

Name of the Student: _____

Max. Marks : 24 Marks

Time : 24 Minutes

Mark Schemes

Q1.		
(a)	<u>kills</u> / destroys bacteria / MRSA <i>do not allow germs</i>	1
	prevents / reduces transfer <i>allow stops MRSA entering ward</i>	1
(b)	mutation <i>do not accept antibiotics causes mutation</i>	1
	(causes) resistance <i>allow not effective</i> <i>ignore immunity</i>	1
	to <u>antibiotics</u>	1
		[5]

Q2.

(wbc) ingest / digest pathogens / bacteria / viruses

allow eat germs

ignore swallow germs

ignore ingest the disease

ignore attack / kill the disease

1

(wbc) produce antibodies

1

(wbc) produce antitoxins

1

any **one** from:

- (antibodies) destroy or kill pathogens / bacteria / viruses / germs
ignore destroy / kill disease
ignore attack / fight pathogens
- (antitoxins) counteract / destroy / neutralise toxins / poisons
ignore attack / killing toxins
- reasonable reference to memory cells **or** rapid
production of antibodies upon re-infection

1

[4]

Q3.

- (a) testing for toxicity / see if it is safe / see if it is dangerous / to see if it works
ignore side effects unqualified 1
- (b) (i) testing for side effects / testing for reactions (to drug)
ignore to see if it works
*do **not** accept dosage* 1
- (ii) any **one** from
ignore immune system
- dose too low to help patient
 - higher risk for patient
 - might conflict with patient's treatment / patient on other drug
 - effect might be masked by patient's symptoms / side effects clearer
- 1
- (c) to find optimum dose
*allow testing on larger sample **or** it makes results more reliable*
allow to find out if drug is effective / find out if drug works on ill people
(not just if drug works) 1
- (d) (i) (tablet / drug / injection) that does not contain drug
allow control / fake / false
allow tablet / injection that does not affect body
*do **not** accept drug that does not affect body* 1
- (ii) neither patients nor doctors 1

[6]

Q4.

(a) any **two** from:

- arthritis
allow damaged joints
- diabetes
accept high blood sugar
- high blood pressure
- strokes
allow blocked blood vessels / thrombosis
- allow breathing difficulties
ignore cancer
ignore high cholesterol

2

(b) (i) any **two** from:

to gain marks there must be a comparison
ignore comparison at single age

- lower number of women deaths up to age of 75-80
- higher number of women deaths after 80
*ignore women die older **or** men die younger*
- men's peak higher
- men's peak at an earlier age
- men's death start earlier than women
- more men than women die of heart disease

2

(ii) any **two** from:

- men smoke more (cigarettes)
ignore alcohol
- more men smoke
- men under more stress
- men less active
- more men overweight / eat more / less diet conscious **or** different fat distribution
ignore reference to body size
- genetic factors
- men might have lower metabolic rate
ignore references to hormones
- men less likely to visit doctor even though they have symptoms

2

(c) *points can be in any order*

laboratory tests / tests on tissues

or

tests on animals

or

tests for toxicity

ignore computer simulations

1

tests for side effects on volunteers / healthy people / small numbers

1

widespread testing

or

testing for optimum dose

or

test on patients / sick people

or

test to see if it is effective

accept use of placebo

1

[9]