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

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Name of the Student:_____
Max. Marks : 21 Marks **Time : 21 Minutes**

Mark Schemes

Q1.

(a) cell membrane

extra ticks negates marks

1

(b) engulf pathogens

1

produce antibodies

1

produce antitoxins

1

extra ticks negates marks

(c) 2050 − 100

1

= 1950

*allow **1** mark for a correct subtraction of incorrect values*

1

*an answer of 1950 scores **2** marks*

(d) any **one** from:

- (more) people vaccinated

  ignore injections / treatments / medicines unqualified
  allow vaccine produced
  allow (more people given) MMR (vaccine)
  *do **not** allow antibiotics*
  ignore less people infected

- (more) people immune
- no new measles strain

1

(e) any **one** from:

- measles is (caused by) a virus

  allow measles is not caused by a bacterium

- viruses cannot be killed / destroyed by antibiotics

  *allow antibiotics **only** kill / destroy bacteria*
  ignore harmed / treated

1

(f) any **one** from:

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- use of a barrier method of contraception
  ignore use of diaphragm
- use of a condom
  ignore use protection / safe sex
- vaccination / immunisation
- avoid sexual intercourse / contact
  *do **not** accept less sexual intercourse / contact*

1

(g) any **one** from:
- size / shape/ type of paper disc
  ignore paper disc unqualified
- concentration of antibiotic
  allow strength / dosage of antibiotic
- volume / amount of antibiotic
- (incubation) time
  allow 3 days
- (incubation) temperature
  ignore size of petri dish

1

(h) to check that the disc / water did not have an effect
or
to make sure it was the antibiotic that had an effect
allow for comparison with the antibiotics
allow as a (experimental) control
*do **not** accept as a control variable*

1

(i) (antibiotic) **A**
no marks if wrong antibiotic given

1

any **one** from:
- (antibiotic **A**) had the larg**est** clear area around it
- (antibiotic **A**) killed the **most** bacteria

1

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Q2.

(a) *an answer of 400 000 scores **2** marks*

840 000 − 440 000

allow tolerance of +/- half a small square

allow 840 − 440 = 400

1

400 000

1

(b) 2005 to 2010

1

(c) any **one** from:

- data not collected (for 2002)
- only shows a trend line
- not all deaths reported / recorded

allow no data plotted for 2002

1

(d) protist

1

(e) makes people immune
or
they do not develop the disease

allow ecf from part (d)

allow correct description of immunity

1

(so) fewer (infected) people to pass pathogen on (to mosquitos)

allow idea of disrupting life cycle of parasite

1

(f) any **one** from:

- (mosquito) nets / long clothing
- prevent mosquitos breeding

- insect repellents
- anti-malarial tablets

- kill mosquitos

allow specific method e.g. drain swamps, release GM mosquitos

allow DEET / mosquito band

allow names e.g. Larium / Malarone

allow antibiotics

1

[8]

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