

EINSTEIN'S ACADEMY

10TH SCIENCE

UNIT – 15

I. Choose the correct answer

10 x 1 =10

1. There are _____ pairs of cranial nerves and _____ pairs of spinal nerves.

- (a) 12,31
- (b) 31,12
- (c) 12,13
- (d) 12,21

2. Site for processing of vision, hearing, memory, speech, intelligence and thought is

- (a) kidney
- (b) ear
- (c) brain
- (d) lungs

3. Dendrites transmit impulse _____ cell body and axon transmit impulse _____ cell body.

- a) away from, away from
- b) towards, away from
- (c) towards,towards
- (d) away from, towards

4. Bipolar neurons are found in

- a) retina of eye
- b) cerebral cortex
- c) embryo
- d) respiratory epithelium

5. Site for processing of vision, hearing, memory, speech, intelligence and thought is

- a) kidney
- b) ear
- c) brain
- d) lungs

6. Which nervous band connects the two cerebral hemispheres of brain?

- a) thalamus
- b) hypothalamus
- c) corpus callosum
- d) pons

7. The outer most of the three cranial meninges is

- a) arachnoid membrane
- b) piamater
- c) duramater
- d) myelin sheath

8. The neurons which carries impulse from the central nervous system to the muscle fibre.

- a) afferent neurons
- b) association neuron
- c) efferent neuron
- d) unipolar neuron

9. Node of Ranvier is found in

- a) muscles b) axons
- c) dendrites d) cyton

10. Vomiting centre is located in

- a) medulla oblongata b) stomach
- c) cerebrum d) hypothalam

II. Fill in the blanks

3x1=3

1. _____ is the longest cell in our body.
2. A neuron contains all cell organelles except _____.
3. The part of human brain which acts as relay center is _____.

III. State whether true or false, if false write the correct statement

2 x 1=2

1. Sympathetic nervous system is a part central nervous system.
2. Cerebrospinal fluid provides nutrition to brain.

IV. Match the following

(2)

- A. Nissl's granules - Forebrain
- B. Hypothalamus - Peripheral Nervous system
- C. Cerebellum - Cyton
- D. Schwann cell -Hindbrain

V Short answer question (answer any five)

9 x 2 =18

1. Voluntary and involuntary actions.
2. Define stimulus.
3. Name the parts of the hind brain.
4. What are the structures involved in the protection of brain?

5. Give an example for conditioned reflexes.
6. Define reflex arc.
7. Differentiate between voluntary and involuntary actions.
8. Differentiate between medullated and non- medullated nerve fibre.
9. Medullated and non-medullated nerve fibre.

VI. Long answer question

3 x5=15

1. Illustrate the structure and functions of brain.
2. With a neat labelled diagram explain the structure of a neuron.
3. What will you do if someone pricks your hand with a needle? Elucidate the pathway of response with a neat labelled diagram.