Practice Question Set For A-Level
Subject : Biology
Paper-2 Topic:5 Energy Transfer In And Between Organisms

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Name of the Student:_____
Max. Marks : 13 Marks **Time : 13 Minutes**

Q1.

In the light-dependent reaction of photosynthesis, light energy generates ATP.

Describe how.

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(Total 5 marks)

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Q2.

(a) The biochemical pathway of aerobic respiration involves a number of different steps.

Name **one** step in which carbon dioxide is produced.

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(1)

In an investigation, scientists transferred slices of apple from air to anaerobic conditions in pure nitrogen gas. They measured the rate of carbon dioxide production.

(b) The scientists kept the temperature constant throughout the investigation. Explain how a decrease in temperature would affect the rate of carbon dioxide production.

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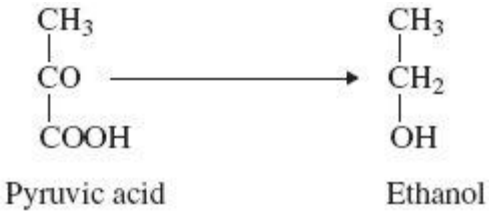
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(2)

(c) When the apple slices were transferred to nitrogen, the following biochemical pathway took place.



Pyruvic acid Ethanol

Use this pathway to explain the part played by reduced NAD when the apple slices were transferred to nitrogen.

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(2)

(d) The rate of carbon dioxide production was higher when the apple slices were in nitrogen than when they were in the air. Explain why.

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(3)
(Total 8 marks)

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