Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B3 Infection And Response

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Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Mark Schemes

Q1.

(a) (i) diagram shows extensions of intact cell membrane around viruses

1

(ii) antibodies

allow enzymes re (ii)
allow interferon
ignore antitoxins / proteins

1

(b) <u>virus</u> is transferred

1

(virus in) blood / body fluids – transfer (via needles)

1

[4]

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Q2.

(i) kills / destroys <u>bacteria</u> **or**
prevents growth of <u>bacteria</u>

*do **not** allow germs*

*do **not** allow fights or gets rid of*

1

(ii) any **two** from:

bacteria may be resistant / immune (treatment futile)
or bacteria would not be killed

accept descriptions from table
accept "fights" here

do not accept people resistant

may select for resistant type

may cause increased incidence of resistance or Penicillin less effective in future

sore throat might be due to a virus – Penicillin would not work

2

[3]

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Q3.

Quality of written communication

*for correct use of at least **two** scientific terms eg mutation, resistant (**not** just 'antibiotic-resistant', **not** 'immune') / selection / natural selection / survival / reproduction / gene / allele / DNA*

1

any **two** from:

mutation occurs in bacteria or change in DNA / gene occurs

cancel if mutation 'caused by' antibiotic

(when antibiotic used) only resistant bacteria survive **or** non-resistant bacteria are killed **or** reference to 'natural selection'

resistant bacteria pass on the gene / allele

allow pass on the mutation
*do **not** accept just 'pass on resistance'*

2

[3]

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Q4.

(i) 2 of:
ingest microbes;)allow higher level answers
produce antibodies;)allow cause and effect
produce antitoxins)eg antitoxins neutralise poisons = 2
each for 1 mark

2

(ii) injection of dead/weak microbes;
stimulates antibody production;
these can be produced again quickly on new infection
or remain for long time to 'combat' new infection
each for 1 mark

3

[5]

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Q5.

(a) use antibiotics; or named one to kill bacteria; (not microbes)

each for 1 mark

2

(b) some ingest/digest bacteria (not microbes) OWTTE
some produce antibodies;
which destroy bacteria/viruses;
some produce antitoxins;
which counteract poisons released by bacteria

each for 1 mark

5

[7]

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