

Control and Coordination

Q1) What is the function of the pituitary gland?

- (a) To develop sex organs in males
- (b) To stimulate growth in all organs
- (c) To regulate sugar and salt levels in the body
- (d) To initiate metabolism in the body

Correct Answer: Option (b)

Q2) Which of the following option shows the order of events correctly when a bright light is focused on our eyes?

- (a) Bright light → receptors in eyes → sensory neuron → spinal cord → motor neurons → eyelid closes
- (b) Bright light → receptors in eyes → spinal cord → sensory neuron → motor neurons → eyelid closes
- (c) Bright light → receptors in eyes → sensory neuron → motor neurons → spinal cord → eyelid closes
- (d) Bright light → receptors in eyes → spinal cord → motor neurons → sensory neuron → eyelid closes

Correct Answer: Option (a)

Q3) A female is suffering from an irregular menstrual cycle. The doctor prescribed her some hormonal tablets. Which option shows that the hormone she lacks in her body is from the endocrine gland?

- (a) Oestrogen
- (b) Testosterone
- (c) Adrenalin
- (d) Thyroxin

Correct Answer: Option (a)

Q4) When we touch the leaves of the “touch-me-not” plant, they begin to fold up and droop. How does the plant communicate the information of touch?

- (a) The plant uses electrical signals to transfer information from the external environment to cells.
- (b) The plant uses electrical-chemical signals to transfer information from cell to cell.
- (c) The plant uses electrical-chemical signals to transfer information from tissue to specialised cells.
- (d) The plant uses electrical signals to transfer information from cells to specialised tissues.

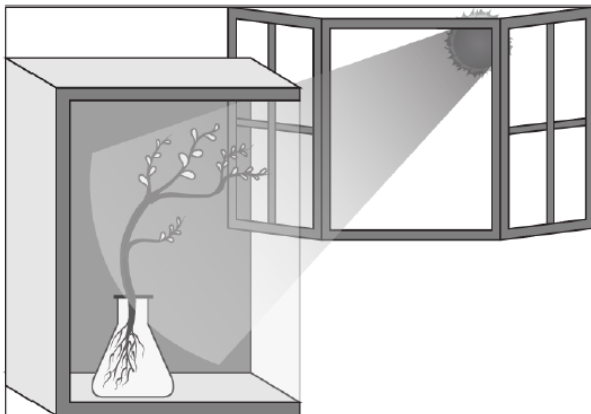
Correct Answer: Option (b)

Q5) How will information travel within a neuron?

- (a) Dendrite -> cell body -> axon -> nerve ending
- (b) Dendrite -> axon -> cell body -> nerve ending
- (c) Axon -> dendrite -> cell body -> nerve ending
- (d) Axon -> cell body -> dendrite -> nerve ending

Correct Answer: Option (a)

Q6) Raghav potted some germinated seeds in a pot. He put the pot in a cardboard box that was opened from one side. He keeps the box in a way that the open side of the box faces sunlight near his window. After 2-3 days, he observes the shoot bends towards the light, as shown in the image.



Which type of tropism does he observe?

- (a) Geotropism
- (b) Phototropism
- (c) Chemotropism
- (d) Hydrotropism

Correct Answer: Option (b)

Q7) Which parts of the brain control blood pressure?

- (a) Spinal cord, skull, hypothalamus
- (b) Cord, skull, cerebrum
- (c) Pons, medulla, cerebellum
- (d) Pons, medulla, pituitary

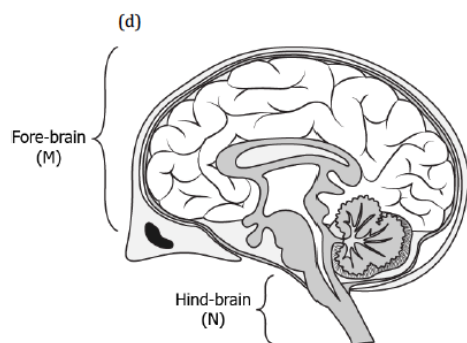
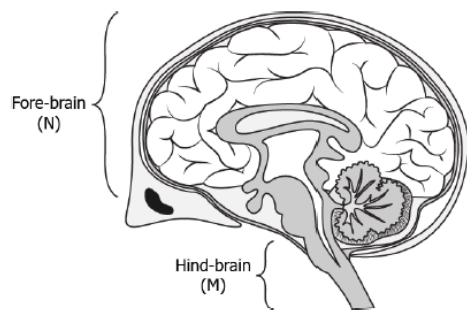
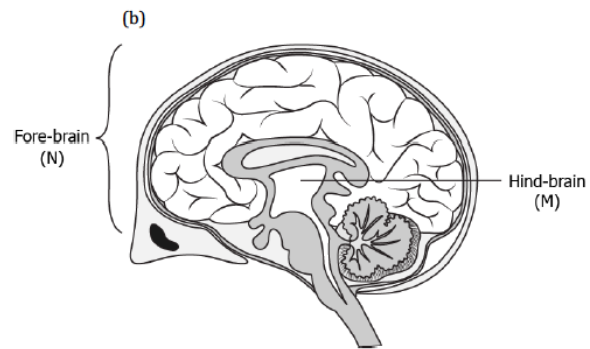
Correct Answer: Option (c)

Q8) Organisms depend on hormones as well as electric impulses for the transmission of signals from the brain to the rest of the body. What can be a likely advantage of hormones over electric impulses?

- (a) It is secreted by all types of cells present in the body.
- (b) It is secreted by stimulated cells and reaches all cells of the body.
- (c) It is relayed to the target organ faster than electric impulses.
- (d) It does not depend on an external stimulus to be generated in the cells.

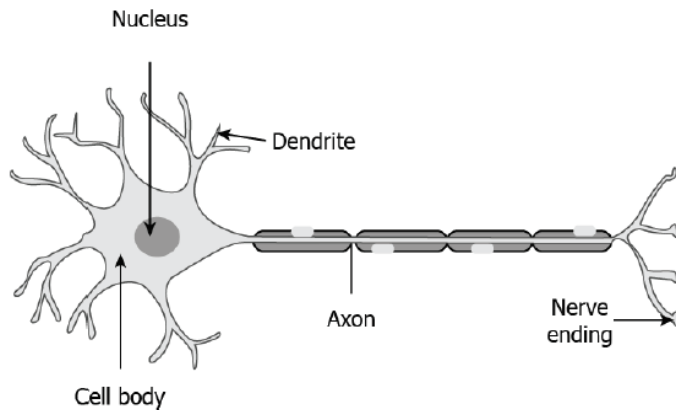
Correct Answer: Option (b)

Q9) Which of the following option illustrates the location of the centre that controls the feelings associated with hunger (M) and the centre that allows a person to walk in a straight line (N)?



Correct Answer: Option (d)

Q10) The image shows the structure of a neuron.



Which of the following options shows the mechanism of the travelling of sense in our body after our nose senses a smell?

- (a) Olfactory receptors → dendritic tip of a nerve cell → axon → nerve ending → release of the signal dendritic tip of another nerve cell
- (b) Olfactory receptors → dendritic tip of a nerve cell → axon → cell body → release of signal → dendritic tip of other nerve cell
- (c) Gustatory receptors → dendritic tip of a nerve cell → cell body → axon → release of the signal dendritic tip of another nerve cell
- (d) Gustatory receptors → dendritic tip of a nerve cell → axon → cell body → release of the signal dendritic tip of another nerve cell

Correct Answer: Option (a)