10th Science Lesson 15 Questions in English

15] Nervous System

1. Which of the following statement is incorrect?

1) One of the characteristic features of all living organisms is responding to stimuli
2) Stimulus refers to the changes in the environmental condition, that are detected by receptors present in the body
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

One of the characteristic features of all living organisms is responding to stimuli. Stimulus refers to the **changes in the environmental condition**, that are **detected by receptors present in the body**

2. To which of the following living organism responds to?

1) Heat
2) Light
3) Force of gravity
4) Smell
    a) 1, 2, 3
    b) 1, 2, 4
    c) 2, 3, 4
    d) All the above

Explanation

Relevant changes in the activities of organisms to a particular- stimuli are called their reactions or responses. Living organisms show their response to different kinds of stimuli like **light, heat, cold, sound, smell, taste, touch, pressure, pain or the force of gravity** etc.

3. Which of the following statement is correct?

1) To provide the correct response to a stimulus, it is necessary that all the organs work together in a proper coordinated manner
2) The working together of various organs in a systematic, controlled and efficient way to produce proper response to various stimuli is called coordination
    a) 1 alone
    b) 2 alone
    c) 1, 2

d) None

Explanation

To provide the **correct response to a stimulus**, it is necessary that all the organs work together in a **proper coordinated manner**. This working together of various organs in a systematic, controlled and efficient way to produce proper response to various stimuli is called **coordination**.

4. Cells and organs is essential for their diverse activities to maintain physiological balance called_____

a) Homeolysis
b) Homeostasis
c) Homeotherm
d) Homo erectus

Explanation

In animals including human the **coordination between the various cells and organs** is essential for their diverse activities to maintain physiological balance called **homeostasis**.

5. How many distinct components are there in Nervous system?

a) 2
b) 4
c) 3
d) 5

Explanation

The nervous system is made up of nervous tissues. It is formed of **three distinct components namely the neurons, neuroglia and nerve fibres**.

6. _____ is the structural and functional unit of the nervous system

a) Nerve cell
b) Neuroglia
c) Nerve fibre
d) All the above

Explanation

A **neuron or nerve cell** is the structural and functional unit of the **nervous system**. Information is conducted through neurons in the form of electrical impulses from one part of the body to another.

7. What is the length of Neuron?

a) 100µm
b) 10mm
c) 1µm
d) 20µm

Explanation

Neuron or nerve cell is the **longest cell** of the **human body with a length of over 100µm**. These cells are highly specialised to detect, receive and transmit different kinds of stimuli.

8. _____ are also called as glial cells

a) Neuron
b) Neuroglia
c) Nerve fibre
d) All the above

Explanation

Neuroglia is also called **as glial cells**. They are non-exciting, supporting cell of the nervous system. They do not initiate or conduct nerve impulses.

9. Which of the following statement about nerve fibre is correct?

1) The nerve fibres are the long slender processes of neurons
2) A number of nerve fibres are bundled up together to form nerves
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

The nerve fibres are the long slender processes of neurons. A **number of nerve fibres are bundled up together to form nerves**.

10. How many basic parts does neurons have?

a) 4
b) 5
c) 2
d) 3

Explanation

A neuron typically consists of **three basic parts**: Cyton, Dendrites and Axon. A neuron or nerve cell is the structural and functional unit of the nervous system.

11. Which of the following statement about Cyton is correct?

1) Cyton is also called cell body or perikaryon
2) It has a central nucleus with abundant cytoplasm called neuroplasm.
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Cyton is also called cell body or **perikaryon**. It has a central nucleus with abundant cytoplasm called Neuroplasm.

12. Which of the following statement is correct?

1) Neurons have the ability to divide
2) Several neurofibrils are present in the cytoplasm that help in transmission of nerve impulses to and from the cell body
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

The cytoplasm has large granular body called Nissl's granules and the other cell organelles like mitochondria, ribosomes, lysosomes, and endoplasmic reticulum. **Neurons do not have the ability to divide**. Several neurofibrils are present in the cytoplasm that help in transmission of nerve impulses to and from the cell body.

13. _____ conduct nerve impulses towards the cyton

a) Axon
b) Dendrites
c) Glial cells
d) All the above

Explanation

Dendrites are the numerous branched cytoplasmic processes that project from the surface of the cell body. They **conduct nerve impulses towards the cyton**.

14. Which of the following statement is correct?

1) The axon is a single, elongated, slender projection

2) The end of axon terminates as fine branches which terminate into knob like swellings called synaptic knob
3) It carries impulses away from the dendron
    a) 1, 2
    b) 1, 3
    c) 2, 3
    d) All the above

Explanation

The axon is a single, elongated, slender projection. The end of axon terminates as fine branches which terminate into knob like swellings called synaptic knob. The plasma membrane of axon is called axolemma, while the cytoplasm is called axoplasm. **It carries impulses away from the cyton**. The axons may be covered by a protective sheath called myelin sheath which is further covered by a layer of Schwann cells called neurilemma.

15. Which of the following statement is correct?

1) Myelin sheath breaks at intervals by depressions called Nodes of Ranvier
2) Myelin sheath acts as insulator and ensures rapid transmission of nerve impulses
3) The region between the nodes is called as internode
    a) 1, 2
    b) 1, 3
    c) 2, 3
    d) All the above

Explanation

The axons may be covered by a protective sheath called myelin sheath which is further covered by a layer of Schwann cells called neurilemma. Myelin sheath breaks at intervals by depressions called Nodes of Ranvier. The **region between the nodes is called as internode**. Myelin sheath acts as insulator and ensures rapid transmission of nerve impulses.

16. Which of the following statement is correct?

1) A junction between synaptic knob of axon of one neuron and Cyton of next neuron is called synaptic junction
2) Information from one neuron can pass to another neuron through these junctions with the release of chemicals known as neurotransmitters
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

A j**unction between synaptic knob of axon of one neuron and dendron of next neuron is called synaptic junction**. Information from one neuron can pass to another neuron through these junctions with the **release of chemicals known as neurotransmitters from the synaptic knob**.

17. Which of the following statement is correct?

1) Only one nerve process arises from the cyton which acts as both axon and dendron in Bipolar neuron
2) The cyton gives rise to many dendrons and an axon in Multipolar neuron
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Structurally the neurons may be of the following types:

- **Unipolar** neurons: **Only one nerve process arises from the cyton** which acts as both axon and dendron.
- Bipolar neurons: The cyton gives rise to two nerve processes of which one acts as an axon while another as a dendron
- Multipolar neurons: The cyton gives rise to many dendrons and an axon

18. Match the following

I.	Unipolar Neurons	1. Found in cerebral cortex of brain
II.	Bipolar Neurons	2. Found in early embryos only
III.	Multipolar Neurons	3. Found in retina of eye

a) 2, 1, 3
b) 2, 3, 1
c) 3, 1, 2
d) 3, 2, 1

Explanation

Unipolar Neurons- **Found in early embryos** but not in adult

Bipolar Neurons- **Found in retina of eye** and olfactory epithelium of nasal chambers

Multipolar Neurons- Found in **cerebral cortex of brain**

19. Match the following

I.	Sensory neurons	1. Impulses from CNS to effector organ
II.	Motor neurons	2. Impulses from the sense organ to the CNS
III.	Association neurons	3. Impulses between sensory and motor neurons

a) 2, 1, 3
b) 2, 3, 1
c) 3, 2, 1
d) 1, 3, 2

Explanation

- Sensory or **afferent neurons which carry impulses from the sense organ to the central nervous system.**
- **Motor** or efferent neurons which carry impulses from the central nervous system to effector organ such as the muscle fibre or the gland.
- **Association neurons** conduct impulses **between sensory and motor neurons**.

20. Which of the following statement is correct?

1) Nerve fibres are of two types based on the presence or absence of myelin sheath
2) Myelinated and non-myelinated nerve fibres form the white matter and grey matter of the brain
   a) 1 alone
   b) 2 alone
   c) 1, 2
   d) None

Explanation

Nerve fibres are of **two types based on the presence or absence of myelin sheath.** Myelinated and non-myelinated nerve fibres form the **white matter and grey matter of the brain**.

21. Which of the following statement is incorrect?

1) In Myelinated nerve fibre, axon is covered with myelin sheath
2) In Non-myelinated nerve fibre, axon is not covered by myelin sheath
   a) 1 alone
   b) 2 alone
   c) 1, 2
   d) None

Explanation

Myelinated nerve fibre: The **axon is covered** with myelin sheath

Non-myelinated nerve fibre: The **axon is not covered** by myelin sheath.

22. Which of the following is not a receptor organ?

a) Skin
b) Eyes

c) Pharynx
d) Nose

Explanation

All the information from the environment are detected by the receptors located in our sense organs such as the **eyes, the nose, the skin,** etc.

23. Which of the following statement is correct?

1) Information from the receptors is transmitted as electrical impulse and is received by the dendritic tips of the neuron
2) This impulse travels from the dendrite to the cell body and then along the axon to its terminal end
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Information from the receptors is **transmitted as electrical impulse and is received by the dendritic tips** of the neuron. This impulse travels from the dendrite to the cell body and then along the axon to its terminal end. On reaching the axonal end, it causes the nerve endings to release a chemical (neurotransmitter) which diffuses across a synapse and starts a similar electrical impulse in the dendrites of the next neuron, then to their cell body to be carried along the axon.

24. The flow of nerve impulses from axonal end of one neuron to dendrite of another neuron through_____

a) Axon
b) Cyton
c) Dendron
d) Synapse

Explanation

The flow of nerve impulses from axonal end of one neuron to dendrite of another neuron through a **synapse** is called **synaptic transmission**.

25. Each neuron can transmit____ nerve impulses per second

a) 100
b) 1000
c) 10
d) 500

Explanation

Each **neuron can transmit 1000 nerve impulses per second** and make as many as ten thousand of synaptic contacts with other neurons.

26. The important neurotransmitter released by neurons is called_____

a) Prolactin
b) Lipase
c) Acetylcholine
d) Chloroquine

Explanation

Neurotransmitters are the chemicals which allow the transmission of nerve impulse from the axon terminal of one neuron to the dendron of another neuron or to an effector organ. The important neurotransmitter released by neurons is called **Acetylcholine**.

27. Which of the following statement is correct?

1) The complexity of nervous system can be observed during the course of evolution
2) We the human beings differ from other animals in our ability to think and take actions, which is due to the well-developed nervous system.
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

The **complexity of nervous system** can be observed during the course of evolution. We the human beings **differ from other animals in our ability to think and take actions**, which is due to the well-developed nervous system.

28. Human nervous system is differentiated into_____

a) 2
b) 3
c) 5
d) 4

Explanation

Human nervous system is differentiated into **three**: central nervous system (CNS), peripheral nervous system (PNS) and autonomic nervous system (ANS).

29. _____ consists of the brain and the spinal cord

a) CNS
b) ANS
c) PNS
d) All the above

Explanation

The **CNS** acts as centre for information processing and control. It **consists of the brain and the spinal cord**. The PNS is made up of the nerves which connect the brain and spinal cord to all parts of the body. The ANS is formed of sympathetic and parasympathetic nerves.

30. Which of the following statement is correct?

1) The brain and the spinal cord being delicate vital structures are well protected in bony cavities of the skull and the vertebral column respectively
2) PNS is formed of two types of matter such as white matter or grey matter

a) 1 alone
b) 2 alone
c) 1, 2
d) None

Explanation

The **brain and the spinal cord being delicate vital structures are well protected in bony cavities of the skull and the vertebral column** respectively. CNS is formed of two types of matter such as **white matter or grey matter** with respect to the presence or absence of myelin sheath which we have discussed earlier.

31. The brain is covered by _____ connective tissue membrane

a) 2
b) 5
c) 3
d) 4

Explanation

The brain is the controlling centre of all the body activities. It is covered by **three connective tissue membrane or meninges.**

32. Match the following

I.	Duramater	1. Innermost
II.	Arachnoid membrane	2. Outermost
III.	Piamater	3. Middle membrane

a) 1, 3, 2

b) 2, 3, 1
c) 1, 2, 3
d) 2, 1, 3

Explanation

- **Duramater** (dura: tough; mater: membrane) is the **outermost** thick fibrous membrane
- **Arachnoid membrane** (arachnoid: spider) is the **middle**, thin vascular membrane providing web like cushion
- **Piamater** (Pia: soft or tender) is the **innermost**, thin delicate membrane richly supplied with blood.

33. The most common causes of meningitis_____

1) Bacterial
2) Viral
3) Fungal

a) 1, 2
b) 1 alone
c) 2 alone
d) All the above

Explanation

Meningitis is an inflammation of the meninges. It can occur when fluid surrounding the meninges becomes infected. The **most common causes of meningitis are viral and bacterial infections**.

34. A human brain is formed of___ main parts

a) 2
b) 4
c) 3
d) 5

Explanation

Meningeal membranes protect the brain from mechanical injury. A **human brain is formed of three main parts**: (a) forebrain (b) midbrain and (c) hindbrain.

35. The forebrain is formed of____

1) Cerebellum
2) Cerebrum
3) Pons
4) Diencephalon

a) 2, 3

b) 2, 4
c) 1, 3, 4
d) All the above

Explanation

The **forebrain is formed of cerebrum and diencephalon**. The latter consists of dorsal thalamus and ventral hypothalamus.

36. Cerebrum is nearly____ of the brain

a) Two third
b) Three fourth
c) One fourth
d) Two fifth

Explanation

Cerebrum is the largest portion forming nearly two third of the brain. The cerebrum is longitudinally divided into two halves as right and left cerebral hemispheres by a deep cleft called median cleft.

37. The outer portion of each cerebral hemisphere is formed of____ matter

a) White
b) Grey
c) Both a and b
d) Reddish Brown

Explanation

Two cerebral hemispheres are interconnected by thick band of nerve fibres called corpus callosum. The **outer portion of each cerebral hemisphere is formed of grey matte**r and is called cerebral cortex.

38. The inner or deeper part is formed of_____ matter

a) White
b) Grey
c) Both a and b
d) Reddish Brown

Explanation

The **inner or deeper part is formed of white matter and is called cerebral medulla**. The cortex is extremely folded forming elevations called gyri with depressions between them termed as sulci that increase its surface area.

39. Each cerebral hemisphere is divisible into_____ lobes

a) 2
b) 3
c) 4
d) 5

Explanation

Each cerebral hemisphere is divisible into **four lobes**: a frontal lobe, a parietal lobe, a temporal lobe and an occipital lobe. These lobes are also known as cerebral lobes and are associated with specific functions. Any damage in specific lobe in-turn affects its function.

40. The cerebrum is responsible for_____

1) Willpower
2) Memory
3) Thinking
4) Imagination

a) 1, 2, 3
b) 1, 2, 4
c) 2, 3, 4
d) All the above

Explanation

The cerebrum is responsible for the **thinking, intelligence, consciousness, memory, imagination, reasoning and willpowe**r.

41. _____ is a major conducting centre for sensory and motor signalling

a) Hypothalamus
b) Thalamus
c) Cerebrum
d) Cerebellum

Explanation

Thalamus present in cerebral medulla is a **major conducting centre for sensory and motor signalling**. It acts as a relay centre.

42. Which of the following statement about hypothalamus is correct?

1) It lies at the base of the thalamus
2) It controls sexual desire

a) 1 alone

b) 2 alone
c) 1, 2
d) None

Explanation

Hypothalamus lies at the **base of the thalamus**. It controls involuntary functions like hunger, thirst, **sleep, sweating, sexual desire, anger, fear, water balance, blood pressure** etc.

43. _____ acts as the acts as a thermoregulatory centre of the body

a) Thalamus
b) Hypothalamus
c) Medulla Oblongata
d) Pons

Explanation

Hypothalamus acts as a thermoregulatory (temperature control) centre of the body. It controls the secretion of hormones from anterior pituitary gland and is an important link between nervous system and endocrine system.

44. Which of the following statement about midbrain is correct?

1) It is located between thalamus and hind brain.
2) It controls visual and auditory (hearing) reflexes
   a) 1 alone
   b) 2 alone
   c) 1, 2
   d) None

Explanation

Midbrain is **located between thalamus and hind brain**. The dorsal portion of the mid brain consists of four rounded bodies called corpora quadrigemina that **control visual and auditory (hearing) reflexes.**

45. Hind Brain formed of___ parts

a) 2
b) 3
c) 4
d) 5

Explanation

A human brain is formed of three main parts: (a) forebrain (b) midbrain and (c) hindbrain. Hindbrain is formed of **three parts cerebellum, pons and medulla oblongata**.

46. Which of the following statement is correct?

1) The human brain constitutes nearly 90 percent of fat
2) EFAs cannot be synthesised and must be obtained from food.
3) Fish, green leafy vegetables, almond, walnut are rich sources of EFAs
    a) 1, 2
    b) 1, 3
    c) 2, 3
    d) All the above

Explanation

The **human brain constitutes nearly 60 percent of fat**. The most crucial molecules that determine our brain's integrity and the ability are Essential Fatty Acids (EFAs). EFAs cannot be synthesised and must be obtained from food. Fish, green leafy vegetables, almond, walnut are rich sources of EFAs.

47. _____is second largest part of the brain

a) Cerebrum
b) Cerebellum
c) Pons
d) Medulla Oblongata

Explanation

Cerebellum is second largest part of the brain formed of two large sized hemispheres and middle vermis. It coordinates voluntary movements and also maintains body balance.

48. Which of the following controls sleep cycle?

a) Cerebrum
b) Cerebellum
c) Pons
d) Medulla Oblongata

Explanation

'Pons' a latin word meaning bridge. It is a bridge of nerve fibre that connects the lobes of cerebellum. It relays signals between the cerebellum, spinal cord, midbrain and cerebrum. It **controls respiration and sleep cycle**.

49. Which of the following statement is correct?

1) Medulla oblongata is the anterior most part of the brain that connects spinal cord and various parts of brain
2) It also regulates vomiting and salivation.
3) It has cardiac centres, respiratory centres, vasomotor centres to control heart beat
    a) 1, 2
    b) 1, 3
    c) 2, 3
    d) All the above

Explanation

Medulla oblongata is the posterior most part of the brain that connects spinal cord and various parts of brain. It has cardiac centres, respiratory centres, vasomotor centres to control heart-beat, respiration and contractions of blood vessels respectively. It also regulates vomiting and salivation.

50. Match the following

I.	Cerebral cortex	1. Role in sleep-awake cycle
II.	Thalamus	2. Creativity
III.	Cerebellum	3. Acts as relay station
IV.	Pons	4. Maintenance of posture and balance

    a) 2, 1, 3, 4
    b) 2, 3, 4, 1
    c) 1, 3, 2, 4
    d) 3, 1, 4, 2

Explanation

Structure	Functions
Cerebral cortex	Sensory preception, control of voulntary functions, language, thinking, memory, decision making, creativity
Thalamus	Acts as relay station
Hypothalamus	Temperature control, thirst, hunger, urination, important link between nervous system and endocrine glands
Cerebellum	Maintenance of posture and balance,coordinate voluntary muscle activity
Pons and medulla	Role in sleep-awake cycle, cardiovascular, respiratory and digestive control centers

51. Which of the following abnormalities can a EEG detect?

1) Cardiac arrest
2) Seizure
3) Epilepsy
4) Head Injury
    a) 1, 2, 4
    b) 2, 3, 4
    c) 1, 3, 4
    d) All the above

Explanation

Electroencephalogram (EEG) is an instrument which records the electrical impulses of brain. An EEG can detect abnormalities in the brain waves and help in diagnoses of **seizures, epilepsy, brain tumor, head injuries**, etc.

52. Which of the following statement is correct?

1) Spinal cord is a cylindrical structure lying in the neural canal of the vertebral column.
2) It is also covered by meninges
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Spinal cord is a cylindrical structure lying in the neural canal of the vertebral column. It is also covered by meninges.

53. Spinal Cord extends from the lower end of_____

a) Cerebrum
b) Cerebellum
c) Hypothalamus
d) Medulla Oblongata

Explanation

Spinal cord extends from the **lower end of medulla oblongata to** the first lumbar vertebra. The posterior most region of spinal cord tapers into a thin fibrous thread like structure called filum terminal.

54. The grey matter of spinal cord is___ shaped.

a) L
b) H
c) S
d) O

Explanation

Internally, the spinal cord contains a cerebrospinal fluid filled cavity known as the central canal. The **grey matter of spinal cord is 'H' shaped**. The upper end of letter 'H" forms posterior horns and lower end forms anterior horns.

55. Which of the following statement about spinal cord is correct?

1) A bundle of fibre pass into the posterior horn of Spinal cord forming dorsal or afferent root
2) The white matter is external and have bundle of nerve tracts.
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

The upper end of letter 'H" forms posterior horns and lower end forms anterior horns. A bundle of fibre pass into the posterior horn forming dorsal or afferent root**. Fibres pass outward from the anterior horn forming ventral or efferent root**. These two root joins to form spinal nerves. The white matter is external and have bundle of nerve tracts

56. Spinal cord conducts_____ impulses to and from the brain.

1) Motor
2) Sensory
3) Optical
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Spinal cord conducts sensory and motor impulses to and from the brain. It controls reflex actions of the body.

57. Which of the following statement is incorrect?

1) The brain is suspended in a special fluid environment called cerebrospinal fluid
2) It is lymph like, watery fluid that surrounds and protects the brain within the skull

a) 1 alone
b) 2 alone
c) 1, 2
d) None

Explanation

The brain is **suspended in a special fluid** environment called **cerebrospinal fluid** (CSF). It is lymph like, **watery fluid that surrounds and protects the brain within the skull**. It also fills the central canal of the spinal cord.

58. Which of the following are the functions of Cerebrospinal Fluid?

1) It supplies nutrients from the brain
2) It is also responsible for maintaining a constant pressure inside the cranium.
3) It acts as shock absorbing fluid

a) 1, 2
b) 1, 3
c) 2, 3
d) All the above

Explanation

Functions of Cerebrospinal fluid:

- It acts as **shock absorbing fluid** and protects the brain from damage when it is subjected to sudden jerk.
- It **supplies nutrients to the brain**
- It collects and removes wastes from the brain.
- It is also responsible for maintaining a constant pressure inside the cranium.

59. Which of the following statement is correct?

1) A reflex is any response that occurs automatically with consciousness
2) There are two types of reflexes.

a) 1 alone
b) 2 alone
c) 1, 2
d) None

Explanation

A reflex is any response that **occurs automatically without consciousness**. There are two types of reflexes.

- Simple or basic reflexes

- Acquired or conditioned reflexes

60. Which of the following is not a Simple or basic reflex?

a) Yawning
b) Sneezing
c) Playing harmonium
d) Coughing

Explanation

Simple or basic reflexes These reflexes are inbuilt and unlearned responses. Many of the actions we perform in our day to day life are simple reflexes. e.g., winking of eyes when any dust particles enter, **sneezing, coughing, yawning**, etc. We perform these actions without thinking

61. Which of the following statement is correct about conditioned reflexes?

1) These reflexes are the result of practice and learning
2) Playing harmonium by striking a particular key on seeing a music note is an example of conditioned reflexes
    a) 1 alone
    b) 2 alone
    c) 1, 2
    d) None

Explanation

Acquired or conditioned reflexes are **the result of practice and learning**. **Playing harmonium** by striking a particular key on seeing a music note is an example of conditioned reflexes which required conscious training effort.

62. Peripheral nervous system is formed by_____

1) Nerves from brain
2) Nerves from spinal cord
3) Nerves from heart
    a) 1, 3
    b) 2, 3
    c) 1, 2
    d) All the above

Explanation

Peripheral nervous system is formed by the **nerves arising from the brain and the spinal cord**. The nerves arising from the brain are called cranial nerves. Nerves arising from spinal cord are called spinal nerves.

63. In man, there are____ pairs of cranial nerves

a) 11
b) 31
c) 12
d) 24

Explanation

In **man**, there are **12 pairs of cranial nerves**. Some of the cranial nerves are sensory e.g. optic nerve which innervates the eye. Some are motor nerves which helps in rotation of eyeball. It also innervates the eye muscles, muscles of iris and tear gland.

64. There are___ pairs of spinal nerves

a) 31
b) 13
c) 12
d) 24

Explanation

There are **31 pairs of spinal nerves**. Each spinal nerve has a dorsal sensory root and the ventral motor root. The direction of impulses in dorsal spinal root is towards the spinal cord and in ventral spinal root away from the spinal cord.

65. _____ is also called as visceral nervous system

a) PNS
b) ANS
c) CNS
d) None

Explanation

Autonomic nervous system (ANS) is also called as visceral nervous system as it regulates the function of internal visceral organs of our body through its two antagonistic (opposite) components sympathetic and parasympathetic systems.

66.____ controls the involuntary functions of the visceral organs

a) PNS
b) ANS
c) CNS
d) None

Explanation

Autonomic nervous system (ANS) enables the body to perform rapid and specific visceral activities in order to maintain steady state. It **controls the involuntary functions of the visceral organs**.