus (plant cell does)
*allow bacterial cell does **not** have a nucleus (plant cell does)*
allow bacterial cell has DNA / genetic material in a ring / loop (plant cell does not)
allow bacterial cell has DNA / genetic material free in cytoplasm
 - bacterial cell (may) have plasmids (plant cell does not)
 - bacterial cell does **not** have mitochondria (plant cell does)
 - cell wall in bacterial cells is **not** made of cellulose (cell wall in plant cells is)
 - bacterial cell does **not** have a large / permanent vacuole (plant cell does)
 - bacterial cell has smaller ribosomes (than plant cells)
*do **not** accept idea that bacterial cells do not have ribosomes*
allow bacterial cell (may) have a flagellum (plant cells do not)
allow bacterial cell (may) have a slime capsule (plant cell does not)
- (b) any **four** from:
- dead / inactive / weakened form of pathogen / bacterium / microorganism is introduced / injected
allow introduce / inject antigen(s) from the pathogen
allow dead / inactive / weakened form of Gonorrhoea (bacteria) introduced / injected
*do **not** accept inject Gonorrhoea disease*
 - white blood cells stimulated to produce antibodies

do **not** accept incorrect white blood cell, eg phagocyte

- reference to memory cells made or remain
- on re-exposure specific / correct antibodies are made (very) quickly
allow on re-exposure specific / correct antibodies are produced in large quantities
- bacteria / pathogens / microorganisms killed and do not produce a large enough population to cause the disease
allow bacteria / pathogens / microorganisms killed and do not produce a large enough population to produce toxins

4

- (c) fewer bacteria / pathogens in chicken / eggs / food
ignore references to immunity unqualified
allow fewer chickens / eggs will carry the bacteria / pathogens ignore chickens do not get disease / infected

1

(so) fewer bacteria are ingested (by humans)
allow idea of fewer bacteria being passed on to humans in food

or

fewer bacteria / pathogens ingested (by humans) (1)

(so) fewer toxins produced (1)
allow idea of fewer bacteria being passed on to humans in food (1)

1

- (d) wash hands before preparing food
ignore wash hands unqualified
allow good food hygiene

wash hands after using the toilet
allow clean areas where a person has been ill
allow do not shake hands (with someone who has food poisoning)

1

- (e) warmer weather so bacteria reproduce / increase faster
ignore bacteria are killed at low temperatures
allow food not cooked properly on barbeques

1

[12]