GENESIS

(Post Graduation Medical Orientation Centre)

Foundation-1 Batch

Total Number- 60 | **Subject: Nervous System** | **Time: 20 Min**

Pass Mark-42 | Question 16-30 is based on Single answers | **Date: 31/12/19**

1. Which lobe has language function
a) Occipital
b) Temporal dominant
c) Parietal non dominant
d) Frontal
e) Parietal dominant
FTFTT (sheet page 3 box / davidson box 25.2)

2. Unipolar neurons are
a) Vestibular ganglia
b) Dorsal root ganglia
c) Motor cortex
d) Cranial nerve ganglia
e) Olfactory cells
FTFTF (page 5)

3. Temperature is the function of
a) c
b) B
c) A alpha
d) A delta
e) A gama
TFFTF (page 8)

4. Purely inhibitory neurotransmitters are
a) GABA
b) Substance P
c) Serotonin
d) Alanin
e) Histamine
TFTTF (page 11)

5. Factors decrease synaptic transmission
a) Hypoxia
b) Hypocalcemia
c) Increased pH
d) Botulinum toxin
e) Anaesthetic drugs
TFFTT (page 15)

6. Contraindication of lumber puncture
a) Papilloedema
b) Meningitis
c) DIC
d) ICSOL
e) Thrombocytopenia
TFTTT (page 19)

7. Choroid plexus is absent in
a) Roof of 4th ventricle
b) Roof of body of lateral ventricle
c) Posterior horn of lateral ventricle
d) Anterior horn of lateral ventricle
e) Floor of 3rd ventricle
FTTTT (lecture)

8. Feature of raised ICP
a) Hypotension
b) Bradycardia
c) Irritability
d) Pailloedema
e) Subarachnoid haemorrhage
FTTTF (page 21)

9. Features of blood brain barrier
a) Permeability is inversely related to solubility of molecules
b) The tuber cinereum is devoid of BBR
c) Epinephrine can not cross BBR
d) BBR is not permeable to urea
e) Foot process of astrocyte is a component of BBR
FTTFT (page 23)

10. Sign of pyramidal tract lesion
a) Athetosis
b) Ballismus
c) Cogwheel rigidity
d) Absent deep reflex
e) Increased muscle tone
FFFFT

11. Which are true about ascending tract
a) Tract of Burdach ends at T6 spinal nerve
b) Dorsal column decussate at lower end of medulla
c) Anterior spinothalamic tract is ipsilateral in spinal cord
d) Spinal lemniscus is formed by dorsal column
e) 2nd order neurons of lateral spinothalamic tract is contralateral
FTFFT (page 37)

12. Posterior column damage in the spinal cord may impair
a) Pain sensation
b) Flexor plantar response to stimulation of sole
c) Touch sensation
d) The ability to stand steadily with the eyes closed
e) Vibration
FFTTT (Residency 16,17)

13. Features of brown sequard symptoms
a) Ipsilateral lower motor type of paralysis at the level of the lesion
b) Contralateral loss of discriminative touch below the level of lesion
c) Ipsilateral loss of pain below the level of lesion
d) Contralateral hemiparesis below the level of lesion
e) Ipsilateral loss of discriminative touch below the level of lesion
FFFFT (FCPS 13)

14. Sympathetic
a) Ganglionic transmission is mediated by acetylcholine
b) Neuromuscular transmission at the heart is mediated by adrenaline
c) Neuromuscular transmission in hand skin arterioles is mediated by acetylcholine
d) Neuroglandular transmission at sweat glands is mediated by noradrenaline
e) Neuromuscular transmission at the iris is mediated by noradrenaline
TFFFT (Roddie 272)

15. The ascending reticular formation
a) When stimulated tends to increase alertness
b) Transmits impulses to higher centres via a multisynaptic pathway
c) Is activated by collateral branches of sensory neurones
d) Neurones project to most parts of the cerebral cortex
e) Increases its activity during deep sleep.
TTTTF (Roddie 269)

Each question below contains five suggested answers- choose the <u>one best</u> response to each question (16-30)

16. Effect of temporal dominant lobe lesion
a) Apraxia
b) Astereognosis
c) Dyslexia
d) Dysphasia
e) Complex hallucination
C (sheet page 3 box / davidson box 25.2)

17. Which nerve fiber is most susceptible to pressure
a) B
b) A
c) C
d) C dorsal root fiber
e) C sympathetic fiber
A (page 9)

18. CSF finding in case of acute bacterial meningitis
a) Red cell count: raised
b) Protein: decreased
c) Oligoclonal bands: always negetive
d) White cell: polymorphs
e) Colour: clear
D (page 19)

19. What is the required cerebral perfusion pressure for constant cerebral blood flow
a) 80 - 120 mmHg
b) 80 - 180 mmHg
c) 90 - 60 mmHg
d) 90 - 140 mmHg
e) 60- 160 mmHg
E (page 22)

20. Root value of triceps jerk
a) C4
b) C5
c) C6
d) C7
e) T1
D (page 30)

21. Which one is the example of deep reflex
a) Plantar reflex
b) Biceps jerk
c) Babinski's sign
d) Vomiting reflex
e) Abdominal reflex
B (page 29)

22. Which one is the primitive motor function
a) Coordination
b) Tone
c) Reflex
e) Balance
e) Vision
D (lecture)

23. Function of lateral spinothalamic tract
a) Kinesthetic sensation
b) Carry superficial reflexes
c) Temperature sensation of same side
d) Pain sensation of opposite side
e) Fine touch sensation
D (page 38,39)

24. Brodmann taste area
a) 17
b) 43
c) 41
d) 9
e) 8
B (page 42)

25. Feature of lower motor neuron lesion
a) Babinsky sign negative
b) Superficial reflexes present
c) Spastic paralysis
d) Muscle tone increased
e) Clonus present
A (page 44)

26. Which sensation does not relay in the thalamus
a) Auditory
b) Vision
c) Smell
d) Touch
e) Crude touch
C (All the sensory pathways including the special senses, except for olfaction, relay in the thalamus before going on to the cerebral cortex)

27. Largest cerebellar nuclei
a) Caudate nucleus
b) Globose nucleus
c) Fastigial nucleus
d) Emboliform nucleus
e) Dentate nucleus
E (page 50)

28. 11. A tumor was diagnosed near the base of the skull in a 56-year-old woman, impinging on her optic tract. Which of the following statements about the central visual pathway is correct?
a) The fibers from each temporal hemiretina decussate in the optic chiasm, so that the fibers in the optic tracts are those from the temporal half of one retina and the nasal half of theother.
b) In the geniculate body, the fibers from the nasal half of one retina and the temporal half of the other synapse on the cells whose axons form the geniculocalcarine tract.
c) Layers 2 and 3 of the visual cortex contain clusters of cells called globs that contain a high concentration of cytochrome oxidase.
d) Complex cells have a preferred orientation of a linear stimulus and, compared to simple cells, are more dependent on the location of the stimulus within the visual field.
e) The visual cortex is arranged in horizontal columns that are concerned with orientation
B (Lange chapter 9 Q 11)

29. The inverse stretch reflex
a) Occurs when Ia spindle afferents are inhibited
b) Is a monosynaptic reflex initiated by activation of the Golgi tendon organ
c) Is a disynaptic reflex with a single interneuron inserted between the afferent and efferent limbs
d) Is a polysynaptic reflex with many interneurons inserted between the afferent and efferent limbs.
e) Uses type II afferent fibers from the Golgi tendon organ
C (Lange chapter 12 Q 2)

30. A 50-year-old woman undergoes a neurologic exam that indicates loss of pain and temperature sensitivity, vibratory sense, and proprioception in the left leg. These symptoms could be explained by
a) A tumor on the right medial lemniscal pathway in the sacral spinal cord
b) A peripheral neuropathy.
c) A tumor on the left medial lemniscal pathway in the sacral spinal cord
d) A tumor affecting the right posterior paracentral gyrus
e) A large tumor in the right lumbar ventrolateral spinal cord
D (Lange chapter 8 Q11)