# **CNS Mid exam archive**

# Pharmacology (14 questions)

- 1. Which of the following is not an anti-depressant?
  - a. Selective serotonin reuptake inhibitors
  - b. Serotonin norepinephrine reuptake inhibitor
  - c. Atypical antidepressants
  - d. Excitatory glutamate inhibitor √
  - e. MAO inhibitors
- 2. Which of the following is not an SSRI?
  - a. Fluoxetine
  - b. Citalopram
  - c. Duloxetine ✓
- 3. Which of the following is not used for Parkinson?
  - a. Levodopa
  - b. Dopamine agonists
  - c. Dopamine antagonists ✓
- 4. Which of the following is a Ca channel blocker?
  - a. Valproic acid √
- 5. Which of the following is a Na channel blocker?
  - a. Phenytoin ✓
- 6. Which of the following is wrong about anesthesia?
  - a. A patient may experience delirium and violent behavior in stage III of anesthesia ✓
- 7. Which of the following is not true about anesthetics?
  - a. Opioids cause hypertension and respiratory depression  $\checkmark$
- 8. Which of the following is not true about neuroleptics?
  - a. All of them have antiemetic effects
  - b. A typical neuroleptic has few extrapyramidal side effects?
- 9. Which of the following is not used as a hypnotic?
  - a. Amphetamine ✓
- 10. Which of the following is not true about methyl-xanthines?
  - a. With high doses, decreases anxiety ✓
  - b. Has spasmolytic effect on bronchioles
- 11. Which of the following is incorrect benzodiazepines?
  - a. Safe to use with alcohol ✓
- 12. Buspirone is?
  - a. Anxiolytic drug √
- 13. Which of the following is not an effect of morphine?
  - a. Diarrhea √
  - b. Analgesia
  - c. Euphoria
- 14. Cocaine dependence causes all of the following except?
  - a. 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.  $2^{nd}$  week  $\checkmark$
- 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.  $2^{nd}$  month  $\checkmark$
- 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  $\checkmark$

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

- 25. What is most energy consuming process in the brain?
  - a. Restoring ionic gradient across the plasma membrane after excitation  $\checkmark$
  - b. Passive transport of Na+/K+ pump
- 26. The RQ of the brain is \_\_\_, which strongly confirms that\_\_\_?
  - a. 1, the main substrate of the brain is glucose  $\sqrt{\phantom{a}}$
- 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)  $\checkmark$
- 30. Which of the following is true about a case of tuberculosis meningitis?
  - a. A pellicle forms and it is a prominent feature  $\checkmark$

# 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. Increase in anger and rage ✓
- 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. A fibers are more sensitive to pressure than C fibers  $\checkmark$
- 42. Efferent fibers from muscle spindle synapse with all of the following except?
  - a. Alpha motor neuron of the same muscle
  - b. Gamma motor neuron of the same muscle
  - c. 2<sup>nd</sup> order neuron of conscious proprioceptive tract
  - d. 2<sup>nd</sup> order neuron of unconscious
  - e. Interneuron √
- 43. Which of the following is not true about dynamic phase?
  - a. Discharge in the secondary afferent √
- 44. All of the following would increase discharge of central part of muscle spindle except
  - a. Discharge of alpha motor neuron ✓
- 45. Gamma efferent will cause?
  - a. Increase in discharge from central part of muscle spindle ✓
- 46. A lack of sleep will cause all of the following except?
  - a. Increase in vagal tone ✓
- 47. Sleep can be induced by
  - a. Accumulation of sleep-inducing substance √
- 48. Which of the following is not found in the premotor area 6?
  - a. Supplementary motor area ✓
- 49. General interpretive area is called
  - a. Wernicke's area √
- 50. Which of the following is incorrect about motor area 4?
  - a. Muscles of mastication are found in the upper level  $\sqrt{?}$
  - b. 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?
  - a. Because conus medullaris ends at the level of L1??
  - b. Because the intervertebral foramen between L3 and L4 is large
  - c. Because there is no internal venous plexus
- 52. What cranial nerve exits from the posterior aspect of the brainstem?
  - a. CN IV ✓
- 53. Vagal trigone is found in the posterior aspect of?
  - a. Medulla oblongata ✓
- 54. What type of fibers arise from the motor nucleus of the trigeminal nerve?
  - a. SVE ✓
- 55. What is the second order neuron for the dorsal column- medial lemniscus?
  - a. Gracile and cuneate nuclei ✓
- 56. About tracts first order neuron, which of the following is incorrect?
  - a. Ventral spinocerebellar tract  $\rightarrow$  DRG of T1-S2  $\checkmark$

- 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  $3^{rd}$  ventricle  $\checkmark$ 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. Pineal gland ✓
- 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  $\checkmark$
- 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 arachinoid 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? (الدكتور حكى انه هاد السؤال بدل الباطني و بعرف انه من برا السلايد)

- 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  $\checkmark$
- 79. All are true about falx cerebri except?
  - a. Has double sinus ✓