لجنة الطب البشري

رُؤية تُنير دُروب تميّزكم

Third Year

Central Nervous System

Veins's Exams

1. **Which of the following arteries supply the thalamus?**
   A. Cerebral artery
   B. Basilar Artery
   C. Vertebral Artery
   D. Posterior Cerebral Artery
   E. Middle Cerebral Artery

   Answer: D

2. **Which of the following condition can be treated using Morphine?**
   A. Pancreatic cancer
   B. Cough
   C. Diarrhoea
   D. Head trauma

   Answer: A

3. **Which of the following statements opposes the dopamine theory of psychosis?**
   A. D2 agonists and dopamine releasers produce psychotic-like effects.
   B. Antipsychotics are dopamine (D2) antagonists
   C. Pimavanserin have 5-HT antagonism
   D. Drugs block NMDA receptors produce psychotic-like effect
   E. Antipsychotics are always effective

   Answer:C

4. **A 8 year old boy who suffers from gait ataxia, hand clumsiness and dysarthria. Also he suffers from diabetes and a heart disease. Genetic testing revealed GAA trinucleotide repeat expansion in the gene encoding a protein that regulates cellular iron levels, particularly in the mitochondria. Which of the following is correct regarding the patient diagnosis?**
   A. The patient has upper and lower motor neuron lesion
   B. The patient symptoms include athetosis and chorea
   C. Autopsy of the patient's brain will probably reveal accumulation of α-synuclein protein
   D. There is absent frataxin protein
   E. The patient heart disease is most likely dilated cardiomyopathy

   Answer:D

5. **Beta waves in EEG are seen in**
   A. Non REM sleep
   B. Light sleep
   C. REM sleep

   Answer:C

6. **In an experiment testing GABA signaling using electrophysiological techniques, you noticed that when drug X is added to neurons expressing GABA receptors (both A and B types) only, it causes significant membrane hyperpolarization independently of whether GABA is present in the testing solution or not. Drug X resulted in increased intracellular Gi'o activity. The effect of drug X was not opposed by flumazenil. This suggests that drug X is more likely to be:**
   A. Positive allosteric modulator of GABA-B receptor.
   B. A positive allosteric modulator at GABA-A receptor.
   C. An agonist at GABA-B receptor.
   D. Partial agonist at GABA-A receptor
   E. An antagonist at GABA-A receptor.

   Answer:B

7. **Lesion in inferior frontal gyrus causes:**
   A. Inability to pronounce name
   B. Hemiplegia of the lower limb
   C. Loss of proprioception on the ipsilateral side
   D. Deafness

   Answer:A

8. **All of the following cases consider as red flags for back pain except:**
   A. Metastatic CA
   B. Pain < 4 weeks
   C. Cauda Equina Syndrome
   D. focal neurologic deficit

   Answer:B

9. **Anterior thalamic radiation is related to:**
   A. Cingulate gyrus
   B. Superior colliculus
   C. Calcarine sulcus
   D. Postcentral gyrus

   Answer:A

10. **Retrolentiform is supplied by:**
   A. Anterior cerebral artery
   B. Posterior cerebral artery
   C. Anterior choroidal artery
   D. Middle cerebral artery

   Answer:C

11. Which of the following factors increase the risk of sacclar aneurysm:

A. Hypertension
B. Smoking
C. Parkinson patient
D. More than one answer

Answer:D

12. Dentate is connected to:

A. Pontine Nucleus
B. Red nucleus
C. Vestibular nuclei
D. Superior colliculus
E. Olivary nucleus

Answer:A

13. The auditory area is present in :

A. Calcarine sulcus
B. Precentral gyrus
C. Inferior lip of lateral sulcus
D. Superior lip of lateral sulcus

Answer:C

14. A 45-year-old woman spent the evening in a sleep clinic after her husband had repeatedly expressed concern about her restlessness during the night which was keeping him awake. Which of the following pattern of changes in central neurotransmitters or neuromodulators are associated with awake state?

A. Pontine Nucleus
B. Red nucleus
C. Inferior lip of lateral sulcus
D. Superior lip of lateral sulcus

Answer:A

15. A 45-year-old woman spent the evening in a sleep clinic after her husband had repeatedly expressed concern about her restlessness during the night which was keeping him awake. Which of the following pattern of changes in central neurotransmitters or neuromodulators are associated with awake state?

A. Decrease in norepinephrine, increase in serotonin and increase in acetylcholine.
B. Decrease in norepinephrine, increase in acetylcholine and increase in histamine.
C. Decrease in norepinephrine, decrease in serotonin and increase in acetylcholine
D. Increase in norepinephrine, increase in serotonin and decrease in GABA.
E. Increase in norepinephrine, decrease in serotonin and decrease in GABA.

Answer:D

16. 30 years old smoker man, recently he has severe coughing, he tried to stop smoking but he couldn't, and he complaints from headache when he tries to stop. patient state consider as:

A. Psychological dependence
B. Physiological dependence
C. Addiction

Answer:C

17. A 56-year-old female patient has epilepsy. Since she also suffers from mood swinging, her neurologist prescribed lamotrigine (100 mg/day) as an initial anticonvulsant therapy. The first 9 months of therapy were seizure-free. However, recently, the patient was brought to the emergency room twice after developing two independent convulsions. The neurologist decided to add another antiepileptic and choose valporicacid. How should the neurologist adjust the dose of lamotrigine accordingly:

A. Lamotrigine's dose should be decreased to 200 mg/day.
B. Lamotrigine's dose should be increased to 50 mg/day.
C. Lamotrigine's dose should not be altered.
D. Carbamazepine cannot be combined with lamotrigine due to life-threatening skin rash.
E. Lamotrigine's dose must be higher than carbamazepine's

Answer:B

18. In Thalamic syndrome there is:

A. Sensory ataxia
B. Motor ataxia
C. Cerebellar ataxia
D. Mixes ataxia
E. No ataxia

Answer:D

19. Patient presented to the ER with single episode of jerky movenments of the limbs without loss of consciousness and now he feels fine and remembering what happend,the most appropriate treatment is:

A. gabapentin
B. lamotrigine
C. levetiracetam
D. watchful waiting

Answer:D

20..VPLN of thalamus passes through:

A. Posterior limb of internal capsule
B. Anterior limb of internal capsule
C. Fornix

Answer:A

21. The Relation of floor of lateral ventricle:

A. Corpus callosum
B. Body of caudate nucleus
C. Pineal gland

Answer:B

22. When we force an animal to stay awake for along time, which of following compounds you expect to be increased?

A. Dopamine
B. Gaba
C. Adenosine
D. Acetylcholine

Answer:C

23. One of the following consider as a risk factor for discitis

A. Hypertension
B. Smoking
C. Renal dialysis
D. Non of the above

Answer:C

24. One of the following is a subdural hematoma finding in CT scan:

A. Collection of fresh blood
B. crescent shape hyperdense mass
C. Biconvex shape mass
D. Non of the above

Answer:B

25. What is the product of rate limiting step in synthesis of catecholamine ?

A. Tyrosine
B. Dopamine
C. Dihydroxyphenylalanine
D. NE

Answer:C

26. Failure to perform rapid alternating movements indicating a failure of "progression" from one part of the movement to the next is called:

A. Past-pointing
B. Tremor.
C. Dysarthria.
D. Nystagmus.
E. Dysdiadochokinesia.

Answer:E

27. Which of the following arteries is NOT component of the circle of Willis?

A. Anterior cerebral
B. Middle cerebral
C. Posterior communicating
D. Posterior cerebral
E. Anterior communicating

Answer:B

28. On of the following factors make the action of lidocaine slower

A. Low Ph
B. Absence of infection
C. Injection of NE

Answer:A

29. Primary function of basal ganglia

A. Planning of movement
B. Hormone secretion
C. Visual Sensation
D. Auditory Sensation

Answer:A

30. Function of mossy fiber circuit is :

A. Inhibit voluntary muscle contraction
B. Regulate circadian rhythm
C. Process auditory stimuli
D. Turn on signals of the initiation of movement

Answer:D

31. Space occupying syndrome in the falx cerebri causes:

A. Loss of bimanual action
B. Loss of upper limp movement
C. Loss of upper limp sensation
D. Loss of lower limp sensation

Answer:D

Athar's Exams

Anatomy

Dr. Ashraf Ramzy

32. Nucleus solitarius is supplied by:

A. Posterior inferior cerebellar artery.
B. Vertebral artery.
C. Anterior spinal artery.
D. Basilar artery.
E. Posterior spinal artery.

Answer: A

33. Injury of the right cortico-bulbar tract would affect muscles of:

A. Right upper quadrant of face.
B. Left upper quadrant of face.
C. Right lower quadrant of face.
D. Left lower quadrant of face.
E. Right ½ of tongue.

Answer: D

34. Choose the INCORRECT matching:

A. Spino-tectal tract - is responsible for spino-visual reflex.
B. Spinal lemniscus - carries crude touch & pressure.
C. Anterior spino-cerebellar tract - carries proprioception from lower limbs.
D. Axons of cuneate nucleus - Carries conscious proprioception from thumb.
E. VPMN of thalamus - receives termination of spinal lemniscus.

Answer: E

35. Anterior spinal artery supplies all the following structures Except:

A. Gracile nucleus.
B. Hypoglossal nucleus.
C. Pyramid.
D. Medial lemniscus.
E. Medial longitudinal bundle.

Answer: A

36. As regards dural venous sinuses, choose the INCORRECT matching:

A. Inferior petrosal sings - considered as an emissary vein.
B. Superior petrosal sinus - runs in free margin of tentorium cerebelli.
C. Straight sinus - lies at line of attachment of falx cerebri & tentorium cerebelli.
D. Sigmoid sinus - ends by forming internal jugular vein.
E. Transverse sinus - begins at internal occipital protuberance.

Answer: B

37. The structure that passes inside cavernous sinus is:

A. External carotid artery.
B. Maxillary nerve.
C. Trochlear nerve.
D. Mandibular nerve.
E. Abducent nerve.

Answer: E

Pathology

Dr. Mohammad Al-Wiswsy

38. Regarding cerebrovascular lesions, ONE of the following statements is TRUE:

A. Both epidural and subdural hemorrhages are venous bleeding.
B. Decrease of the systolic blood pressure to less than 70mm Hg will result in global cerebral ischemic/hypoxic injury.
C. The most frequent embolic infarction in the brain occurs in the territory of distribution of the anterior cerebral artery.
D. Healing of subarachnoid hemorrhage may results in meningeal fibrosis and scarring causes hydrocephalus ex vacuo.
E. Hemorrhages associated with Cerebral Amyloid Angiopathy have a distribution that is different from that of hypertensive intraparenchymal hemorrhages.

Answer: E

39. Regarding intracranial hemorrhages, ONE of the following matches is CORRECT:

A. Duret hemorrhages - Ruptured bridging vein.
B. Subdural hemorrhage .- Ruptured atheromatous aneurysm.
C. Intraventricular hemorrhage - Ruptured traumatic aneurysm.
D. Epidural hemorrhage - Ruptured arteriovenous malformation.
E. Spontaneous primary brain intraparenchymal hemorrhage - Ruptured Charcot-Bouchard microaneurysms.

Answer: E

40. Effects of systemic hypertension on the brain include all the following EXCEPT:

A. Lacunar infarcts.
B. Slit hemorrhages.
C. Subdural hemorrhages.
D. Charcot-Bouchard microancurysms.
E. Acute hypertensive encephalopathy.

Answer: C

41. Regarding central nervous system trauma, All the following statements are correct EXCEPT:

A. Traumatic head injury can cause epidural, subdural, subarachnoid, paranchymatous and ventricular hemorrhages.
B. Basal fracture of the skull may cause epidural and/or subdural abscesses, meningitis, CSF rhinorrhea and/or otorrhea.
C. Traumatic subdural hemorrhage and hematoma most often become manifest within the first 48 hours after injury and are most common over the lateral aspects of the cerebellum.
D. Severe traumatic angular acceleration movement of one region of brain relative to another usually causes diffuse axonal injury, leading, in most patients, to coma and death shortly after the trauma.
E. Impact of a blunt object with the head usually causes contusion injury at the site of impact, the opposite side of the impact, and in the anterior and inferior surfaces of the temporal lobes and orbital gyrus of the frontal lobe.

Answer: C

42. Regarding saccular (Berry) aneurysm, all the following are correct EXCEPT:

A. Are congenital and are present at birth.
B. Are the most common type of intracranial aneurysm.
C. With the first rupture of the saccular aneurysm, 50% of individuals die.
D. Majority occur in the anterior circulation near major arterial branch points.
E. There is an increased risk of saccular aneurysms in individuals with autosomal dominant polycystic kidney discase.

Answer: A

43. One of the following statements is False:

A. Arterial emboli are more common cause of focal cerebral infarctions than in situ arterial thrombosis.
B. If a patient survives an attack of cerebral infarction or cerebral haemorrhage, the final end result of both lesions is cyst.
C. Subfalcine heriation usually results in compression of the anterior cerebral artery while transtentorial hemiation usually results in compression of the posterior cerebral artery.
D. Concussion is reversible loss of consciousness from head injury characterize by transient neurologic dysfunction including loss of consciousness, temporary respiratory arrest and loss of reflexes.
E. Following cerebral hypotensive episodes, the area at greatest risk for the occurrence of border zone ("watershed") infarcts is in the border zone between the middle and the posterior cerebral artery distributions.

Answer: E

44. The CSF examination of an old man with neck stiffness reveals uniformly hemorrhagic bloody CSF, all the following are possible cause of such hemorrhage EXEPT:

A. Hematological disturbances.
B. Rupture of saccular (Berry) aneurysm.
C. Rupture of tumor in the subarachnoid space.
D. Bleeding from intracerebral arteriovenous malformation (AVM).
E. Intraventricular hemorrhage passing in to the subarachnoid space.

Answer: A

Community

Dr. Omnia Yousef

45. Which one of the following is a NEGATIVE symptom of a migraine aura?

A. Bright lines.
B. Loss of vision.
C. Paresthesias.
D. Rhythmic movements.
E. Tinnitus.

Answer: B

46. A 23 years old man developed a severe attack of headache focused around one eye, with tearing and redness of the eye, and runny nose. The attack lasted for 5 minutes and was repeated 6 times per day. Which of the following is a risk factor for this disease?

A. Child age.
B. Female sex.
C. Hormonal imbalance.
D. Positive family history.
E. Vitamin B 12 deficiency.

Answer: D

Clinical

Dr. Ala'a Al-Mousa

47. A patient suffered of bilateral UMNL paralysis in muscles of lower limbs in addition to I bilateral loss of pain & temperature sensations with preservation of proprioception & touch in both lower limbs. His case is most probably due to:

A. Tabes dorsalis.
B. Brown Sequard syndrome.
C. Anterior spinal artery occlusion.
D. Syringomyelia.
E. Poliomyelitis.

Answer: C

48. Glasgow Coma scale (GCS) is best designed to test:

A. Cognitive function.
B. Level of consciousness.
C. Motor power.
D. Vocal cords.
E. Sensation.

Answer: B

49. In anterior cord syndrome, one of the following tracts is preserved:

A. Dorsal column.
B. Lateral Corticospinal tract.
C. Lateral spinothalamic tract.
D. Anterior Corticospinal tract.
E. Spinocerebellar tract.

Answer: A

50. A patient with left sided hemiplegia is most likely to have a pathology affecting:

A. Peripheral nerves.
B. Thoracic spinal cord.
C. The left frontal lobe.
D. The right frontal lobe.
E. The Parietal lobe.

Answer: D

Yaqeen's Exams

Anatomy

Dr. Ashraf Ramzy

51. A lawyer suffered a bad fall that resulted in head trauma: His motor, sensory, and language skills were intact after the incident, and he had no visual problems. In the following weeks, he began to lose interest in his work and did not seem to care much about his family. The trauma most likely affected the:

A. Prefrontal area.
B. Uncus.
C. Area 5 and 7.
D. Occipital eye.
E. Amygdala.

Answer: A

52. Hemiballismus, is due to injury in:

A. Subthalamic nucleus.
B. Glopes palidis.
C. Cudate.

Answer: A

Physiology

Dr. Shaima'a Nasr

53. Activity of RAS produces:

A. Sleep.
B. Awakening.
C. Drowsiness.
D. Coma.
E. Improved mood.

Answer: B

54. Correct about narcolepsy:

A. Have familal incidince.
B. Due to increase in fibers that secrete ortxcin.
C. Patient enter non rem sleep.

Answer: A

55. Which of the following is associated with increase eating /lethargy/ tawning:

A. Prodrome.
B. Aura.
C. Postdroma.

Answer: A

56. Normal adult patient, alert sitting with closed eyes , the EEG recorded in occipital poles:

A. Alpha (8-13 Hz).
B. Beta.
C. Theta.

Answer: A

Pathology

Dr. Mohammad Al-Wiswsy

57. Regarding the pathological features of diseases, ONE of the following matches is False:

A. Alzheimer disease - Neuritic plaques (amyloid core surrounded by dystrophic neurites) and neurofibrillary tangles.
B. Frontotemporal dementia — Atrophy of the frontal and temporal lobes, some subgroups characterized by specific inclusions consisting of accumulations of Lewy bodies.
C. Parkinsonism - Syndrome of motor disturbances seen caused by damage to dopaminergic neurons of the substantia nigra or to their projection to the striatum.
D. Amyotrophic lateral sclerosis - Reduction in the number of anterior horn cell throughout the length of the spinal cord with loss anterior root myelinated fibers and reactive gliosis.
E. Red neuron — Shrinkage nerve cell body with intense eosinophilia of the cytoplasm, pyknosis and angulation of the nucleus, disappearance of the nucleolus and loss of Nissl substance.

Answer: B

58. ONE of the following statements is CORRECT:

A. Progression of cingulate herniation is often accompanied by Duret hemorrhage.
B. Tonsillar herniation is displacement of the cerebral peduncles through the foramen magnum.
C. Transtentorial herniation is compression and herniation of the medial aspect of the parietal lobe against the free margin of the tentorium.
D. Subfalcine herniation occurs when unilateral expansion of a cerebral hemisphere displaces the frontal pole under the (lower free) edge of falx cerebri.
E. Transtentorial herniation results in compression of the posterior cerebral artery while subfalcine herniation results in compression of the anterior cerebral artery.

Answer: E

59. Regarding traumatic head injury, One of the following statements is False: فاينل

A. Early subdural hemorrhage and hematoma compress the cerebellopontine angle.
B. Traumatic head injury can cause epidural, subdural, subarachnoid or parenchymatous hemorrhages.
C. Basal fracture of the skull may cause epidural and/or subdural infection and abscesses, meningitis, CSF rhinorrhea and/or otorrhea.
D. Severe traumatic angular acceleration movement of one region of brain relative to another usually causes diffuse axonal injury, leading, in most patients to coma and death shortly after the trauma.
E. Impact of a blunt object with the head usually causes contusion injury at the site of impact, the opposite side of the impact, and in the anterior and inferior surfaces of the temporal lobes and orbital gyrus of the frontal lobe

Answer: E

60. ONE of the following statements is CORRECT:

A. Both epidural and subdural hemorrhages are arterial bleeding.
B. Both advanced transtentorial and tonsillar herniations are life-threatening and are usually fatal.
C. Both in situ arterial thrombosis or arterial emboli, are equally common as a cause of focal cerebral infarctions.
D. Both concussion and contusions are associated with disruption of blood vessels, subsequent hemorrhages tissue injury and edema.
E. Both hemorrhagic and nonhemorrhagic brain infarcts, can be treated with thrombolytic therapies, if identified shortly after presentation.

Answer: B

61. ONE of the following statements is CORRECT:

A. Foramen of Magendie obstruction causes hydrocephalus ex vacuo.
B. Tonsillar herniation is displacement of the cerebral peduncles through the foramen magnum.
C. Transtentorial herniation is compression and herniation of the medial aspect of the parietal lobe against the free margin of the tentorium.
D. Subfalcine herniation occurs when unilateral expansion of a cerebral hemisphere displaces the frontal pole under the (lower free) edge of falx cerebri.
E. Bleeding from intracerebral arteriovenous malformation causes sudden severe excruciating headache, neck stiffness followed by rapid loss of consciousness.

Answer: D

62. Which of the following is False:

Answer: 50% of down syndrome patient will have alzihimer.

Pharmacology

Dr. Sherif Shaltout

63. A 20-year-old man was accompanied to the clinic by his mother who stated that her son had been exhibiting most unusual behavior over the last few weeks. He was euphoric most of the day, stayed up later and later at night, and frequently awakened his parents singing at the top of his lungs. He quit his job and insists he doesn't need one since he has a plan for big money. Upon arriving at the clinic he has trouble sitting still or listening and becomes increasingly irritable throughout the examination. He has a history of alcohol misuse. What first line pharmacotherapy was likely tried:

A. Alprazolam.
B. Imipramine.
C. Chlorpromazine.
D. Valproate.
E. Phenobarbital.

Answer: C

64. A 57-year-old man complained to his physician that he had difficulty in falling asleep. He was a schoolteacher and needed a good night's sleep to perform effectively during the day. Zolpidem was prescribed, one tablet at bedtime. The prescribed drug most likely caused which of the following effects on ion conductance of central nervous system neurons:

A. Decreased Na+ conductance.
B. Increased Cl− conductance.
C. Decreased K+ conductance.
D. Decreased Ca2+ conductance.
E. Increased K+ conductance.

Answer: B

65. Select the general anaesthetic having the most marked uterine relaxant action:

A. Propofol.
B. Halothane.
C. Nitrous oxide.
D. Ether.

Answer: B

66. Risk of neural tube defect in the offspring can be minimised in pregnant women receiving antiepileptic drugs by supplemental therapy with:

A. Folic acid.
B. Vitamin A.
C. Vitamin E.
D. Pyridoxine.

Answer: A

67. Methylxanthin produce cns stimulation by inhibiting which enzyme:

A. Adenyl cyclase.
B. Phosphodiestrase.

Answer: B

68. Best commbintion in consous sedition:

A. Lorazepam + funtyal.
B. Dizepam + acetoaminophen.

Answer: A

69. Patient suffer from diarrhea after take paroxetine why:

Answer: Increase serotonin activity.

Hope's Exams

Anatomy

Dr. Ashraf Ramzy

70. Lesion of the frontal lobe can cause all the following EXCEPT:

A. A change in personality & behavior.
B. Expressive aphasia.
C. Reappearance of grasp reflex.
D. Auditory verbal agnosia.
E. Contralateral hemiplegia.

Answer: D

71. As regards the cortical areas & the effect of its lesion, choose the CORRECT matching:

A. Area 17 - loss of conjugate eve movements.
B. Broca's area - astereognosis.
C. Area 6 - return of grasp reflex.
D. Frontal eye field - homonymous hemianopia.
E. Superior parietal lobule - motor apahasia.

Answer: C

72. As regards the caudate nucleus, choose the CORRECT statement:

A. Its head bulges into floor of body of lateral ventricle.
B. Its body lies in roof of body of lateral ventricle.
C. Its tail tip is continuous with mammillary body.
D. Its head is continuous with globus pallidus.
E. Its tail 1s related to inferior horn of lateral ventricle.

Answer: E

73. As regards the lateral ventricle, choose the INCORRECT statement:

A. It is connected with 3rd ventricle through interventricular foramen of Monroo.
B. Its inferior horn lies within temporal lobe.
C. Roof of posterior horn is formed by tapetum of corpus callosum.
D. Lateral to posterior horn lies auditory radiation.
E. The medial wall of its posterior wall shows 2 elevations.

Answer: D

74. Long-term potentiation of synapses:

A. Is involved in pain control system.
B. Results from reduced stimulation of synapses.
C. Results from repetitive stimulation of presynaptic neuron by noxious stimulus.
D. Is associated with decreased Ca 2+ concentration in postsynaptic neurons.
E. Involved in memory formation in the hippocampus.

Answer: E

75. Failure to perform rapid alternating movements indicating a failure of "progression" from one part of the movement to the next is called:

A. Past-pointing.
B. Tremor.
C. Dysarthria.
D. Nystagmus.
E. Dysdiadochokinesia.

Answer: E

76. Regarding the role of the cerebellum:

A. Purkinje neurons lie in the deep cerebellar nuclei.
B. The cerebellum has a direct efferent projection to the motor cortex.
C. The cerebellum has a direct efferent projection to the spinal cord.
D. Hemiballismus is a sign of cerebellar damage..
E. The cerebellar hemispheres control and receive inputs from ipsilateral muscles.

Answer: E

Pathology

Dr. Mohammad Al-Wiswsy

77. Regarding the pathological features of diseases, ONE of the following matches is False:

A. Alzheimer disease - Neuritic plaques (amyloid core surrounded by dystrophic neurites) and neurofibrillary tangles.
B. Frontotemporal dementia — Atrophy of the frontal and temporal lobes, some subgroups characterized by specific inclusions consisting of accumulations of Lewy bodies.
C. Parkinsonism - Syndrome of motor disturbances seen caused by damage to dopaminergic neurons of the substantia nigra or to their projection to the striatum.
D. Amyotrophic lateral sclerosis - Reduction in the number of anterior horn cell throughout the length of the spinal cord with loss anterior root myelinated fibers and reactive gliosis.
E. Red neuron — Shrinkage nerve cell body with intense eosinophilia of the cytoplasm, pyknosis and angulation of the nucleus, disappearance of the nucleolus and loss of Nissl substance.

Answer: B

78. The most common cause of intraparenchymal hemorrhage is:

A. Secondary to hypertension.
B. Traumatic vascular wall injury.
C. Ruptured cavernous hemangiomas.
D. Ruptured arteriovenous malformation.
E. Bleeding within intraparenchymal tumo.r

Answer: A

79. ONE of the following statements is CORRECT:

A. Both epidural and subdural hemorrhages are arterial bleeding.
B. Both advanced transtentorial and tonsillar herniations are life-threatening and are usually fatal.
C. Both in situ arterial thrombosis or arterial emboli, are equally common as a cause of focal cerebral infarctions.
D. Both concussion and contusions are associated with disruption of blood vessels, subsequent hemorrhages. tissue injury and edema.
E. Both hemorrhagic and nonhemorrhagic brain infarcts, can be treated with thrombolytic therapies, if identified shortly after presentation.

Answer: B

80. ONE of the following statements is CORRECT:

A. Foramen of Magendie obstruction causes hydrocephalus ex vacuo.
B. Tonsillar herniation is displacement of the cerebral peduncles through the foramen magnum.
C. Transtentorial herniation is compression and herniation of the medial aspect of the parietal lobe against the free margin of the tentorium.
D. Subfalcine herniation occurs when unilateral expansion of a cerebral hemisphere displaces the frontal pole under the (lower free) edge of falx cerebri.
E. Bleeding from intracerebral arteriovenous malformation causes sudden severe excruciating headache, neck stiffness followed by rapid loss of consciousness.

Answer: D

81. Regarding intracranial hemorrhages, ONE of the following matches is CORRECT:

A. Epidural hemorrhage - Rupture vascular malformation.
B. Intraventricular hemorrhage — Ruptured mycotic aneurysm.
C. Duret hemorrhages - Ruptured cerebral amyloid angiopathy.
D. Subarachnoid hemorrhage - Ruptured atheromatous aneurysm.
E. Chronic subdural hematomas — Rupture of thin-walled blood vessels within the granulation tissue.

Answer: E

82. One of the following statements is False:

A. A decrease of the systolic blood pressure to less than 50mm Hg will result in global cerebral ischemic/hypoxic injury.
B. The most frequent embolic infarction in the brain occurs in the territory of distribution of the anterior cerebral artery.
C. It Opened depressed fracture of the skull can cause focal contusion, brain tissue laceration, provides rote of infection and a focus of post-traumatic epilepsy.
D. Subfalcine hermation usually results in compression of the anterior cerebral artery while transtentorial herniation usually results in compression of the posterior cerebral artery.
E. Concussion is reversible loss of consciousness from head injury characterize by transient neurologic dysfunction including loss of consciousness, temporary respiratory arrest and loss of reflexes.

Answer: B

83. All the following are effects of systemic hypertension on the brain EXCEPT:

A. Lacunar infarcts.
B. Slit hemorrhages.
C. Duret hemorrhages.
D. Charcot-Bouchard microaneurysms.
E. Acute hypertensive encephalopathy.

Answer: C

Pharmacology

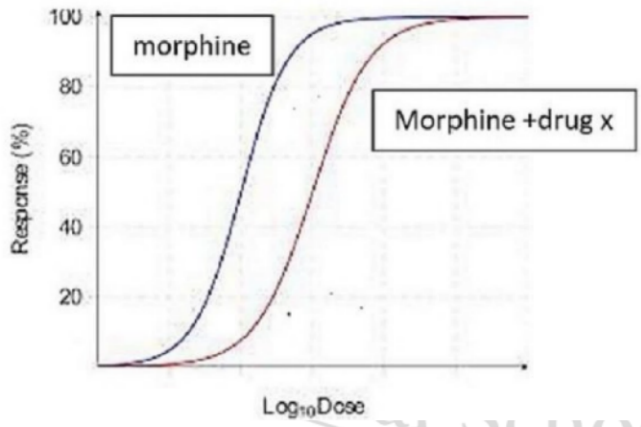
Dr. Tareq Saleh

84. year-old male patient has been diagnosed with major depressive disorder. The patient was started on the antidepressant drug A. Drug A selectively inhibits SERT. Drug A is likely to worsen the patiemt's insomnia. Drug A has a half-life of less than a day. Drug A can be used for the treatment of Obsessive-Compulsive Disorder in children. Which of the following drugs is likely to be drug A:

A. Fluoxetine.
B. Sertraline.
C. Venlafaxine.
D. Bupropion.
E. Murtazapine.

Answer: A

85. You can measure the efficacy of morphine in an experimental system by measuring the activation of Gi subunit of opioid GPCRs. The blue curve represents the dose-effect curve of morphine alone in CHO cells. When drug x (10 microgram/ml) was combined with morphine, the dose-effect curve of morphine changed to the red curve. Drug x is likely to be:



A. Codeine.
B. Naltrexone.
C. Methadone.
D. Duloxetine.
E. Enkephalin.

Answer: B

86. Pharmacological opioid tolerance is characterized by a reduced responsiveness to an opioid agonist and usually manifests as the need to use increasingdoses of the drug. However, tolerance does not develop to all opioid-induced actions. Which of the following statements correctly reflects opioid tolerance:

A. Tolerance to the analgesic effect develops faster than to the sedative effect.
B. Lack of tolerance to the meiotic effect is helpful for the diagnosis of opioid overdose.
C. Quick tolerance to the respiratory depressive action increases death risk upon dose increase.
D. Lack of tolerance to the constipating effect allows for dose increase with minimal adverse effects.
E. If tolerance develops against oxymorphone it is unlikely to develop against hydrocodone.

Answer: B

87. Middle cerebral artery supplies all the following EXCEPT:

A. Broca's area.
B. Temporal pole.
C. Posterior part of lentiform nucleus.
D. Upper ½ of anterior limb of internal capsule.
E. Superior frontal gyrus

Answer: E

88. Fibers of fornix ends at:

A. Mammillary body.
B. Habenular nuclei.
C. Septal areas.
D. Amygdaloid nucleus.
E. Hippocampus

Answer: A

89. As regards the contents of the different parts of the internal capsule, choose the INCORRECT matching:

A. Posterior limb - superior thalamic radiation.
B. Retrolentiform part - parietopontine fibers.
C. Anterior limb - frontopontine fibers.
D. Genu - corticospinal fibers.
E. Sublentiform part - auditory radiation

Answer: D

90. Anterior spinal artery supplies the following structures EXCEPT:

A. Medial lemniscus.
B. Pyramid.
C. Nucleus ambiguus.
D. Medial longitudinal bundle.
E. Hypoglossal nucleus

Answer: C

91. As regards dural venous sinuses, choose the INCORRECT matching:

A. Straight sinus - lies at line of attachment of falx cerebri & tentorium cerebelli.
B. Sigmoid sinus - ends by forming internal jugular vein.
C. Transverse sinus - begins at internal occipital protuberance.
D. Superior petrosal sinus - runs in free margin of tentorium cerebelli.
E. Inferior petrosal sinus - considered as an emissary vein

Answer: D

92. A trauma leads to loss of a pyramidal tract:

Answer: The loss is naturally managed by red nucleus.

93. Location of abducent nerve:

Answer: Lower border of pons.

94. Not of the facial cranial nucei:

Answer: Inferior salivatory nucleus.

95. Part of the limbic system:

Answer: Hippocampus.

96. In which of the following cortical areas would a lesion cause reappearance of grasp reflex:

Answer: Area 6.

97. Cranial nerve not in medullary pontine junction:

Answer: Trigeminal.

98. Which of the following structures is not related to auditory pathway:

Answer: Lateral geniculate body.

Dr. Saad Al Sabti

99. All of the following is correct regarding pia mater except:

A. It's a vascular membrane.
B. Thickened on either side to form ligamentum denticulate.
C. Covers the gyri and descend into the deepest sulci.
D. Forms one of the epidural space boundaries.
E. Via attach to arachnoid by tubercle.

Answer: D

100. One of the following statements concerning the basal nuclei is correct:

A. The amygdaloid nucleus is connected to the caudate nucleus.
B. The lentiform nucleus is completely divides by the internal capsule into pallidus and the putamen.
C. The claustrum does not form part of the basal nucleus.
D. The corpus striatum lies medial to the thalamus.
E. The external capsule lies between the caudate and the lentiform nucleus.

Answer: A

101. The basal nuclei their effects on motor activity through the:

A. Rubrospinal tract.
B. Vestiulospinal tract.
C. Reticulospinal tract.
D. Corticospinal tract.
E. All of the above.

Answer: D

102. One of the following statements concerning the arteries supplying the brain and spinal cord is correct:

A. The ophthalmic artery is a branch of the middle cerebral artery.
B. The pontine arteries are branches of the internal carotid artery.
C. The posterior communication artery is a branch of the middle cerebral artery.
D. The posterior spinal artery arises from the vertebral artery.
E. The posterior inferior cerebrallar artery is a branch of the basilar artery.

Answer: D

103. An infant was diagnosed as having hydrocephalus. It was determined that there is blockage in the ventricular system of the baby's brain between the 3rd and the 4th ventricles. The blockage therefore must involve:

A. Central canal.
B. Cerebral aqueduct.
C. Foramen of luschka (lateral foramen).
D. Foramen of Magendie (median foramen).
E. Interventricular foramen.

Answer: B

104.The subarachnoid space lies directly between the:

A. Arachnoids matter and cerebellum.
B. Arachnoids matter and cerebrum.
C. Skull and arachnoids matter.
D. Arachnoids matter and dura mater.
E. Arachnoids matter and pia mater.

Answer: E

105.The root of the fourth ventricle is formed by the:

A. Corpus callosum.
B. Thalamus.
C. Cerebellum.
D. Tectum.
E. None of the above.

Answer: C

106.What is the brain stricture lies directly above the tentorium cerebelli:

A. Parietal lobe.
B. Temporal lobe.
C. Occipital lobe.
D. Frontal lobe.
E. Cerebellum.

Answer: C

107.Axons that connect the visual association cortex , of the two hemispheres are most likely to be in:

A. Rostrum of corpus callosum.
B. Genu of corpus callosum.
C. Splenium of corpus callosum .
D. All parts of corpus callosum.
E. None of the above.

Answer: C

108.One of the following statements concerning the arteries supplying the brain and spinal cord is correct:

A. The opthalmic artery is a branch of the middle cerebral artery.
B. The pontine arteries are branches of the internal carotid artery.
C. The posterior communicating artery is a branch of middle cerebral artery.
D. The posterior spinal artery arises from the vertebral artery .
E. The posterior inferior cerebellar artery is a branch of the basilar artery.

Answer: D

109.The following statements concerning subarachnoid space are correct , except:

A. The space is the interval between the arachnoid matter and the via matter.
B. The space contains CSF and cerebral arteries , but not cerebral veins.
C. In certain situations the space is expanded to form cisterns .
D. The 4th ventricle drains into it through three foramina .
E. The space surrounds the cranial and spinal nerves to the point where they leave the skull and the vertebral canal.

Answer: B

110.Which of the following structures separates the anterior cerebellar lobe from the middle cerebellar lobe:

A. Sulcus limitans.
B. Horizontal fissure.
C. Primary fissure.
D. Posterolateral fissure.
E. Prepyramidal fissure.

Answer: C

111.What vessels serve areas involved in speech in the majority of People:

A. Right middle cerebral artery.
B. Left middle cerebral artery.
C. Right and left middle cerebral arteries.
D. Right and left posterior cerebral arteries.
E. Left middle and posterior cerebral arteries.

Answer: B

112.Which of these Sulcus located in the medial surface:

A. Lateral sulcus.
B. Central sulcus.
C. Calcarine sulcus.
D. Intraparital sulcus.

Answer: C

113.All of these is a part of the basal gangalia except:

A. Putmen.
B. Caudate nucleus.
C. Corpus striatum.
D. Thalamus.

Answer: D

114.Which of these Have an important function regarding converting short term memory into long term memory:

A. Hippocampal formation.
B. Mammilry body.
C. Amygdaloid.
D. Habnular nucli.

Answer: A

115.All of these is found in the temporal lobe except:

A. Primary auditory area.
B. Speech Area of wernicke.
C. Auditory association cortex.
D. Primary somatosensory cortex.

Answer: D

116.One of the following regarding the blood supply of the brain is Correct:

A. The brain receives it's blood supply directly from the two external carotid arteries.
B. The circle of willis is formed by the anterior cerebral , internal carotid , posterior cerebral , the basilar and anterior and posterior communicating arteries .
C. The cerebral arteries don't anastomose on the surface of brain.
D. The main blood supply to the internal capsule is from central branches of the anterior cerebral artery.

Answer: C

117.CSF is produced by:

A. Epindymal cells.
B. Pial cells.
C. Choroid plexus cells.
D. Arachnoid granulations.

Answer: C

118.Which of the following isn't a basal nucleus:

A. Caudate nucleus.
B. Amygdaloid nucleus.
C. Claustrum.
D. Thalamus.

Answer: D

119.All of the following have inhibitory effect on deep nuclei of cerebellum , except:

A. Climbing cells.
B. Purkinje I cells.
C. Basket cells.
D. Setellate cells.

Answer: A

120.Incorrect statement about arachnoid granulation:

A. Found in superior sagittal sinus.
B. They are aggregations of arachnoid villi.
C. They reabsorb CSF.
D. They produce CSf.

Answer: D

121.Incorrect about cerebellum:

A. It receives conscious stimulation.
B. Lays in posterior cranial fossa.
C. Lies down to the tentorium cerebelii.
D. It forms the roof of the fourth ventricles .

Answer: A

122.Which of the following regarding functional localization of the cortex is correct:

A. Occipital ---- auditory , Wernicke.
B. Partial ---- somesthetic.
C. Frontal ---- visual.
D. Temporal ---- motor and motor speech.

Answer: B

123.The commissure fibers that connect the visual cortex are from:

A. Body of the corpus callosum.
B. Rostrum of the corpus callosum.
C. Genu of the corpus callosum.
D. Splenium of the corpus callosum.

Answer: D

124.Person have problem in hearing and reading, although he can speak fluently and can understand well, lesion in:

A. Inferior part of temporal and occipital.
B. Broca area.
C. Wernicke area.

Answer: C

125.Incorrect about pia mater:

A. Vascular membrane.
B. Ends on filum terminalis.
C. It forms boundary of dura mater.

Answer: C

126.Arbor vitae:

A. Cerebellar white matter.
B. Cerebellar gray matter.

Answer: A

127.Doesn't involve in auditory pathway:

Answer: Inferior olivary nucleus.

128.Wernick area exists in:

Answer: Temporal lobe.

129.Correct about blood supply of brain and spinal cord:

Answer: Posterior spinal artery arise from vertebral artery.

130.Hippocampus is attached to:

Answer: Fornix.

131.True about longitudinal cerebral fissure:

Answer: Corpus callosum cross the midline.

132.Control muscle of the distal part of upper and lower limbs:

Answer: Intermediate zone.

133.Cerebral aqueduct part of:

Answer: Mesencephalon.

134.Sulci seen in medial surface of cerebral:

Answer: Calcarine sulcus.

135.Correct about basal ganglia:

Answer: Amygdaloid connect with caudate.

136.Correct about primary motor area:

Answer: Lie anterior to central sulcus immediately.

137.The third ventricle is bounded by:

Answer: Thalamus ' from right and left sides '.

138.Which of the following doesn't receive fibers from Hypothalamus:

Answer: Solitarius.

139.A child can see a bicycle but can't know or tell it is a bicycle , he has deformity in:

Answer: Visual associated part.

140.Image in the right field of vision:

Answer: Represented in both edges of the left calcrine sulcus.

141.Image of an object in the left field :

Answer: Nasal half of the left side , and temporal half of the right.

142.Correct about longitudinal cerebral fissure:

Answer: Contains the superior sagittal sinus.

143.All the following nerves pass through thalamus except:

Answer: Olfactory nerve.

144.CSF is produced by:

Answer: Choroid plexus.

145.Which one is correct:

Answer: Purkinje cells inhibit the deep nuclei in cerebellum.

146.Visual pathway end in:

Answer: The lateral geniculate nucleus.

147.Which of the following is an incorrect match:

Answer: Insula ---- Visual pathway.

148.A patient can feel a bicycle but can't tell if its a bicycle, the area affected is:

Answer: Visual association area.

149.Which of the following is incorrect:

Answer: The internal capsule divides the lentiform nucleus into putamen and globus palidus.

150.The musician that couldn't use his fingers to play music , although his finger can move it (there is no paralysis), so he has lesion in:

Answer: Premotor area.

151.Functionally all of the following are basal ganglia except:

Answer: Amygidoyd nucleus.

152.Gyrus that is located between the collateral sulcus and calcarine sulcus:

Answer: Parahypocammpal gyrus.

153.One of the following is true:

Answer: Posterior spinal artery is a branch of the vertebral artery.

154.Not part of auditory pathway:

Answer: Inferior olivary.

155.The musician that couldn't use his fingers to play music , although his finger can move it (there is no paralysis), so he has lesion in:

Answer: Premotor area.

156.The function of the limbic system:

Answer: Hippocampus is concerned with resent memory.

Physiology

Dr. Shaimaa Nasr

157.Which of the following is a supraspinal excitatory to the gamma motor neurons:

A. Paleocerebellum.
B. Neocerebellum.
C. Motor area 6.
D. Red nucleus.
E. Medullary reticular formation.

Answer: B

158.Complete transection of the spinal cord produces all of the following effects, except:

A. Temporary loss of micturition reflexes.
B. Mass reflex during the stage of recovery.
C. Permanent loss of reflexes mediated by the cord below level of lesion.
D. Permanent loss of all sensations mediated by the cord below level of lesion.
E. Permanent loss of voluntary movements by muscles innervated by the cord below level of lesion.

Answer: C

159.Fast pain in comparison to slow pain:

Answer: Highly sharp.

160.Action of reticular formation:

Answer: Alertness.

161.Coordinates movement of the body:

Answer: Cerebellum.

162.Which of the following is the gait of Parkinson:

Answer: Shuffling.

Dr. Mohammad Shaban

163.The following statements concerning the precentral area of the Frontal lobe of the cerebral cortex are correct, except:

A. The posterior region is known as the primary motor area.
B. The primary motor area is responsible for skilled movements on the Opposite side of the body.
C. The function of the premotor area is to store programs of motor.
D. Activity which are conveyed to the primary area for execution of Movements.
E. Individual muscles are represented in the primary motor area.
F. The area of cortex controlling a particular movement is proportional To the skill involved.

Answer: E

164.Comparing paleospinothalmic to neospinothalmic system for pain:

A. Both enter the spinal cord through the posterior horn.
B. Second order neurons of both systems cross in the spinal cord to ascending Column.
C. Second order neurons of both systems terminate completely in the thalamus.
D. Both systems transmit information at the same velocity.
E. First order neurons of both systems synapse directly on the anterior horn.

Answer: A

165.Regarding the cortical columns which of the following statements is true:

A. Peripheral signals end equally in layer I-IV.
B. Corticospinal fibers originate in layer V.
C. Somatic sensory fibers end in layer I.
D. Represent autonomic sensation.
E. Cortical columns is misconception about the cortical functions.

Answer: B

166.Transaction (cut) of right half of the spinal cord at the level of T4is associated With:

A. Loss of body temperature sensation of the right side of the body.
B. Loss of the body temperature sensation from the left side of the body.
C. Loss of information from muscle spindles of the left side of the body.
D. Loss of information from Golgi tendons receptors from the left side.
E. Atrophy of muscles in the lower part of the body below T4.

Answer: B

167.Which of the following statements is true regarding sleep:

A. Destruction of Raphe nucleus is associated with loss of sleep.
B. Destruction of the supraoptic nuclei is associated with prolonged sleep.
C. Passive theory is the most acceptable explanation of sleep.
D. In REM sleep the heart rate and respiratory rate are normal.
E. None of the above is true.

Answer: A

168.Intrafusal fibers are directly stimulated by:

A. Gamamotor neurons.
B. Alfamotorneurons.
C. Corticospinal fibers.
D. Interneurons.
E. Renshaw cells.

Answer: A

169.Regarding visceral pan:

A. Viscera has a well representation for pain in the area behind the post central gyri.
B. Is stimulated by visceral smooth muscle spam.
C. Is transmitted by anterolateral column fibers.
D. Its representation is bilateral.
E. It is a variant of fast pain pathway.

Answer: C

170.Sally has a brain injury, she know what she wants to say but can't vocalize Words >> SO the part of her brain that deals with the ability to speak is the:

A. Central sulcus.
B. Broca's area.
C. Primary motor area.
D. Longitudinal fissure.
E. Post central gyrus.

Answer: B

171.Corticofugal fibers:

A. Are fibers originate in the cerebral cortex and inhibitory to the anterior horn cells.
B. Are stimulatory fibers to basal ganglia.
C. Have the same origin and function as Renshaw cells.
D. Sharpen the degree of contrast of sensory information.
E. Are cells function to transmit information to the other cerebral hemisphere.

Answer: D

172.Which of the following is least adapting (non-adapting) sensation:

A. Fine touch
B. Pain.
C. Muscle spindle.
D. Joint capsule position.
E. Temperature.

Answer: B

173. An individual who could trace a picture of bicycle with his or her fingers but Could not recognize it as a bicycle is most likely to have sustained damage to the:

A. Calcarine cortex.
B. Primary visual area.
C. Visual area.
D. Lateral geniculate bogy.
E. None of the above.

Answer: C

174. Monitoring intention for movement and sending out corrective signals to Coordinate movement are important functions of:

A. The primary somatosensory area.
B. Upper motor neurons.
C. Basal ganglia.
D. The cerebellum.
E. The thalamus.

Answer: D

175. Which structure is responsible for knowing that you are holding sth In your Hand when your eyes are closed:

A. Cuneate.
B. Spinothalamic.
C. Gacialis.
D. Dorsal spinocerebellum.
E. Ventral spinocerebellum.

Answer: A

176. Regarding hypothalamic functions all are correct, except:

A. Hypothalamic stimulation may cause change in arterial blood Pressure.
B. Regulates body water by changing in thirsty sensitivity only.
C. Isn't important in milk.
D. Controls food desire as well as satiety.
E. Is important in sexual drive regulation.

Answer: C

177. Which of the following stimulates pain receptors directly:

A. Stretch.
B. Temperature.
C. Substance P.
D. Bradykinin.
E. K+.

Answer: D

178.Regarding receptor adaptation:

A. Have similar mechanism.
B. Have similar rate.
C. Have similar result.
D. Is considered as a part of the feedback mechanism.
E. Is part of reflex arc

Answer: E

179.Which of the following sensory modalities is lost in case of Complete left hemisection of the spinal cord at the level of T3:

A. Loss of pain sensation from the left side of the body below T3.
B. Loss of vibration sensation from the left side of the body below T3.
C. Loss of pain sensation from both sides of the body below T3.
D. Loss of vibration sensation from both sides of the body below T3.
E. Loss of pain sensation from the left side of the body.

Answer: B

180.Which of following is correct regarding sleep:

A. Destruction of Raphe nucleus is associated with prolonged sleep.
B. Destruction of the medial rostral suprachiasmatic nuclei is Associated with prolonged sleep.
C. Passive theory is the most acceptable explanation of sleep.
D. In REM sleep the heart rate and respiratory rate are usually irregular.
E. None of the above is true.

Answer: A

181.The brain area that regulates activities that control the state of Wakefulness or alertness of the cerebral cortex is the:

A. Thalamus.
B. Reticular formation.
C. Pyramids.
D. Limbic system.
E. None of the above.

Answer: B

182.Monitoring intention for movement and sending out corrective Signals to coordinate movement are important functions of:

A. The primary somatosensory area.
B. Upper motor neurons.
C. Basal ganglia.
D. The cerebellum.
E. The thalamus.

Answer: D

183.Which of the following statements is correct:

A. The uptake of glucose into the brain is insulin independent.
B. The increase in cerebral blood flow induced by CO_2 is mediated by an increase in hydrogen ion concentration.
C. The brain accounts for approximately 15% of the total body Metabolism and is highly oxygen dependent.
D. Oxygen lack is important in regulation of brain blood flow.
E. All of the above are true.

Answer: C

184.Identify the incorrect statement regarding Sensory Receptors:

A. Are part of labeled line theory.
B. Are considered as energy transducers.
C. May release chemical materials.
D. Always form an action potential.
E. Are distributed in an uneven way.

Answer: D

185.Intrafusal muscle fibers contract when stimulated by:

A. Alpha motor neurons.
B. Upper motor neurons.
C. Gamma motor neurons.
D. Third- order neurons.
E. Interneurons.

Answer: C

186.Which of the following isn't a function of central nervous system:

A. Receive information.
B. Store data.
C. Regulate different functions.
D. Create new sensations.
E. Integrate information.

Answer: D

187.All of the following are involved in the reading of the sentence Fluently in understood matter, except:

A. Frontal, temporal and occipital areas.
B. Internal capsule.
C. Anterior horn.
D. Pharynx and larynx.

Answer: C

188.The fastest in adaptation is:

A. Hair receptors.
B. Joints.
C. Propriocepters.
D. Blood composition.

Answer: A

189.Which structure is not necessary in sensation:

A. Interneural.
B. Motor neuron.
C. Receptor.
D. Sensory nerve connected to receptor.

Answer: B

190.Regarding rubrospinal tract which of the following is correct:

A. It enhances action of extensors anti-gravity.
B. It receives from corticospinal.
C. Stimulation of red nucleus causes relatively fine motor movement, but not as Discrete as primary motor cortex.
D. None of the above.

Answer: C

191.Motor fiber:

A. All directly from pyramidal cell.
B. All directly from sensory input.
C. All are C fiber.
D. Supply extrafusal muscle fibers.

Answer: D

192.A neurotransmitter is active in both the peripheral and central Nervous system:

A. Serotonin.
B. Substance P.
C. Dynorphins.
D. None of the above.

Answer: D

193.Sensation of urinary retention and lung expansion when closing Your nose or something like that end in the:

A. Visual cortex.
B. Visceral cortex.
C. Gustatory cortex.
D. None of the above.

Answer: B

194.Fibers of sensations of pain, temperature and fine touch goes to:

A. Cuneate and gracile nuclei of the ipsilateral side.
B. Cuneate and gracile nuclei of the contalateral side.
C. Postcentral gyrus of the ipsilateral side.
D. Postcental gyrus of the contralateral side.

Answer: D

195.Which of the following statements is true about lateral inhibition?

A. It is a process by which neurons in the central nervous system are inhibited by lateral neurons.
B. It is a process by which sensory receptors in the periphery are inhibited by neighboring receptors.
C. It is a process by which sensory information is amplified and sharpened by inhibiting neighboring sensory neurons.
D. It is a process by which motor neurons are inhibited by interneurons in the spinal cord.

Answer: C

196.Which of the following statements about receptors is incorrect?

A. Receptors are specialized proteins that detect and respond to specific stimuli.
B. Receptors can be found on the surface of cells or inside cells.
C. Receptors convert physical or chemical stimuli into electrical signals that can be transmitted to the nervous system.
D. All receptor are equal in threshold to different stimuli.

Answer: D

197.The insensitive structure to pain stimuli is:

A. Dura matter.
B. Blood supply dura matter.
C. Cerebral hemisphere.

Answer: C

198.Correct match:

A. Enkephalin >> presynaptic Inhibition of A delta fibers*
B. Periventricular >endorphin.
C. Raphe magnus >enkephalin.

Answer: A

199.Regarding pontine and medullary reticular nuclei, all true except:

A. Pontine reticular nuclei is excited naturally (autonomously) and it excites Antigravity.
B. Medullary is inhibited by rubrospinal , corticospinal and vestibulospinal tracts.
C. Medullary inhibits extensors.

Answer: B

200.Anterolateral system:

A. Transmit a fine touch.
B. More spatial fidelity.
C. Less velocity than dorsal.

Answer: C

201.Anterior horn receive from:

A. Golgi tendon receptor.
B. Muscle spindle receptor.
C. None of the above.

Answer: C

202.Regarding sleep:

A. Slow waves are more frequently at the end of sleep.
B. Sleep is a reversible state of unconsciousness which can be aroused.
C. More than one of the above.

Answer: C

203.Which of the following is a correct match:

A. Periaquiduct -- serotonin.
B. Intracranial headache -- eye strain.
C. Non of the above.

Answer: C

204.Which of the following is incorrect regarding pain:

Answer: It can't be stimulated by stretch.

205.Correct statement:

Answer: Lips have more representation than the thighs.

206.About motor area:

Answer: The size is proportional to the skills involved in performing the Movement.

207.Light, touch, pain, temperature. All end in:

Answer: Postcentral gyrus of the contralateral side.

208.Which of the following increases in response to natural rewards:

Answer: Dopamine.

209..... Are characterized by loss of consciousnesses for a brief Period of time [10-30 sec] with eye blinking:

Answer: Absence seizures.

210.All of the following is regarded as function of the cerebellum Except:

Answer: Execution, sequence, monitor.

211.About sensory information:

Answer: Almost all sensory fibers pass through the dorsal horn.

212.Which of the following is a function of the basal ganglion:

Answer: Planning.

213.Which of the following neurotransmitter work as hormone & neurotransmitter:

Answer: Epinephrine.

214.Which of the following is the slowest adapting receptor:

Answer: Pain receptor.

215.Correct about both slow and fast pain receptors:

Answer: Both are non adaptive.

216.Which part of basal ganglia is related to memory:

Answer: Hippocampus.

217.Incorrect Statement:

Answer: In REM sleep, we can't remember our dreams.

218.Responsible for sleep pattern:

Answer: Suprachiasmatic of hypothalamus.

219.Responsible for new memory:

Answer: Hippocampus.

220.During non rem sleep:

Answer: Decrease vegetative function.

221.Receptor potential:

Answer: Depends on the intensity of the stimulus.

222.True regarding sleep:

Answer: Unlike coma it can transition from unconsciousness to consciousness by stimulus.

223.Inability to play piano without paralysis caused by lesion in:

Answer: Premotor area.

224.About pontine and medullary nucleus:

Answer: Medullary antagonize the pontine action on antigravity muscle.

225.Consolidation:

Answer: Re-structuring of short memory to long term memory.

Pathology

Dr. Mohammed Al-Wiswasy

226.Regarding the pathological features of diseases, all the following matches are correct EXCEPT:

A. Alzheimer disease - Neuritic plaques (amyloid core surrounded by dystrophic neurites) and neurofibrillary tangles.
B. Frontotemporal dementia - Atrophy of the frontal and temporal lobes, some subgroups characterized by specific inclusions consisting of accumulations of Lewy bodies.
C. Red neuron - Shrinkage nerve cell body with intense eosinophilia of the cytoplasm, pyknosis and angulation of the nucleus, disappearance of the nucleolus and loss of Nissl substance.
D. Parkinsonism - Syndrome of motor disturbances seen caused by damage to dopaminergic neurons of the substantia nigra or to their projection to the striatum.
E. Amyotrophic lateral sclerosis - Reduction in the number of anterior horn cell throughout the length of the spinal cord with loss anterior root myelinated fibers and reactive gliosis.

Answer: B

227.A 21-year old male patient presented to the emergency room with extreme drowsiness, slurred speech and hypotension. The patient's friends who brought him to the emergency department confirmed that he consumed large amounts of alcohol and a number of alprazolam pills a few hours before the symptoms started. In attempt to stabilize the patient, you immediately decide to give:

A. Flumazenil.
B. Naloxone.
C. Atropine.
D. Alprazolam.
E. Dantrolene.

Answer: A

228.A 28-year-old woman with generalized seizures is well controlled with lamotrigine. She becomes pregnant and begins to have breakthrough seizures. What is most likely happening:

A. Lamotrigine has lost its efficacy in this patient.
B. Plasma lamotrigine concentrations are decreasing.
C. Valproate must be added to lamotrigine in this patient.
D. Plasma lamotrigine concentrations are increasing.
E. Her epilepsy is deteriorating with pregnancy.

Answer: B

229.Regarding inhalational anesthetics, which of the followings is associated with a lower rate of induction of anesthesia:

A. A high MAC.
B. High blood:gas partition coefficient.
C. A reduced cardiac output.
D. Reduced blood flow to skeletal muscles.
E. High hepatic metabolism of drug.

Answer: B

230.For a certain reason we decide to change an epileptic patient's treatment plan from dose X of valporic acid to dose Y Lamotrigine We need to do it gradually so as we start with Lamotrigine valporic acid dose probably shall:

Answer: Decrease.

231.Which of the following opiods is most likely to be abused:

Answer: Oxycodone.

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232.Drug/drugs used mainly for induction of anesthesia:

A. Isoflurane.
B. Ketamine.
C. Thiopental.
D. Droperidol/fentanyl.
E. All of the above.

Answer: E

233.As hypnotics, benzodiazepines differ from barbiturates in that:

A. They have a low therapeutic index.
B. They are more addictive.
C. They are more potent respiratory depressants.
D. They are more liable to produce tolerance.
E. They have a specific antidote.

Answer: E

234.Which of the following benzodiazepines is a short acting:

A. Diazepam.
B. Alprazolam.
C. Triazolam.
D. Lorazepam.
E. Clonazepam.

Answer: C

235.Benzodiazepines can produce all the following effects on the CNS EXCEPT:

A. Anxiolytic.
B. Anti convulsant.
C. Hypnotic.
D. Akathisia.
E. Muscle relaxant.

Answer: D

236.Benzodiazepines produce their actions on the CNS by:

A. Blocking Cl- channel associated with GABA-A receptor.
B. Potentiating the effect of GABA on GABA-A receptor.
C. Reducing the effect of GABA on GABA-A receptor.
D. Acting agonists at GABA-B receptor.
E. Acting antagonist at GABA-B receptor.

Answer: B

237.The drug of choice in treatment of petit mal epilepsy is:

A. Phenytoin.
B. Primidone.
C. Carbamazepine.
D. Ethosuximide.
E. Imipramine.

Answer: D

238.Which of the following anticonvulsant drugs used to treat neuropathic pain:

A. Carbamazepine.
B. Ethosuximide.
C. Phenobarbitone.
D. Phenytoin.
E. Acetazolamide.

Answer: A

239.Dissociative anesthesia produced by IV or IM injection of which of the following drug:

A. Droperidol/Fentanyl combination.
B. Midazolam.
C. Ketamine.
D. Propofol.
E. Thiopental.

Answer: C

240.Not from Anxiolytic drug:

A. Buspirone.
B. Diazepam.
C. Alprazolam.
D. Triazolam.
E. Amantadine.

Answer: E

241.Non-BZDs and acting on BZD1 receptor & short acting:

A. Zolpidem.
B. Zaleplon.
C. Buspirone.
D. Barbiturates.

Answer: A

242.First Drug of choice for surface anesthesia:

A. Lidocaine.
B. Benzocaine.
C. Procaine.

Answer: A

243.Drug inhibits GABA transaminase:

A. Vigabatrin.
B. Gabapentin.
C. Lamotrigine.

Answer: A

244.Drug for absence epilepsy:

A. Ethosuximide.
B. Carbamazepine.
C. Phenytoin.

Answer: A

245.All are used for tonic-clonic (grand mal) except:

A. Ethosuxi mide.
B. Valproic acid.
C. Phenytoin.

Answer: A

246.Hirsutism is side effect of:

A. Phenytoin.
B. Carbamazepine.
C. Valproic acid.

Answer: A

247.A drug that is not type of BDZ but works on BZD 1 receptor:

A. Zaleplon.
B. Zolpidem.

Answer: B

248.Competitive antagonist of BZD:

A. Flumazenil.
B. Zolpidem.

Answer: A

249.Partial 5HT agonist:

A. Buspirone.
B. Fluvoxamine.

Answer: A

250.For dissociative anaesthesia:

Answer: Ketamine.

251.Which of the following act on NMDA receptor:

Answer: Ketamine.

252.About phenytoin:

Answer: Saturation metabolism with increase in dose.

253.Barbiturates differ from BDZ in:

Answer: Facilitate GABA action and mimic it.

254.In teaching patient newly diagnosed with epilepsy about her disease. Which statement best describes the goals of therapy with antiepilepsy medication:

A. With proper treatment, we can completely eliminate your seizures.
B. Our goal is to reduce your seizures to an extent that helps you live normal life.
C. Epilepsy medication does not reduce seizures in most patients.
D. These drugs will help control your seizures until you have surgery.

Answer: B

255.20% of patients who take phenytoin will develop:

A. Nystagmus.
B. Measles like rash.
C. Liver failure.
D. Gingival hyperplasia.

Answer: D.

256.Alprazolam acts on:

Answer: GABA.

257.Ethosuximide is the drug of choice for:

Answer: Absence seizures.

258.Buspirone:

Answer: Hypnotic drug-mid.

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259.General anesthetic causes hepatotoxicity, hyperthermia and doesn't cause nephrotoxicity:

Answer: Halothane.

260.The most common function disorder related to the nervous system... That most people visit a doctor for at some time is:

A. Meningitis.
B. Stroke.
C. Headache.
D. Alzheimer's.
E. Multiple sclerosis.

Answer: C

261.Which of these is not considered a risk factor that increases Migraine:

A. Oral Contraceptive.
B. Skipping Meal.
C. Regular sleep.
D. Consuming caffeine in irregular way.

Answer: C

262.CORRECT STATEMENT:

Answer: Parkinson's is the second most common CNS disease.