Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B4 Bioenergetics

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Name of the Student:_____
Max. Marks : 24 Marks **Time : 24 Minutes**

Mark Schemes

Q1.

(a) oxygen;)
carbon dioxide;) *allow symbols*
water)
each for 1 mark

3

(b) graph with reasonable vertical scales;
accurate plotting of all points (ignore lines) and labelling lines
histogram – must be coded
gains 3 marks

3

(c) 6 of:
during exercise the level of CO_2 (in the blood) rises;
increased breathing to remove excess CO_2;
increased oxygen supply to muscles;
or increased breathing takes in more O_2
or increased heart rate takes more O_2 to muscles;
increased supply of sugar to muscles;
increased respiration rate;
enable faster rate of energy release;
reference to lactic acid (allow even though not on syllabus)/O_2 debt;
to avoid cramp;
anaerobic reference;
reference to removal of 'heat';

6

(d) high carbon dioxide concentration;
brain/central nervous system;
heart muscles (both)

3

[15]

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Q2.

Does not contain chlorophyll which is needed to absorb light **or** energy

each for 1 mark

[2]

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Q3.

(a) glucose/sugar water

for 1 mark each

2

(b) (i) 204

for 1 mark

1

(ii) 49 **gains 2 marks**

(incorrect answer, but correct method gains 1)

2

(iii) 3 **gains 2 marks**

(incorrect answer, but correct method gains 1)

2

[7]

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