Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B2 Organisation

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

Mark Schemes

Q1.

(a) any **two** from:

- same result at pH 7 and 7.5
  or
  could be any pH between 7 and 7.5
  or
  not tested at pH 7.25
  or
  need to test at smaller pH intervals (between 7 and 7.5)
- accuracy of result only to nearest 0.5 minutes
- no repeats
- difficult to determine end point (colour)

2

(b) 2.7 / 5

1

0.54 (units per minute)

*allow 0.52 with no working shown for **2** marks*

1

*allow **1** mark for 0.52 **or** 0.56*

(c) (after 10 minutes) solution goes black

1

(after 60 minutes) solution stays the same
or
does not go black
or
goes slightly orange

1

(d) steeper curve

1

levels off at 11.8 units **and** before 45 minutes

1

[8]

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Q2.

(a) (i) without <u>oxygen</u>

allow not enough oxygen

ignore air

ignore production of CO_2

ignore energy

1

(ii) more / high / increased lactic acid (at end)

allow approximate figures (to show increase)

ignore reference to glucose

1

(b) (i) 1.5

allow only 1.5 / 1½ / one and a half

1

(ii) increases at first **and** levels off

ignore subsequent decrease

1

suitable use of numbers eg
rises to 10 / by 9 (dm^3 per min)
or
increases up to 1.5 (min) / levels off after 1.5 (min) (of x axis timescale)

allow answer in range 1.4 to 1.5

or
after the first minute (of the run)

1

(iii) supplies (more) oxygen

1

supplies (more) glucose

1

need 'more/faster' once only for full marks

*allow removes (more) CO_2 / lactic acid / heat as an alternative for either marking point one **or** two, **once** only*

for (more) respiration

1

releases (more) energy (for muscle contraction)

*do **not** allow energy production or for respiration*

1

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Q3.

(a) guard (cells)

allow phonetic spelling

1

(b) (i) as carbon dioxide (concentration) increases, the (mean) number of stomata decreases

allow there is a negative correlation

1

(there is a) rapid drop initially

allow use of any number between 1.5 and 3.0 to indicate "initially"

1

(ii) (there is) more carbon dioxide so plant doesn't need as many stomata (to obtain the amount needed)

or

(there is) less carbon dioxide so the plant needs more stomata (to obtain enough)

1

(c) (i) may lose too much water

allow plant may wilt

ignore references to oxygen / carbon dioxide

plants lose a lot of water is insufficient

ignore flaccid

1

(ii) any **one** from:

- hot
- dry
- windy

ignore environments unqualified eg desert

1

[6]

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