

# NS Mid



BAU#1

subject	
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Micro	Dr. Hala
Pharma	Dr. khawla
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## Anatomy:

- 1) Which of the following structures receive cerebellar fibers through the inferior cerebellar peduncle?
  - Vestibular nuclei
- 2) Which of the following structures is most laterally located in a brain coronal section?
  - thalamus
  - **Clastrum\***
  - putamen
  - the head of cuadate nuclei
- 3) Which of the following descending tracts is the shortest?
  - anterior cortico spinal
  - **Tectospinal tract\***
  - Vestibulospinal
- 4) Which of the following structures incorporates the cranial nerves nuclei?
  - **Gray mater**
- 5) Which of the following parts of the body is represented most latero-inferior on the precentral gyrus?
  - **Tongue**
- 6) Which of the following structures is considered association fibers and forms part of the limbic system?
  - **Cingulum**
- 7) Which of the following is a medline structure and located just rostral to the corpora quadrigemina?
  - **Pineal gland**

- 8) Which of the following structures of the hippocampal formation is connected by the Mossy fibers?
- Dentate gyrus and hippocampus CA3
- 9) An injury to which of the following cortical areas could affect the perception of auditory stimuli?
- Transverse temporal gyri
- 10) Which of the following structures of the spinal cord is the most dorsally located?
- Substantia gelatinosa
- 11) Which of the following cranial nerve nuclei is located at the level of olivary nucleus?
- Hypoglossal nucleus
- 12) Which of the following arteries supply the corticospinal tract in the medulla oblongata?
- Anterior spinal artery
- 13) Which of the following reticular formation nuclei are most involved in pain regulation?
- Raphe nuclei
- 14) Which of the following thalamic nuclei is posteriorly located and receive visual stimuli?
- Lateral geniculate
- 15) An injury at which of the following regions/structures may cause spastic paralysis to the right hand muscles?
- Right side of the 3rd cervical spinal segment
- 16) In relation to descending tracts in spinal cord, which of the following arterial blockage has the most deteriorating effect :
- ant spinal artery at T6 spinal segment
  - artery of Adam sth..
  - post spinal artery C7 spinal segment
  - ant spinal artery at C7 spinal segment \*
  - post spinal artery T6 spinal segment
- 17) Which of the following subarachnoid cisterns drains cerebrospinal fluid through foramina of Luschka?
- Pontine cistern

- 18) Which of the following structures is superiorly related to the body of the lateral ventricle?
- Corpus callosum
- 19) Blockage of which of the following arteries may affect the perception of general sensation from foot?
- Anterior cerebral artery
- 20) Which of the following arteries supply the corticobulbar tract at the level of the internal capsule?
- Middle cerebral artery

## Embryo

- 21) Concerning development of the metencephalon, all the following statements are true except:
- In the alar plates of the metencephalon, the somatic afferent group contains neurons of the glossopharyngeal nerve
- 22) Concerning development of the brain, choose the false statement:
- Pontine flexure marks the junction between the midbrain and the pons
- 23) Concerning development of the Glial cells, find the false statement:
- Glioblasts differentiate into ependymal cells lining the central canal of the spinal cord
- 24) Concerning the development of neural tube, one of the following statements is false:
- The nervous system is in connection with the yolk sac through the cranial and caudal neuropores
- 25) Layer I of the cerebral cortex contains:
- The apical dendrites of the deeper pyramidal neurons
- 26) Concerning the molecular layer of the cerebellar cortex, one of the following statements is true:
- It contains stellate and basket cells
- 27) Blood brain barrier is created by one of the following cells:
- Astrocytes
- 28) Neuroglia of the central nervous system include all of the following cells except:
- Schwann cells

## Physiology:

- 29) Concerning sensory memory, which of the followings is NOT true:
- Sensory memory can be prolonged via rehearsal
- 30) Concerning consolidation of memory, which of the followings is NOT true:
- Consolidation means short-term memory to be converted into intermediate longterm Memory
- 31) Which of the following is seen over frontal region during extra-activation of CNS or during tension:
- beta wave
- 32) Which of the followings is NOT considered as part of circumventricular organs
- The subpostrema organ
- 33) Which of the followings is NOT true:
- 1 mmHg variation in arterial Po<sub>2</sub> changes cerebral blood flow by 3%–4%
- 34) Which of the followings is typically acquired through repetition and practice, sometimes described as muscle memory or body memory
- Procedure memory
- 35) Which of the following is responsible for perception of written language:
- Angular gyrus area
- 36) Which of the followings neurons secret serotonin and causes sleep
- Raphe nuclei in the lower half of the pome and in the medulla
- 37) Which of the followings is related to Meso-limbic pathway
- Dopamine system
- 38) Concerning the brainstem reticular excitatory area, which of the followings is NOT true
- The Brain stem reticular excitatory area located in the reticular substance of the medulla only
- 39) Which of the followings is NOT true
- Oral, morning temperature is (37 to 37.2 C)
- 40) Which of the following is also called ventral striatum
- Nucleus accumbens
- 41) Complex spikes is related to which of the following cells:
- purkinje layer of cerebellum

42) Concerning granule cells in cerebellum, which of the following is NOT true

- The granule cells receive input from the climbing fibers

43) Which of the following Brodmann's areas represents the primary motor cortex

- 4

44) Concerning tremor, as criteria in Parkinson Disease, which of the followings is NOT true:

- The tremor is often the last symptom to be observed

45) Which of the followings is NOT considered as functions of Basal Ganglia:

- Conscious learning motor behaviors

46) regarding basal ganglia pathways which of the following is correct:

cholinergic receptor	dopamine 2 receptor	Pathway type
excitation	inhibitory	Indirect Pathway

## Pathology:

47) A 50 years old male patient with a brain tumor, presented with weakness of right upper and lower limbs (right hemiparesis). On physical examination, right pupillary dilation in response to light was noted. Which one of the following is an expected pathologic finding in his brain:

- Flame-shaped hemorrhages in the midbrain and pons "Duret hemorrhages"

48) A 15 years old male patient presented with fever, headaches, and new onset seizures. He is diagnosed with herpes encephalitis. Where in the brain is he most likely to have hemorrhagic necrosis?

- Temporal lobe

49) Which area of the brain is most sensitive to anoxic damage

- Hippocampus

50) Chose the correct statement regarding aneurysms

- Nonsaccular aneurysms usually manifest with cerebral infarction due to vascular occlusion

51) The most common source of blood in epidural hematoma following trauma with skull fracture is:

- middle meningeal artery

52) Chose the Incorrect pair :

- bearing cells--- VZV

53) Choose the correct combination:

- Angular acceleration --- diffuse axonal injury

54) Regarding poliomyelitis, which of the following is incorrect?

- Poliovirus invades the nervous system and damages sensory neurons in the spinal cord

55) Which of the following microscopic changes is not seen in global cerebral Ischemia:

- Oligodendrocytic nuclear inclusions

56) The typical findings of the CSF examination for a patient diagnosed with acute pyogenic meningitis are:

- Marked increase in cellularity/polymorphonuclear cells, markedly elevated protein, reduced glucose

### Micro:

57) Which of the folloing is non-encapsulated bacteria:

- L.monocytogenesis

58) A 12-year-old boy is admitted with high grade fever, vomiting and neck stiffness and rigidity. After examining the patient and looking at the laboratory reports, the physician explained to the parents that their son was suffering from acute bacterial meningitis. What was the most likely finding on the patient's CSF report?

- Increased neutrophils

59) All the following statements are true regarding poliovirus Except:

- There is a single serotype causing infection

60) Which of the following isn't virulence factor for N. meningitides:

- Pneumolysin

### Pharma:

61) Which of those Mechanisms is the best for treating Parkinson's disease:

- Levodopa, carbidopa, entacapone

62) Which of the following drugs cause pulmonary fibrosis:

- Bromocriptine

63) Which of the following drugs may cause severe hepatotoxicity?

- Sodium valproate

- 64) Which of the following statements is incorrect regarding phenytoin?  
- It is the drug of choice to treat absence seizure
- 65) Which of the following is short acting hypnotic drug  
- Triazolam
- 66) In a patient being treated for schizophrenia, which of the following antipsychotic agents has a risk of agranulocytosis:  
- clozapine
- 67) drug of choice for treatment of young children with febrile seizure:  
- Phenobarbital
- 68) the best choice for treat Depression pt. with aches  
- duloxetine
- 69) Which of the following drugs is most likely to cause extrapyramidal effects?  
- Haloperidol
- 70) Upon chronic treatment, which of the following agents is best known to have the side effect of decreasing the thyroid function  
- Lithium

## Biochem

- 71) Tay-Sachs disease is caused by a genetic mutation on chromosome:  
- 15
- 72) Biopsy from pt. has Huntington's disease which of the next you can find:  
- inclusion bodies
- 73) In pheochromocytoma which of the following metabolites is measured:  
- HVA (Homovanillic acid)
- 74) What is the first enzyme in the synthesis of catecholamines:  
- Tyrosine hydroxylase\*

*"Successful and unsuccessful people do not vary greatly in their abilities. They vary in their desires to reach their potential"*

Collected by: Ahmad Al-Masri

Good Luck