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

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Name of the Student:_____
Max. Marks : 15 Marks **Time : 15 Minutes**

Mark Schemes

Q1.

(a) (i) 214 (billion tonnes)

*allow **1** mark for reading 122 and 92 correctly*

*allow **1** mark for the correct addition of incorrect readings*

2

(ii) 18.35

allow 18.4

*do **not** allow 18.3*

1

(b) (i) (only) a small mass of carbon (dioxide) is released from burning fuels (compared to other processes)

allow the carbon (dioxide) released from other processes / respiration and decomposition is (much) greater

1

(ii) any **two** from:

- (more) plants would absorb (more) carbon (dioxide)
- (due to more) photosynthesis

an idea of more is needed at least once

- fewer animals would release less carbon (dioxide)
- (due to less) respiration (in animals).

an idea of a reduction is needed at least once

ignore references to oxygen

2

[6]

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Q2.

(a) glucose ⟶ ethanol + carbon dioxide

allow sugar for glucose

allow correct formulae

ignore attempts at balancing

1

(b) (i) filtration

1

(ii) (fractional) distillation

allow evaporation then condensation

1

[3]

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Q3.

(a) light → chemical

both answers needed

1

(b) (i) 8.3 / 8 / 8.3 recurring

*allow 4/48 or 2/24 or equivalent or 0.08(3) for **1** mark*

2

(ii) any **three** from:

- respiration
  *do **not** allow **for** respiration*
  allow (lost as) heat
- to keep warm
  ignore evaporation / sweating
- for movement
- in waste materials / urea / faeces / carbon dioxide
  allow excretion
- in eggs
  ignore growth

3

[6]

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