# Railways (Group-D & ALP) Science Questions with solution

## RRB Science MCQs Quiz 12

Directions: Study the following questions carefully and choose the right answer:

**1. Receptors used to detect taste are known as**

A. Gustatory receptors B. Olfactory receptors C. Nerve cell receptors D. All of the above

**2. The ending of a nerve cell used to acquire information from our environment is called**

A. Nucleus B. Nerve ending C. Dendrite D. Axon

**3. The long, slender projection of a nerve cell that conducts electrical impulses (carrying information) away from the nerve cell body and transmits this information to different neurons, muscles, and glands is known as**

A. Myelin B. Axon C. Schwann D. None of the above

**4. Information from one neuron flows to another neuron across a _____?**

A. Axon B. Dendrite C. Synapse D. All of the above

**5. When the electric impulse travels along the axon and reaches the other end called the synaptic terminal, this impulse triggers the release of**

A. Vesicles B. Cleft C. Mitochondria D. All of the above

**6. The communication between the central nervous system and the other parts of the body is facilitated by**

A. Peripheral Nervous System B. Central Nervous System C. Both are correct.

D. Both are incorrect

**7. The main thinking part of the brain is the _____?**

A. Mid brain B. Fore brain C. Hind brain D. Both A and C

**8. Which of the following is/are parts of the human brain?**

A. Cerebrum B. Cranium C. Hypothalamus D. All of the above

**9. The part of the brain responsible for maintain balance like walking in a straight line or riding a bicycle is called**

A. Medulla B. Pons C. Pituitary Gland D. Cerebellum

**10. Which of the following is/are reflex actions?**

A. Blinking B. Breathing C. Running D. Both A and B

**Correct Answers:**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| A | C | B | A | A | A | B | D | D | D |

**Explanations:**

**1.**

Gustatory receptors detect taste while olfactory receptors detect smell. Nerve cell receptors detect temperature etc.

Hence, option A is correct.

**2.**

The ending used for information gathering is called a dendrite.

Hence, option C is correct.

**3.**

An axon, also known as nerve fiber, is a long, slender projection of a nerve cell, or neuron, that typically conducts electrical impulses known as action potentials, away from the nerve cell body. The function of the axon is to transmit information to different neurons, muscles, and glands.

Hence, option B is correct.



**4.**

The synapse contains a small gap separating neurons. The synapse consists of:

• *a presynaptic ending that contains neurotransmitters, mitochondria and other cell organelles.*

• *a postsynaptic ending that contains receptor sites for neurotransmitters*

• *a synaptic cleft or space between the presynaptic and postsynaptic endings.*

Hence, option C is correct.

**5.**

The electrical impulses stimulate the release of vesicles. These store various neurotransmitters that are released at the synapse. Vesicles are essential for propagating nerve impulses between neurons and are constantly recreated by the cell.

Hence, option A is correct.

**6.**

The peripheral nervous system consists of cranial nerves arising from the brain and spinal nerves arising from the spinal cord. The brain thus allows us to think and take actions based on that thinking.

Hence, option A is correct.

**7.**

The brain has three major parts or regions, namely the fore-brain, mid-brain and hind-brain. The fore-brain is the main thinking part of the brain. It has regions which receive sensory impulses from various receptors. Separate areas of the fore-brain are specialised for hearing, smell, sight and so on. There are separate areas of association where this sensory information is interpreted by putting it together with information from other receptors as well as with information that is already stored in the brain.

Hence, option B is correct.

**8.**

All of the above form part of the human brain.

Hence, option D is correct.



**9.**

These functions are made possible due to a part of the hind-brain called the cerebellum. It is responsible for precision of voluntary actions.

Hence, option D is correct.

**10.**

Reflex actions are those where we act rapidly/ without thinking.

Both A and B are involuntarily/reflex. But running is a deliberate action.

Hence, option D is correct.