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ZOOLOGY

ENTHUSIAST | LEADER | ACHIEVER



EXERCISE

Neural control and coordination (Nervous System)

ENGLISH MEDIUM



EXERCISE-I (Conceptual Questions)

NEURAL SYSTEM AND NEURAL TISSUE

- 1. Nissl's bodies found in neurons are :-
 - (1) Made of DNA
 - (2) Masses of RER
 - (3) Help in formation of neurofibrils
 - (4) Masses of mitochondria

NS0002

- 2. "Nodes of Ranviers" are found in :-
 - (1) Brain
- (2) Heart
- (3) Axon
- (4) Eye

NS0003

- **3.** Afferent nerve fiber conducts impulse from:-
 - (1) C.N.S. to effector
 - (2) Receptor to C.N.S.
 - (3) Receptor to effector
 - (4) Effector to receptor

NS0004

- **4.** Nissl granules occur in which part and what is their function?
 - (1) Neurons and help in protein synthesis
 - (2) Blood and help in nutrition and excretion
 - (3) Sarcoplasm and help in contraction
 - (4) Mucous cell and secrete mucous

NS0005

- The parts of the neurons that perform basic cellular functions such as protein synthesis etc.:-
 - (1) Axons
 - (2) Axon hillock
 - (3) Synaptic knobs
 - (4) Soma

NS0006

Build Up Your Understanding

- **6.** The nerves leading to the central nervous system are called :-
 - (1) Afferent
- (2) Efferent
- (3) Motor
- (4) None

NS0007

- **7.** Unit of nervous system :-
 - (1) Neuron
- (2) Neuroglia
- (3) Axon
- (4) Cyton

NS0008

- 8. Integrative system in the body are :-
 - (1) Endocrine system
 - (2) Nervous system
 - (2) Blood vascular system
 - (4) Both (1) & (2)

NS0009

- **9.** The Schwann sheath is :-
 - (1) A non myelinated nerve fibres
 - (2) Associated with myelin sheath
 - (3) A connective tissue cell
 - (4) Associated with myelinated & non myelinated nerve fibre

NS0010

- **10.** Rapid integration of the functional activities in human is achieved by :-
 - (1) Nervous system
 - (2) Endocrine system
 - (3) Blood
 - (4) Muscular system

NS0011

- **11.** Which one of the following types of neurons are most numerous in the body:-
 - (1) Unipolar
 - (2) Multipolar
 - (3) Bipolar
 - (4) Pseudounipolar

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- 12. Sheath of schwann occurs on :-
 - (1) Neurons
- (2) Axons
- (3) Dendrons
- (4) Neuroglia

NS0013

- **13.** Which cell-organellae absent in neurons?
 - (1) Mitochondria
 - (2) Ribosome
 - (3) Centriole
 - (4) Nucleus

NS0014

- 14. Nerve fibres are surrounded by ar insulating fatty layer called :-
 - (1) Adipose sheath
 - (2) Myelin sheath
 - (3) Connective tissue
 - (4) Peritoneum

NS0015

- **15**. Myelinogenesis (Myelin formation) process occur in C.N.S. (central nervous system)
 - (1) By schwann cells
 - (2) By oligodendrocytes
 - (3) By Axolemma
 - (4) By neurilemma

NS0016

- **16.** Which of the following statement is correct for node of Ranvier of nerve?
 - (1) Neurilemma is discontinuous
 - (2) Myelin sheath is discontinuous
 - (3) Both neurilemma & Myelin sheath are discontinuous
 - (4) Covered by myelin sheath

NS0017

- **17.** The "Nissle's granules" of nerve cell's are made up of :-
 - (1) Ribosome
- (2) Protein
- (3) DNA
- (4) Mitochondria

NS0018

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- **18.** Non Myelinated axons differ from myelinated in that they:-
 - (1) Are more excitable
 - (2) Lack nodes of Ranvier
 - (3) Are not capable of regeneration
 - (4) Are not associated with Schwann cells

NS0019

- **19.** If myelin sheath is continuous in myelinated nerve fibre than what will happens in neuronal conduction?
 - (1) Velocity is increased
 - (2) Conduction is slow
 - (3) Conduction is stopped
 - (4) No effect

NS0020

- 20. Nerve cells do not possess -
 - (1) Neurilemma
- (2) Sarcolemma
- (3) Dendrites
- (4) Axon

NS0021

- **21.** Myelin sheath covers which of the following?
 - (1) Muscle fibre
- (2) Nerve fibre
- (3) Collagen fiber
- (4) Tendons

NS0022

- **22.** Dendrites are associated with which system?
 - (1) Nervous system
 - (2) Digestive system
 - (3) Muscular system
 - (4) Blood vascular system

NS0023

- **23.** The gray matter differs from white matter in the:-
 - (1) Absence of axons
 - (2) Absence of myelin sheath
 - (3) Presence of myelin sheath
 - (4) Absence of neurilemma

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- **24.** Nerve cells possess
 - (a) Dendrites
- (b) Axon
- (c) Sarcolemma
- (d) Neurilemma
- (1) a, b
- (2) a, b, c
- (3) a, b, d
- (4) a, b, c, d

NS0025

- **25.** The nervous system is derived from :-
 - (1) Ectoderm
 - (2) Endoderm
 - (3) Mesoderm
 - (4) Ecto and Mesoderm

NS0026

- **26.** The nerve cell can be distinguished from other cells of the body by the presence of :-
 - (1) Neuroplasm
- (2) Neurilemma
- (3) Mitochondria
- (4) Neurites

NS0027

- 27. Function of nervous tissue is :-
 - (1) Irritability or Excitability
 - (2) Sensitivity
 - (3) Elasticity
 - (4) Contraction

NS0028

- **28.** Which of the following processes occur only in animals ?
 - (1) Hormonal control (2) Respiration
 - (3) Nervous control
- (4) Nutrition

NS0029

- **29.** Which cell in our body is more than a feet long?
 - (1) Nerve cell
- (2) Muscle cell
- (3) Bone cell
- (4) Gland cell

NS0030

- **30.** Which cell stop dividing after birth?
 - (1) Epithelium
- (2) Neuron
- (3) Glial cells
- (4) Liver

NS0031

- **31.** In which animal, nerve cell is present but brain is absent ?
 - (1) Sponge
- (2) Earthworm
- (3) Cockroach
- (4) Hydra

NS0032

- **32.** Intercellular communication in multicellular organism occurs through -
 - (1) Nervous system only
 - (2) Digestive system only
 - (3) Respiratory system only
 - (4) Both nervous and endocrine system

NS0033

- **33.** Myelin sheath is derived from :
 - (1) Astrocytes cells
 - (2) Schwann cells
 - (3) Nerve cells
 - (4) All of these

NS0035

- **34.** Synaptic vesicles are found in
 - (1) Presynaptic neuron
 - (2) Post synaptic neuron
 - (3) Synaptic cleft
 - (4) None of these

NS0036

- **35.** Nissl's granules are absent in :
 - (1) Axon
- (2) Cyton
- (3) Dendron
- (4) Dendrites

NS0037

- **36.** In a myelinated neuron, two adjacent myelin sheaths are separated by gaps called:
 - (1) Nodes of Ranvier
 - (2) Synaptic cleft
 - (3) Synaptic knob
 - (4) Neural plate

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37. Nissl's granules are found in:

(1) Liver cells

(2) Nerve cells

(3) Kidney

(4) Heart

NS0040

NERVE IMPULSE CONDUCTION

38. Chemical transmission of nerve impulses from one neuron to another at a synapse is by :-

(1) Cholesterol

(2) Acetylcholine

(3) Cholecystokinin

(4) ATP

NS0041

39. Saltatory conduction occurs in :-

(1) Non-myelinated fibers

(2) Myelinated fibers

(3) Both of them

(4) None of them

NS0042

40. When a nerve fibers is stimulated the inside of the membrane becomes :-

(1) Filled with acetyl choline

(2) Negatively charged

(3) Positively charged

(4) Neutral

NS0043

41. "Jumping of the action potential" at the nodes of ranvier is known as :-

(1) Saltatory conduction

(2) Neuro transmission

(3) Recovery phase

(4) Active phase

NS0044

42. Nerve impulses are generated by nerve fibers only when the membrane shall become more permeable to :-

(1) Adrenaline

(2) Phosphorus

(3) Sodium ions

(4) Potassium ions

NS0045

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43. Speed of impulse on nerves in mammals is :-

(1) 1 meter/sec.

(2) 100 meter/sec.

(3) 1000 meter/sec.

(4) None of these

NS0046

44. The functional connection between two neurons is called :-

(1) Synapse

(2) Synapsis

(3) Chiasma

(4) Chiasmata

NS0047

45. Conduction of nerve impulse is :-

(1) Faster in non-myelinated fibres

(2) Faster in myelinated fibres

(3) No difference in the rate of conduction in myelinated & non myelinated fibres

(4) None of the above

NS0048

46. A short period during which a nerve is unable to conduct nerve impulse is called :-

(1) Synaptic delay

(2) Refractory period

(3) Resting potential

(4) Critical period

NS0050

47. When the axons membrane is positively charged outside and negatively charged inside, then the condition is known as:-

(1) Action potential

(2) Resting potential

(3) Active potential

(4) Differential potential

- **48.** The main function of acetylcholine is to :-
 - (1) Increase heart beat
 - (2) Help in synaptic transmission of nerve impulse
 - (3) Help in conduction of nerve impulse through axon
 - (4) Control reflex action

- **49.** Depolarization of axolemma during nerve conduction takes place because of-
 - (1) Equal amount of Na⁺ & K⁺ move out across axolema
 - (2) Na⁺ move inside
 - (3) More Na⁺ outside
 - (4) None

NS0053

- **50.** In the resting state of the neural membrane, diffusion due to concentration gradients, if allowed, would drive:-
 - (1) K⁺ and Na⁺ out of the cell
 - (2) Na⁺ into the cell
 - (3) Na⁺ out of the cell
 - (4) K⁺ into the cell

NS0054

- **51.** Unidirectional transmission of a nerve impulse through synapse fibre is due to :—
 - (1) Nerve fibre is insulated by a medullary sheath.
 - (2) Sodium pump starts operating only at the cyton and then continues into the nerve fibre.
 - (3) Neurotransmitters are released by dendrites and not by axon endings.
 - (4) Neurotransmitters are released by the axon endings and not by dendrites.

NS0055

- **52.** Repolarisation of Neuron is occured due to:-
 - (1) Influx of Na⁺
- (2) Influx of K⁺
- (3) Efflux of Na⁺
- (4) Efflux of K⁺

NS0056

- **53.** If GABA is released at synapse area then what will happens :-
 - (1) Depolarization of neuron
 - (2) Repolarization of neuron
 - (3) Hyperpolarization of neuron
 - (4) No effect

NS0057

- **54.** Nerve impulse travel through synapse with the help of
 - (1) Acetylcholine and sympathetin
 - (2) Choline and acetylcholine
 - (3) Adrenaline and noradrenaline
 - (4) None of the above

NS0058

- **55.** A typical value of resting membrane potential is -
 - (1) -40 mv
- (2) -60 mv
- (3) -70 mv
- (4) -80 mv

NS0059

- **56.** Pre synaptic membrane is part of :
 - (1) Dendron
 - (2) Axon hillock
 - (3) Telodendria
 - (4) Soma

NS0061

- **57.** Acetylcholinesterase enzyme splits acetylcholine into :
 - (1) Acetone and choline
 - (2) Acetic acid and choline
 - (3) Amino acid and choline
 - (4) Aspartic acid and acetylcholine

NS0064

- **58.** During nerve impulse conduction permeability of a membrane is greater for :
 - (1) Na⁺
 - (2) K⁺
 - (3) Equal for both (1) and (2)
 - (4) Ca⁺²

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59. Acetylcholinesterase help in breaking:

(1) Synapse

(2) Acetylcholine

(3) Dendrites

(4) Axon

NS0066

60. Action potential of a nerve cell is generated

by:

(1) Na⁺

(2) K⁺

(3) Ca⁺⁺

(4) CI⁻

NS0067

61. Connection between axon and dendrite is :

(1) Synapse

(2) Synapsis

(3) Desmosome

(4) Tight junction

NS0068

62. During repolarisation of nerve:

(1) K⁺ gates closes and Na⁺ gates opens

(2) Na⁺ channels are closed and K⁺ channels are open

(3) Both gates remain open

(4) Both K⁺ and Na⁺ gates are closed

NS0069

63. Junction between the axon of one neuron and the dendrite of the next is called :

(1) A joint

(2) Synapse

(3) Constant bridge

(4) Junction point

NS0070

64. The one way or unidirectional transmission of nerve cells is due to :

(1) Synapses

(2) Myelin sheath

(3) Membrane polarity

(4) Interneurons

NS0071

65. Resting potential of a nerve is : (in milli

volt)

(1) +70 (2) +30

(3) - 30

(4) - 70

NS0072

66. Nerve impulse initiates with the movement of :

(1) K⁺

(2) Na⁺

(3) Ca⁺⁺

(4) Mg^{+2}

NS0073

67. Na⁺/K⁺ pump in a cell is an example of –

(1) Osmosis

(2) Diffusion

(3) Passive transport

(4) Active transport

NS0074

STRUCTURE AND FUNCTION OF BRAIN

68. Corpus callosum connects :-

(1) Two cerebral hemisphere

(2) Two optic lobes

(3) Two olfactory lobes

(4) Optic chiasma

NS0075

69. Outer most covering of brain is called :-

(1) Choroid

(2) Duramater

(3) Piamater

(4) Arachnoid

NS0076

70. The membrane which cover the brain and the spinal cord is :-

(1) White matter

(2) Grey matter

(3) Peritonium

(4) Menix

NS0077

71. Cerebellum is concerned with :-

(1) Co-ordination of muscular movement

(2) Memory

(3) Vision

(4) Reflex action

NS0078

72. Crura cerebri is located in :-

(1) Fore brain

(2) Hind brain

(3) Mid brain

(4) None

- **73.** Piamater is :-
 - (1) Inner most meninge
 - (2) Middle meninge
 - (3) Outer meninge
 - (4) None

- **74.** The box like bony structure which encloses the brain is called :-
 - (1) Cranium
- (2) Pericardium
- (3) Peritoneum
- (4) Periosteum

NS0081

- **75.** In brain crura cerebri is a structure made of :-
 - (1) Six bands of nerve fibres
 - (2) Eight bands of nerve fibres
 - (3) Two large bands of nerve fibres
 - (4) Four bands of nerve fibres

NS0082

- **76.** Which one of the following menix is present only in mammalian brain:-
 - (1) Duramater
- (2) Arachnoid
- (3) Piamater
- (4) None of them

NS0083

- **77.** Small, solid and four optic lobes or colliculus called corpora quadrigemina are found in:-
 - (1) Mammals
- (2) Amphibians
- (3) Aves
- (4) Reptiles

NS0085

- **78.** Hypothalamus is situated on the :-
 - (1) Upper lateral surface of diencephalon
 - (2) Lower lateral surface of diencephalon
 - (3) Ventral side of optic lobes
 - (4) Dorsal side of optic lobes

NS0086

- **79.** Epithalamus is situated on the :-
 - (1) Roof of diencephalon
 - (2) Lateral wall of diencephalon
 - (3) Dorsal side of optic lobes
 - (4) Floor of diencephalon

NS0087

- **80.** Which of the following is a richly vascular layer with lots of blood capillaries:-
 - (1) Duramater
- (2) Piamater
- (3) Epidermis of skin
- (4) Both (1) & (2)

NS0088

- **81.** Which of the following is not a part of hind brain:—
 - (1) Medulla oblongata
 - (2) Thalamus
 - (3) Cerebellum
 - (4) Pons

NS0089

- **82.** Which is correct about pons varolii?
 - (1) Situated between midbrain & M.O.
 - (2) Pons contains pneumotaxic centre
 - (3) Inner gray, outer white matter
 - (4) All of the above

NS0090

- **83.** If the corpus callosum is removed in mammalian brain then what will be affected:-
 - (1) Coordination of Cerebrum
 - (2) Involuntary activity of brain
 - (3) Coordination of Cerebellum
 - (4) Behaviour and emotional disturbances

NS0091

- **84.** The name of nervous band connecting both the cerebral hemispheres in your brain -
 - (1) Corpus albicans
 - (2) Corpus callosum
 - (3) Corpus striatum
 - (4) Corpus spongiosum

NS0092

- 85. Arbor vitae is a part of -
 - (1) Cerebrum
- (2) Cerebellum
- (3) Midbrain
- (4) Forebrain

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86. Human brain is covered by a hard layer called -

(1) White matter

(2) Duramater

(3) Piamater

(4) Gray matter

NS0094

87. Which of the following is the part of mid brain?

(1) Cerebrum

(2) Diencephalon

(3) Corpora quadrigemina

(4) None of these

NS0095

88. The function of cerebrospinal fluid does not include:

(1) Protection of brain and spinal cord by containing antibody

(2) Protection of delicate brain and spinal cord from shock

(3) As a medium for excretion of waste product

(4) Buoyancy to brain

NS0096

89. Cerebral hemispheres of mammals consist of :-

(1) Outer gray matter and central white matter

(2) Outer white matter and central gray matter

(3) Gray matter and white matter inter mingled

(4) Gray matter only

NS0097

90. Which of the following forms the cerebrospinal fluid:-

(1) Choroid plexus

(2) Duramater

(3) Arachnoid mater

(4) Cerebrum and spinal cord

NS0098

91. If Broca's area is completely injured then

speech

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what happen firstly:-

muscle are

(1) Concerning paralysed

(2) Speech stuttered & not clear

(3) Unable to speak

(4) Only able to speak written word

NS0099

92. In man the osmotic centres are situated in -

(1) Cerebrum

(2) Hypothalamus

(3) Pituitary gland

(4) Medulla oblongata

NS0101

93. Hypothalamus does not control -

(1) Thirst

(2) Osmoregulation

(3) Creative thinking and consciousness

(4) Thermoregulation

NS0102

94. Choroid plexus is a network of -

(1) Nerves

(2) Muscle fibres

(3) Capillaries

(4) Lymph vessels

NS0103

95. Voluntary activites of body are controlled

by :-

(1) Diencephalon

(2) Cerebrum

(3) Crura cerebri

(4) Cerebellum

NS0104

96. Thermo regulatory center in human brain is :-

(1) Pituitary

(2) Diencephalon

(3) Hypothalamus

(4) None

NS0105

97. Respiratory control in brain occurs in :-

(1) Medulla oblongata

(2) Cerebellum

(3) Hypothalamus

(4) Pericardium

- 98. Drinking of alcohol affects mostly:-
 - (1) Cerebrum
 - (2) Cerebellum
 - (3) Medulla oblongata
 - (4) Diencephalon

- **99.** Which part of the brain regulates the body temperature, hunger and water balance :-
 - (1) Hypothalamus
 - (2) Infundibulum
 - (3) Medulla oblongata
 - (4) Pons veroli

NS0108

- **100.** Most of the involuntary action are controlled by :-
 - (1) Medulla oblongata
 - (2) Cerebrum
 - (3) Cerebellum
 - (4) Diencephalon

NS0109

- **101.** When the medulla oblongata (M.O.) is damaged, then what happen?
 - (1) Immediately die
 - (2) Die after few hrs.
 - (3) Live at 1 hrs & after it may die
 - (4) No affect

NS0110

- **102.** Cerebellar hemisphere is the centre of :-
 - (1) Taste
- (2) Smell
- (3) Balance
- (4) Thinking

NS0111

- **103.** Which part of brain is supposed to be damaged if in an accident, a person lost control of water balance, hunger and body temp.:-
 - (1) Cerebellum
 - (2) Hypothalamus
 - (3) Medula oblongata
 - (4) Corpora quadrigemina

NS0112

- **104.** Which part of brain controls emotions like love, anger and pleasure
 - (1) M. O.
- (2) Hypothalamus
- (3) Mid brain
- (4) Cerebellum

NS0113

- **105.** Brain of human differs from that of frog in having:-
 - (1) Large olfactory lobe
 - (2) Small hypothalamus
 - (3) Small cerebellum
 - (4) Corpus callosum

NS0115

- **106.** Difference found between brain of frog and Human is :-
 - (1) Presence of corpus callosum
 - (2) Corpus albicans
 - (3) Four optic lobes
 - (4) All of these

NS0116

- 107. Hippocampus are the parts of :-
 - (1) Olfactory lobes
 - (2) Cerebrum
 - (3) Cerebellum
 - (4) Medulla Oblongata

NS0117

- **108.** Which part of the brain is more developed in human?
 - (1) Medulla
- (2) Cerebellum
- (3) Cerebrum
- (4) Optic lobes

NS0118

- **109.** Which of the following is not correctly matched:-
 - (1) Cerebrum Olfaction
 - (2) Hypothalamus Pituitary
 - (3) Cerebellum Balance
 - (4) Mid brain –Temperature regulation

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- **110.** The correct sequence of meninges of brain from outside to inside is :
 - (1) Duramater → Arachnoid → Piamater
 - (2) Arachnoid → Duramater → Piamater
 - (3) Piamater → Duramater → Arachnoid
 - (4) Duramater → Piamater → Arachnoid

NS0121

- **111.** The thermoregulatory centre in the body of man is found in :
 - (1) Diencephalon
- (2) Hypothalamus
- (3) Pituitary
- (4) Skin

NS0122

- **112.** Part of brain concerned with the muscular movement is :
 - (1) Cerebellum
 - (2) Thalamus
 - (3) Hippocampus
 - (4) Temporal lobe of cerebrum

NS0123

- **113.** In human corpus callosum connects:
 - (1) The two optic lobes
 - (2) Bone and muscle
 - (3) The two cerebral hemispheres
 - (4) Two lobes of pituitary gland

NS0124

- **114.** Intersensory association, memory and communication are the specific functions of :-
 - (1) Myelinated neuron (2) Spinal cord
 - (3) Cerebellum
- (4) Association area

NS0293

- **115.** In human body muscular co-ordination is controlled by:
 - (1) Spinal cord
 - (2) Cortex
 - (3) Cerebellum
 - (4) Cerebral hemisphere

116. The optic lobe in humans are represented by the corpora –

(1) Bigemina

(2) Arenacea

(3) Striata

(4) Quadrigemina

NS0128

SPINAL CORD, PNS, ANS

- **117.** Which of the following is not an organ of the central nervous system :-
 - (1) Brain
 - (2) Spinal cord
 - (3) Medulla oblongata
 - (4) Vagus

NS0129

- 118. Ventral root of spinal nerve has :-
 - (1) Sensory fibers
 - (2) Motor fibers
 - (3) Sensory and motor fibers both
 - (4) None of these

NS0130

- 119. Cavity in spinal cord is called :-
 - (1) Enterocoel
- (2) Blastocoel
- (3) Schizocoel
- (4) Neurocoel

NS0131

- 120. Last end of spinal cord is called :-
 - (1) Cauda equine
 - (2) Filum terminale
 - (3) Funiculus
 - (4) Conus medullaris

NS0133

- **121.** Through which aperture the spinal cord passes out of skull :-
 - (1) Foramen of monro
 - (2) Foramen of paninze
 - (3) Foramen of magnum
 - (4) None of the above

- **122.** The "butter fly" like structure surrounding the central cavity of human's spinal cord is called:-
 - (1) Funiculus
- (2) Horn
- (3) White matter
- (4) Gray matter

- 123. Which has H-shaped gray matter?
 - (1) Cerebrum
 - (2) Spinal cord
 - (3) Cerebellum
 - (4) Medulla oblongata

NS0136

- 124. Which cranial nerves are sensory :-
 - (1) 1, 2, 8
- (2) 3, 4, 6, 11, 12
- (3) 5, 7, 9, 10
- (4) None of them

NS0137

- 125. Cochlear nerve is a branch of :-
 - (1) Vestibular nerve
- (2) Auditory nerve
- (3) Optic nerve
- (4) Vagus nerve

NS0294

- **126.** Which cranial nerve is the longest and supplies all parts of body other than head :-
 - (1) Trochlear nerve
- (2) Vagus nerve
- (3) Occulomotor nerve (4) Auditary nerve

NS0139

- 127. Purely motor cranial nerve includes :-
 - (1) I, V, VII
- (2) I, II, IV
- (3) III, IV, VI, XI
- (4) None of these

NS0140

- **128.** Parasympathetic system increase activity of:-
 - (1) Lacrimal gland, sweat gland, arrector pili
 - (2) Heart, lacrimal gland, pancreas
 - (3) Heart, adrenal gland and sweat gland
 - (4) Gut, urinary bladder and digestive gland

NS0141

- **129.** Which nerve is purely motor :-
 - (1) Abducens
- (2) Trigeminal
- (3) Olfactory
- (4) Vagus

NS0142

- **130.** The III, VI and XI cranial nerve in mammals are respectively:-
 - (1) Occulomotor, abducens and hypoglossal
 - (2) Occulomotor, abducens and spinal accessory
 - (3) Trochlear, facial and spinal accessory
 - (4) Trigeminal, abducens and vagus

NS0143

- 131. Heart is innervated by :-
 - (1) Vagus
 - (2) Trigeminal
 - (3) Facial
 - (4) Glossopharyngeal

NS0144

- **132.** Number of spinal nerves in human :-
 - (1) 31 pairs
- (2) 32 pairs
- (3) 12 pairs
- (4) 37 pairs

NS0145

- **133.** Which of the nervous system transmit impulses from C.N.S. to skeletal muscle:-
 - (1) Sympathetic nervous system
 - (2) Parasympathetic nervous system
 - (3) Somatic neural system
 - (4) Autonomic neural system

NS0295

- **134.** In human, autonomic nervous system is composed of :-
 - (1) Sympathetic and parasympathetic nerves
 - (2) Cranial and spinal nerves
 - (3) Brain and spinal nerves
 - (4) Medullated and non-medullated nerves

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135. How many pairs of cranial nerves are purely sensory:-

(1) Two (2) Three

(3) Four (4) Five

NS0148

136. Optic nerve is the :-

(1) Fifth cranial nerves

(2) Second cranial nerve

(3) Seventh cranial nerve

(4) Ninth cranial nerve

NS0149

137. All spinal nerves are :-

(1) Motor

(2) Sensory

(3) Mixed

(4) None of the above

NS0150

138. Which of the following nerve helps in maintaining the equilibrium of body:-

(1) Trochlear

(2) Abducens

(3) Auditory

(4) Facial

NS0151

139. Autonomic nervous system controls :-

(1) Conditioned reflexes

(2) Functioning of spinal cord

(3) Functioning of visceral organs

(4) Reflex actions

NS0152

140. Stimulation of sympathetic nervous system causes :-

(1) Constriction of blood vessels and high blood pressure

(2) Dilation of bronchi & pupil

(3) Erection of hair

(4) All of the above

NS0153

141. The two additional cranial nerves present in mammals are :-

(1) Pharyngeal & vagus

(2) Spinal accessory and hypoglossal

(3) Trigeminal and glossopharyngeal

(4) Hypoglossal and sciatic

NS0154

142. Which of the following spinal nerves does not found in human :-

(1) Caudal nerves

(2) Sacral nerves

(3) Cervical nerves

(4) Lumbar nerves

NS0155

143. Which of the following cranial nerves of human are mixed in nature :-

(1) Vagus & trigeminal

(2) Optic & vagus

(3) Auditory & olfactory

(4) Trochlear and vagus

NS0156

144. The cranial and spinal nerves are included under:-

(1) Autonomic nervous system

(2) Peripheral nervous system

(3) Central nervous system

(4) Cutaneous nervous system

NS0157

145. Conservation of energy take place by :-

(1) Sympathetic nervous system

(2) Parasympathetic nervous system

(3) Reflex action

(4) None

NS0158

146. If parasympathetic nerve is cut, then heart beat:—

(1) Unaffected

(2) Decreases

(3) Increases

(4) Stop

NS0159

147. Norepinephrine leads to increase in :-

(1) Blood pressure

(2) Urine production

(3) Cellular respiration

(4) Release of epinephrine

- 148. In a man, if abducens nerve is injured, which one of the following functions will be affected?
 - (1) Movement of the neck
 - (2) Movement of the tongue
 - (3) Movement of the eye ball
 - (4) Swallowing

- **149.** Which cranial nerve provides taste sensation in anterior 2/3rd part of tongue –
 - (1) Trigeminal
- (2) Facial
- (3) Glossopharyngeal (4) Hypoglossal

NS0162

- 150. In emergency condition, all changes occur in our body except -
 - (1) Heart beat increases
 - (2) Dilates blood vessels of brain, lungs, heart and striated muscle
 - (3) Brochodilation
 - (4) Micturition is done

NS0163

- **151.** Which of the following cranial nerve is not a motor nerve?
 - (1) II
- (2) III
- (3) IV
- (4) XII

NS0164

NS0165

152. Match the following human spinal nerves in column I with II and choose the correct options:

Column I	Column II
(a) Cervical nerves	(i) 5 pairs
(b) Thoracic nerves	(ii) 1 pair
(c) Lumbar nerves	(iii) 12 pairs
(d) Coccygeal nerves	(iv) 8 pairs

- (1) a = ii, b = iv, c = i, d = iii
- (2) a = iv, b = iii, c = i, d = ii
- (3) a = iv, b = ii, c = i, d = iv
- (4) a = i, b = iv, c = ii, d = iii

- **153.** 9th Pair of cranial nerve in human is -
 - (1) Vagus
 - (2) Trigeminal
 - (3) Hypoglossal
 - (4) Glossopharyngeal

NS0166

- 154. Which of the following is not under the control of vagus nerve?
 - (1) Gastrointestinal movement
 - (2) Respiratory movement
 - (3) Salivation
 - (4) None of these

NS0167

- 155. Which of the following is released by parasympathtic nervous system?
 - (1) Serotonin
- (2) Acetylcholine
- (3) Epinephrine
- (4) Norepinephrine

NS0168

- **156.** Facial nerve is
 - (1) Motor
 - (2) Sensory
 - (3) Motor and sensory
 - (4) None of these

NS0169

- 157. Number of cranial nerve in human is -
 - (1) Ten only
- (2) Ten pairs
- (3) Twenty pairs
- (4) Twelve pairs

NS0170

- **158.** Which of the following pair is mismatched—
 - (1) Cerebrum voluntary activities
 - (2) Cerebellum body balance
 - (3) M. O. Pneumotaxic centre
 - (4) Spinal cord reflex action

NS0171

- **159.** After sympathetic stimulation, which type of activities are not present in human being:
 - (1) Increase heart rate
 - (2) Bronchodilation
 - (3) Micturition
 - (4) Semen Ejaculation

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- **160.** Which of the following two systems are opposite in action to each other?
 - (1) Nervous Sensory
 - (2) Nervous Endocrine
 - (3) Sensory Endocrine
 - (4) Parasympathetic Sympathetic

NS0173

- **161.** You are watching a horror movie and you notice your heart is beating fast and mouth is dry. It is because of -
 - (1) Fight and flight response
 - (2) Autonomic nervous system
 - (3) Sympathetic nervous system
 - (4) Both 1 and 3

NS0174

- **162.** Movement of tongue is under the control of -
 - (1) Trigeminal
- (2) Facial
- (3) Autonomic system (4) Hypoglossal

NS0175

- **163.** If dorsal root of spinal cord is broken down then its effect is
 - (1) No effect on impulse
 - (2) Impulse is transmitted fast
 - (3) Impulse is transmitted but slowly
 - (4) No impulse is transmitted from receptor

NS0176

- 164. ANS effects on:
 - (1) Reflex actions
 - (2) Sensory organs
 - (3) Internal organs
 - (4) None of these

165. The 3rd, 6th and 11th cranial nerves are :

- (1) Optic, facial, Spinal accessory
- (2) Occulomotor, Trigeminal, Spinal accessory
- (3) Trigeminal, Abducens, Vagus
- (4) Occulomotor, Abduces, Spinal accessory

NS0178

- **166.** Which of the following is a motor nerve?
 - (1) Auditory
- (2) Abducens
- (3) Optic
- (4) Trigeminal nerve

NS0179

- **167.** Which one of the following is not an effect of sympathetic nervous system
 - (1) Dilation of pupil
 - (2) Inhibition of peristalsis
 - (3) Elevation of blood pressure
 - (4) Stimulation for saliva secretion

NS0181

REFLEX ACTION

- **168.** Which of the following is responsible for control of reflex actions?
 - (1) Motor nerves
 - (2) Sensory nerves
 - (3) Central nervous system
 - (4) Sympathetic nervous system

NS0182

- **169.** Reflex action is controlled by :-
 - (1) Muscles
 - (2) Limbs
 - (3) Central nervous system
 - (4) Autonomic nervous system

NS0183

- **170.** Find out the correct sequence of a simple reflex are :-
 - (1) Brain-spinal cord nerves effector
 - (2) Effector CNS sensory nerves receptor
 - (3) Muscles spinal cord brain receptor
 - (4) Receptor sensory nerves CNS effector

NS0184

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- **171.** Sight of delicious food usually makes mouth watery, it is a :-
 - (1) Hormonal response
 - (2) Neural response
 - (3) Optic response
 - (4) Olfactory response

172. Reflex arc consists of :

- (1) Motor nerve
- (2) Sensory nerve
- (3) Both sensory and motor nerves
- (4) None of these



EX	ERCI	SE-I	(Cond	ceptu	al Qu	estio	ns)						ANS\	NER	KEY
Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	2	3	2	1	4	1	1	4	4	1	2	2	3	2	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	1	2	3	2	2	1	2	3	1	4	1	3	1	2
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	4	4	2	1	1	1	2	2	2	3	1	3	2	1	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	2	2	2	2	2	4	4	3	1	3	3	2	1	2	1
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	1	2	2	1	4	2	4	1	2	4	1	3	1	1	3
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	2	1	2	1	2	2	4	1	2	2	2	3	1	1	1
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	3	2	3	3	2	3	1	2	1	1	1	3	2	2	4
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	4	2	3	4	1	2	1	3	4	3	4	4	2	4	4
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	3	4	2	1	2	2	3	4	1	2	1	1	3	1	2
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
	130	137	138	139	140	141	172	110		110	110		110	117	200
Ans.	2	3	3	3	4	2	1	1	2	2	3	1	3	2	4
Ans. Que.	2 151			3 154				1 158							
	2	3	3	3	4	2	1	1	2	2	3	1	3	2	4
Que.	2 151	3 152	3 153	3 154	4 155	2 156	1 157	1 158	2 159	2 160	3 161	1 162	3 163	2 164	4 165



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EXERCISE-II (Previous Year Questions)

AIPMT 2006

- **1.** Which one of the following statements is correct?
 - (1) Neither hormones control neural activity nor the neuron control endocrine activity
 - (2) Endocrine glands regulate neural activity, but not vice versa
 - (3) Neurons regulate endocrine activity, but not vice versa
 - (4) Endocrine glands regulate neural activity, and nervous system regulates endocrine glands

NS0187

- **2.** Which one of the following does not act as a neurotransmitter?
 - (1) Norepinephrine
- (2) Cortisone
- (3) Acetylcholine
- (4) Epinephrine

NS0188

AIPMT 2007

- 3. During the transmission of nerve impulse through a nerve fiber, the potential on the inner side of the plasma membrane has which type of electric charge?
 - (1) First positive, then negative and continue to be negative
 - (2) First negative, then positive and continue to be positive
 - (3) First positive, then negative and again back to positive
 - (4) First negative, then positive and again back to negative

NS0190

- **4.** Which one of the following pairs of structures distinguishes a nerve cell from other types of cell?
 - (1) Vacuoles and fibres
 - (2) Flagellum and medullary sheath
 - (3) Nucleus and mitochondria
 - (4) Perikaryon and dendrites

NS0191

AIPMT/NEET

AIPMT 2008

- 5. During the propagation of a nerve impulse, the action potential results from the movement of :
 - (1) K⁺ from intracellular fluid to extracellular fluid
 - (2) Na⁺ from extracellular fluid to intracellular fluid
 - (3) K⁺ from extracellular fluid to intracellular fluid
 - (4) Na⁺ from intracellular fluid to extracellular fluid

NS0193

AIPMT 2010

- 6. The nerve centres which control the body temperature and the urge for eating are contained in:
 - (1) Cerebellum
- (2) Thalamus
- (3) Hypothalamus
- (4) Pons

NS0194

AIPMT-Pre 2012

- 7. A person entering an empty room suddenly finds a snake right in front on opening the door. Which one of the following is likely to happen in his neuro-hormonal control system?
 - (1) Hypothalamus activates the parasympathetic division of brain
 - (2) Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal cortex
 - (3) Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal medulla
 - (4) Neurotransmitters diffuse rapidly across the cleft and transmit a nerve impulse



NEET-UG 2013

- 8. A diagram showing axon terminal and synapse is given below.
 Identify correctly at least two of A-D.
 - (1) C-Neurotransmitter D-Ca⁺⁺
 - (2) A-Receptor C-Synaptic vesicles
 - (3) B-Synaptic connection D-K⁺
 - (4) A-Neurotransmitter B-Synaptic cleft



AIPMT 2014

- **9.** How do parasympathetic neural signals affect the working of the heart ?
 - (1) Reduce both heart rate and cardiac output.
 - (2) Heart rate is increased without affecting the cardiac output.
 - (3) Both heart rate and cardiac output increase.
 - (4) Heart rate decreases but cardiac output increases.

NS0199

- **10.** Injury localized to the hypothalamus would most likely disrupt :
 - (1) short term memory.
 - (2) co-ordination during locomotion.
 - (3) executive functions, such as decision making.
 - (4) regulation of body temperature.

NS0200

AIPMT 2015

- **11.** Which of the following regions of the brain is incorrectly paired with its function?
 - (1) Cerebellum- language comprehension
 - (2) Corpus callosum communication between the left and right cerebral cortices
 - (3) Cerebrum- calculation and contemplation
 - (4) Medulla oblongata
 - homeostatic control

NS0201

NEET(UG) 2017

- **12.** Myelin sheath is produced by :
 - (1) Astrocytes and Schwann cells
 - (2) Oligodendrocytes and Osteoclasts
 - (3) Osteoclasts and Astrocytes
 - (4) Schwann cells and Oligodendrocytes

NS0206

- **13.** Receptor sites for neurotransmitters are present
 - on:
 - (1) Pre-synaptic membrane
 - (2) Tips of axons
 - (3) Post-synaptic membrane
 - (4) Membrane of synaptic vesicles

NS0207

NEET(UG) 2018

- **14.** Which of the following is **not** at autoimmune disease?
 - (1) Psoriasis
 - (2) Rheumatoid arthritis
 - (3) Alzheimer's disease
 - (4) Vitiligo

NS0209

- **15.** Which of the following structures or regions is *incorrectly* paired with its function?
 - (1) Medulla oblongata: controls respiration and cardiovascular reflexes.
 - (2) Limbic system : consists of fibre tracts that interconnect different regions of brain; controls movement.
 - (3) Hypothalamus: production of releasing hormones and regulation of temperature, hunger and thirst.
 - (4) Corpus callosum : band of fibers connecting left and right cerebral hemispheres.

NS0210

NEET(UG) 2019

- **16.** Which part of the brain is responsible for thermoregulation?
 - (1) Cerebrum
 - (2) Hypothalamus
 - (3) Corpus callosum
 - (4) Medulla oblongata





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NEET(UG) 2019 (Odisha)

- **17.** Which of the following statements is **not** correct?
 - (1) An action potential in an axon does not move backward because the segment behind is in a refractory phase
 - (2) Depolarisation of hair cells of cochlea results in the opening of the mechanically gated potassium -ion channels.
 - (3) Rods are very sensitive and contribute to daylight vision.
 - (4) In the knee-jerk reflex, stimulus is the stretching of muscle and response is its contraction.

NS0292

NEET(UG) 2021 (Paper-2)

- 18. The part of the peripheral nervous system that comprises the whole complex of nerves, fibres, ganglia and plexuses by which impulses travel from the central nervous system to the viscera and from viscera to central nervous system is called
 - (1) Autonomic nervous system
 - (2) Sympathetic nervous system
 - (3) Parasympathetic nervous system
 - (4) Visceral nervous system

NS0296

NEET(UG) 2022

- **19.** Select the **incorrect** statement regarding synapses:
 - Electrical current can flow directly from one neuron into the other across the electrical synapse.
 - (2) Chemical synapses use neurotransmitters
 - (3) Impulse transmission across a chemical synapse is always faster than that across an electrical synapse.
 - (4) The membranes of presynaptic and postsynaptic neurons are in close proximity in an electrical synapse.

NS0297

Re-NEET(UG) 2022

20. Match List - I with List - II

List - I List - II

(a) Multipolar (i) Somatic neural neuron system

(b) Bipolar neuron (ii) Cerebral cortex (c) Myelinated (iii) Retina of Eye

nerve fibre (d)Unmyelinated

(iv) Spinal nerves

nerve fibre

Choose the **correct answer** from the options given below:

$$(1)(a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)$$

$$(2)(a) - (ii), (b) - (iv), (c) - (iii), (d) - (i)$$

$$(3)(a) - (ii), (b) - (iii), (c) - (i). (d) - (iv)$$

$$(4)(a) - (ii), (b) - (iii), (c) - (iv), (d) - (i)$$

NS0298

EXERCISE-II (Previous Year Questions)

Λ	N I	011	V = E	\ I /	
Δ		$\leq V$	VEF	, K	\vdash \lor
		$\sim 0 \text{ V}$	V .		

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	2	4	4	2	3	3	2	1	4	1	4	3	3	2
Que.	16	17	18	19	20										
Ans.	2	3	4	3	4										



EXERCISE-III

EXERCISE-III(A) (NCERT BASED QUESTIONS)

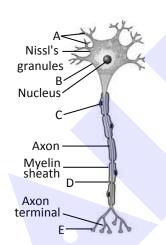
- **1.** Which system provides an organised network of point to point connection :-
 - (1) Integrated system
 - (2) Neuro-endocrine system
 - (3) Endocrine system
 - (4) Nervous system

NS0211

- **2.** Which role of neuron regarding different kinds of stimuli is absent :-
 - (1) detect
 - (2) receive
 - (3) transmit
 - (4) protect

NS0212

3. The accompanied diagram shows the structure of neuron. Identify A to E.



	А	В	ВС		E
(1)	Nerve fibre	Cyton or cell body	Schwann cell	Node of Ranvier	Synaptic knob
(2)	Dendrites	Cyton or cell body	Schwann cell	Node of Ranvier	Synaptic knob
(3)	Dendrites	Nerve cell	Schwann cell	Node of Ranvier	Synaptic knob
(4)	Dendrites	Cyton or cell body	Nerve cell	Node of Ranvier	Synaptic knob

NS0213

Master Your Understanding

- 4. Pick out the incorrect statement?
 - (1) Myelinated nerve fibres are found in spinal and cranial nerve.
 - (2) Unmyelinated nerve fibre is enclosed by a schwann cell.
 - (3) In resting stage the axonal membrane is comparatively more permeable to potassium ion and nearly impermeable to sodium ions.
 - (4) Axolemma is more permeable to negatively charged protein present in the axoplasm.

NS0214

- When a neuron is not conducting any impulse i.e. resting, the axonal membrane is -
 - (1) Comparatively more permeable to K⁺ and impermeable (nearly impermeable) to Na⁺
 - (2) Impermeable to negatively charged proteins present in the axoplasm
 - (3) (1) & (2) Both
 - (4) More permeable to Na⁺ ions than K⁺ ion

NS0215

- **6.** During depolarization of the neuronal membrane-
 - (1) Na⁺ ions rapidly move inside the cell
 - (2) Na⁺ ions rapidly move outside the cell
 - (3) K⁺ ions rapidly move outside the cell
 - (4) K⁺ ions rapidly move inside the cell

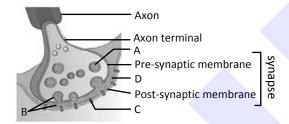
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7. Which of the following diagram illustrates the distribution of Na⁺ and K⁺ ions in a section of non-myelinated axon which is at resting potential?

(4)
$$\begin{pmatrix} Na^{+} low \\ + & + & + \\ - & - & - \\ & K^{+} low \\ & & - & - \\ & + & + & + \end{pmatrix}$$

NS0217

8. Study the diagram of synapse-



- I. Which alphabet indicate the location of the receptor molecules?
- II. Which alphabet points to a synaptic vesicles
- III. Which alphabet points to neurotransmitter
- IV. Which alphabet points to synaptic cleft

I	II	III	IV
(1) C	Α	В	D
(2) B	Α	С	D
(3) C	Α	D	В

(4) C D A B

NS0218

- **9.** Which of the following statements is false about the electrical synapse ?
 - I. At electrical synapses, the membranes of pre and post synaptic neurons are in very close proximity.
 - II. Electrical current can flow directly from one neuron into the other across the synapses.
 - III. Transmission of an impulse across electrical synapses is very similar to impulse conduction along single axon.
 - IV. Electrical synapses pass electrical signal between cells with the use of Ach
 - V. Electrical synapses are fast.
 - VI. Electrical synapses are rare in our system.
 - (1) I and II
- (2) Only II
- (3) Only IV
- (4) Only V

NS0219

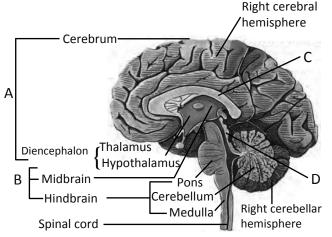
- **10.** Five events in the transmission of nerve impulse across the synapse are given below
 - A. Opening of specific ion channels allows the entry of ions, a new action potential is generated in the post-synaptic neuron.
 - B. Neurotransmitter binds to the receptor on post synaptic membrane
 - C. Synaptic vesicle fuses with pre-synaptic membrane, neurotransmitter releases into synaptic cleft.
 - D. Depolarization of pre-synaptic membrane
 - E. Arrival of action potential at axon terminal.

In which sequence to the events occur?

- (1) $E \rightarrow D \rightarrow C \rightarrow B \rightarrow A$
- (2) $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E$
- (3) $A \rightarrow B \rightarrow D \rightarrow C \rightarrow E$
- (4) $E \rightarrow D \rightarrow C \rightarrow A \rightarrow B$



11. Identify A, B, C and D in given diagram -



- (1) A Forebrain, B Brainstem, C Corpus callosum, D- Cerebral aqueduct
- (2) A Forebrain, B Brainstem, C Cerebral aqueduct, D Corpus callosum
- (3) A Brainstem, B Forebrain, C Corpus callosum, D Cerebral aqueduct
- (4) A Brainstem, B Forebrain, C
 Cerebral aqueduct, D Corpus luteum

NS0221

- 12. The forebrain develops into-
 - (1) Diencephalon and Cerebrum
 - (2) Diencephalon and Cerebellum
 - (3) Diencephalon and Medulla
 - (4) Diencephalon and Pons

NS0222

- **13.** The name of nervous band connecting the cerebral hemispheres is -
 - (1) Corpus albicans
 - (2) Corpus callosum
 - (3) Corpus striatum
 - (4) Corpus spongiosum

NS0223

- **14.** Which of the following statements is incorrect about cortex of cerebrum?
 - (1) It consists of grey matter
 - (2) It consists of white matter
 - (3) It shows prominent folds
 - (4) It contains motor areas, sensory areas and association areas.

NS0224

- 15. Association areas in cerebral cortex are -
 - (1) Sensory areas
 - (2) Motor areas
 - (3) Responsible for intersensory associations, memory and communication
 - (4) None of the above is correct

NS0225

- **16.** The cerebrum wraps around a structure called thalamus, which is-
 - (1) A major coordinating centre for sensory signal only
 - (2) A major centre for motor signaling
 - (3) A major coordinating centre for sensory and motor signaling
 - (4) Not a nervous part of a brain

NS0226

- 17. Hypothalamus does not control -
 - (1) Thermoregulation
 - (2) Urge for eating and drinking
 - (3) Produces hormones that regulate the synthesis and secretion of pituitary hormone
 - (4) Creative thinking and consciousness



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EXERCISE-III(B) (ANALYTICAL QUESTIONS)

- **18.** The inner parts of cerebral hemispheres and a group of associated deep structures like amygdala, hippocampus, etc; form a complex structure called-
 - (1) Recticular system
 - (2) Corpora quadrigemina
 - (3) Limbic lobe/limbic system
 - (4) Arbor vitae

NS0228

- **19.** Which of the following statements or structures is not correct about the midbrain?
 - (1) Located between the thalamus / hypothalamus and pons
 - (2) Has arbor vitae
 - (3) Has a canal (Cerebral aqueduct)
 - (4) Its dorsal part consists of 4 lobes (corpora quadrigemina)

NS0229

- **20.** Read the following statements and choose the correct option
 - Cerebellum has very convoluted surface in order to provide the additional space for more neurons.
 - II. The medulla is connected to the spinal cord
 - III. Medulla contains controlling centres for respiration, cardiovascular reflexes and gastric secretion.
 - (1) All are correct
 - (2) Only I is correct
 - (3) Only I and III are correct
 - (4) Only II is correct.

NS0230

- **21.** Different components of reflex arc are given below:
 - I. Effector organ
 - II. Interneuron
 - III. Motor neuron
 - IV. Sensory neuron
 - V. Sensory receptor

Choose the correct order an action potential follows after a sensory receptor is stimulated-

- (1) V, IV, III, II, I
- (2) V, IV, II, III, I
- (3) V, III, IV, I, II
- (4) V, II, IV, III, I

NS0231

22. Where A stands for axon, D for dendrite, S for synapse, and CB for cell body, a typical sequence of structures between a receptor and an efferent is?

(1)
$$D - CB - A - S - D - CB - A$$

(2)
$$A - D - CB - S - A - D - CB$$

(3)
$$D - CB - A - S - A - CB - D$$

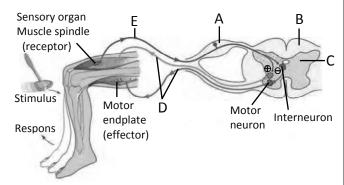
(4)
$$D - A - S - CB - D - A - CB$$

NS0232

- **23.** What is meant by a reflex arc in the nervous system?
 - An inherited behaviour pattern, that functions through a certain neural pathway
 - (2) A functional unit consisting of a receptor, neural pathway, and an effector
 - (3) Peripheral nerves, spinal cords and brain
 - (4) A homeostatic system of sensory nerves, synapses and motor nerves



24. The following diagrammatic representation of reflex action shows knee jerk reflex.



In which of the following options corrects words for all the 5 blanks (A to E) are indicated?

	Α	В	С	D	E
(1)	Dorsal root ganglion	White matter	Gray matter	Afferent pathway	Efferent pathway
(2)	Dorsal root ganglion	White matter	Gray matter	Efferent pathway	Afferent pathway
(3)	Dorsal root ganglion	Gray matter	White matter	Efferent pathway	Afferent pathway
(4)	Ventral root ganglion	White matter	Gray matter	Efferent pathway	Afferent pathway

NS0234

- 25. Read the following statements:-
 - (A) Nervous system provides an organised network of point to point connection.
 - (B) The endocrine system provides chemical integration through hormone.
 - (C) The neural organisation is very complex in lower invertebrates.
 - (D) Neuron can detect & receive stimuli but can't transmit.

How many of above statements are false.

(1) 4

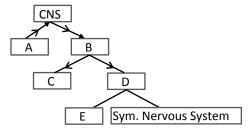
(2) 3

(3) 2

(4) 1

NS0235

26. Which of the following answer shows the correct arrangement of nerve fibre.



- (1) (A) Centrifugal (B) Efferent (C) PNS.
 - (D) ANS (E) Parasympathetic
- (2) (A) Centripetal (B) Afferent (C) PNS.
 - (D) ANS (E) Parasympathetic
- (3) (A) Centrifugal (B) Afferent (C) SNS
 - (D) ANS (E) Parasympathetic
- (4) (A) Centripetal (B) Efferent (C) SNS. (D) ANS(E) Parasympathetic

NS0236

- **27.** Which statement is correct regarding neuron.
 - (1) Neuron is composed of 4 parts containing cell body dendrite, axon & telodendria
 - (2) Nissel's granules are found in both cell body & axon.
 - (3) Impulse are divided into apolar, bipolar & multipolar
 - (4) Dendrites transmit impulse toward the body while axon transmit impulse away from the body.

NS0237

- **28.** Which of the nervous system transmit impulse from CNS to involuntary organs & smooth muscle?
 - (1) Sympathetic nervous system
 - (2) Parasympathetic nervous system
 - (3) Autonomic nervous system
 - (4) Somatic nervous system



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- Pre-Medical
- 29. Read the following statement:-
 - (A) Peripheral nervous system divide's in somatic nervous system & autonomic nervous system.
 - (B) Central nervous system includes brain & vertebral column.
 - (C) Afferent nerve fibre transmit impulse from CNS and vise versa is also correct How many of above statements is/are false (1) A & B (2) B & C (3) C & A (4) All

NS0239

- **30.** Which of the statement is false regarding synapse?
 - (1) Synapse is formed by 2 membrane first presynaptic membrane of synaptic knob & second post synaptic membrane of dendrite.
 - (2) Synaptic membrane always be separated by a gap called synaptic cleft.
 - (3) Electrical synapse in very similar to impulse conduction along a single axon.
 - (4) In chemical synapse, neurotransmitter is released and either excitatory or inhibitory potential is generated on post synaptic membrane.

NS0240

- **31.** Which of the following statement is correct.
 - (A) The electrical potential difference across the polarised plasma membrane is called as action potential in resting stage.
 - (B) Na⁺ ion is responsible for generating an action potential.
 - (C) The impulse is action potential
 - (1) A & B (2) B & C (3) C & A (4) All

NS0241

- **32.** $Na^+ K^+ pump -$
 - (A) Transports 3Na⁺ inwards & 2K⁺ outwards.
 - (B) Maintain ionic gradients by active transport.
 - (C) Works against a concentration gradient. How many of above statements are false?
 - (1) 4
- (2) 3
- (3) 2
- (4) 1

NS0242

- **33.** Which of the following are controlled by limbic system :-
 - (A) Emotional reaction
 - (B) Sexual behaviour
 - (C) Respiration
 - (D) Olfaction
 - (E) Body balance

Choose the correct option -

- (1) A, B, C, D, E
- (2) A, B, D
- (3) A, B, C, D
- (4) A, B, D, E

NS0243

- **34.** The prime area of brain where different type of information are integrated
 - (1) CNS
- (2) ANS
- (3) PNS
- (4) SNS

NS0244

EXERCISE-III ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	4	2	4	3	1	1	1	3	1	1	1	2	2	3
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	3	4	3	2	1	2	1	2	2	3	4	4	3	2	2
Que.	31	32	33	34											
Que.	0.1			<u> </u>											