

# Respiratory system

## Question Paper

Level	Pre U
Subject	Biology
Exam Board	Cambridge International Examinations
Topic	Animal physiology
Sub Topic	Respiratory system
Booklet	Question Paper

**Time Allowed:** 16 minutes

**Score:** /13

**Percentage:** /100

**Part - A**

- 1 (a) ATP is often known as the universal ‘energy currency’.

Outline how ATP is suitable for acting as an energy currency.

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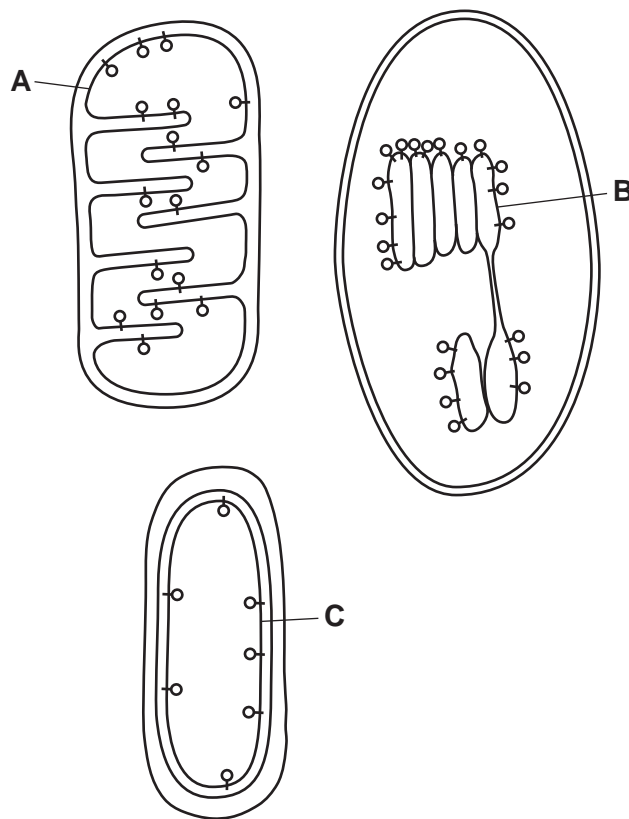
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..... [3]

Most ATP is made in cells by membrane systems that create proton gradients by pumping protons from one compartment to another.

Fig. 4.1 shows three such membrane systems.



**Fig. 4.1**

(b) (i) Identify the precise location of membranes **A**, **B** and **C**.

**A** .....

**B** .....

**C** ..... [3]

(ii) Draw arrows onto each of the membrane systems in Fig. 4.1 to show the direction in which protons are pumped. [1]

(iii) Outline how energy is made available for pumping protons across such membranes.

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(iv) Explain how ATP synthase is involved in the production of ATP.

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**[Total: 13]**