

Class: _____

5.1 The central nervous system

1 Explain the difference between grey matter and white matter.

- 2** Compare the location of grey and white matter in the brain with their location in the spinal cord.

- 3** The white matter of the brain is made up of bundles of myelinated nerve fibres called tracts.

- a** What is myelin?

- b** What is a nerve fibre?

- c** List the three types of tracts in the white matter of the brain.

- 4 Sketch a diagram of the brain showing the cerebrum, cerebellum, medulla oblongata, pituitary gland and hypothalamus.

- 5 Complete the following table to summarise the functions of the major parts of the brain.

Part of brain	Function
Cerebrum	
Cerebellum	
Hypothalamus	
Medulla oblongata	

- 6 Make a sketch of part of the cerebrum to show the difference between a convolution (gyrus), a sulcus and a fissure.

- 7 There are three types of functional areas in the cerebral cortex of the brain: sensory, motor and association. In the table below, summarise the differences between them.

	Sensory areas	Motor areas	Association areas
Function			
Location in cerebral cortex			

- 8 From where in the body does the cerebellum receive input to enable it to carry out its functions?

- 9 Describe how both the brain and spinal cord are protected from injury. Why is it so important that these organs remain injury free?

- 10 Describe the structure of the spinal cord and use a diagram to illustrate your description.