QUESTIONS Page 45

Question 1

10 X [1] = [10]

1. Adenosine Tri Phosphate (ATP) 2. Mitochondrion 3. GlycoLysis 4. Oxygen 5. Anaerobic 6. Chemical Energy 7. Cristae 8. Lactic Acid Fermentation 9. Oxidative Phosphorelation 10. Enzymes

Question 2

1. Mitochondrion [1]
2. A=PhotoSynthesis B=Respiration [2]
3. 2=Oxygen 3=Carbon dioxide 4= Oxygen 6=Carbon dioxide [4]

(a) 5=Glucose [1]

(b) An alcohol called Ethanol + Carbon dioxide [3]

Question 3

1. Water. Glasstube. Thistle funnel. Germinating seeds. Clear lime-water. [5]
2. Active respiration is happening in all of them. [2]
3. The clear lime-water turns a milky-white colour. [2]
4. This is the Control – you boil them to kill the seeds. [2]
5. Exactly the same apparatus as for the Experiment, except that the seeds are dead – they cannot respire to release CO_2. [3]
6. The process of Respiration releases carbon dioxide. [2]

Question 4

1. It absorbs carbon dioxide. [2]
2. Seeds are kept above the liquid, and gases can easily move between them. [2]

3. It moved, from A to B. [3]
4. The released gas (CO_2) was absorbed by the potassium hydroxide. The seeds were sucking in oxygen. This caused the gas in the tube to be sucked in – as is shown by the coloured liquid. [4]
5. <u>Question 5</u>

1. Both involve glucose.

   Both use ATP as the energy-carrier. [2]
2. Humans produce Lactic Acid

   Yeast produces alcohol and CO_2. [2]

3. Breaking down food to release energy, without using Oxygen. [2]
4. When we do excess exercise – lots of energy is needed, with not enough oxygen. [2]