

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

Name of the Student: _____

Max. Marks : 21 Marks

Time : 21 Minutes

Mark Schemes

- Q1.
- (a) (reactants)
water
allow H₂O
1
- (products)
oxygen
allow O₂
1
- (b) C₆H₁₂O₆
1
- (c) any **two** from:
• respiration
allow energy (source)
*do **not** accept energy produced / made / created*
*do **not** accept energy for respiration*
• to convert to starch
allow produce / store starch
• to produce / store fat / oil
• to produce cellulose
• to produce amino acids **or** to produce protein
ignore used for growth of the plant
2
- (d) higher / increase in temperature
allow warmer
or
more carbon dioxide
allow combustion / burning releases carbon dioxide
1
- (so) more photosynthesis
allow faster photosynthesis
1
- (so) more glucose / sugar made
1
- (so) more protein / cellulose made
1

[9]

Q2.

- (a) D 1
- (b) B 1
- (c) (in / through / via) blood(stream)
allow (in / through / via) plasma
allow (in / through / via) blood vessels
allow (in / through / via) arteries / veins / capillaries 1
- (d) insulin 1
- (e) glucose is converted to glycogen 1
- glucose moves from the blood into the cells 1
- (f) 8:30 (am)
allow 8:25 – 8:35 (am)
allow time written in words 1
- (g) any value in the range ≥ 6.5 to ≤ 20 (mmol/dm³) 1
- (h) any **two** from:
- low carbohydrate diet
allow low calorie / fat / sugar diet
allow eat fewer (sugary) snacks
 - exercise (regime)
allow description of exercise
 - lose body mass
allow lose weight
allow (metformin) tablets to reduce blood glucose
- 2
- (i) (less) respiration 1
- (so) less energy released / transferred
*do **not** accept energy produced / made / created*
- or**
less muscle contraction 1

[12]