

## CNS Mid exam archive

### Pharmacology (14 questions)

- Which of the following is not an anti-depressant?
  - Selective serotonin reuptake inhibitors
  - Serotonin norepinephrine reuptake inhibitor
  - Atypical antidepressants
  - Excitatory glutamate inhibitor ✓
  - MAO inhibitors
- Which of the following is not an SSRI?
  - Fluoxetine
  - Citalopram
  - Duloxetine ✓
- Which of the following is not used for Parkinson?
  - Levodopa
  - Dopamine agonists
  - Dopamine antagonists ✓
- Which of the following is a Ca channel blocker?
  - Valproic acid ✓
- Which of the following is a Na channel blocker?
  - Phenytoin ✓
- Which of the following is wrong about anesthesia?
  - A patient may experience delirium and violent behavior in stage III of anesthesia ✓
- Which of the following is not true about anesthetics?
  - Opioids cause hypertension and respiratory depression ✓
- Which of the following is not true about neuroleptics?
  - All of them have antiemetic effects
  - A typical neuroleptic has few extrapyramidal side effects?
- Which of the following is not used as a hypnotic?
  - Amphetamine ✓
- Which of the following is not true about methyl-xanthines?
  - With high doses, decreases anxiety ✓
  - Has spasmolytic effect on bronchioles
- Which of the following is incorrect benzodiazepines?
  - Safe to use with alcohol ✓
- Bupirone is?
  - Anxiolytic drug ✓
- Which of the following is not an effect of morphine?
  - Diarrhea ✓
  - Analgesia
  - Euphoria
- Cocaine dependence causes all of the following except?
  - Irritability

- b. Agitation
- c. Insomnia
- d. Hypotension ✓
- e. Mydriasis

### **Pathology (7 questions)**

- 15. In cerebral infarction, when can we see influx of macrophages and reactive gliosis?
  - a. 2<sup>nd</sup> week ✓
- 16. An embolus of venous origin would come in case of?
  - a. DVT in a known case of patent foramen ovale ✓
- 17. Reactive gliosis and hemosiderin laden macrophages would be found in?
  - a. 2 weeks after brain trauma ✓
- 18. Fibrosis of subdural hematoma occurs in?
  - a. 2<sup>nd</sup> month ✓
- 19. Which of the following is not a glial tumor?
  - a. Meningioma ✓
- 20. Which of CNS tumors occurs in the central canal of spinal cord?
  - a. Ependymoma ✓
- 21. What CNS tumor occurs in pineal gland?
  - a. Germinoma ✓

### **Histology (3 questions)**

- 22. What part of the synapse has the neurotransmitter receptor?
  - a. Postsynaptic membrane ✓
- 23. What layer are cells of Martinotti found?
  - a. Pleomorphic ✓
- 24. What are climbing fibers?
  - a. Fibers from inferior olive that end in the molecular layer of cerebellar cortex ✓

### **Biochemistry (6 questions)**

- 25. What is most energy consuming process in the brain?
  - a. Restoring ionic gradient across the plasma membrane after excitation ✓
  - b. Passive transport of Na<sup>+</sup>/K<sup>+</sup> pump
- 26. The RQ of the brain is \_\_, which strongly confirms that\_\_\_\_?
  - a. 1, the main substrate of the brain is glucose ✓
- 27. What cell is responsible for postnatal development of BBB?
  - a. Astrocytes ✓
- 28. How does the neurotransmitter produce a signal in the postsynaptic cell?
  - a. Binding to postsynaptic receptor ✓

29. When a doctor took a lumbar puncture for his patient, the CSF was red in the beginning and later changed, what does that mean?
- a. The doctor punctured the blood vessels (traumatic tap) ✓
30. Which of the following is true about a case of tuberculosis meningitis?
- a. A pellicle forms and it is a prominent feature ✓

### **Microbiology (3 questions)**

31. Which of the following is incorrect about HSV meningoencephalitis?
- a. CSF usually has decreased glucose and predominance of neutrophils ✓
32. Which of the following is incorrect about N fowleri?
- a. Death occurs after 1 month ✓
33. Which of the following is incorrect about cryptococcosis?
- a. Has no effects if left untreated ✓

### **Embryology (1 question)**

34. A tuft of hair is found in?
- a. Spina bifida occulta

### **Physiology (16 questions)**

35. What happens after amygdaloid tumor?
- a. no aggressiveness and anger ✓
36. What happens in mania?
- a. Decrease serotonin ✓
37. Which of the following is incorrect about PMRF?
- a. Powerhouse of posture
  - b. Center of upright posture design
  - c. Deficit in it leads to flexor dominant posture
  - d. Inhibits flexion
  - e. Proper flexor extensor synergy ✓
38. Which of the following is incorrectly matched?
- a. Tuberomamillary → glutamate ✓
39. About hyperalgesia?
- a. The pain threshold is lowered in primary hyperalgesia ✓
40. Which of the following is not a reaction following pain?
- a. Withdrawal reflex
  - b. Depression
  - c. Depress transmission of pain along sensory pain fibers
  - d. Miosis of pupil ✓
  - e. Increased heart rate

41. After sitting for a long time, a 52-year-old woman felt tingling and pain in her legs and she couldn't get up, what would explain her loss of motor function and the persisting pain sensation?
- A fibers are more sensitive to pressure than C fibers ✓
42. Efferent fibers from muscle spindle synapse with all of the following except?
- Alpha motor neuron of the same muscle
  - Gamma motor neuron of the same muscle
  - 2<sup>nd</sup> order neuron of conscious proprioceptive tract
  - 2<sup>nd</sup> order neuron of unconscious
  - Interneuron ✓
43. Which of the following is not true about dynamic phase?
- Discharge in the secondary afferent ✓
44. All of the following would increase discharge of central part of muscle spindle except
- Discharge of alpha motor neuron ✓
45. Gamma efferent will cause?
- Increase in discharge from central part of muscle spindle ✓
46. A lack of sleep will cause all of the following except?
- Increase in vagal tone ✓
47. Sleep can be induced by
- Accumulation of sleep-inducing substance ✓
48. Which of the following is not found in the premotor area 6?
- Supplementary motor area ✓
49. General interpretive area is called
- Wernicke's area ✓
50. Which of the following is incorrect about motor area 4?
- Muscles of mastication are found in the upper level ✓?
  - Size of presentation depends on activity of the muscle after paralysis

### **Anatomy (29 questions)**

51. A doctor told the patient that he is going to take the CSF sample from her lower back at the level of L3-L4, why do we take the sample from there?
- Because conus medullaris ends at the level of L1 ??
  - Because the intervertebral foramen between L3 and L4 is large
  - Because there is no internal venous plexus
52. What cranial nerve exits from the posterior aspect of the brainstem?
- CN IV ✓
53. Vagal trigone is found in the posterior aspect of?
- Medulla oblongata ✓
54. What type of fibers arise from the motor nucleus of the trigeminal nerve?
- SVE ✓
55. What is the second order neuron for the dorsal column- medial lemniscus?
- Gracile and cuneate nuclei ✓
56. About tracts first order neuron, which of the following is incorrect?
- Ventral spinocerebellar tract → DRG of T1-S2 ✓

57. \_\_\_\_ motor neuron starts in the spinal and innervate muscles and glands throughout the body?  
a. Lower motor neuron ✓
58. About lateral corticospinal tract, which of the following is incorrect?  
a. Smaller than ventral corticospinal tract ✓
59. What tract carries efferent, motor, information from the primary motor cortex to the muscles of face, neck and head?  
a. Corticobulbar ✓
60. Rubrospinal tract originates from?  
a. Contralateral red nucleus of the midbrain ✓
61. What tract carries voluntary movement from the cortex?  
a. Corticospinal tract ✓
62. Incorrect about cerebellum?  
a. It is related to the 3<sup>rd</sup> ventricle ✓
63. What part of the CNS is involved in equilibrium?  
a. Archi-cerebellum ✓
64. Hypothalamus, which of the following is incorrect?  
a. Unrelated to the limbic system ✓
65. Superior cerebellar artery is from?  
a. Basilar artery ✓
66. All of the following are parts of the diencephalon except?  
a. superior colliculus ✓
67. 2 frontal lobes are connected by?  
a. Rostrum and genu ✓
68. What fiber connects frontal, occipital, and temporal lobes?  
a. Superior longitudinal bundle ✓
69. Which of the following is incorrect about projection fibers?  
a. Internal capsule lies laterally to the lentiform nucleus ✓
70. Lateral wall of the 3<sup>rd</sup> ventricle is formed of all of the following except?  
a. Subthalamus ✓
71. What path would a molecule of CSF fluid have from the lateral ventricles to the superior sagittal sinus?  
a. Foramen of Monro to cerebral aqueduct to foramen of Lushcka to arachnoid villi ✓
72. Central sulcus is mainly found in?  
a. Superolateral surface ✓
73. Which of the following is incorrect regarding functional areas?  
a. Secondary auditory area is found in the middle of the superior temporal gyrus ??  
b. Writing area is found in the middle frontal gyrus
74. All of the following are supplied by the middle cerebral artery except?  
a. Prefrontal area ✓
75. Blindness is caused by lesion in?  
a. Posterior cerebral artery ✓
76. CSF of 3<sup>rd</sup> ventricle is formed from?  
a. Posterior cerebral artery ✓
77. Squint comes after lesion in? (الدلتور حكي ازه هاد الروال بدل الباطزي و بعرف ازه من برا الروال بد)

- a. Cavernous sinus ✓
78. Which of the following is false?
- a. Superior petrosal opens in transverse
  - b. Maxillary is lateral to cavernous
  - c. Abducent is inferolateral to internal carotid artery
  - d. Cavernous communicates with pterygoid plexus
  - e. Inferior sagittal sinus contains CSF ✓
79. All are true about falx cerebri except?
- a. Has double sinus ✓