

**AQA, OCR, Edexcel**

# GCSE Science

## GCSE Biology

### Aerobic Respiration Part 2 Answers

Name:

**M M E**

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Total Marks: /18

Q1: Define anaerobic respiration.

A= 1 mark for each of the following points:

- Exothermic reaction
- In absence of oxygen

(2 marks)

Q2: i) What by-product does anaerobic respiration in yeast produce?

A= Carbon dioxide + Ethanol

(1 mark)

ii) What by-product does anaerobic respiration in animals produce?

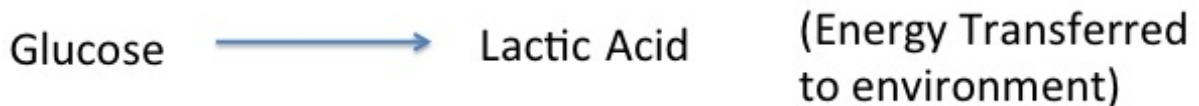
A= Lactic acid

(1 mark)

Q3: Give the word equation for anaerobic respiration in animals produce.

A= 1 mark for equation

1 mark for energy transfer



(2 marks)

Q4: When does anaerobic respiration take over from aerobic respiration in humans?

A= Heavy exercise/ Energy deficit

(1 mark)

Q5: Why does lactic acid build up occur?

A= Incomplete breakdown of glucose.

(1 mark)

Q6: i) What is oxygen debt?

A= Amount of oxygen needed to breakdown lactic acid

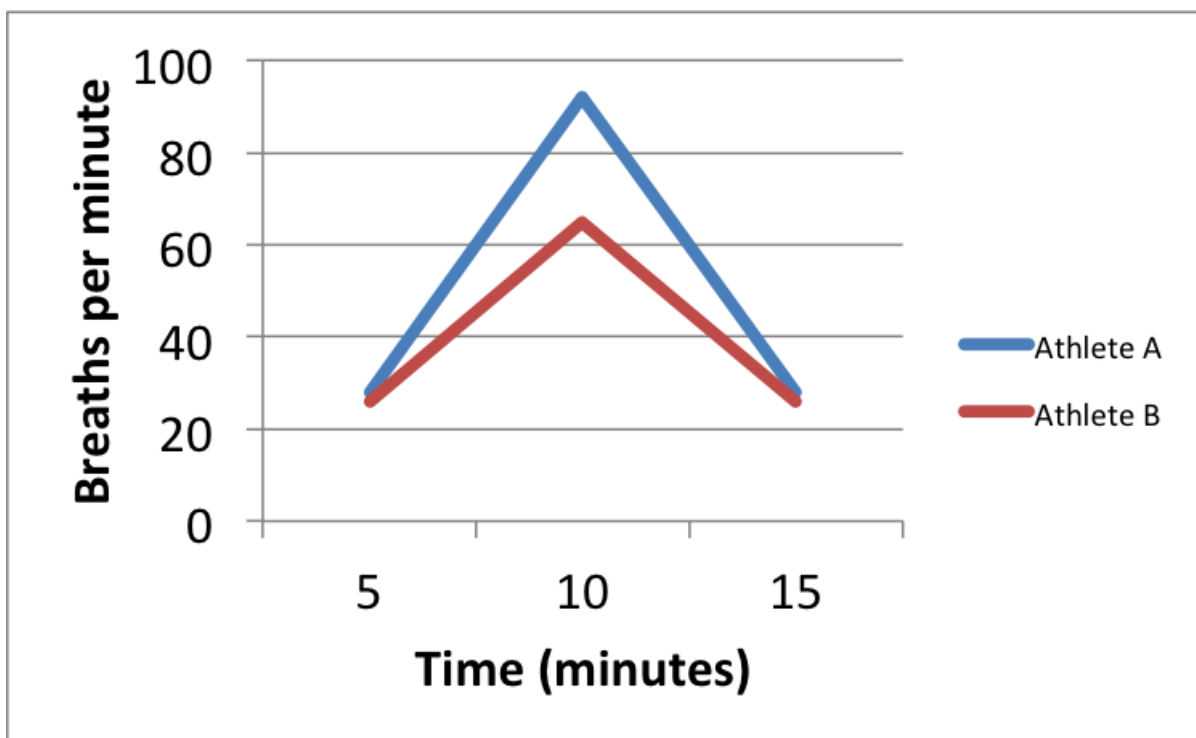
(1 mark)

ii) What is the effect of a large lactic acid build up after a race?

A= Out of breath for longer / Puff and pant

(1 mark)

Q7: i) Using the graph below, which athlete has a better fitness level?



A= B

(1 mark)

ii) Explain your answer to part i.

A= Accept one of the following:

- Athlete B has a quicker recovery
- Lower oxygen debt

(1 mark)

Q8: State the word equation for anaerobic respiration in microorganisms.

A = 1 mark for equation

1 mark for energy transfer



(2 marks)

Q9: What effect is seen in the muscles when there is a build up of lactic acid?

A= Aching

Also accept sore muscles

(1 mark)

Q10: Give 2 examples when manufacturers use anaerobic respiration.

A= 1 mark for each following points:

- Alcohol
- Bread making

(2 marks)