



# FINAL CNS 020 EXAM



## *Pathology*

**1. Which of the following cells is destroyed in Alzheimer's disease?**

- A. Astrocytes
- B. Glial cells
- C. Neurons
- D. Oligodendrocytes
- E. Microglia

Answer: C

**2. Lewy bodies are found in which of the following:**

- A. Parkinson
- B. Alzheimer's
- C. FTLT
- D. Amyotrophic lateral sclerosis

Answer: A

**3. Which of the following is one of the lower motor neuron lesion sign?**

Answer: Fasciculations

**4. Regarding CNS tumors, which of the following is true?**

Answer: Oligodendroglioma grade 3 is a better prognosis than astrocytoma grade 3

**5. For A patient suffering from ataxia and kyphoscoliosis with a high risk to develop cardiac disease the most probable diagnosis is:**

- A. friedreich's ataxia
- B. Parkinson
- C. Amyotrophic lateral sclerosis
- D. multiple sclerosis

Answer: A

**6. A long case but briefly: an 8-years old child / positive GFAP hair-like processes/ well-circumscribed cystic tumor/ located in the cerebellum what is the most probable diagnosis?**

- A. pilocytic astrocytoma
- B. oligodendroglioma
- C. ependymoma
- D. medulloblastoma

Answer: A

**7. Which of these enzymes are associated with Alzheimer's disease?**

Answer: Beta secretase

**8. Patient with unsteady gait (ataxic) with cardiac abnormalities?**

Answer: Friedrich ataxia

### *Behavioral science*

**1. Which of the following is part of illness behavior:**

- A. Depression
- B. Consulting a doctor
- C. Headache
- D. Fever
- E. Loss of appetite

Answer: B

**2. Which of the following is true of stress?**

- A. Stress is a term originally used in psychology
- B. Glutamate is the neurotransmitter involved in stress physiology
- C. The use of the term stress is restricted to the social factors that disrupt homeostasis
- D. Stress contributes to the onset of both physical and psychological disorders
- E. Neuro-hormones prevent Fight or flight stress response.

Answer: D

**3. In which of the following D2 receptors are abundant?**

- A. Frontal cortex
- B. Striatum
- C. Occipital lobe
- D. Temporal lobe
- E. Nucleus accumbens

Answer: B

**4. All the following are true about intelligence except:**

- A. Ability to solve problems
- B. Concrete thinking
- C. Work complex tasks together

Answer: B?

**5. Which of the following isn't one of the Erik-Erikson model?**

- A. Trust vs mistrust
- B. Industry vs stagnation
- C. Identity vs confusion
- D. Intimacy vs isolation
- E. Integrity vs despair

Answer: B

**6. Doctor-patient relationship is described as:**

Answer: Patient-centered

*Anatomy:*

**1. Which of the following is wrong?**

- A. Medullary reticulospinal Facilitates the activity of axial muscle
- B. Medullary reticulospinal system is considered an anterior spinal system

Answer: B

**2. All of the following is true except?**

Answer: Dorsal nucleus of the vagus nerve is present in the deep reticular formation

**3. Occlusion of the vessels serving the central area of the midbrain on the right side causes all of the following except:**

- A. paralysis of most eye movements of the left eye
- B. dilatation of the pupil of the right eye
- C. left-sided ataxia
- D. tremor
- E. incoordination

Answer: A

**4. A patient presents with right-sided muscle weakness and loss of vibration and proprioception on the right side of his body. His tongue deviates to the left side when protruded. The artery most likely to be occluded is**

Answer: Anterior spinal artery

**5. The first-order neuron axons of the posterior spinocerebellar tract terminate at:**

Answer: Clark's nucleus

**6. A patient presents with lower back pain that radiates to the back of his thigh and reports abnormal sensations across the lateral side of the foot, The patient has a herniated disc in what region?**

- A. L5
- B. L4
- C. S1

Answer: C

**7. According to lateral spinothalamic tracts, which of the following is wrong?**

Answer: The cell bodies of the 3rd order neuron are present in the medulla

**8. Which of the following about central cord syndrome is wrong?**

Answer: Caused by occlusion pica

**9. Right fasciculus cuneatus lesion will lead to?**

Answer: Right upper limb will be affected

**10. Which of these is not associated with the Bandiket sign?**

Answer: Pain and thermal sensation loss in the face

**11. Wrong about the superior colliculus section:**

- A. Mesencephalic nucleus of the trigeminal nerve is seen laterally to the cerebral aqueduct
- B. Medial long. Fasciculus located anteromedially to the oculomotor nerve motor nucleus

Answer: B

## *Microbiology*

**1. Which of the following is true?**

Answer: Encephalitis epidemics are associated with arboviruses

**2. Which of the following is true about transmissible spongiform encephalopathies?**

Answer: The only way to confirm a diagnosis is a brain biopsy

**3. A patient came with a headache, fever, and focal neurologic deficits. CSF investigations have shown leukocytosis with predominance of lymphocytes and normal glucose and protein levels, the most appropriate diagnostic method is?**

- A. PCR
- B. viral culture
- C. biopsy

D. CT imaging

Answer: A

**4. Which of these infections will rapidly progress?**

- A. Subdural E.Coli infection
- B. Epidural staph aureus infection
- C. Brain abscess with staph aureus infection
- D. Brain abscess with toxoplasma infection

Answer: A

*Pharmacology*

**1. Which of the following drug is used in refractory psychosis?**

- A. Clozapine
- B. Chlorpromazine
- C. Haloperidol

Answer: A?

**2. Which of the following drug is correctly matched with its side effect?**

- A. Lithium – diabetes insipidus
- B. Olanzapine-Agranulocytosis

Answer: A

**3. Drug for depressed patients with sleep difficulties?**

- A. Fluoxetine
- B. Sertraline
- C. Trazodone
- D. Citalopram
- E. Escitalopram

Answer: C

**4. Which of these Drugs is best used in Atypical Depression:**

- A. Venlafaxine
- B. Selegin

Answer: B (mostly)

**5. Which of these drugs is best used to improve cognitive functions in Alz. Patients :**

- A. Rivastigmine
- B. Galantamine

- C. Donepezil
- D. Memantine
- E. Neostigmine

Answer: A+B+C

**6. Which of these Drugs inhibit NE + Dopamine reuptake receptors?**

- A. Methylphenidate
- B. Ephedrine
- C. Adrenalin
- D. Dopamine
- E. Noradrenaline

Answer: A (mostly)

**7. For the treatment of Dystonia in Psychotic patients best drug is:**

- A. Benztropine
- B. Donepezil
- C. Venlafaxine

Answer: A

**8. Which of these drugs enhances the action of GABA:**

- A. Baclofen
- B. Benzodiazepines
- C. Dantrolene

Answer: B

**9. Only cause of schizophrenia**

- A. Too much Dopamine
- B. Too much serotonin
- C. Too much NE

Answer: A

***Biochemistry:***

**1. Which of the following will not lead to the termination of phototransduction?**

- A. Conversion of rhodopsin to metarhodopsin II
- B. Activation of guanylyl cyclase

Answer: A

**2. Which of the following regarding stem cell biology is true?**

- A. embryonic stem cells have a higher potency than adult stem cells
- B. embryonic stem cells can give the rise of both embryonic and extraembryonic tissues

Answer: A

**3. you are working on a research project regarding stem cells, cells you are working on have the ability to produce dopamine which can be used to treat parkinson disease, which of the following must be taken under consideration (ethically)?** الجواب ونص السؤال صياغتهم تقريبية

- A. test it first on animals to see its side effects and its carcinogenic ability
- B. Clinical trials on patients suffering from Parkinson

Answer: A

### *PBL:*

**1. A drug must be stopped during pregnancy to avoid myelomeningocele in newborns?**

- A. antiepileptics
- B. Folic Acid
- C. NSAID

Answer: A

**2. A year-old-60 man developed lumbar herniation, choose the wrong answer:**

Answer: Surgery is the best choice

### *Embryology*

**1. which of the following is not a part of prosencephalon:**

- A. White matter
- B. Cortex
- C. Basal ganglia
- D. Hypothalamus
- E. Midbrain

Answer: E

### *Physiology*

**1. The most rapidly adapting of tactile receptors?**

- A. Pacinian corpuscle
- B. Meissner's corpuscle
- C. Hair cell receptor

Answer: A



**2. Which of the following is an example of a monosynaptic reflex?**

- A. Stretch reflex
- B. Tendon reflex
- C. Flexor reflex

Answer: A

**3. Stimulus intensity is encoded by?**

- A. Receptive field
- B. The number of receptors that are activated

Answer: B

**4. Which of the following is true concerning vision:**

- A. cones are the only receptors found in the fovea centralis and are wider than those found elsewhere
- B. opsin is the light-sensitive chemical found in the photoreceptor
- C. 11- cis retinal cannot be reformed
- D. the vitreous humor is continually being formed and reabsorbed
- E. light causes a hyperpolarizing receptor potential

Answer: E

**5. Flexor Reflexes Don't involve:**

- A. flexor muscles
- B. Extensors muscles
- C. Muscle spasm reflex

Answer: C

**6. True about thermoreceptors:**

- A. Warm rec. more abundant than cold rec.
- B. Both warm and cold receptors can be activated at the same time by the same stimulus
- C. Thermoreceptors work better in the steady state than rapid state changes.

Answer: B

**7. True about olfaction:**

- A. Medial pathway concerned with memory
- B. Lateral pathway bypass thalamus to the paleocortex
- C. Glomeruli are collection of mitral cells axons
- D. Olfactory receptors synapse with 1st order neurons

Answer: B

**8. True about pain receptors:**

- A. Pain receptors may never adapt at all
- B. Pain receptors use A beta fibers

Answer: A

**9. True about taste receptors:**

Answer: Smell sensations affect the taste.

*Physiology lab*

**1. During a neurological examination on a 30-year-old patient, you performed Rinne and Weber tests. The Rinne test showed that air conduction is better than bone conduction. The Weber test revealed localization to the right ear. What does this patient have?**

- A. Sensorineural hearing loss in the left ear
- B. Sensorineural hearing loss in the right ear
- C. Conductive hearing loss in the left ear
- D. Conductive hearing loss in the right ear

Answer: A

**2. Which of these is not a sign of Upper Motor Neuron Lesion?**

- A. Clonus
- B. Spasticity
- C. Negative Babinski sign
- D. Hyperreflexia

Answer: C

**3. In a lower limbs neurological examination for a patient, those were the findings: small shuffling steps with stooped posture and reduced arm swing .....**

- A. parkinsonian gait
- B. ataxia gait
- C. positive pronator drift
- D. positive romberg test

Answer: A

**4. True about rigidity?**

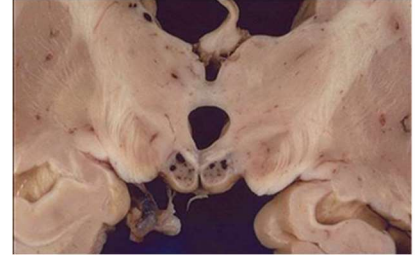
- A. Velocity-Dependent only
- B. Direction- dependent only
- C. Independent of the velocity and direction
- D. Increased in the initial part of movement then suddenly reduces past a certain point

E. Worse with faster moving the limb  
Answer: C

### *Pathology lab*

1. This picture is related to:

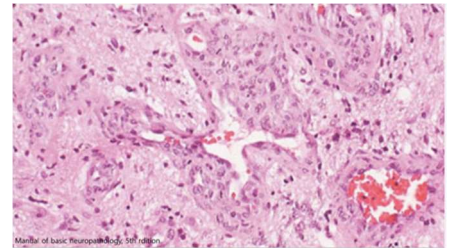
- A. Wernicke-Korsakoff syndrome
- B. Alzheimer's
- C. Amyotrophic lateral sclerosis
- D. Parkinson
- E. Multiple sclerosis



Answer: A

2. This picture includes:

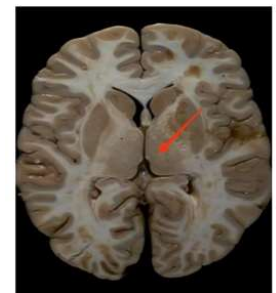
- A. Rosettes
- B. Palisading necrosis
- C. Chicken wire appearance
- D. Microvascular proliferation (ans)



### *Anatomy lab*

1. The pointed structure is related to which of the following:

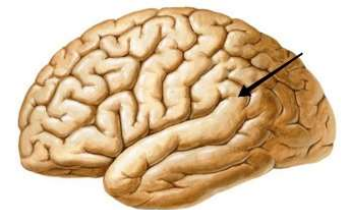
- A. Third ventricle
- B. Fourth ventricle
- C. Lateral ventricle
- D. Third and fourth ventricles
- E. Lateral and third ventricles



Answer: E

2. Identify the pointed structure:

- A. Angular gyrus
- B. Supramarginal gyrus
- C. Ascending gyrus

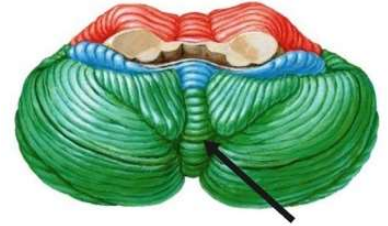


Answer: B

**3. Identify the pointed structure:**

- A. Vermis
- B. Tonsil

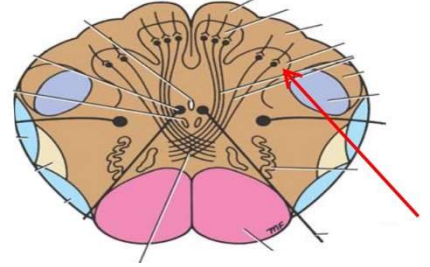
Answer: A



**4. The red arrow refers to:**

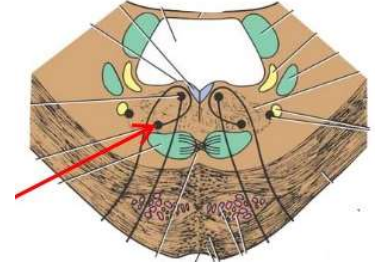
- A. Nucleus cuneatus
- B. Nucleus gracilis

Answer: A



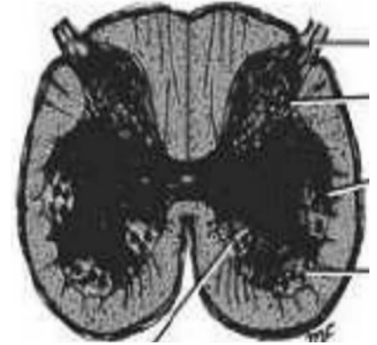
**5. The red arrow refers to:**

Answer: Facial nucleus



**6. This cross section taken at level?**

Answer: S3



اللهم إني توكلتُ عليك، وسلّمتُ أمري إليك، لا ملجأ ولا منجى منك إلا إليك.