

The brain: practice questions

4 questions • 10 marks • mark scheme at the back

For Edexcel GCSE Biology 1BI0 and Combined Science 1SC0. **Triple only** is not in Combined Science. **Higher tier** is only on the Higher paper.

Name

Total / 10

1 **Triple only** [1 mark]

Which part of the brain controls heart rate and breathing rate?

- A. ☐ Cerebellum
- B. ☐ Cerebral hemispheres
- C. ☐ Medulla oblongata
- D. ☐ Retina

2 **Triple only** [3 marks]

State one function of each of the cerebral hemispheres, the cerebellum and the medulla oblongata.

3 **Triple only** **Higher tier** [3 marks]

Explain how CT scans and PET scans help doctors to investigate the brain.

4 **Triple only** **Higher tier** [3 marks]

Explain why it is difficult to treat a spinal injury and a brain tumour.

Mark scheme

One mark for each point unless a maximum is given. Words in brackets are not needed for the mark.

1. [1] Triple only

C C (1)

2. [3] Triple only

- cerebral hemispheres: any one of consciousness, intelligence, memory, language (1)
- cerebellum: coordinates movement / helps to control balance (1)
- medulla oblongata: controls unconscious activities such as heart rate and breathing rate (1)

3. [3] Triple only Higher tier

- brain tissue is difficult to access / is inside the skull (1)
- CT scans show the structure of the brain / damage or tumours (1)
- PET scans show function / which areas of the brain are active (1)
- without surgery (1)
- Max 3

4. [3] Triple only Higher tier

- neurones in the spinal cord / CNS do not easily repair themselves (1)
- impulses cannot pass the damaged region, so paralysis or loss of feeling can be permanent (1)
- surgery to remove a tumour can damage healthy brain tissue / the tumour may be in a place that cannot be reached safely (1)