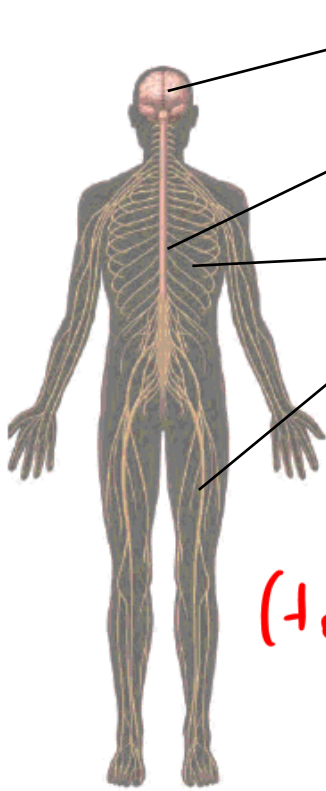


Read pp 104-107

1. State the two main functions of the nervous system: i) Senses the environment
 ii) Coordinates appropriate responses

2. a) On the diagram below, using different colours, label the **central nervous system** (label its two main components), and the **peripheral nervous system**.



brain
Spinal cord } CNS (central nervous system)
nerves → PNS (Peripheral nervous system)

- b) Describe the function of the **three groups of nerves** that make up the peripheral nervous system.

- controls voluntary muscles
- Carry info from sensory organs (touch, eyes, ears, taste buds) to brain
- involuntary → breathing, heartbeat, digestion

3. Name the structures that protect the two main components of the central nervous system.

Component brain Structure that protects it Skull

Component Spinal cord Structure that protects it Spine

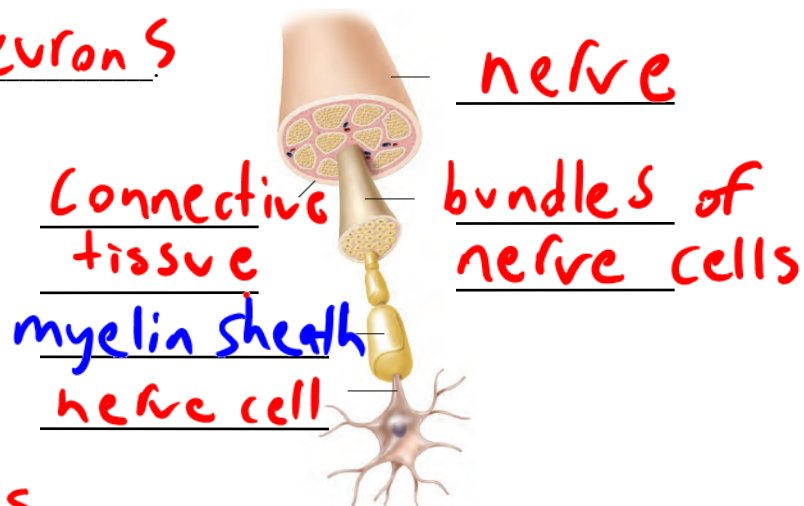
4. Neurons are nerve cells

Nerves are bundles of neurons

- On the diagram to the right, label the parts of a nerve.

- Describe the function of the **myelin sheath**.

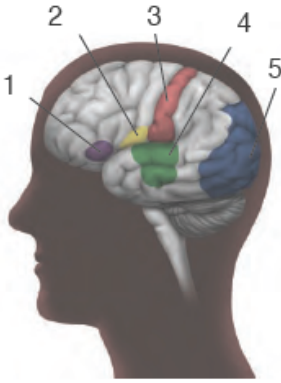
acts like the insulation of an electrical wire (so electrical signals don't pass to the wrong neuron)



5. What are **sensory receptors**, and where are they located?

Sensory receptors are special cells/tissue that receive input from our external environment & send signals along nerves to CNS
eyes, ears, mouth, nose, muscle, skin

6. Identify the five familiar **senses** on the diagram below.



1. Smell
2. taste
3. touch
4. hearing
5. vision

What other types of information do sensory receptors detect?

Receptors in muscle/skin that are sensitive to pressure, temperature, pain, balance, position, & motion

7. What are **reflexes**? Give two examples.

actions that do not require the involvement of the brain, occur without conscious thought
ex. moving hand away from a stove, eyes blinking

8. Your **immune system** protects your body from viruses and diseases. Describe how a **malfunction of the immune system can result in multiple sclerosis**, and describe the symptoms of this disease.

disease destroys myelin sheaths of neurons in the CNS

Symptoms → muscle weakness, slurred speech, difficulty walking