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

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Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Mark Schemes

Q1.

(a) any **two** pairs from:
- light (intensity)
- more light means more / faster photosynthesis / glucose

1
1

- temperature
- higher temperature more / faster photosynthesis

1
1

- water
- right amount for transpiration / cell function / photosynthesis

- soil pH / ions
- needed for healthy growth

ignore 'growth' unqualified

ignore carbon dioxide and oxygen

(b) hand lens

1

moth guide

1

(c) any **one** from:
- can work gently and not disturb moths
- moths might fly away outside

1

(d) any **one** from:
- damage to eyes (from UV / bright light)
- burns from hot lamp
- diseases / pathogens from wild organisms

1

(e) any **one** from:
- wear sunglasses
  or
  eye protection
- wear gloves or allow lamp to cool.
- wear gloves
  or
  wash hands after handling moths

answer must relate to hazard

1

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(f) bristles / hairs make it unpleasant to eat

or

bright colour acts as warning to predators (that it is poisonous)

1

[10]

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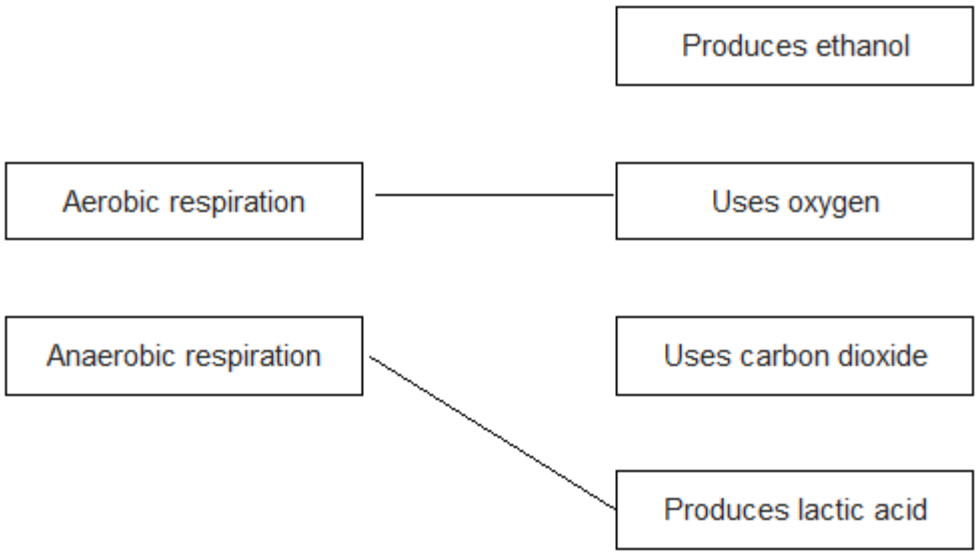
Q2.

(a)



an extra line from a LH box negates that mark

2

(b) any **one** from:

- not enough oxygen present (for aerobic respiration)
- more energy required for exercise (than can be transferred by aerobic respiration)

1

allow named example for exercise

(c) produces carbon dioxide

1

produces ethanol

1

plus any **two** from:

- (carbon dioxide) makes bread rise
- (carbon dioxide) makes beer / cider / (some) wines fizzy

  allow for alcoholic drinks / named drink
- (ethanol) is the alcohol in beer / cider / wine / spirits

2

[7]

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