

# Test Bank



**Subject:**

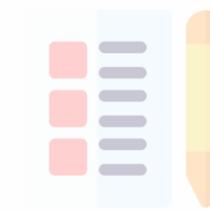
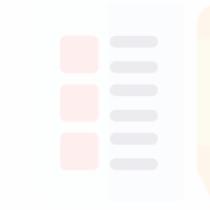
**CNS-Final 018**



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## CNS-Final 018

### Theory Part:

1-Which of the following is a GABA reuptake inhibitor ?

- a. Carbamazepine
- b. Valproic acid
- c. None of the other options
- d. Phenytoin
- e. Lamotrigine

2-Which of the following has gingival hypertrophy as a side effect ?

- a. Valproic acid
- b. Lamotrigine
- c. Ethosuximide
- d. Phenytoin
- e. Carbamazepine

3-Which of the following is not true about third-generation Antidepressant Drugs ?

- a. Used for OCD
- b. Completely absorbed from the gastrointestinal (GI) tract and extensively metabolized in the liver
- c. Sexual dysfunction and anorgasmia occur in both men and women .
- d. Psychotic reactions may be exacerbated in depressed schizophrenics
- e. All of the other options are true

4-A 67 year old male presents with tremors, rigidity and slow movement. You notice that he had stooped posture and diminished facial expressions. He seems to have good cognitive function and no memory loss. Which of the following plays a role in his disease ?

- a. Intranuclear protein accumulation
- b. A trinucleotide repeat mutation
- c. Accumulation of a protein important for long term memory .
- d. Loss of pigmented neurons in mammillary bodies
- e. Accumulation of protein that acts as a prion protein

5-Which of the following statements about neurotransmitters is CORRECT ?

- a. Histamine receptor type 1 (H<sub>1</sub>) is involved in vascular tone .
- b. Acetylcholine effect is limited to muscarinic receptors .
- c. GABA is an excitatory neurotransmitter .
- d. Serotonin is involved in the etiology of depression .
- e. Tryptophan is the precursor of acetylcholine.

6-Which of the following is correct regarding Friedrich ataxia?

- a. characterized by gene activation of a protein involved in mitochondrial phosphorylation
- b. inherited in an autosomal dominant fashion
- c. caused by decreased level of a protein involved in iron regulation
- d. patients have increased incidence of cardiac cancer
- e. caused by a single nucleotide repeat mutation

7-Choose the INCORRECT combination :

- a. Oligodendroglioma : Ip 19q codeletion.
- b. Pilocytic astrocytoma : cerebellar location .
- c. Ependymoma : pseudorosettes
- d. Medulloblastoma : low cellularity
- e. Glioblastoma : palisaded necrosis

8-After falling down a flight of stairs, a young woman is found to have partial loss of voluntary movement on the right side of her body and loss of pain and temperature sensation on the left side below the midthoracic region. It is probable that she has a lesion:

- a. Transecting the dorsal half of the spinal cord in the upper thoracic region .
- b. Transecting the left half of spinal cord in the lumbar region .
- c. Transecting the right half of the spinal cord in the upper thoracic region .
- d. Transecting sensory and motor pathways on the right side of the pons.
- e. Transecting the left half of spinal cord in the upper thoracic region.

**9-Which of the following is the drug of choice for absence seizure ?**

- a. Ethosuximide
- b. Phenytoin
- c. Valproic acid
- d. Lamotrigine
- e. Carbamazepine

**10-Lesions of the speech center in the frontal lobe results in :**

- a. Inability to select appropriate words for use in speech-language comprehension .
- b. Failure of coordination of speech muscles .
- c. Inability to understand spoken language.
- d. Sensory aphasia .
- e. Paralysis of speech muscles.

**11-Which of the following is associated with paradoxical (REM) sleep ?**

- a. It constitutes around 75% of the sleeping time .
- b. EEG with delta waves .
- c. Night tremors .
- d. Sleep walking .
- e. Active dreaming that are vivid and memorable.

**12-All of the following are included in Erik Erikson's stages of development, EXCEPT ?**

- a. Popularity versus self- absorption
- b. Industry versus inferiority
- c. Ego integrity versus despair

d. Intimacy versus isolation

e. Trust versus mistrust

13-Which of the following structures is not derived from the procencephalon ?

a. Cerebral cortex

b. thalamus

c. midbrain

d. lateral ventricle

e. Basal nuclei

14-Which of the following statements regarding obesity is correct ?

a. Exercise does not play a significant role in weight control .

b. Obese people have a common type of personality .

c. Obese people react differently to food cues compared to non-obese people .

d. Obese people eat less when they are under stress .

e. Obese people are less responsive to the sight of food compared to non- obese people.

15-You received a histopathology report describing a brain tumor which is highly cellular, positive with GFAP (glial fibrillary acidic protein) and shows vascular proliferation and necrosis. This lesion is :

a. Usually has 1p/ 9q codeletion

b. contains Homer Wright rosetts

c. WHO grade 3 lesion .

d. Has a better prognosis if it is IDH mutated

e. Non-enhancing on imaging scans

16-A person with hemorrhage that affects the internal capsular fibers and hemiplegia and has aphasia, most probably his/her lesion is located at :

a. Basal ganglia

b. Cerebellum

c. Hypothalamus

- d. Left cerebral hemisphere
- e. Right cerebral hemisphere

17-The statement that describes stem cells is :

- a. Changes in the niche have no effect on the behaviour of stem cells
- b. They can be used for cell- based therapy and modelling human diseases
- c. Their niche drive their differentiation and does not keep their stemness
- d. They have a limited ability to asymmetrically divide
- e. We can use them as a cell- based therapy directly after we test them in tissue culture disease models and they show an improvement of the disease

18-Which of the following structures is directly related anatomically to the third ventricle ?

- a. Posterior horn of the lateral ventricle
- b. cerebellum
- c. Amygdala
- d. Calcaravis
- e. lamina terminalis

19-Which of the following statements is UNPAIRED :

- a. Cerebellum lesion.....nystagmus and wide gate (drunken gait) .
- b. Prefrontal corte.....personality trait and adjusting behavior .
- c. Retrogarde amnesia.....lesion in the thalamus .
- d. Lower motor neuron lesion.....areflexia .
- e. Basal ganglia lesion.....action tremor (intention tremor).

20-Tuberous sclerosis is characterised by all of the following EXCEPT :

- a. Pancreatic cysts .
- b. Increased risk of renal cell carcinoma.
- c. Sclerotic skin lesions .
- d. Cortical hamartomas.
- e. Autosomal dominant inheritance.

21-Which of the following is UNPAIRED ?

- a. Dopamine.....Parkinson's disease
- b. Basal ganglia.....dysarthria and dysmetria
- c. Serotonin.....slow wave sleep
- d. GABA.....the major inhibitory transmitters in the basal ganglia
- e. Norepinephrine.....the locus ceruleus of the reticular activating system

22-Which of the following area lesion is manifested on the ipsilateral side ?

a.3.1.2

b.Corpora striata

c.Posterior limb of internal capsule

d.8

e.4

23-Which of the following statements regarding placebo is correct ?

- a. Placebo effect has no role in surgery .
- b. Placebo effect and placebo are the same .
- c. The average placebo effect in medical practice is 35% .
- d. Placebo treatment has no unfavorable effects .
- e. Placebo is effective only on low IQ patients.

24-Which of the following is true regarding encephalitis ?

- a. Streptococci are the most identified pathogens in sporadic cases of encephalitis .
- b. Encephalitis patients are usually treated at home with anti-pyretics and painkillers .
- c. Persons infected with Herpes simplex type-1 commonly develop encephalitis .
- d. CSF culture is necessary to confirm the diagnosis of encephalitis .
- e. Arboviruses are associated with epidemics of encephalitis.

25-Which of the following Atypical Antipsychotics is used to treat for the treatment of refractory severe psychosis ?

- a. Clozapine
- b. Olanzapine
- c. None of the other options
- d. Quetiapine
- e. Paliperidone

26-Concerning the internal capsule, Choose the matched pair of the followings :

- a. Retrolentiform part- auditory radiation
- b. Posterior limb- superior thalamic radiation
- c. Anterior limb - inferior radiation
- d. Genu- sensory radiation
- e. Sublentiform part-optic radiation

27-The discharge from Golgi tendon organs initiated by excessive stretch of a skeletal muscle produces -:

- a. Stimulation of  $\alpha$ -motor neurons of the same muscle
- b. of  $\alpha$ -motor neurons of antagonistic muscles
- c. Stimulation of  $\gamma$ -motor neurons of the same muscle
- d. Inhibition of  $\gamma$ -motor neurons of antagonistic muscles
- e. Inhibition of  $\alpha$ -motor neurons of the same muscle

28-The dog salivation in response to the sight of food is referred to as ?

- a. Extinction
- b. Unconditioned stimulus
- c. Unconditioned response
- d. Conditioned response
- e. Conditioned stimulus

29-Concerning the hippocampus, Choose the Incorrect statement :

- a. Forms part of the roof of the inferior horn of the lateral ventricle
- b. Is part of the limbic system
- c. Its efferents are forming the fornix

- d. Is situated inside the parahippocampal gyrus
- e. Is supplied by the posterior cerebral artery

**30-Which of the following agents is an opioid antagonist ?**

- a. Amphetamine
- b. Morphine
- c. Two of the other options
- d. Naltrexone
- e. Disulfiram

**31-Which of the following about cerebellum are paired correctly ?**

- a. Cerebellar dysfunction.....athetosis and hemiballismus .
- b. Spinocerebellum and sequencing.....timing of motor movements .
- c. Lateral cerebellar hemisphere.....coordination of axial muscles .
- d. Purkinje cells.....inhibitory input to deep nuclear cells of cerebellum .
- e. Vestibulocerebellum (flocculonodular lobe).....coordination of voluntary movements of the distal flexors.

**32-Which of the followings in NOT a suitable combination ?**

- a. Stretch reflex is highly localized excitatory monosynaptic reflex.
- b. Stretch of an innervated muscle evokes contraction of its extrafusal fibers .
- c. The nuclear-bag fibers of muscle spindles are innervated by A gamma nerve fiber .
- d. The central ends of afferents from muscle spindles diverge to give the dorsal spinocerebellar ascending tract .
- e. Muscle spindles density is more in flexors rather than in antigravity extensors.

**33-Which one of the following loops is involved in balance regulation ?**

- a. Cerebello-Globose- Emboliform-Rubral-spinal
- b. Cerebello-Clobose- Emboliform-Thalamo- Cortico-Spinal
- c. Cerebello-fastigeo- thalamo-cortico-spinal
- d. Vestibulo-Flocuolo- Nodular-Vestibulo-Spinal
- e. Cortico-Ponto- Cerebello- Dentato- Rubro-Thalamio- Cortical

34-Choose the matched pairs of the followings :

- a. Premotor area-chorea
- b. Cerebellum- parkinsonism
- c. Area 45-Fluent Aphasia
- d. Posterior parietal association area- Asteriognosis
- e. Basal nuclei- hemianesthesia

35-All of the following are considered explanations for forgetfulness, EXCEPT ?

- a. Replacement
- b. Interference
- c. Priming
- d. Decay
- e. Cue-dependency

36-Which of the following is incorrect about amyloid accumulation in the brain :

- a. Can be part of the normal aging process
- b. Forms extracellular plaques
- c. Causes secondary hyper phosphorylation of Tau protein
- d. Increased risk of accumulation in people with Down syndrome is due to deranged beta secretase levels.
- e. If associated with neurofibrillary tangles it point towards a diagnosis of Alzheimer disease.

37-Which of the following statements regarding Non-REM sleep is correct ?

- a. Increased spinal reflexes .
- b. It has three phases of equal depth .
- c. Increased cerebral blood flow .
- d. Increased growth hormone secretion .
- e. Increased heart rate.

38-Regarding the Thalamus, Choose the correct statement :

- a. It is separated from the fornix by the choroid fissure
- b. Forms part of the medial wall of the third ventricle
- c. It is connected to the corpus callosum by the septum pellucidum
- d. Its posterior part forms the posterior boundary of the interventricular foramen
- e. Forms part of the roof of the body of the lateral ventricle

39-which of the following structures is not supplied by the anterior cerebral artery?

- a. Lateral half of the orbital surface
- b. Septum pellucidum
- c. Medial frontal gyrus
- d. Genu of the corpus callosum
- e. Anterior half of corpus striatum

40-Which of the following drugs is used in the treatment of Parkinsonian disorders ?

- a. Phenytoin
- b. Haloperidol
- c. Fluoxetine
- d. Two of the other options
- e. Selegiline

41-Which of the following physical signs is not suggesting the involvement of the left middle cerebral artery ?

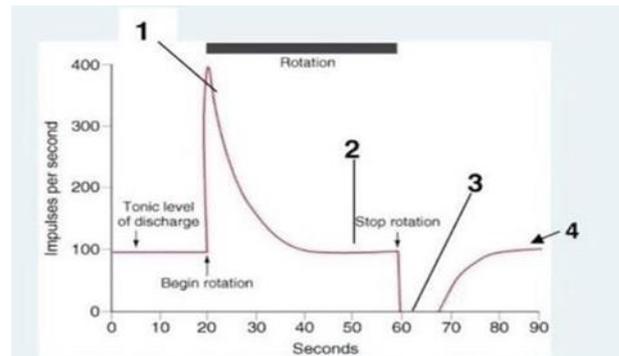
- a. Paralysis of the right side of the arm and forearm
- b. Paralysis of the right leg and foot
- c. Conjugate movement of both eyes to the left side
- d. General sensory loss on the right side of the arm and forearm
- e. The presence of aphasia

42-The figure above represents the response of a hair cell in the crista ampullaris of the semicircular canal to stimulation by rotation in a human subject. With the

subject's eyes closed, the subjective sensation of rotation will be absent at which point/s indicated by the letters 1 through

4 ?

- a. Point 2 and 4
- b. Point 2 only
- c. Points 1 and 3
- d. Point 1 only
- e. Point 3 only



43-Sudden brief lapses of consciousness with loss of posture are characteristics of :

- a. Clonic generalized seizure
- b. Typical absence seizure
- c. Tonic generalized seizure
- d. Two of the other options
- e. Simple partial seizure

44-Rigidity of the axial and antigravity muscles when cortical control over the brain stem is interrupted (decerebrate) is due to :

- a. Over activity of pontine reticulospinal tract .
- b. Over activity of medullary reticulospinal tract .
- c. Over activity of corticospinal tract .
- d. Disruption of the lateral vestibulospinal tract .
- e. Disruption of the dorsal spinocerebellar pathway.

45-A 30-year-old male presented to his local primary health care clinic following an assault during which he sustained a right frontal scalp laceration and trauma to the head. Two days later, he developed signs of a left hemiplegia with associated seizures, but examination of all other systems was normal. A computed tomography (CT) scan of the brain revealed a right frontal hypodense lesion with midline shift

suggestive of an early brain abscess. Which of the following is part of this patient management ?

- The patient should undergo emergency craniectomy with drainage of the abscess.
- The patient should wait until the abscess is fully formed then undergo craniectomy .
- The patient is given acyclovir and monitored in the ICU .
- The patient is provided with oral antibiotics and sent home .
- The patient should undergo lumbar puncture immediately to confirm the diagnosis.

### Answers

1	C	12	A	23	C	34	D
2	D	13	C	24	E	35	C
3	C	14	C	25	A	36	D
4	E	15	D	26	B	37	D
5	D	16	D	27	E	38	A
6	C	17	B	28	C	39	A
7	D	18	E	29	A	40	E
8	C	19	E	30	D	41	B
9	A	20	B	31	D	42	A
10	B	21	B	32	E	43	B
11	E	22	E	33	D	44	A
			45	A			

### **Practical part:**

1-During a neurological examination on a 30-year-old patient, you performed Rinne and Weber tests. Rinne test showed that bone conduction was better than air conduction in the RIGHT ear, and air conduction was better than bone conduction

in the LEFT ear. The Weber test revealed localization to the RIGHT ear. What does this patient have ?

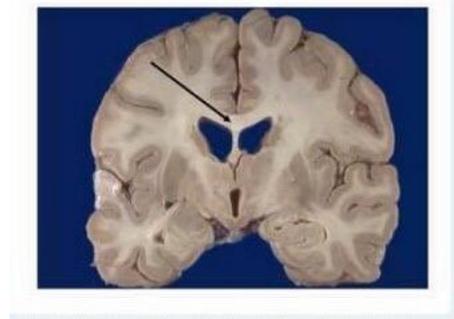
- a. Conductive hearing loss in the right ear
- b. Sensorineural hearing loss in the left ear
- c. Normal hearing
- d. Sensorineural hearing loss in the right ear
- e. Conductive hearing loss in the left ear

2- During neurological examination of a patient, which of the following signs in NOT characteristic of upper motor neuron lesion ?

- a. Hyperreflexia .
- b. Weakness of power of the muscle .
- c. Absence of fasciculations .
- d. Increased muscle tone .
- e. Atrophy of muscle.

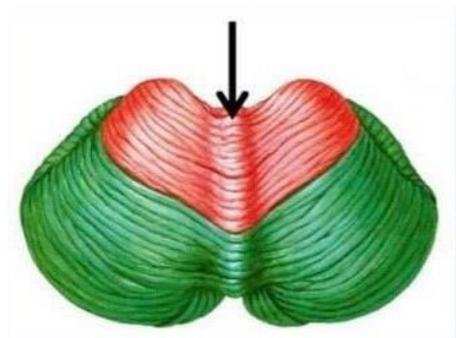
3-The pointed structure forms the roof of..... in this particular section:

- a. Posterior horn of the lateral ventricle
- b. Inferior horn of the lateral ventricle
- c. Body of the lateral ventricle
- d. Fourth ventricle
- e. Anterior horn of the lateral ventricle



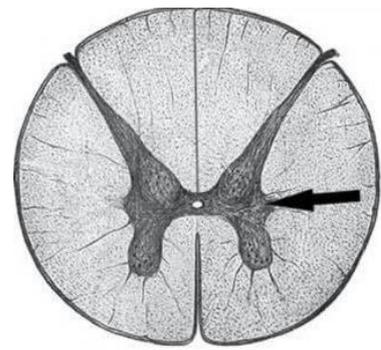
4-The pointed structure is connected with one of the following deep nuclei :

- a. Fastigial
- b. Globose
- c. Emboliform
- d. Dentate
- e. Floculonodular



5-The cell bodies in the pointed area are cell bodies of :

- a. Post ganglionic parasympathetic neurons
- b. Ist order sensory neurons
- c. Lower motor neurons
- d. Preganglionic sympathetic neurons
- e. Preganglionic parasympathetic neurons



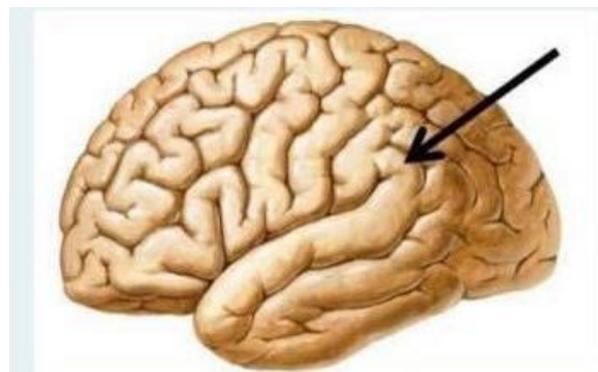
6-These skin nodules are characteristic of which of the following syndrome :

- a. Neurofibromatosis type 2
- b. Von Hippel Lendau syndrome
- c. Neurofibromatosis typel
- d. Tuberous sclerosis
- e. Parkinsonism



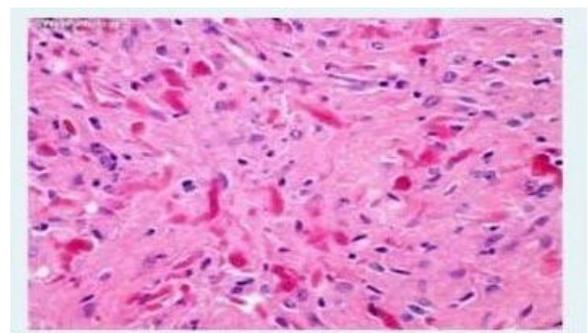
7-Which of the following statements is incorrect about the pointed structure ?

- a. Responsible for understanding both written and spoken words
- b. Its lesion produce sensory aphasia
- c. Is connected to inferior frontal gyrus
- d. Responsible for Controlling motor muscles that produce speech
- e. Supplied by the Middle cerebral artery



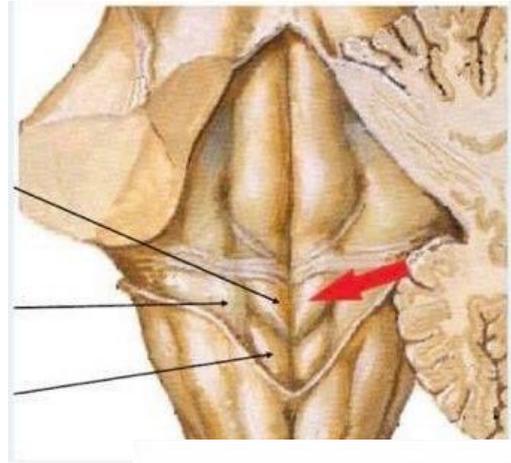
8-This picture shows a feature of pilocytic astrocytoma which is :

- a. Rosenthal fibers
- b. Microcysts
- c. High cellularity
- d. Palisaded necrosis
- e. GFAP positivity



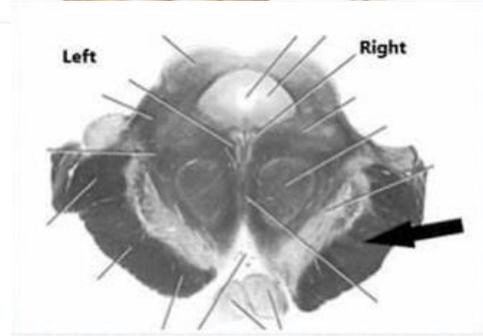
9-The pointed structure (red) is :

- a. Hypoglossal triangle
- b. Medial eminence
- c. Facial colliculus
- d. Vagal triangle
- e. Vestibular area



10-The pointed area contains mainly :

- a. Right pyramid
- b. Proprioceptive fibers from right side of body
- c. Corticospinal fibers that control right side of body
- d. Proprioceptive fibers from left side of body
- e. Corticospinal fibers that control left side of body



### Answers

1	A	3	C	5	D	7	D
2	E	4	A	6	C	8	A
		9	A	10	E		

اذكرونا بدعوة. ✨