

## SECTION B

**Spend a total of 30 minutes on this section** (5 min planning & 25 min writing your answer).

Below is a photograph of a Koala, *Phascolarctos cinereus* (fig.1). It is a **herbivorous mammal** that climbs **eucalyptus trees** by contracting various **muscles**, including those in its paws, arms and legs.



**Fig. 1:** *Phascolarctos cinereus* or Koala

Demonstrate the breadth and depth of your biological knowledge, by **planning** and **writing** concisely about the following:

‘Describe the complex **biological** journey carbon atoms (from molecules of carbon dioxide in the atmosphere) take to reach the muscular arm of a Koala and explain how these carbon atoms contribute towards this mammal’s ability to tree climb.’

**Please spend 5 minutes planning your answer on the next page.**

**Marks for Section B will be awarded as follows:**

1. Your plan (maximum of 5 marks)
2. Your written answer:
  - Scientific content (maximum of 20 marks)
  - Creativity & quality of written communication (maximum 5 marks)

## SECTION B (CONT.)

**PLAN** (spend 5 minutes planning your answer)

Use the table below to help plan your answer. Decide which topics you will include in your written answer and in what order by numbering them 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> etc.

| TOPIC                  | Topics will appear in my answer<br>in the following order |
|------------------------|-----------------------------------------------------------|
| Biological molecules   |                                                           |
| Cells & tissues        |                                                           |
| Circulatory system     |                                                           |
| Digestion              |                                                           |
| Enzymes                |                                                           |
| Gas exchange in plants |                                                           |
| Nervous system         |                                                           |
| Respiration            |                                                           |
| Photosynthesis         |                                                           |

The space below is for constructing your plan.