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

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Name of the Student:_____
Max. Marks : 23 Marks **Time : 23 Minutes**

Mark Schemes

Q1.

(a) cancer

1

(b) any **one** from:

ignore cancer

- (coronary) heart disease / CHD / cardiovascular disease

  allow atherosclerosis

  ignore heart attack
- diabetes

  allow high blood pressure

  allow stroke / asthma / depression / gallstones / (osteo)arthritis

  allow sleep apnoea

1

(c) any **one** from:

- taxes on high energy / fat / sugar foods

  allow increase the price on high energy / fat / sugar foods
- education (about diet and health)
- (government) advertising
- restrict media advertising of high energy / fat / sugar foods
- information on food labels
- help / advice / groups for obese people via the NHS
- calorie information on restaurant / takeaway menus
- regulation of supermarket offers on high sugar / fat / energy foods
- regulation of type of foods for sale near checkouts
- exercise campaigns

1

(d) $\text{BMI} = \frac{69}{1.64^2}$

allow $\text{BMI} = \frac{69}{1.64 \times 1.64}$

allow $\text{BMI} = \frac{69}{2.6896}$

1

BMI = 25.6(5437....)

allow 26 or 25.7

1

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(the person's BMI category is) overweight

must be consistent with their calculated BMI value

1

(e) any **one** from:

- women will gain mass / weight (during pregnancy)

  allow BMI (of woman) will increase (during pregnancy)
- (developing) baby will increase mass / weight of woman

1

(f) any **two** from:

- smokers had babies with lower birth mass
- women / smokers / non-smokers with higher BMI had heavier babies

  allow obese women have the heaviest / heavier babies

  allow underweight women have the lightest / lighter babies
- smoking had the greatest effect on birth mass in underweight women
- smoking had the least effect on birth mass in overweight women
- smoking had less effect on birth mass in overweight and obese women (than in underweight and healthy weight women)

  allow there is only a 365 g difference between the smallest and largest babies

2

statements must be comparative

allow converse statements

allow weight for mass

(g) coughs / sneezes (spread virus in droplets)

allow breathing out (spreads virus in droplets)

1

droplets / virus are inhaled

allow droplets / virus are breathed in

ignore contact with infected person unqualified

1

assume 'it' refers to the virus

*allow touch a contaminated surface **and** then touch your mouth / nose / eyes for **1** mark*

*if no other marks awarded allow kissing for **1** mark only*

(h) $\frac{17}{100} \times 67\,961\,900$

allow 0.17 x 67 961 900

1

= 11 553 523

allow 11 553 500

1

(i) any **one** from:

- dry feet thoroughly (after washing)

  allow use foot powder

  ignore keep feet dry

  ignore wash feet regularly
- do not share socks / tights / shoes / towels
- use a fungicide

  allow named fungicide

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allow wear silver(-impregnated) socks

- do not walk around barefoot in public / contaminated areas

  allow wear flip flops in public / contaminated areas

  ignore avoid moist conditions

1

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Q2.

(a) both have a cell membrane

1

both have cytoplasm

1

(b) any **one** from:

- fever
  - *allow high temperature*
  - *allow sweating / chills*
- abdominal / stomach cramps
  - *ignore vomiting / sickness / diarrhoea*
  - *ignore feel unwell unqualified*
  - *ignore rashes*

1

(c) penicillin

allow phonetic spelling

1

(d) any **one** from:

- only a few bacteria killed so live bacteria continued to reproduce
  - *allow bacteria reproducing when course started*
- time delay before antibiotic reached bacteria
  - *allow takes time (for antibiotic) to travel through the body*
- time delay before antibiotic could kill bacteria
  - *allow takes time (for antibiotic) to work*

1

(e) there were fewer toxins in the body than at day 0

1

(f) to reduce / prevent resistant strains / bacteria developing

ignore references to bacteria becoming immune

or

to reduce / prevent antibiotic resistance (in bacteria)

allow because they will get better without taking any antibiotics
ignore body will fight the infection unqualified
allow some infections are caused by viruses
allow because they have been told not to by NHS / NICE

1

(g) B

1

(h) D

1

[9]

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