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) (i) decrease

1

rate of decrease slows

1

(ii) any **one** from:

- more use of disinfectant

  allow any reasonable increase in hygiene or sterilisation precautions
- more use of hand washing
- more careful / more often cleaning of patient facilities
- raised awareness / education about hygiene

1

Explanation:
stops / reduces the bacteria being transferred / spreading

1

(iii) 800 – 500 / 800 × 100 =

1

37.5 (%)

*correct answer with or without working gains **2** marks*

1

(iv) any **one** from:

- numbers quite low now so hard to reduce further
- was a big campaign / much publicity (in 2009) so more people already doing it
- hygiene / cleaning now good so hard to improve
- hospitals short of money so less staff to clean

1

(b) mutation occurred giving resistance (to methicillin)

*do **not** accept overuse caused mutation*

1

resistant bacteria not able to be treated / not killed

1

these bacteria multiplied / reproduced / spread quickly

1

[10]

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Q2.

(a) hearsay

1

(b) (volunteers with feet in) empty bowls

accept bowl with no (iced) water

*do **not** accept mention of bowl with iced water*

1

(c) any **three** from:

ignore control variables, eg age, gender

- only some of those whose feet were in cold water caught colds
- some controls caught colds
- only feet were cold in experimental group

  allow (control) not wrapped up warm
- only kept feet in cold water for 20 minutes
- insufficient evidence for 'proof' / only showed increased risk

  allow small sample size
- don't know activities of individuals before / after the investigation (eg exposure to cold virus) / reference to immune system

  allow investigation done in 'cold season'

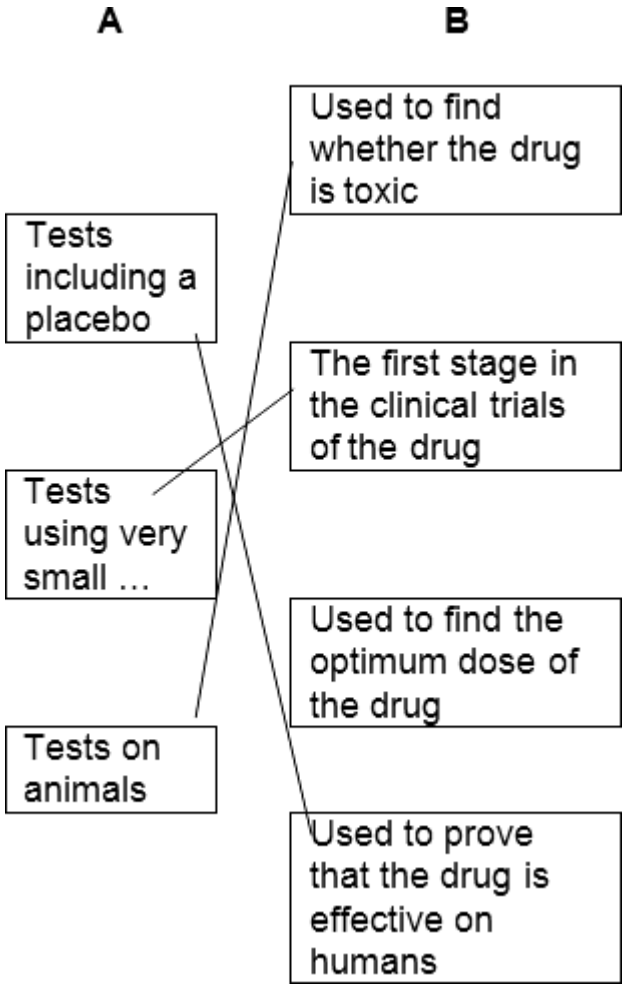
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Q3.

(a)



1 *mark for each correct line*

mark each line from left hand box

two lines from left hand box cancels mark for that box

3

(b) any **three** from:

Students have been informed that the headline is not justified

- reference to reliability, eg only a small number of mice tested
  or trial too short
  or investigation not repeated

- reference to control, eg mice given caffeine <u>not</u> coffee
  or 6 cups (equivalence) is more than 1 dose

- (and) the effect on mice might not be same as on humans

  allow only tested on mice

- (also) text suggests that the treatment improves memory loss (rather than delays it)

  accept text suggests disease cured

  or mice already have memory loss or experiment only showed improvement in memory
  or does not show **delays** Alzheimer's
  or experiment not done on old mice

  allow reference to the fact that mice engineered to have it

3

[6]

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