

# GENESIS

(Post-Graduation Medical Orientation Centre)

Friday Mega Batch

Total Number- 60

Pass Mark-42

Subject: Nervous System

Question 16-30 is based on Single answers

Time: 20 Min

Date: 03/01/20

## 1. Which is not the branch of basilar artery

- a) Labyrinthine artery
- b) Pontine artery
- c) Superior cerebellar artery
- d) Posterior-inferior cerebellar artery
- e) Posterior cerebral artery

T T T F T

## 2. Regarding cerebral blood flow

- a) It is 15% of the total cardiac output
- b) Normal flow is 54 mL/100gm/min
- c) Normal function is not impaired when it is less than 23mL/100gm/min
- d) It is auto regulated at BP 65-140 mm of Hg
- e) Irreversible brain damage may occur at when it is <8 mL/100gm/min

TT ( 14-20%) T F T

## 3. Muscle spindle

- a) Contains extrafusal muscle fiber
- b) Is innervated by gamma motor neuron
- c) Detects change in length of muscle fiber
- d) Can be stretched
- e) Has sensory supply of Ib fiber

FTTTF[Ref: Guyton & Hall/13<sup>th</sup>/P-697]

## 4. The dorsal root ganglion contains the cell bodies of the

- a) Dorsal column of the spinal cord
- b) Anterior spinocerebellar tract
- c) Dorsolateral tract
- d) Lateral spinothalamic tract
- e) Reticulospinal tract

T F T T F

## 5. Acetylcholine is released by

- a) Preganglionic parasympathetic neuron
- b) Post ganglionic sympathetic supplying sweat gland
- c) Preganglionic sympathetic neuron
- d) Postganglionic parasympathetic neuron
- e) Adrenal medulla

T T T F

## 6. Contraindication of lumbar puncture

- a) Raised intracranial pressure
- b) Decreased intra cranial pressure
- c) Age specific tachycardia
- d) Hypotension
- e) Platelet count <20,000

T F F F T

## 7. Sub-arachnoid Space ends at the level of

- a) Lower border of L1
- b) Upper border of L2
- c) 3<sup>rd</sup> sacral vertebra
- d) 2<sup>nd</sup> sacral vertebra
- e) 3<sup>rd</sup> lumbar vertebra

FFFTF

## 8. Transection of the spinal cord at C<sub>6</sub> level will produce

- a) Immediate spastic paralysis of the extremities
- b) Diaphragmatic breathing only
- c) Urinary retention
- d) Paralytic ileus
- e) Exaggerated knee jerks

T T F F T

## 9. Parasympathetic nucleus of cranial nerve

- a) Oculomotor- Edinger-Westphal nucleus
- b) Glossopharyngeal – Lacratory nucleus
- c) Facial-Inf. Salivatory nucleus
- d) Vagus- Nucleus ambiguus
- e) Glossopharyngeal-Sup. Salivatory nucleus

T F F T F

## 10. Dominant temporal lobe lesion presents as

- a) Dyslexia
- b) Expressive aphasia
- c) Hallucination
- d) Apraxia
- e) Agnosia

T F T F F

## 11. Right homonymous hemianopia usually results from damage to the

- a) Left optic tract
- b) Optic chiasma
- c) Right lateral geniculate body
- d) Left optic nerve
- e) Left optic radiation

TFFF T [Ref: Davidson 23<sup>rd</sup>/box- 25.19/P- 1084]

## 12. Parts of midbrain are

- a) Hippocampus
- b) Infundibulum
- c) Tectum
- d) Tegmentum
- e) Crus cerebri

F F T T T

**13. Features of upper motor neuron lesion include**

- a) Fasciculation
- b) Spasticity
- c) Flaccidity
- d) Early muscle wasting
- e) Exaggerated tendon reflex

**F T F F T**

**14. Which of the following statements are true?**

- a) Ascending sensory pathways all take their origin from the spinal cord itself
- b) The corticospinal tract is important in maintaining balance
- c) The anterolateral system carries pain and temperature information from the contralateral side of the body
- d) Ion channels are made up of transmembrane protein complexes
- e) All ion channels possess a voltage sensor

**F F T T F**

**15. Regarding thalamus**

- a) It is a part of rhombencephalon
- b) Posterior end expanded to form pulvinar
- c) Related to 3<sup>rd</sup> ventricle
- d) Both thalamus connected to each other by interthalamic connection
- e) Inferior surface continuous with the tegmentum of the midbrain

**F(Diencephalon)T TTT**

**Each question below contains five suggested answers- choose the one best response to each question (16-30)**

**16. You are reviewing a 22 years old man who has developed headaches. Which one of the following features is most typical of migraines?**

- a) Pain on neck flexion
- b) Photophobia
- c) Epiphora
- d) Recent viral illness
- e) Bilateral 'tight band' like pain

**B**

**17. Damage to the extrapyramidal system results in**

- a) Gross paralysis of limbs
- b) Intention Tremor
- c) Failure of coordination
- d) Rigidity
- e) Loss of deep muscle reflexes

**D**

**18. Communication between the third and fourth ventricle in CSF circulation**

- a) Foramen Luschka
- b) Foramen Monroe
- c) Interventricular foramen
- d) Foramen Magendie
- e) Cerebral aqueduct

**E**

**19. Muscles are generally hypotonic**

- a) When y efferent discharge is high
- b) When the motor nerve to a muscle is cut
- c) In case of cerebellar lesion
- d) In case of extrapyramidal lesion
- e) In case of basal ganglia lesion

**C**

**20. Autonomic nervous system- true statement**

- a) All preganglionic fibers secrete noradrenaline
- b) All post ganglionic fibers secrete acetylcholine
- c) Postganglionic to sweat gland secrete acetylcholine
- d) Adrenal medulla secretes noradrenaline
- e) PNMT not specific for adrenal medulla

**C**

**21. All of the following neurons are involved in conduction of visual impulse to the visual cortex except**

- a) Rods & cones
- b) Bipolar neurons
- c) Ganglion cells of the retina
- d) Neurons of the lateral geniculate body
- e) Neurons of the pretectal nucleus

**E**

**22. Slow wave sleep is mediated by**

- a) Adrenaline
- b) Non-adrenaline
- c) GABA
- d) Serotonin
- e) Glutamate

**D**

**23. During accommodation for near vision, there is**

- a) Decrease in the curvature of the lens
- b) An increase in tension of the suspensory ligament
- c) Contraction of ciliary muscles
- d) Increased intraocular pressure
- e) Dilatation of sphincter pupillae of the iris

**C**

**24. Branch of vertebral artery**

- a) Pontine artery
- b) Superior cerebellar artery
- c) Posterior inferior cerebellar artery
- d) Anterior inferior cerebellar artery
- e) Posterior cerebral artery

**C**

**25. Headache not produced in**

- a) Dilatation of intracranial blood vessels
- b) Constriction of extracranial blood vessels
- c) Meningeal irritation
- d) Blood in the cerebrospinal fluid
- e) Loss of cerebrospinal fluid following lumbar puncture

**B (Ref: Rodde /6<sup>th</sup> /Q-326)**

**26. Surest sign of brain stem death**

- a) Absent corneal reflex
- b) Absent vestibulo ocular reflex
- c) Fixed pupil
- d) Absent gag reflex
- e) Apnea test

**E**

**27. Which one of the following is under parasympathetic control in the autonomic nervous system?**

- a) Ejaculation
- b) Gall bladder relaxation
- c) An increase in arterial contractility
- d) Detrusor muscle relaxation
- e) Ciliary muscle contraction

**C**

**28. 3<sup>rd</sup> cranial nerve palsy causes**

- a) Convergent squint
- b) Divergent squint
- c) Anhydrosis
- d) Dilatation of the pupil
- e) Loss of ciliospinal reflex

**B**

**29. Output from cerebellum is solely from?**

- a) Basket cells
- b) Purkinje cells
- c) Granular cells
- d) Trietz cells
- e) Pyramidal cells

**B**

**30. Which of the following conditions is associated with a decrease in skeletal muscle tone?**

- a) Activation of gamma fibers
- b) Upper motor neuron lesions
- c) Anxiety
- d) Lower motor neuron lesions
- e) Parkinson's disease

**D**