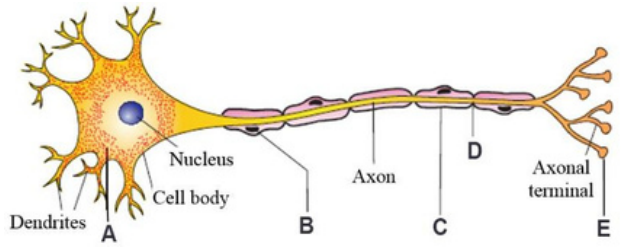
NEET ENTRANCE QUESTIONS

NEURAL CONTROL AND COORDINATION

HUMAN NEURAL SYSTEM

1. Following are some statements related to neuron. Select the fa[illegible]
   A. T [illegible] l
   B. Dendrites transmit impulses towards the cell body
   C. Schwan cells are seen only in myelinated neuron
   D. Myelinated nerve fibres are found in spinal and cranial nerves

2. Label A, B, C, D and E in the following figure.



   A. A= Nissl''s granules, B= Schwan cell, C= Myelin sheath, D= Node of Ranvier, E= Synaptic knob
   B. A= Nissls granules, B= Myelin sheath, C= Schwan cell, D= Node of Ranvier, E= Synaptic knob
   C. A= Nissl''s granules, B= Schwan cell, C= Myelin sheath, D= Synaptic knob, E= Node of Ranvier
   D. A= Nissls granules, B= Myelin sheath, C= Schwan cell, D= Synaptic knob, E= Node of Ranvier

3. Gaps between two adjacent myelin sheaths is called
   A. Synaptic knob B. Synaptic cleft
   C. Nodes of Ranvier D. Axon terminal

4. Consider the following statements regarding unipolar neuron
   a. It is found in embryo
   b. It has only one axon and one dendron
   c. A long axon is projected from cyton
   A. a & c are correct B. a & b are correct
   C. [illegible] D. [illegible]

5. Correc[illegible]
   A. [illegible]
   B. [illegible]
   C. [illegible]
   D. P [illegible] dura mater

6. Cerebrum controls
   A. Sneezing, coughing, speech, vision
   B. Vision, speech, intelligence, hearing, taste
   C. Intelligence, memory, body balance, coughing
   D. Memory, thinking, body balance, sneezing

7. The decoding and interpretation of visual information is carried out by which part of the cerebrum?
   A. Frontal lobe B. Parietal lobe
   C. Temporal lobe D. Occipital lobe

8. The inner parts of cerebral hemispheres and a group of associated deep structures like [illegible] hypothalamus, etc. together co [illegible] it
   A. Limbic system
   C. Corpora quadrigemina D. Brain stem

9. Hippocampus is
   A. Name of a fish B. A part of brain
   C. Name of a mammal D. Both A & B

10. A man is admitted to a hospital. He is suffering from an abnormally low body temperature, loss of appetite and extreme thirst. His brain scan would probably show a tumor in
   A. Medulla oblongata B. Pons C. Cerebellum
   D. Hypothalamus E. Pituitary

11. Thalamus is also known as
   A. Relay station B. Gate keeper
   C. Biological clock D. Master gland
   E. Both A & B

12. Electric potential of brain is recorded by
   A. CT scan B. Sphygmomanometer
   [illegible]

13. A [illegible] statements.
   a. It is the largest part of hindbrain
   b. It has 2 hemispheres
   c. It is the centre of short-term memory
   d. It has outer gray matter and inner white matter
   e. It synchronizes the activity of voluntary muscles
   A. a, b, d, & e are correct B. Only e is correct
   B. d & e are correct D. c & d are correct

14. The tract of nerve fibres which connects the cerebral hemispheres is
   A. Corpus luteum B. Corpus callosum
   C. Corpora quadrigemina D. Cerebral aqueduct

15. The mixed nerves of cranial origin are
   A. 1,2,8 B. 5,7,9,10
   [illegible] D. All are mixed nerves

16. Sympathetic system and adrenaline
   A. Are the part of ANS
   B. Prepare body to cope with emergencies & stresses
   C. Are antagonistic in action
   D. Dilate arteries and lower BP

17. 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?
   A. Sympathetic nervous system is activated releasing epinephrine & norepinephrine from adrenal medulla.
   B. Neurotransmitters diffuse rapidly across the cleft and transmit a nerve impulse.
   C. Hypothalamus activates the parasympathetic division of the brain.
   D. Sympathetic nervous system is activated releasing adrenaline & noradrenaline from adrenal cortex.

NERVE IMPULSES & REFLEX ACTION

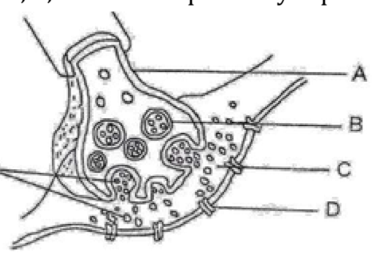
18. Given below are the statements regarding resting neuron
    a. The resting membrane potential is +30 mV
    b. In resting membrane, outside is +vely charged and inside isvely charged
    c. Resting membrane has only a poor permeability for Na+ and has a higher permeability for K+
    d. The ionic gradients are due to *sodium-potassium pump* which transports 2 Na+ outwards for 3 K+ into the cell

A. a & c are correct B. a & b are correct
C. b & c are correct D. a & d are correct

19. During the propagation of a nerve impulse, the action potential results from the movement of
A. K+ ions from extracellular fluid to intracellular fluid
B. Na+ ions from intracellular fluid to extracellular fluid
C. K+ ions from intracellular fluid to extracellular fluid
D. Na+ ions from extracellular fluid to intracellular fluid

20. Which statement is incorrect about synaptic transmission?
A. Impulse transmission in electrical synapse is faster than in chemical synapse
B. Electrical synapses are very rare in human system C. When the impulse reaches the presynaptic region, synaptic vesicles break and release neurotransmitters
D. Based o neurotransmitter electrical synapses are –n Cholinergic & Adrenergic 2 types

21. In the following diagram showing axon terminal and synapse A, B, C, D and E respectively represents



A. A axon terminal, B – synaptic cleft, C – synaptic vesicles, D – neurotransmitters, E receptors
B. cleft, D – receptors, E – synaptic vesicles, – C synaptic neurotransmitters
C. t – synaptic vesicles C axon sicles, D – – neurotransmitters, E – receptors
D. A synaptic cleft, B – receptors, E axon terminal, C synaptic – ve ran mitters, E recepors
E. axon terminal, C synaptic neurotransmitters

22. Receptor sites for neurotransmitters are present on
A. Pre-synaptic membrane
B. Tips of axons
C. Post-synaptic membrane
D. Membranes of synaptic vesicles

23. Unidirectional transmission of a nerve impulse through nerve fibres is due to a fact that
A. Nerve fibre is insulated by a medullary sheath
B. Sodium pump starts operating only at the cyton and then continues into the nerve fibre.
C. Neurotransmitters are released by the dendrites and not by axon endings.
D. Neurotransmitters are released by the axon endings and not by dendrites.

24. Route of reflex arc is
A. Receptors, effectors, grey matter and motor fibres
B. Sensory fibres, grey matter, motor fibres, receptors and effectors
C. Receptors, sensory fibres, grey matter, motor fibres and effectors
D. Effectors, grey matter, motor, sensory fibres and receptors

25. Knee jerk phenomenon and milk sucking of a nursing baby are examples for
A. Reflex action
B. Rapid and involuntary action
C. Unconditioned, involuntary & unconscious action
D. The entire above

SENSE ORGANS

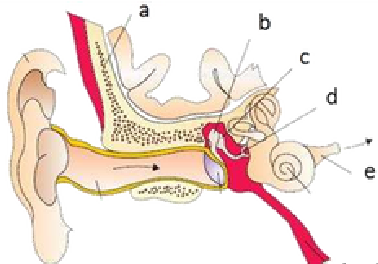
26. Transparent part of sclera is called
A. Conjunctiva B. Cornea C. Pupil
D. Iris E. Choroid

27. The focal length of eye lens is controlled by
A. Iris muscle B. Ciliary body C. Pupil
D. Cornea E. All of the above

28. Which is not correct about macula lutea?
A. Its central pit is known as fovea centralis
B. It is a transducer of RGB light
C. It is also known as yellow spot
D. Cones and rods are absent
E. It is the area of keenest vision

29. Arrange ganglion cells bipolar cells rod cells in correct order from inside to outside... (text garbled) insid t
A.
B. BGPhiapotglolairore ncceeclpelstllo →sr → cpe hpllohsto o–
C.
D. no

30. Label a, b, c, d and e in the given figure.



A. a – parietal bone, b – malleus, c – incus, d – stapes, e cochlea
B. a stape c in malleus, e – cochlear nerve

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D. a – frontal bone, b – incus, c – malleus, d – stapes, e cochlear nerve

C. Utriculus
D. Semicircular canal
E. All of these

34. Select the part having double role?
A. Hypothalamus
B. Pancreas
C. Ovaries
D. Adrenal cortex

31. Select the correct sequence showing the steps of mechanism of hearing
A. Pinna – tympanic membrane – auditory canal – malleus – incus – stapes – cochlea – auditory nerve
B. Pinna – tympanic membrane – auditory canal – malleus – incus – stapes – cochlea – auditory nerve
C. Pinna – tympanic membrane – auditory canal – malleus – incus – stapes – cochlea – auditory nerve
D. Pinna – tympanic membrane – malleus – incus – stapes – cochlea – auditory nerve

35. Which of the following is not a part of
A. membrane
B. Malleus, Incus, stapes
C. Cones, rods, yellow spot
D. Semi-circular canal, semi-lunar valve, seminal vesicle
E. Dendron, axon, cyton

36. Select the chemoreceptor organs
A. Nose & tongue
B. Ear & skin
C. Eye & ear
D. Skin & nose

32. The Org
A. Basilar membrane
B. Tectorial membrane
C.
D. Tympanic membrane

37. Which of the following is known as Gustatoreceptors?
A. Ear
B. Nose
C. Tongue
D. Skin

33. Which is concerned with equilibrium?
A. Cerebellum
B. Cristae