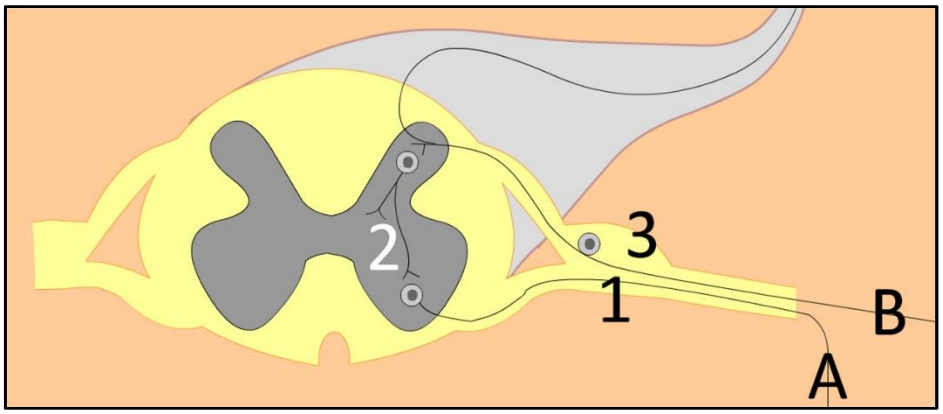
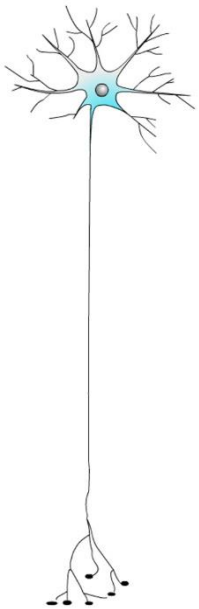
## Pretest 3rd form – Sense organs and the nervous system B

**1.** Below you can see a diagram of a cross section of the spinal cord.
- **a)** (2p) Give the names of the neurones 1, 2 and 3.
- **b)** (2p) Give the names of the parts of the body to which A and B could be connected.
- **c)** (1p) Where does the neurone go to which goes to the top of the diagram?
- **d)** (2p) What will be the effect when neurone 3 breaks or gets damaged completely?




**2.** Sheldon wants to take the saucepan and bring it to the living room, but it's really hot. He takes it off the stove, but before he knows it he drops it. Afterwards he shouts because of the pain.
- **a)** (2p) Explain in detail what has happened and name all the parts of the body that are used in the process in the right order. Start with the stimulus and end with the movement of the arm.
- **b)** (2p) In reality, two things are happening at the same time. Give the right order and all the names of the parts of the body before Sheldon shouts. Start with the stimulus and end with his mouth.

**3.** (2p) To the right you see a figure of a neurone. Explain which type of neurone this is NOT and explain how you are able to see this.



**4.** (3p) Neurones are supposed to give signals. Is the signal going from top to bottom or vice versa in the figure to the right? Explain.

**5.** (2p) How is it possible that a neurone can make sure a muscle cell is contracting or relaxing? Explain.

**6.** Stimuli are really important.
- **a)** (2p) Explain what they are.
- **b)** (2p) Give two examples of stimuli and explain how you can react to them.
- **c)** (2p) What is the relation between a stimulus and an impulse? Explain.

**7.** The eye contains a lot of different cells. Two types are rods and cones.
- **a)** (2p) During daytime, your cones are very important. Explain.
- **b)** (2p) At night, your rods are essential. Explain.