Central Nervous System

Past papers – Final

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Anatomy

Lecture 1

1. The floculonodular lobe is separated from the rest of the cerebellum by:

A) Paravermal fissure
B) Horizontal fissure
C) Primary fissure
D) Posterolateral fissure
E) Retrotonsillar fissure

ANSWER : D

2. The most laterally located cerebellar nucleus is ?

A) fastigial.
B) Globous.
C) Emboliform.
D) Dentate.
E) Caudate.

ANSWER : D

3. The function of the vermis is to ?

A) influences the movements of the long axis of the body.
B) Control muscles of the distal parts of the limbs.
C) concerned with planning of sequential movements of the entire body.
D) Short memory.
E) Emotions.

ANSWER : A

4. The only output of the cerebellar system is ?

A) Purkinje cells.
B) Granuler cells.
C) Stellate cells.
D) Basket cells.
E) Golgi cells.

ANSWER : A

Anatomy

Lecture 1

5. inferior cerebellar peduncle connects:

A) Cerebellum with pons
B) Cerebellum with midbrain
C) Cerebrum with medullary oblongata
D) cerebellum with medullary oblongata
E) Cerebellum with pons

ANSWER : D

6. Anterior & posterior lobe of the cerebellum separated by:

A) Horizontal fissure
B) Posterolateral fissure
C) Primary fissure
D) Median fissure
E) Lateral fissure

ANSWER : C

Anatomy

Lecture 2

7. All of the following are symptoms of cerebellar lesions EXCEPT:

A) Dysdiadochokinesia
B) Dysarthria
C) Dysmetria
D) Hypotonia
E) Static tremors

ANSWER : E

8. Which of the following represents failure of progression of movement?

A) Dysmetria
B) Dysdiadochokinesia
C) Static tremors
D) Wide-based gait
E) Hypotonia

ANSWER : B

9. The term "Dysdiadochokinesia" means:

A) Disorders of speech
B) Rhythmic oscillations of the eyes
C) Alteration of gait
D) Struggling to perform fast alternating movements
E) Loss muscle tone

ANSWER : D

10. Regarding structure and function of the cerebellar cortex, all of the following are true EXCEPT:

A) Granule cells use GABA as a neurotransmitter.
B) Golgi cells are located in the granular layer.
C) Climbing fibers are the terminal fibers of the olivocerebellar tract.
D) Climbing fiber stimulate purkinje cells directly.
E) A single purkinje neuron makes synaptic contact with only one climbing fiber

ANSWER : A

Anatomy

Lecture 2

11. Fibers that leave the interposed nuclei to reach red nucleus pass through:
A) Middle cerebellar peduncle
B) Cerebral peduncle
C) Superior cerebellar peduncle
D) Pyramids
E) Inferior cerebellar peduncle

ANSWER : C

12. A term that describes the cerebellar disease “dysmetria” is ?
A) hypotonia.
B) Past pointing.
C) Ataxia.
D) Tremors.
E) Dysdiadochokinesia

ANSWER : B

13. The word nystagmus means ?
A) Rhythmic oscillations of the eyes.
B) Difficulty performing rapid alternating movements.
C) Disorders of speech.
D) Involuntary oscillations of limbs.
E) Past pointing.

ANSWER : A

14. flocculo-nodular function is
A) Equilibrium
B) Muscle tone
C) Coordination of movement
D) Voluntary movement
E) Posstural control

ANSWER : A

Anatomy

Lecture 3

15. About the Huntington disease, the wrong statement is ?

A) An x ray shows shrinkage in the lateral ventricle.
B) It is inherited disease due to single gene mutation at chromosome 4.
C) Involuntary movement of the extremities is one of its symptoms.
D) The dopa-secreting neurons become more active in this disease.
E) Striatonigral inhibiting neurons are degenerated in this disease

ANSWER : A

16. The Primary Mode of Basal Nuclear Function is:

A) Disinhibition
B) Inhibition
C) Activation
D) Disactivation
E) Neutrlization

ANSWER : A

17. Regarding Indirect pathway of basal ganglia, choose the WRONG statement:

A) The net effect of this pathway is to decrease the activity of the thalamus and the cerebral cortex
B) This pathway starts by excitatory fibers from cerebral cortex to striatum
C) Striatopallidal fibers of this pathway are inhibitory
D) Substantia nigra pars reticulata (SNr) are functionally similar to globus pallidus externus (GPe)
E) Thalamocortical fibers are excitatory

ANSWER : D

18. The posterior limb of the internal capsule is located between one of the following:

A) Caudate and lentiform nuclei
B) Caudate nucleus and thalamus
C) Lentiform nucleus and thalamus
D) The two thalami
E) Lentiform nucleus and insula

ANSWER : C

Anatomy

Lecture 3

19. One of the following is Incorrect about the caudate nucleus.

A) The tail is located in the temporal lobe
B) It is C shaped structure
C) It is not connected with the Amygdaloid nucleus
D) It is one of the basal nuclei
E) The head is located in the frontal lobe

ANSWER : C

20. Dopamine secreted by :

A) Claustrum
B) Amygdaloid
C) Substantia nigra
D) Lentiform nucleus
E) Caudate nucleus

ANSWER : C

21. not part of basal ganglia :

A) Putamen
B) Claustrum
C) Caudate nucleus
D) Amygdela
E) Dentate

ANSWER : E

22. Wrong about lentiform nucleus :

A) Surrounded by external capsule laterally
B) Consist 2 parts
C) medial to thalamus

ANSWER : C

Anatomy

Lecture 3

23. The anterior limb of the internal capsule runs between?

A) Caudate and thalamus.
B) Caudate and lentiform.
C) Lentiform and thalamus.
D) Lentiform and insula.
E) The two thalami.

ANSWER : B

24. Regarding the indirect pathway of the basal ganglia, the wrong statement is ?

A) The net effect of the pathway is to decrease the activity of the thalamus and cortex.
B) This pathway starts with inhibitory neuron from the cortex to striatum.
C) Substanita niagra pars reticulata (SNr) is functionality similar to globus pallidus internus (GPi).
D) Thalamocortical fibers are excitatory.
E) Striatopalladal fibers of this pathway are inhibitory.

ANSWER : B

25. the thin sheet of gray matter separated from lentiform by the external capsule is ?

A) Insular cortex.
B) thalamus.
C) Caudate.
D) Hippocampus.
E) claustrum

ANSWER : E

26. One of the following is not considered part of the basal nuclei:

A) Amygdala
B) Globus pallidus
C) Putamen
D) Red nucleus
E) Substantia nigra

ANSWER : D

Anatomy

Lecture 3

27. In the Horizontal section of the brain, which arrangement is correct from medial to lateral?

A) Third ventricle, Thalamus, claustrum, internal capsule
B) Third ventricle, thalamus, insula, internal capsule
C) Third ventricle, internal capsule, claustrum, thalamus
D) Third ventricle, thalamus, internal capsule, insula
E) Third ventricle, internal capsule, thalamus, Insula

ANSWER : D

28. In the horizontal section of the brain, All of the following parts could be seen except:

A) Caudate and lentiform nuclei
B) The two thalami
C) Anterior limb of the internal capsule
D) Sublentiform part of the internal capsule
E) Posterior limb of the internal capsule

ANSWER : D

29. Regarding Huntington disease, all of the following are true EXCEPT:

A) The dopa-secreting neurons of the substantia nigra become less active in this disease
B) Neurons of the striatonigral- inhibiting pathway are degenerated in this disease
C) Computed tomography scans show enlarged lateral ventricles
D) It is inherited disease due to single gene defect on chromosome 4
E) Involuntary movements of the extremities is one its symptoms

ANSWER : A

30. Corpus striatum is:

A) Lentiform nucleus and Caudate nucleus
B) Lentiform nucleus and thalamus
C) Amygdaloid nucleus and caudate nucleus
D) Caudate nucleus and thalamus
E) Amygdaloid nucleus and lentiform nucleus

ANSWER : A

Anatomy

Lecture 3

31. Neuronal degeneration in the substantia nigra will produce:

A) Blindness
B) Huntington disease
C) dementia
D) Multiple sclerosis
E) Parkinson disease

ANSWER : E

Anatomy

Lecture 4

32. Which one of the following statements is incorrect about the thalamus?

A) It is a part of the diencephalon
B) is formed of grey matter
C) Lies on the medial surface of the brain
D) Forms part of the medial wall of the third ventricle
E) Considered as the main sensory station of the human brain

ANSWER : D

33. Which of the following thalamic nuclei influences levels of consciousness and alertness?

A) Anterior thalamic nuclei
B) Ventral lateral nucleus
C) Ventral posteromedial nucleus
D) Ventral anterior nucleus
E) Intralaminar nuclei

ANSWER : E

34. Thalamus is the relay station for all sensory information of all types EXCEPT:

A) Olfaction
B) Vision
C) Hearing
D) Crude touch
E) Pain and temperature

ANSWER : A

35. Which one of the thalamic nuclei concerned with sensation from the head and neck region ?

A) Ventroposterolateral.
B) Ventroposteromedial.
C) Anterior nucleus.
D) Intralminar nucleus.
E) Ventrolateral

ANSWER : B

Anatomy

Lecture 4

36. Which of the following thalamic nuclei is concerned with emotional tone and the mechanisms of recent memory?

A) MGB
B) LGB
C) Anterior thalamic
D) Correct answer.
E) VPL

ANSWER : C

37. Which of the following thalamic nuclei recieves gustatory fibers?

A) VPM
B) VPL
C) MGB
D) VA and VL
E) LGB

ANSWER : A

Anatomy

Lecture 5

38. Regarding Hypothalamic nuclei, choose the WRONG statement:

A) Lesion of suprachiasmatic nucleus abolishes circadian rhythms
B) Medial preoptic nucleus manufactures gonadotropin- releasing hormones
C) Stimulation of lateral hypothalamic nucleus increases feeding
D) Lesion of ventromedial nucleus decrease feeding
E) Posterior hypothalamic nucleus maintains body temperature (heating)

ANSWER : D

39. One of the following is considered nucleus of the hypothalamus:

A) Caudate
B) Red
C) Lentiform
D) Mammillary
E) Dentate

ANSWER : D

40. Regarding the hypothalamic nuclei, the Incorrect statement is ?

A) Lesion to the suprachiasmatic abolish the circadian rhythm.
B) Medial preoptic nucleus manufacture the GnRH.
C) Stimulation of the lateral hypothalamic nucleus stimulates feeding.
D) Lesion of ventromedial nucleus increase feeding.
E) Posterior hypothalamic nucleus maintains body temperature (cooling)

ANSWER : E

41. Which of the following hypothalamic nuclei is sexually dimorphic nucleus?

A) Lateral hypothalamic nucleus
B) Suprachiasmatic nucleus
C) Mammillary body
D) Tuberal nuclei
E) Medial preoptic nucleus

ANSWER : E

Anatomy

Lecture 5

42. Which of the following thalamic nuclei is responsible for maintenance of body temperature (cooling)?

A) Anterior nucleus
B) Paraventricular nuclei
C) Arcuate nucleus
D) Suprachiasmatic nucleus
E) Dorsomedial nucleus

ANSWER : A

Anatomy

Lecture 6

43. Calcarine sulcus is separating between which of the following gyri?

A) Orbital and tentorial
B) Lingual and cuneus
C) Precuneus and paracenteral
D) Cingulate and corpus callosum
E) Cuneus and precuneus

ANSWER : B

44. Parietooccipital fissure is present between one of these two lobes of the cerebrum:

A) Parietal and frontal
B) Occipital and temporal
C) Occipital and frontal
D) Occipital and parietal
E) Parietal and frontal

ANSWER : D

45. Cingulate gyrus lie between:

A) Parietal & occipital lobe
B) Corpus callosum & cingulate sulcus
C) Caudate & lentiform nucleus
D) Thalamus & tegmentum of midbrain
E) Corpus callosum & parietal lobe

ANSWER : B

46. Which of the following terms is used to describe fibers that connect the two cerebral hemispheres?

A) Projection fibers
B) External capsule
C) Commissural fibers
D) Association fibers
E) Internal capsule

ANSWER : C

Anatomy

Lecture 7

47. Find the mismatch:

A) precentral gyrus » contralateral hemiplagia
B) postcentral gyrus » loss in sensation
C) temporal lobe » hearing defect mainly contralateral
D) occipital lobe » contralateral hemianopia
E) middle frontal gyrus » conjugate movements of both eyes to the opposite side.

ANSWER : E

48. Which of the following is not a motor area?

A) 4
B) 6
C) 8
D) 44
E) 39

ANSWER : E

49. The cerebral area which is responsible for production of fine movements of hand is located :

A) In the superior temporal gyrus
B) Behind the central sulcus
C) On the medial surface of the brain
D) In the occipital lobe
E) In front of the central sulcus

ANSWER : E

50. Which of the following occurs due to destructive lesion restricted to the Wernicke area?

A) Expressive aphasia
B) Paralysis of the tongue
C) Global aphasia
D) Receptive aphasia
E) Deafness

ANSWER : D

Anatomy

Lecture 7

51. Frontal eye field area is present in which of the following gyri?

A) Middle frontal
B) Superior frontal
C) Inferior parietal
D) Superior parietal
E) Inferior frontal

ANSWER : A

52. Regarding Premotor area, All of the following are true EXCEPT:

A) Lesions of this area alone produce more severe paralysis than destruction of primary motor area
B) It receives numerous inputs from the sensory cortex, the thalamus, and the basal ganglia
C) It uses cues for the selection of appropriate action
D) It is involved in controlling coarse postural movements
E) located anterior to the primary motor area

ANSWER : A

53. Wernicke's area is present in the

A) parietal lobe
B) occipital lobe
C) frontal lobe
D) Insular lobe

ANSWER : A

54. The higher cerebral center responsible for taste sensation is located in

A) Geniculate ganglion
B) Temporal lobe
C) Insula
D) Geniculate bodies
E) Frontal lobe

ANSWER : C

Anatomy

Lecture 7

55. Primary visual area is present around the

A) Occipitotemporal fissure
B) Calcarine fissure
C) Lingual fissure
D) Parietooccipital fissure
E) Collateral fissure

ANSWER : B

56. The cerebral area which is responsible for receiving sensations from the right hand is located in:

A) Left postcentral gyrus.
B) Left precentral gyrus.
C) Right precentral gyrus
D) Right postcentral gyrus
E) Supplementary sensory area

ANSWER : A

57. Which of the following structure is most posterior on the lateral surface of the brain?

A) Area 8
B) Area 3.1.2
C) Area 44,45
D) Area 4
E) Area 6

ANSWER : B

58. Choose the incorrect statement, regarding area 6:

A) Lies in the frontal lobe.
B) Lies in front of primary motor area 4
C) Supplied mainly by anterior cerebral artery
D) Control trunk muscles
E) Is considered motor area

ANSWER : C

Anatomy

Lecture 7

59. Visual center is in:

A) Lie between Corpus callosum & cingulate sulcus
B) Calcarine sulcus
C) Lie on frontal lobe
D) Lie on temporal lobe

ANSWER : B

60. What will happen if there is a defect in the right hand?

A) contralateral hemiplagia of the left hemisphere
B) Semilateral hemiplagia of the right hemisphere
C) Motor aphasia
D) Sensory loss in opposite side
E) Apraxia

ANSWER : A

61. Which one of the following is mismatched pair ?

A) Visual association area » complete loss of vision
B) Frontal eye field » conjugate movement pf both eyes to the same side
C) Primary hearing center » slight diminution in auditory acuity mainly on contralateral

ANSWER : A

62. Sensory area :

A) 6
B) 4
C) 8
D) 39
E) 45

ANSWER : D

Anatomy

Lecture 7

63. Broca`s area:

A) inferior temporal gyrus
B) anterior frontal gyrus
C) inferior frontal gyrus
D) in front of central sulcus

ANSWER : C

64. The best answer regarding aphasia is ?

A) Damage to Werneck's » expressive / damage to Broca's » receptive.
B) Damage to Werneck's » global aphasia.
C) Damage to Werneck’s » receptive / damage to Broca’s » expressive.
D) Damage to the frontal lobe » Werneck's is the affected one.
E) Damage to Broca's area » nonsense spoken words.

ANSWER : C

65. Regarding the frontal eye field, the correct statement is ?

A) Located in the superior frontal gyrus.
B) Function independently of visual stimuli.
C) Located posterior to the primary motor area in the frontal lobe.
D) In case of lesion the patient looks toward the irritation but away from the destruction.
E) None of the above is correct

ANSWER : B

66. Which of the following is true:

ANSWER : corpus callosum is located below the cingulate gyrus and above the fornix

Anatomy

Lecture 7

67. The location of the primary auditory area is best described ?

A) Anterior part of middle frontal gyrus.
B) Inferior wall of lateral sulcus.
C) Anterior to central fissure.
D) Posterior to central fissure.
E) Posterior to postcentral gyrus.

ANSWER : B

68. One of the following fibers is projecting to the areas 41,42

A) Gustatory radiation
B) Sensory radiation
C) Auditory radiation
D) Visual radiation
E) Olfactory radiation

ANSWER : C

Anatomy

Lecture 8

69. Choose the Incorrect statement regarding the caudate nucleus:

A) Is a part of the basal nuclei
B) Has no direct connection with the spinal cord
C) Lies medial to the anterior limb of internal capsule in the transverse section of the brain
D) Is composed of head, body and tail
E) Supplied by anterior and posterior cerebral arteries.

ANSWER : E

70. All of the following are branches of basilar artery EXCEPT:

A) Labyrinthine artery
B) Posterior inferior cerebellar artery
C) Anterior inferior cerebellar artery
D) Pontine arteries
E) Superior cerebellar artery

ANSWER : B

71. One of the following arteries is NOT a branch of the basilar artery:

A) Internal auditory
B) None of the above
C) Anterior inferior cerebellar
D) Posterior inferior cerebellar
E) Superior cerebellar

ANSWER : D

72. Regarding Hematomas, Choose the INCORRECT statement:

A) Subdural hematoma does not cross suture line
B) Chronic subdural hematoma can remain undetected
C) Epidural hematoma could occur due to fracture of pterion
D) Subdural hematoma is mainly venous
E) Subarachnoid hematoma occur due to tearing of cerebral arteries or Aneurysm

ANSWER : A

Anatomy

Lecture 8

73. Occlusion of the middle cerebral artery will produce?

A) Ipsilateral paralysis and sensory defecit of the leg and foot
B) Contralateral paralysis and sensory defecit of the arm and face
C) Ipsilateral paralysis and sensory defecit of the arm and face
D) Contralateral paralysis and sensory defecit of the leg and foot
E) Blindness

ANSWER : B

74. One of the following neurological findings could be manifested by Posterior cerebral artery lesion:

A) Squint
B) Visual agnosia
C) Inability to abduct eyes
D) Conjugate movement of both eyes to the opposite side
E) Sensory aphasia

ANSWER : B

75. Arterial supply of the anterior ends of caudate and lentiform nuclei is derived from:

A) Anterior cerebral
B) Middle cerebral
C) Basilar
D) Vertebral
E) Posterior cerebral

ANSWER : A

76. Anterior limp of internal capsule supplied by

A) Ophthalmic A
B) MCA
C) ACA
D) Basilar artery
E) Subclavian artery

ANSWER : C

Anatomy

Lecture 8

77. One of the following Is not part of circle willis:

A) Basilar artery
B) Right cerebral artery
C) Posterior cerebral artery
D) Posterior communicating artery
E) Middle cerebral artery

ANSWER : E

78. All of the following Branch of the vertebral artery EXCEPT :

A) Posterior inferior cerebellar artery
B) Anterior spinal artery
C) Posterior spinal artery
D) Anterior inferior cerebellar artery
E) None of the following

ANSWER : D

79. Occlusion in which artery causes motor aphasia :

A) Anterior cerebral artery
B) Middle cerebral artery
C) Posterior inferior cerebral artery

ANSWER : B

80. Occlusion of the anterior cerebral artery cause which of the following ?

A) contralateral paralysis and sensory deficits in the leg/foot.
B) ipsilateral paralysis and sensory deficits in the leg/foot.
C) contralateral paralysis and sensory deficits in the hand and back.
D) ipsilateral paralysis and sensory deficits in the hand and back.
E) contralateral paralysis and sensory deficits of face, arm, aphasia.

ANSWER : A

Anatomy

Lecture 8

81. Which of the following folds of dura matter covers the hypophysial fossa?

A) Falx cerebelli
B) Falx cerebri
C) Tentorium cerebelli
D) Falx sellae
E) Diaphragma sellae

ANSWER : E

82. Which one of the following arteries is not supplying the internal capsule?

A) Anterior choroidal
B) Posterior choroidal
C) Middle cerebral
D) Posterior cerebral
E) Anterior cerebral

ANSWER : B

83. All the following are branches from the internal carotid, except ?

A) Choroidal artery.
B) Ophthalmic artery.
C) Posterior cerebral artery.
D) Middle cerebral artery.
E) Anterior cerebral artery.

ANSWER : C

84. Which of the following separates cerebrum from cerebellum?

A) Falx cerebelli
B) Diaphragma sellae
C) Falx cerebri
D) Tentorium cerebelli
E) Meckel's cave

ANSWER : D

Anatomy

Lecture 8

85. Which of the following arteries supplies all motor area except the leg area?

A) Anterior inferior cerebellar artery
B) Posterior Cerebral Artery
C) Middle Cerebral Artery
D) Posterior inferior cerebellar artery
E) Anterior Cerebral Artery

ANSWER : C

Anatomy

Lecture 9

86. The lateral ventricle is the cavity of which of the following vesicles?

A) Mesencephalon
B) Telencephalon
C) Diencephalon
D) Metencephalon
E) Myelencephalon

ANSWER : B

87. Right about corpus callosum :

A) Below fornix
B) Roof of the 3rd ventricles

ANSWER : B

88. Lateral ventricle is connected with the third ventricle through the

A) Foramen of Magendie
B) Foramen of Monro
C) Foramen of luschka
D) Cerebral aqueduct

ANSWER : B

89. All of the following present in the posterior wall of the third ventricle except :

A) Cerebral aqueduct
B) Lamina terminalis
C) Pineal recess
D) Habenular commissure
E) Pineal body

ANSWER : B

Anatomy

Lecture 9

90. Concerning the brain ventricles, choose the correct statement :

A) There is no communication between the fourth ventricle and subarachnoid space
B) The third and lateral ventricles communicates through cerebral aqueduct
C) The third ventricle is considered the cavity of the diencephalon
D) The body of the lateral ventricle extends into the frontal lobe
E) The third and fourth ventricles communicates through the interventricular foramen

ANSWER : C

91. Concerning the brain ventricles, choose the correct statement.

A) The body of the lateral ventricle extends into the frontal lobe
B) The lateral ventricle is formed of body and 3 horns
C) The third and fourth ventricles communicates through the interventricular foramen
D) The third and lateral ventricles communicates through cerebral aqueduct
E) There is no communication between the fourth ventricle and subarachnoid space

ANSWER : B

92. Part of floor of the fourth ventricle :

A) facial colliculus
B) SCP
C) Optic chiasma
D) Medial & lateral geniculate body
E) Thalamus

ANSWER : A

93. All of the followings is true regarding fourth ventricle EXCEPT :

A) It's superior angle continuous with the cerebral aqueduct
B) IMV connect the fourth ventricle to the subarachnoid space
C) Inferior angle continuous with interventricular foramen
D) It has a connection with spinal cord
E) It's a diamond shape cavity

ANSWER : C

Anatomy

Lecture 9

94. one of the following structure doesn't found in the floor of the 3rd ventricle :

A) lamina terminals
B) optic chiasma
C) midbrain
D) tuber cinereum

ANSWER : A

95. Which of the following forms the floor of the anterior horn of the lateral ventricle ?

A) Hypothalamic sulcus.
B) hippocampus.
C) collateral eminence.
D) head of the caudate nucleus.
E) body of the caudate nucleus and the lateral margin of the Thalamus

ANSWER : D

96. Which of the following forms the lateral wall of third ventricle ?

A) Lamina terminalis.
B) Pineal body.
C) Ependyma.
D) Corpus callosum.
E) Thalamus.

ANSWER : E

97. Which one of the following forms the roof of the body of the lateral ventricle ?

A) head of the caudate nucleus.
B) inferior surface of the tapetum of the corpus callosum.
C) Anterior part of the corpus callosum.
D) undersurface of the corpus callosum.
E) tapetum of the corpus callosum

ANSWER : D

Anatomy

Lecture 9

98. What the part of lateral ventricles in temporal lobe :

A) Inferior horn

B) Post horn

C) Anterior horn

ANSWER : A

99. The lateral aperture in the fourth ventricles connect with:

A) Epidural space

B) Subarachnoid space

C) Subdural space

ANSWER : B

100. Concerning the cerebrospinal fluid, the wrong statement is ?

A) Protects the brain and spinal cord.

B) Secreted by choroid plexus.

C) fills the brain ventricles and the central canal of the spinal cord.

D) Pass through the subdural space.

E) Absorbed by archanoid granulation.

ANSWER : D

101. Concerning the cerebrospinal fluid, select the incorrect statement:

A) Protects the brain and the spinal cord

B) Absorbed by arachnoid granulations

C) Fills the brain ventricles and the central canal of the spinal cord

D) Secreted by choroid plexus

E) Does not pass in the subarachnoid space

ANSWER : E

Anatomy

Lecture 9

102. Example of gray matter :

A) Lateral ventricles

B) Cerebral cortex

C) 3rd ventricles

ANSWER : B

103. Superior angle of the 4th ventricle attached to?

ANSWER : cerebral aqueduct

104. CSF is drained by:

ANSWER : arachnoid villi and granulations

105. Which of the following is true:

ANSWER : third ventricle is connected to the lateral ventricle by interventricular foramen.

Anatomy

Lecture 10

106. Regarding Limbic system, all of the following are true EXCEPT:

A) Hippocampus forms the floor of the inferior horn of the lateral ventricle
B) Its function includes emotions and mechanisms of recent memory
C) Hypothalamus is the major output pathway of this system
D) It includes both cortical and subcortical structures
E) Fornix extends from hippocampus to thalamus

ANSWER : E

107. Which of the following connects Hypothalamus to septal areas?

A) Mammillothalamic tract
B) Medial forebrain bundle
C) Cingulum
D) Stria terminalis
E) Fornix

ANSWER : B

108. All of the following are symptoms of Kluver Bucy syndrome Except:

A) increased sexual activity
B) Docility
C) Hyperphagia
D) Show no evidence of fear or anger
E) Hypertonia

ANSWER : E

109. The first area to show damage Alzheimer disease is:

A) Hypothalamus
B) Prefrontal cortex
C) Hippocampus
D) Insula
E) Thalamus

ANSWER : C

Anatomy

Lecture 10

110. Which of the following areas is responsible for interpretation of the emotional aspect of pain?

A) Cingulate gyrus
B) Tectum
C) Reticular formation
D) Pyramids
E) Insular gyrus

ANSWER : A

111. what does the fornix connect :

A) hippocampi
B) 3rd ventricles
C) Lateral ventricles

ANSWER : A

112. All of the following are symptoms of kluver bucy syndrome, except ?

A) Increased sexual activity.
B) Docility.
C) Hyperphagia.
D) Show no evidence of fear or anger.
E) anterograde amnesia

ANSWER : E

113. What connects hippocampus to cingulate cortex ?

A) fornix.
B) Anterior commissure.
C) Cingulum.
D) Arcuate fibers.
E) Unicinate fibers

ANSWER : C

Anatomy

Lecture 10

114. The components of the hippocampal formation ?

A) Hippocampus, Dentate gyrus, Parahippocampal gyrus.
B) Limbic lobe, Hippocampal Formation, Prefrontal Cortex.
C) Hypothalamus, Anterior nucleus of Thalamus, Amygdaloid nucleus.
D) Isthmus, Cingulate gyrus, Parahippocampal gyrus, Uncus.
E) Hippocampus, Dentate gyrus, insular gyrus

ANSWER : A

115. The layer of white matter that covers the surface of the inferior horn of the lateral ventricle is ?

A) Lamina terminalis.
B) Pineal recces.
C) Alveus.
D) Septum pellucidum.
E) Internal capsule.

ANSWER : C

116. Which of the following structures is responsible for the interpretation of the emotional aspect of Pain?

A) occipital lobe
B) Cingulate gyrus
C) Insula
D) Midbrain
E) Reticular formation

ANSWER : B

117. Which of the following structures are involved in processing short term memory into long term memory?

A) Ventromedial nucleus
B) Dorsomedial nucleus
C) Posterior hypothalamic nucleus
D) Arcuate nucleus
E) Mammillary body

ANSWER : E

Anatomy

Lecture 10

118. Which of the following statement about the fornix is not true ?

A) It is considered as a white matter.
B) Lies below the corpus callosum.
C) Lies above the thalamus.
D) Projects from parahippocampus to hypothalamus.
E) It is a commissural fiber

ANSWER : D

119. The center of pleasure is ?

A) hippocampus.
B) Parahippocampus.
C) Septal areas.
D) Hypothalamus.
E) Thalamus

ANSWER : C

120. Which of the following structures represents the floor of the inferior horn of the lateral ventricle?

A) Tail of caudate nucleus
B) Septal areas
C) Cingulate gyrus
D) Hypothalamus
E) Hippocampus

ANSWER : E

Pathology

Lecture 1

121. Which of the following statements is correct regarding the pathogenesis of Alzheimer's disease ?

A) A key step in its pathogenesis is intracellular accumulation of AB amyloid within cortical neurons.
B) AB protein accumulates earlier in patients with Dawn syndrome because these patients have an increased level of beta secretase.
C) Intracellular accumulation of Tau protein occurs early in the disease process.
D) Amyloid plaques and Tau accumulation can be seen due to advanced age, even in people not suffering from Alzheimer's disease.
E) Polymorphisms of Apolipoprotein E (Apo E) increase the risk of Alzheimer disease.

ANSWER : D

122. Which of the following is incorrect about amyloid accumulation in the brain:

A) Forms extracellular plaques
B) Causes hyper phosphorylation of Tau protein
C) Accumulation in the elderly is not necessarily associated with dementia
D) Increased risk of accumulation in people with Down syndrome
E) Is the main protein responsible for Pick disease

ANSWER : E

123. All of the following is correct regarding neurodegenerative disorders EXCEPT:

A) Neuritic plaques consist of amyloids surrounded by dystrophic neurites
B) Neurofibrillary tangles contain tau protein
C) Deposition of AB amyloids in the cerebral cortex in the case of Alzheimer's disease
D) Intranuclear aggregates containing an expanded polyglutamine tract in Huntington's Disease
E) A+ B

ANSWER : C

124. Pick's disease is due to:

A) Deposition of synuclein protein
B) FTLD-tau protein inclusion bodies
C) Huntingtin protein deposition
D) FTLD-TDP43 protein inclusion bodies
E) Mutations in SOD-1 gene.

ANSWER : B

Pathology

Lecture 1

125. 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 points towards a diagnosis of Alzheimer disease.

ANSWER : D

126. Wrong about neurofibriallary tangles:

ANSWER : specific to Alzheimer's disease

127. Enzymes associated with Alzheimer's disease include:

A) Alpha syneculin
B) Beta secretase
C) Microglial enzymes
D) Alzheimer's enzyme

ANSWER : B

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

A) Astrocytes
B) Glial cells
C) Neurons
D) Oligodendrocytes
E) Microglia

ANSWER : C

Pathology

Lecture 2

129. Intracytoplasmic eosinophilic round to elongated inclusions that have a dense core surrounded by a pale halo which are positive with immunohistochemical stain to alpha synuclein are characteristic of:

A) Parkinson disease
B) Huntington chorea
C) Alzheimer
D) Spinocerebellar ataxia
E) Amyotrophic lateral sclerosis

ANSWER : A

130. Intranuclear inclusions are seen in which of the following:

A) Pick
B) Alzheimer
C) Huntington
D) ALS
E) Fredrick ataxia

ANSWER : C

131. 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. All the following play a role in his disease except:

A) Accumulation of alpha synuclein
B) Accumulation of protein that acts as a prion protein
C) lewy bodies.
D) Loss of pigmented neurons in substantia nigra
E) Accumulation of a protein important for long term memory storage

ANSWER : E

132. 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

ANSWER : E

Pathology

Lecture 2

133. Lewy bodies are found in:

A) Parkinson's disease
B) Huntington disease
C) Friedrich ataxia
D) Alzheimer's disease
E) Amyotrophic lateral sclerosis

ANSWER : A

134. Wrong about Huntington’s disease:

ANSWER : most cases are sporadic

Pathology

Lecture 3

135. Which of the following is caused by a trinucleotide repeat mutation:

A) Fredrick ataxia
B) Huntington disease
C) Alzheimer
D) Pick
E) A and B

ANSWER : E

136. 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.

ANSWER : C

137. Fredrick ataxia is an autosomal recessive ataxia caused by:

A) Trinucleotide repeat mutation
B) Frataxin accumulation
C) Increased ATP synthesis in the mitochondria
D) Decreased anaerobic glycolysis
E) Aggregation of a protein involved in regulating mitochondrial iron level.

ANSWER : A

138. Patient with unsteady gait and cardiac abnormalities:

A) Parkinson's disease
B) Huntington disease
C) Friedrich ataxia
D) Alzheimer's disease
E)Amyotrophic lateral sclerosis

ANSWER : C

Pathology

Lecture 3

139. A patient suffers from ataxia and kyphoscoliosis with a high risk to develop cardiac disease. What is the most likely diagnosis?

A) Parkinson's disease
B) Huntington disease
C) Friedrich ataxia
D) Alzheimer's disease
E)Amyotrophic lateral sclerosis

ANSWER : C

140. Patient with unsteady gait (ataxic) with cardiac abnormalities?

ANSWER : Friedrich ataxia

Pathology

Lecture 4

141. Which of the following is correct regarding astrocytoma:

A) IDH (isocitrate dehydrogenase) mutation is a late event in the pathogenesis of gliomas
B) Pseudo- rosettes are seen in low grade astrocytomas
C) The presence of necrosis within a glioma indicates a high grade and a bad prognosis
D) Contrast enhancing lesions are usually low grade lesions
E) Gliomas are negative with GFAP (glial fibrillary acidic protein)

ANSWER : C

142. Which of the following is correct regarding astrocytoma:

A) IDH (isocitrate dehydrogenase) mutation is a late event in the pathogenesis of Gliomas
B) Pseudo- rosettes are seen in low grade astrocytomas
C) The presence of necrosis within a glioma indicates a high grade and a bad prognosis
D) Contrast enhancing lesions are usually lowlow-gradesions
E) Gliomas are negative with GFAP (glial fibrillary acidic protein)

ANSWER : C

143. All present in grade III astrocytoma except:

ANSWER : necrosis & microvascular proliferation

Pathology

Lecture 5

144. A 6-year-old boy suffered from ataxia and frequent falls. MRI scan showed a well circumscribed lesion in the cerebellum which was partly cystic. Histologic examination showed a tumor containing microcysts and Rosenthal fibers. what is your diagnosis?

A) Low grade oligodendroglioma
B) Pilocytic astrocytoma
C) Cerebellar ependymoma
D) Medulloblastoma
E) Glioblastoma

ANSWER : B

145. Which of the following mutations is associated with oligodendrogliomas:

A) P53 tumor suppressor gene inactivation
B) IDHI gene mutation
C) RB gene mutation
D) P13k gene mutation
E) Ip and 19q codeletions

ANSWER : E

146. All of the following are features of pilocytic astrocytomas EXCEPT:

A) Relatively benign
B) Can affect the optic pathways and tracts
C) Is often associated with cyst formation
D) Occur in children and young adults
E) Most common location is the spinal cord.

ANSWER : E

147. All of the following tumor locations are correct EXCEPT:

A) Myxopapillary ependymoma - Filum terminale
B) Medulloblastoma - Cerebellum
C) Dysembryoplastic neuroepithelial tumor - Superficial temporal lobe
D) Central Neurocytoma - Foramen of Monro
E) Ependymoma - Spinal cord in children

ANSWER : E

Pathology

Lecture 5

148. A 6-year-old boy suffered from ataxia and frequent falls. MRI scan showed a well circumscribed lesion in the cerebellum which was partly cystic. Histologic examination showed a tumor containing microcysts and Rosenthal fibers. what is your diagnosis?

A) Low grade oligodendroglioma
B) Pilocytic astrocytoma
C) Cerebellar ependymoma
D) Medulloblastoma
E) Glioblastoma

ANSWER : B

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

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

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

A) pilocytic astrocytoma
B) oligodendroglioma
C) ependymoma
D) medulloblastoma

ANSWER : A

151. A 47-year-old gentleman has been experiencing headaches for the past 6 months. He had seizures twice. Brain MRI shows a solitary, circumscribed 3.5-cm mass in the right parietal centrum semiovale. The mass has small cysts, calcification and hemorrhage. Neurosurgery is performed, and the mass is removed. Microscopically, the mass consists of sheets of cells with round nuclei, finely granular chromatin & moderate amount of clear cytoplasm. The tumor cells show IDH-1 and GFAP expression. The patient receives adjuvant radiation and chemotherapy, and there is no recurrence. Which of the following molecular markers is most likely to be found in the cells of this mass?

A) BRAF mutation
B) 1p and 19q co-deletions
C) ATRX mutation
D) c-MYC amplification
E) Wnt activation

ANSWER : B

Pathology

Lecture 5

152. An 11-year-old girl has had increasing headaches upon awakening for the past month. On examination, papilledema is present bilaterally. An MRI of her brain reveals a 3-cm solid circumscribed mass within the fourth ventricle. There is third and lateral cerebral ventricular dilation. The mass is excised and microscopically shows perivascular pseudorosettes with round, regular tumor cells arranged around vessels. Which of the following neoplasms is she most likely to have?

A) Astrocytoma
B) Ependymoma
C) Glioblastoma
D) Medulloblastoma
E) Schwannoma

ANSWER : B

Pathology

Lecture 6

153. All of the following are true regarding grade II meningiomas EXCEPT:

A) Clear variant
B) Brain invasion
C) Choroid variant
D) Small cells, prominent nuclei, and necrosis
E) More than 19 mitotic figures/10 HPF.

ANSWER : E

154. 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.

ANSWER : D

155. True about primary CNS lymphomas:

ANSWER : rarely spread outside CNS

156. year-old gentleman has a single episode of grand mal seizure. physical examination is unremarkable except for 1.5-cm, darkly pigmented skin lesion on the chest. Brain MRI shows four solid, 1- to 3-cm lesions located at the graywhite junction in the right and left frontal, and temporal lobes. What is the most likely diagnosis?

A) Primary CNS lymphoma
B) Glioblastoma, IDH-wild type
C) Pilocytic astrocytoma
D) Meningioma
E) Metastatic melanoma

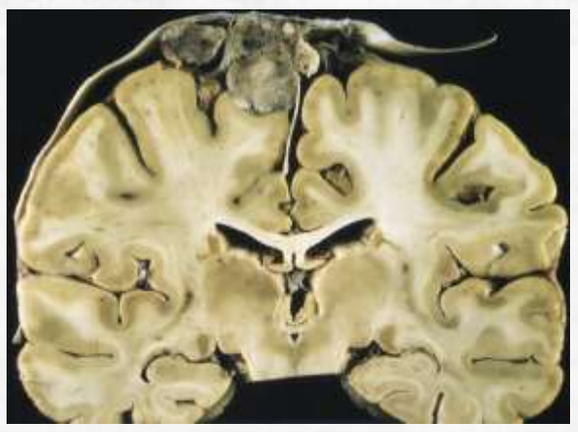
ANSWER : E

Pathology

Lecture 6

157. year-old lady presented with headache for the past 3 months. Physical examination is unremarkable. The representative gross appearance of the lesion seen on CT scan of the head is shown in the figure. The mass is surgically removed, and microscopic examination shows epithelioid cells with pale, oblong nuclei and pink cytoplasm with occasional psammoma bodies. Cytogenetic analysis shows 22q-. What is the most likely diagnosis?

A) Meningioma
B) Pilocytic astrocytoma
C) Ependymoma
D) Metastasis
E) lymphoma



ANSWER : A

158. A 20-year-old woman with learning difficulties had flank pain for 1 week. Physical examination showed right costovertebral angle tenderness. Patches of leathery-appearing (shagreen patches) and hypopigmented (ash-leaf patches) skin were scattered over her body. There was a subungual nodule on her right index finger. Abdominal CT scan showed bilateral renal cysts and tumor masses. MRI of the brain showed subependymal nodules and 1- to 4-cm cortical foci with loss of the gray-white distinction. CT scan of the chest showed a 3-cm mass involving the interventricular septum. Two years later, she now has sudden, severe headache. MRI now shows a nodule obstructing the cerebral aqueduct. Neurosurgery is performed, and a subependymal giant cell astrocytoma is removed. What is the most likely diagnosis?

A) Down syndrome
B) Krabbe disease
C) Neurofibromatosis type 1
D) Tuberous sclerosis
E) Von Hippel-Lindau disease

ANSWER : D

Pharmacology

159. hangover on awakening is a side-effect that linked more with which of the following agents?

A) Temazepam
B) Triazolam
C) Buspirone
D) Zolpidem
E) Flurazepam

ANSWER : E

160. which of the following morphine effect is not subjected to tolerance with long-term usage?

A) Analgesia.
B) Respiratory depression
C) Euphoria
D) Relaxation and sleep
E) Constipation

ANSWER : E

161. which of the following narcotic is the most suitable drug to reduce intraoperation

pain?

A) Fentanyl.
B) Morphine
C) Codeine
D) Hydromorphone
E) Tramadol

ANSWER : A

162. which of the following agent is preferring to be used in terminating status epilepticus?

A) Flumazinel
B) Gabapentin
C) Diazepam
D) Hydromorphone
E) Tramadol

ANSWER : C

Pharmacology

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

A) Lithium - diabetes insipidus

B) Olanzapine-Agranulocytosis

ANSWER : A

164. Drug for depressed patients with sleep difficulties?

A) Fluoxetine

B) Sertraline

C) Trazodone

D) Citalopram

E) Escitalopram

ANSWER : C

165. Only cause of schizophrenia

A) Too much Dopamine

B) Too much serotonin

C) Too much NE

ANSWER : A

Physiology

166. which of the following statements is not matched?

A) retrograde amnesia..... lesion in the thalamus.
B) prefrontal cortex..... socially disinhibited behavior
C) basal ganglia lesion.....instability to perform rapid alternating movements
D) cerebellum lesion..... nystagmus and wide gate (drunken gate)
E) upper motor neuron lesion ..... Hyperreflexia, fasciculation and fibrillation

ANSWER : C

167. rigidity of the axial and antigravity muscles when cortical control over the brain stem is integrated (decerebrate) is due to:

A) over activity of rubrospinal tract.
B) Over activity of medullary reticulospinal tract.
C) over activity of pontine reticulospinal tract.
D) disruption of the dorsal spinocerebellar pathway.
E) disruption of the lateral vestibulospinal tract.

ANSWER : C

168. microstimulation of which of the following would lead to contraction of individual muscle fibers.

A) primary motor cortex
B) premotor cortex
C) supplementary motor cortex
D) somatosensory association area of the cortex
E) the limbic association area

ANSWER : A

169. the "limb" regions of the motor homunculus are involved in activating motor neurons that move the arms, hands, and 4legs primarily on the _____, and the trunk regions of the motor homunculus are primarily involved in activating motor neurons that move the trunk primarily on the _____.

A) same side of the body, opposite side of the body
B) opposite side of the body, opposite side of the body
C) same side of the body, same side of the body
D) opposite side of the body, opposite side of the body
E) both sides of the body, both sides of the body

ANSWER : D

Physiology

170. A 70 year old man with a history of hypertension went to work and had sudden onset of nausea and vomiting. He was taken to ER, where his exam was notable for slurred speech (dysarthria), and dysmetria on finger-to-nose testing on the left side. His gait was normal with normal equilibrium. Where is the lesion?

A) cerebellar vermis
B) right cerebellar hemisphere
C) left cerebellar hemisphere
D) fastigial nucleus
E) vestibular nuclei

ANSWER : C

171. A 75 year old man gradually presented with left sided tremor especially at rest, and slowness of movement. On clinical examination of this patient the following is TRUE:

A) Hypotonia
B) The patient exhibits a mask face
C) Power is severely affected
D) Coma
E) Vestibular nystagmus

ANSWER : B

172. The _____ controls the motor orders while the _____ compares the intended
movement with actual movement for the improvement of movement skill.

A) Motor cortex, cerebellum
B) Cerebellum, basal ganglia
C) Basal ganglia, motor cortex
D) Basal ganglia, cerebellum
E) Cerebellum, red nucleus

ANSWER : A

173. Regarding the role of the basal ganglia in motor control:

A) Disorders of the basal ganglia produce a marked loss of both sensation and motor control
B) Parkinsonism is caused by neuronal degeneration within the substantia nigra
C) The globes pallidus projects directly to the cerebral cortex
D) Acetylcholine is the predominant neurotransmitter of the substantia nigra
E) Chorea is a speech disorder caused by disease of basal ganglia

ANSWER : B

Physiology

174. The area of the brain that is needed to understand the meaning of words and forms an idea is:

A) Prefrontal cortex.
B) Wernicke's area.
C) Primary motor cortex.
D) Broca's area.
E) Premotor cortex.

ANSWER : B

175. Muscle rigidity demonstrated in basal ganglia diseases is caused primarily by:

A) A resting high tonic discharge of globes pallidus to thalamus
B) A resting high tonic discharge of substantia nigra reticulata to thalamus
C) Disinhibition of thalamus output caused by increased striatal (caudate and putamen) output of globus pallidus
D) Disinhibition of subthalamic output caused by increased striatal output to globus pallidus
E) Overstimulation of substantia nigra compacta dopaminergic neurons to striatum

ANSWER : C

176. short term memories can involve all of the following processes except:

A) Regulation of gene expression
B) Activation of second messenger system
C) Modulation of membrane channels
D) Modulation of transmitter release
E) Change in the sensitivity of the neuronal circuits

ANSWER : A

177. short term memories can involve all of the following processes except:

A) Regulation of gene expression
B) Activation of second messenger system
C) Modulation of membrane channels
D) Modulation of transmitter release
E) Change in the sensitivity of the neuronal circuits

ANSWER : A

Physiology

178. Which of the following is true:

ANSWER : Serotonin is secreted from the raphe magnus

Microbiology

Lecture 1

179. Tetanus toxin (tetanospasmin) diffuses to terminals of inhibitory cells in the spinal cord and brainstem and blocks which of the following?

A) Release of acetylcholine.
B) Cleavage of SNARE proteins.
C) Release of inhibitory glycine and gamma-aminobutyric acid.
D) Release of protective antigen.
E) Activation of acetylcholine esterase

ANSWER : C

180. Which of the following statements about tetanus and tetanus toxoid is correct?

A) Tetanus toxin kills neurons.
B) Tetanus toxoid immunization has a 10% failure rate.
C) The mortality rate of generalized tetanus is less than 1%.
D) Double vision is commonly the first sign of tetanus.
E) Tetanus toxin acts on inhibitor interneuron synapses.

ANSWER : E

181. Which one of the following is a recommended therapy for herpes simplex virus genital infection?

A) Acyclovir.
B) Attenuated live virus vaccine.
C) C.Herpes immune globulin.
D) Interferon-a.
E) Ribavirin.

ANSWER : A

182. Which of the following food items is most frequently associated with infant botulism?

A) Corn syrup.
B) Canned infant formula.
C) Liquid multivitamins.
D) Honey.
E) Jarred baby food.

ANSWER : D

Microbiology

Lecture 1

183. A 55-year-old patient presented with a burning pain localized in a band across the trunk where a painful rash appeared a few days ago. Reactivation of one of the following pathogens is most likely to cause the symptoms:

A) Herpes simplex virus 1.
B) Herpes simplex virus 2
C) Varicella zoster virus
D) Human immunodeficiency virus
E) Campylobacter jejuni

ANSWER : C

184. Which of the following is true regarding infectious causes of peripheral neuropathy:

A) Postherpetic neuralgia is neuropathic pain in a dermatomal pattern that commonly follows an episode of herpes simplex virus type : (HSV-2) infection.
B) Symptoms of Botulinum toxin ingestion first appear as a descending flaccid paralysis that starts with cranial nerves.
C) More than 70% of infections with poliovirus will result in flaccid paralysis.
D) Varicella zoster virus primary site of dormancy is in neuromuscular junctions.
E) Infectious causes of peripheral neuropathy are more common than vascular and inflammatory causes.

ANSWER : B

185. A 45-year-old man who immigrated to the United States 5 years ago sustained a puncture injury to the lower part of his right leg when his rotary lawn mower threw a small stick into his leg. Six days later, he noticed spasms in the muscles of his right leg; on day 7, the spasms increased. Today2day 87he had generalized muscle spasms, particularly noticeable in the muscles of his jaw. He was unable to open his jaw and came to the emergency department (ED). In the ED, you see a man who is alert and lying quietly in bed. A door slams down the hall, and suddenly he has a general muscle spasm with arching of his back.

The correct diagnosis is which of the following?

A) Botulism.
B) Anthrax.
C) Tetanus.
D) Toxic shock syndrome.

ANSWER : C

Microbiology

Lecture 1

186. True:

ANSWER : Botulinum toxin inhibits Ach release at neuromuscular junctions.

187. False about polio:

ANSWER : Non-paralytic form of the disease progress to paralysis within few days.

188. False about polio:

ANSWER : Epidemic paralytic polio is common worldwide.

Microbiology

Lecture 2

189. A 65-year-old man develops dementia, progressive over several months, along with ataxia and somnolence. An electroencepha- lographic pattern shows paroxysms with high voltages and slow waves, suggestive of Creutzfeldt-Jakob disease (CJD). By which of the following agents is this disease caused?

A) Bacterium
B) Virus
C) Viroid
D) Prion
E) Plasmid

ANSWER : D

190. A 20-year-old man, who for many years had received daily injections of growth hormone prepared from human pituitary glands, develops ataxia, slurred speech, and dementia. At autopsy the brain shows widespread neuronal degeneration, a spongy appearance due to many vacuoles between the cells, no inflammation, and no evidence of virus particles. The most likely diagnosis is:

A) Herpes encephalitis
B) Creutzfeldt-Jakob disease
C) Subacute sclerosing panencephalitis
D) Progressive multifocal eukoencephalopathy
E) Rabies

ANSWER : B

191. Which one of the following is a recommended therapy for herpes simplex virus brain:

A) Acyclovir
B) Attenuated live virus vaccine
C) Herpes immune globulin
D) Ribavirin

ANSWER : A

192. Choose the true sentence about encephalitis:

A) Rabies is treated by supportive care and antibiotics
B) Arboviruses are the most common cause of epidemic cases
C) Herpes cause encephalitis in 70% of cases

ANSWER : B

Microbology

Lecture 2

193. True about familial Creutzfeldt-Jakob:

A) Acyclovir is important as empirical treatment
B) Brain biopsy has no importance in diagnose
C) There is no treatment for this disease

ANSWER : C

194. 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-pyrectics 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 .

ANSWER : E

195. The presence in neurons of eosinophilic cytoplasmic inclusion bodies, called Negri bodies, is characteristic of which of the following central nervous system infections?

A) Borna disease
B) Rabies
C) Subacute sclerosing panencephalitis
D) New variant Creutzfeldt-Jakob disease
E) Postvaccinal encephalitis

ANSWER : B

196. Wrong about a patient with CJD:

ANSWER : His survival median is very long

Microbology

Lecture 2

197. Wrong statement about encephalitis:

ANSWER : It cannot be prevented or treated

198. Transmissible Spongiform Encephalopathies are characterized by one of the following:

A) Sporadic forms are more common in patients older than 60.
B) The usual presentation includes headache, fever, and confusion.
C) The agent causing the disease is highly susceptible to killing/inactivation by heat.
D) The agent causing the disease cannot be transmitted across species.

ANSWER : A

199. False statement about meningitis (or encephalitis):

ANSWER : Brain biopsy is usually acquired for diagnostic purposes

200. The most common cause of sporadic encephalitis:

ANSWER : HSV

Microbiology

Lecture 3

201. 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 ?

A) The patient should undergo emergency craniectomy with drainage of the abscess:
B) The patient should wait until the abscess is fully formed then undergo craniectomy .
C) The patient is given acyclovir and monitored in the ICU .
D) The patient is provided with oral antibiotics and sent home .
E) The patient should undergo lumber puncture immediately to confirm the diagnosis .

ANSWER : A

202. False statement about meningitis:

ANSWER : Brain biopsy is usually acquired for diagnostic purposes.

203. False about aseptic meningitis:

ANSWER : Only caused by viruses

Microbiology

Lecture 3

204. altered level of consciousness without focal deficits

ANSWER : :MRI to check if there is brain abscess

205. rapidly progressive:

ANSWER : subdural empyema of staph

Pbl

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

A) antiepileptics
B) Folic Acid
C) NSAID

ANSWER : A

207. A 60 year man developed lumbar herniation, choose the wrong answer:

ANSWER : Surgery is the best choice

208. which of the following is sign for base of Scull fracture:

ANSWER : raccone eye

209. Biconvex lens:

ANSWER : Extradural hemorrhage

Behavioral

Lecture 1

210. Which of the following statements is not true about placebo:

A) It is Latin for (I shall please).
B) Any therapeutic procedure which is given without specific activity for the condition being treated with.
C) Placebo and placebo effect are the same.
D) Placebo have side-effects.
E) Placebo effect accounts for about 30% of active treatments.

ANSWER : C

211. All the following statements are true about placebo except:

A) Research indicates that placebo effect is about 30%.
B) Placebo effect is not entirely psychological.
C) placebo is commonly used by doctors in every day work.
D) Expectation is important factor in the placebo effect.
E) In tooth pain Morphine and placebo have the same efficacy.

ANSWER : E

212. Which of the following statements regarding placebo is correct?

A) Placebo treatment has no unfavorable effects.
B) Placebo effect and placebo are the same.
C) The average placebo effect in medical practice is 35%.
D) Placebo effect has no role in surgery.
E) Placebo is effective only on low IQ patients

ANSWER : C

213. Which of the following factors play a role in the placebo effect:

A) The mode of symptoms initiation.
B) The type of underlying pathology of symptoms.
C) The age of the patient in the time of consultation.
D) Neuro-chemical brain substances.
E) Which body organ is involved

ANSWER : D

Behavioral

Lecture 1

214. Which of the following factors play a role in the placebo effect:

A) The mode of symptoms initiation.
B) The type of underlying pathology of symptoms.
C) The age of the patient in the time of consultation.
D) Neuro-chemical brain substances.
E) Which body organ is involved

ANSWER : D

215. The following factors play the main role in the placebo effect except one:

A) The severity of the symptoms.
B) Expectation of the patient.
C) The birth order of the patient.
D) Physicians faith in the treatments they prescribe.
E) The size and color of medications.

ANSWER : C

216. Wrong about placebo effect:

ANSWER : related to patient education

217. True about placebo:

ANSWER : mostly has 35% effectiveness

Behavioral

Lecture 1

218. All affect the placebo effect except:

ANSWER : color and size of the tablet OR patient age

Behavioral

Lecture 2

219. Sick role involves the following, except:

A) Exemption from usual social and other responsibilities
B) Other people are obliged to be kind to him
C) A person in the sick role is not obliged to seek medical help
D) Other people are obliged to take over duties of person in the sick role
E) A person in the sick role is not expected to get well without being cared of

ANSWER : C

220. Phases of the " general Adaptation Syndrome" include all of the following except?

A) Alarm
B) Exhaustion
C) Resistance
D) Stressor

ANSWER : D

221. 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

222. Regarding the “General Adaptation Syndrome (GAS)”, one of the following is FALSE?

A) Substance use is a maladaptive mean to cope with stress
B) Prolonged resistance protects against alarm stage
C) Exhaustion results from prolonged resistance
D) Alarm involves fight or flight response
E) Resistance helps reducing stress impact

ANSWER : B

Behavioral

Lecture 2

223. True about sick role and illness behavior:

ANSWER : Some can be generated from fear of sickness

Behavioral

Lecture 3

224. Which of the following statements regarding circadian rhythm is correct

A) Optic tract lesions abolish circadian rhythm.
B) It is related to hibernation.
C) Rapid shift of light dark cycle affect circadian rhythm.
D) Suprachiasmatic nucleus lesions do not affect circadian rhythm.
E) Circadian rhythm does not contribute to homeostasis.

ANSWER : C

225. All of the following physiological changes occur during REM sleep, EXCEPT?

A) Increased cerebral blood flow
B) Increased body temperature
C) Desynchronized cortical activity
D) Vivid dreams
E) Increased spinal reflexes

ANSWER : E

226. All the following are true about REM sleep except:

A) REM sleep is characterized by a wake EEG
B) Cerebral blood flow is less than awake state
C) muscles are relaxed
D) brain more active
E) automatic functions are more active

ANSWER : B

227. All the following are true about sleep in general Except :

A) Dreams occur usually with non -REM sleep
B) 20-25 percent of sleep is spent in REM sleep
C) REM sleep occurs every 90 minutes approximately
D) Sleep spindles occur in stage tow of sleep
E) People move around 35times in a night sleep

ANSWER : A

Behavioral

Lecture 3

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

A) Increased spinal reflexes
B) Increased heart rate.
C) Increased growth hormone secretion
D) It has three phases of equal depth.
E) Increased cerebral blood flow.

ANSWER : C

229. Causes episodes of irresistible sleep:

ANSWER : narcolepsy (Hypersomnia)

230. sleep stage 3\4:

ANSWER : deep sleep

231. True about sleep

ANSWER : suprachiasmatic nucleus regulates sleep-wake cycle

Behavioral

Lecture 3

232. Sleep is

ANSWER : reversible unconsciousness

233. parasomnia

ANSWER : sleep walking

234. normal in REM sleep

ANSWER : reversible unconsciousness

Behavioral

Lecture 4

235. Regarding patient-doctor relationship which of the following is true ?

A) Doctors at large are interested in patients emotional clues.
B) Doctors overestimate the amount of information they give to patients.
C) Patient doctor relationship does not affect response to drugs.
D) Patients are only interested in the doctor technical skill.
E) Patients do not mind to be referred to as a cases

ANSWER : B

236. Which of the following statements regarding nonverbal communication is correct?

A) Nonverbal communication expresses inner feelings better than verbal communication.
B) Image is not part of nonverbal communication.
C) Nonverbal communication is less important than verbal communication.
D) Interpretation of nonverbal communication is not culture-dependent
E) Non-verbal communication is conscious.

ANSWER : A

237. Nonverbal communication involves all of the following, EXCEPT?

A) Gestures
B) Proxemics
C) Writing a short speech
D) Facial expressions
E) Eye contact

ANSWER : C

238. Which of the following statements is true about non-verbal communication?

A) It is mostly more truthful than verbal .
B) It is mostly conscious .
C) Paralanguage is not part of it .
D) It communicates less than half of the massage .
E) It is not important during medical cosultation

ANSWER : A

Behavioral

Lecture 4

239. Nonverbal communication involves all of the following, EXCEPT?

A) Gestures
B) Proxemics
C) Writing a short speech
D) Facial expressions
E) Eye contact

ANSWER : C

240. The following are true about proxemics except?

A) Intimate space is up to 50 cm .
B) Personal space is between 30-75 cm .
C) Social space is between 120-200 cm .
D) Public space is from 300cm. or more .
E) Meetings are usually held in personal space

ANSWER : E

241. Which of the following statements regarding nonverbal communication is correct?

A) Nonverbal communication is less important than verbal communication.
B) Nonverbal communication expresses inner feelings better than verbal communication.
C) Non-verbal communication is conscious.
D) Image is not part of nonverbal communication.
E) Interpretation of nonverbal communication is not culture-dependent.

ANSWER : B

242. Which of the following statements is true about non verbal communication?

A) It is mostly more truthful than verbal .
B) It is mostly conscious .
C) paralanguage is not part of it .
D) It communicates less than half of the massage .
E) It is not important during medical cosultation.

ANSWER : A

Behavioral

Lecture 4

243. The following are true about proxemics except?

A) Intimate space is up to 50 cm.
B) Personal space is between 30-75 cm.
C) Social space is between 120-200 cm.
D) Public space is from 300cm. or more .
E) Meetings are usually held in personal space

ANSWER : E

244. All the following improve patient compliance to treatment except?

A) Mutual trust between patient and doctor
B) The belief of the doctor in his/her treatment
C) Anxiety in the patient during the consultation
D) Giving the least possible number of medications
E) Choosing medications with long half life

ANSWER : C

Behavioral

Lecture 5

245. Which of the following statements is not true about the psychophysiology of eating?

A) The dreams of starved individuals are not affected by their state .
B) The lateral hypothalamus is the eating centre .
C) Insulin injections increase food intake .
D) If food is injected directly to hungry stomach appetite is suppressed .
E) Distention of the stomach stimulate the ventromedial hypothalamus .

ANSWER : A

246. The following are true about obesity except?

A) Obese people eat more when they are anxious .
B) Obese people are least responsive to the taste of food .
C) Obese people do not share specific personality type .
D) Obese people belong to the unrestrained eaters group .
E) Obese people have lower metabolic rate than normals .

ANSWER : B

247. Which of the following statements regarding the psychophysiology of food intake is correct

A) Environmental temperature does not affect food intake .
B) An insulin injection will decrease food intake immediately .
C) Blood sugar level affects appetite and food intake .
D) Food intake is regulated by one system in the human body .
E) The lateral hypothalamus is the satiation center in the brain .

ANSWER : C

248. Which of the following statements regarding weight control is correct?

A) Exercise is more important for weight loss in overweight individuals .
B) Behavior therapy is not used in weight control treatments .
C) Metabolic rate is increased in food deprivation states .
D) Basal metabolism normally constitute one third of energy expenditure .
E) Psychological factors do not play significant role in weight control .

ANSWER : A

Behavioral

Lecture 5

249. 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.

ANSWER : C

250. All of the following statements about eating are true except?

A) Overweight individuals often report overeating when anxious .
B) Ventro-medial hypothalamus is the feeding centre .
C) Metabolic rate is decreased during food deprivation .
D) Overweight individuals has no specific personality type .
E) Exercise is critical in weight loss .

ANSWER : B (Ventrolateral = eating/feeding center while ventromedial is the satiety center)

251. 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.

ANSWER : C

252. Which of the following can be act as a hunger signal ?

A) High blood glucose level
B) Full stomach
C) High environment temperature
D) Heating the brain
E) Emotional factors

ANSWER : E

Behavioral

Lecture 5

253. True about eating:

ANSWER : cold weather activates Lateral Hypthalamus

254. Wrong about eating:

ANSWER : empty stomach activates VM hypothalamus

255. True about eating regulation

ANSWER : distention of the stomach activates VM hypothalamus

256. Wrong about obesity

ANSWER : are least sensitive to taste

Behavioral

Lecture 6

257.Which of the following is not part of midlife development?

A) Separating psychologically from parents
B) NOT accepting the aging process in the body
C) Experience intimacy within a committed relationship
D) Finding a job
E) Becoming a perant

ANSWER : B

258. 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

ANSWER : A

259. the following are included in Erik Erikson's stages of development EXCEPT:

A) Industry versus inferiority
B) Ego integrity versus despair
C) Trust versus mistrust
D) Popularity versus self-absorption
E) Intimacy versus isolation

ANSWER : D

260. Which of the following is not a characteristic of ADHD:

A) Impulsivity
B) Increased concentration
C) Inability to pay attention
D) Inability to complete task

ANSWER : B

Behavioral

Lecture 6

261. The following factor play the least important role in food intake?

A) Blood-sugar level .
B) Body temperature .
C) Stomach fullness.
D) Time of the day.
E) Sight of food .

ANSWER : D

262. All of the following are stages of normal grief reaction except:

A) Anger
B) Denial
C) Regression.
D) Bargaining.
E) Acceptance.

ANSWER : C

263. Regarding Pica, all of these statements are correct except?

A) It is an eating of non nutritive substance
B) It is typically present in autism
C) Pregnant women may have this disorder
D) It is associated with parasitic infection

ANSWER : D

264. true about enuresis:

A) more common in females
B) behavioural therapy is the mainstay of treatment

ANSWER : B

Behavioral

Lecture 6

265. All of the following are signs of acceptance of the loss except:

A) Talking about the deceased realistically.
B) Hearing the voice of the deceased.
C) Establishing new social relationships.
D) Resuming normal life activities.
E) Adjusting to a new lifestyle after the loss

ANSWER : B

266. Approved drug for ADHD:

ANSWER : methylphenidate

267. Which is true about autism/ADHD:

ANSWER : more common in boys

268. wrong about development:

ANSWER : enuresis more in girls

Behavioral

Lecture 7

269. Antidepressants exert their effect by which of the following mechanisms?

A) Depleting acetylcholine and GABA
B) Decreasing glutamate in the raphe nuclei
C) Increasing biogenic amines in the brain
D) Deceasing dopamine in the brain
E) Depleting 5-HT in prefrontal cortex.

ANSWER : C

270. Which of the following statements regarding neurotransmitters is correct?

A) GABA is an excitatory neurotransmitter
B) Dopamine is involved in the etiology of Schizophrenia
C) Tryptophan is the precursor of Acetylcholine
D) Acetylcholine effect is limited to muscarinic receptors
E) Histamine receptor H1 is involved in vascular tone.

ANSWER : B

271. All of the following statements are true about neurotransmiters except:

A) Tyrosine is precursor of catecholamines
B) The indolamines include serotonin and acetylcholine
C) Dopamine deficiency is thought to cause psychosis
D) MAO enzyme is involved in noradrenline metabolism
E) A peptide is a short protein made of < 100 aminoacids

ANSWER : C

272. Which of the following is the main excitatory neurotransmitter in the brain?

A) GABA
B) Dopamine
C) Norepinephrine
D) Glutamate
E) Serotonin

ANSWER : D

Behavioral

Lecture 7

273. All of the following statements about acetylcholine are correct, EXCEPT:

A) It's synthesized in the cholinergic axon terminal.
B) The cholinergic tract originates in the nucleus basalis of Meynert.
C) It can bind to both muscarinic and nicotine receptors.
D) Its nicotine receptors are antagonized by atropine.
E) Inhibition of its degradation is used in Alzheimer's treatment.

ANSWER : D

274. The following are criteria of a neurotransmitter except one :

A) The molecule is synthesized in the neuron.
B) The molecule is present in the pre-synaptic neuron.
C) When given exogenously has the same effect as the endogenous substance.
D) Is released by depolarization.
E) When released to the synaptic cleft remains there

ANSWER : E

275. one of the following is involved in synaptic neurotransmission in the brain:

A) serotonin
B) AchE

ANSWER : B

276. The following statements are true about neurotransmitters except one .

A) Tyrosine is precursor of catecholamines .
B) The indolamines include serotonin and acetylcholine.
C) Dopamine deficiency is thought to cause psychosis .
D) MAO enzyme is involved in noradrenline metabolism
E) A peptide is a short protein made of < 100 aminoacids

ANSWER : C

Behavioral

Lecture 7

277. Dopamine is involved in the etiology of following except .

A) Schizophrenia
B) Dwarfism.
C) vomiting
D) Gynocomastia
E) Dystonia

ANSWER : B

278. The following are biogenic amines except.

A) Dopamine
B) serotonin
C) Noradrenaline
D) Acetycholine
E) Neurotensin

ANSWER : E

280. Which of the following statements about neurotransmitters is CORRECT ?

A) Histamine receptor type 1 (HI) 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.

ANSWER : D

281. Dopamine is involved in the etiology of which of the following disorders ?

A) Schizophrenia
B) Disthymia .
C) Bipolar mood disorder
D) Panic disorder
E) Social phobia

ANSWER : A

Behavioral

Lecture 7

282. All of the followings statements about neuromodulators are correct, EXCEPT:

A) They modify the effect of neurotransmiters on receptors.
B) They fine tune the effect of neurotransmiters.
C) A neuromodulator is excreted in the extra-neuronal space.
D) Their effect is of short duration compared to neurotransmiters.
E) Some neuromodulators meet the criteria of being neurotransmiters.

ANSWER : D

283. Which of the following statements about neurotransmiters is CORRECT?

A) Tryptophan is the precursor of acetylcholine.
B) Acetylcholine effect is limited to muscarinic receptors.
C) GABA is an excitatory neurotransmiter.
D) Histamine receptor type 1 (H1) is involved in vascular tone.
E) Serotonin is involved in the etiology of depression

ANSWER : E

284. All of the following are neurotransmitters except:

A) Dopamine
B) Epinephrine
C) norepinephrine
D) Vasopressin
E) Serotonin

ANSWER : D

285. Which of the following statements about peptide neurotransmitters is CORRECT?

A) Peptide neurotransmitters are more expressed in men than in women.
B) A peptide is a short protein made of more than 100 amino-acids.
C) Endogenous opioids are peptide neurotransmitters.
D) About 30 peptide neurotransmitters only are found in the body.
E) Peptide neurotransmitter deficiency causes depression

ANSWER : C

Behavioral

Lecture 7

286. Which of the following statements about dopamine is CORRECT?

A) Nigro-striatal dopamine tract is involved in schizophrenia.
B) Dopamine precursor is the amino acid tryptophan.
C) Dopamine medullary tract is involved in milk production.
D) Mesolimbic tract is involved in parkinsonism.
E) There are four known dopamine tracts in the human brain.

ANSWER : E

287. Dopamine overactivity

ANSWER : Pschizophernia

288. neuroreceptor

ANSWER : specific for neurotransmitter

289. Antipsychotic

ANSWER : Dopamine antagonist

290. Not a neurotransmeter:

ANSWER : thyroxine

291. Tryptophan -

ANSWER : serotonin precursor

292. Not a neurotransmitter

ANSWER : angiotensin

Behavioral

Lecture 7

293. Not true:

ANSWER : Neurotrasmeter remain the same in the cleft with time

294. True about Neurotransmission receptors -

ANSWER : receive signals that elicit an electrical response

295. Wrong about neurotransmitters

ANSWER : deficiency of dopamine leads to psychosis

296. True about dopamine -

ANSWER : tyrosine is precursor

297. Not a neurotransmitter criterion -

ANSWER : once the transmitter is released into the cleft in stays there

298. True about neuromodulators -

ANSWER : some satisfy the criteria of neurotransmitters

Behavioral

Lecture 8

299. which of the followings represents the stage of memory in which environmental events are transcribed and stored in our brains

A) encoding stage
B) storage stage
C) retrieval stage
D) explicit memory
E) implicit memory

ANSWER : B

300. Executive functioning, planning, and working memories are functions of which of the following brain structures?

A) Amygdala
B) Hypothalamus
C) Hippocampus
D) Precentral gyrus
E) Prefrontal cortex

ANSWER : E

301. Which is true about amnestic disorders:

A) Memory impairment and disorientation
B) Memory impairment and visual hallucination
C) Memory impairment and confabulations

ANSWER : C

302. Which of the following unlikely to be a diagnostic feature of dementia

A)Impaired memory
B) Fluctuating level of Consciousness
C) Impaired digit span
D) Difficulty dressing
E)Difficulty in finding home

ANSWER : B

Behavioral

Lecture 8

303. the consolidation of memory begins at the age of 3 when the hippocampus gets mature (sht like) this represents which of the following perspectives:

ANSWER : the biological perspective

304. which of the following suggested that childhood amnesia is developmental issue due to major increase in our language ability after 3 yo

ANSWER : cognitive perspective

305. understanding crossing the road as the plan to reach a goal is a

ANSWER : cognitive perspective

306. Explaining childhood amnesia with immature hippocampus is

ANSWER : biological amnesia

Behavioral

Lecture 8

307. Long term memory

ANSWER : hypocampus

308. Short term memory

ANSWER : Frontal lobe

309. True about memory mechanism

ANSWER : encode, store, retrieve

310. which of the following is involved in working memory:

ANSWER : frontal cortex

311. not envolved in memory

ANSWER : basal ganglia or reticular formation

Embryology

Lecture 1

312. the posterior lobe of the pituitary gland developed from the:

A) prosencephalon.
B) diencephalon.
C) myelencephalon.
D) rhombencephalon.
E) neural crest.

ANSWER : B

313. Which match between the structure and part of the brain is false:

A) Thalamus- diencephalons
B) Cerebellum- rhombencephalons
C) Corpus callosum- telencephalon.
D) Pons- mesencephalon.
E) Tectum- mesencephalon

ANSWER : D

314. Which of the following structures is not derived from the alar plate:

A) Sensory horn of the spinal cord
B) Crus cerebri
C) Rhombic lips
D) Tectum
E) Sensory nuclei of the medulla oblongata

ANSWER : B

315. Damage of the L1 vertebra will destroy: *

A) L1 - L2 spinal segments.
B) L3 - L5 spinal segments.
C) Sacral spinal segments..
D) T1 0 - T11 spinal segments.
E) T1 0 - T12 spinal segments.

ANSWER : C

Embryology

Lecture 1

316. rhombencephalon gives rise to:

A) medulla
B) midbrain
C) thalamus
D) cerebral aqueduct
E) cerebral cortex

ANSWER : A

317. one of the following isn't a division of rhombencephalon:

A) medulla
B) midbrain
C) pons
D) cerebellum
E) 4th ventricle

ANSWER : B

318. which of the following is not a part of prosencephalon:

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

ANSWER : E

319. Which of the following does NOT originate from Neural crest cells?

A) Spinal & cranial nerve ganglia
B) Astrocytes
C) Meninges
D) Adrenal medulla
E) Sympathetic & parasympathetic systems

ANSWER : B

Embryology

Lecture 1

320. Which of the following occur due to failure of closure of anterior neuropore?

A) Exencephaly
B) Spina bifida cystica
C) External hydrocephalus
D) Spina bifida occulta
E) Internal hydrocephalus

ANSWER : A

Biochemistry

Lecture 1&2

321. You have recently heard that stem cells may have a potential in regenerating damaged lung tissue caused by SARS-CoV-2 in COVID-19. Before they can be used in clinic, the following has/have to be checked :

A) Carcinogenicity specifically if pluripotent stem cells are used
B) The mechanism by which stem cells repair the lost pulmonary function
C) All experimental stages starting with ex vivo experiments, animal stage, clinical trials of 3 stages
D) Food and drug administration approval in the country of practice .
E) All points have to be verified before stem cell can be used as a treatment for COVID19

ANSWER : E

322. Which stem cell is the most potent, genetically engineered and causes no immune reaction :

A) iPSCs
B) embryonic
C) adult neura

ANSWER : A

323. Which is the best source for adult stem cells :

A) periventricular area
B) dentate of hippocampus
C) spinal cord

ANSWER : A

324. 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

ANSWER : B

Biochemistry

Lecture 1&2

325. If you find out that a iPSC is working to produce dopamenirgic neurons that can be used in Parkinson's disease, you don't do this:

ANSWER : start clinical trials to use the technique in patients with Parkinson's disease

326. True about stem cells

ANSWER : embryonal stem cells have more potency that adult

327. 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)

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

328. Which of the following regarding stem cell biology is ture?

A) embryonic stem cells have a higher potency than adult stem cells

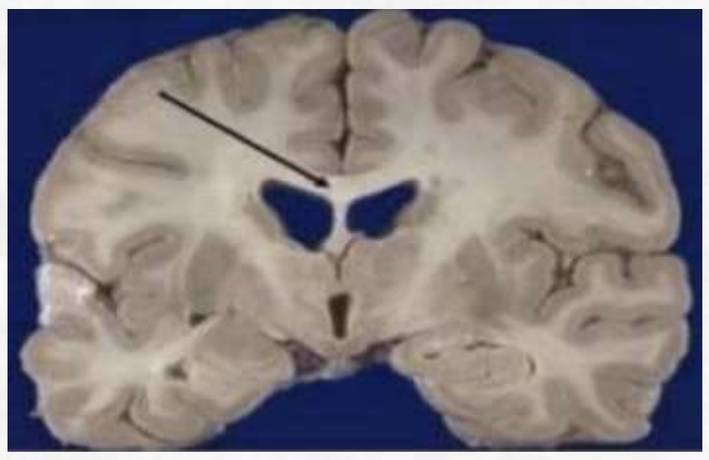
B) embryonic stem cells can give the rise of both embryonic and extraembryonic tissues

ANSWER : A

Lab

Anatomy

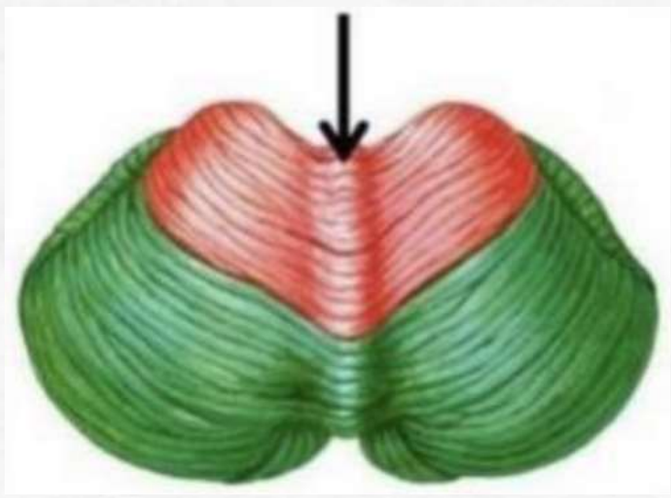
329. The pointed structure forms the roof of..... in this particular section :



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

ANSWER : C

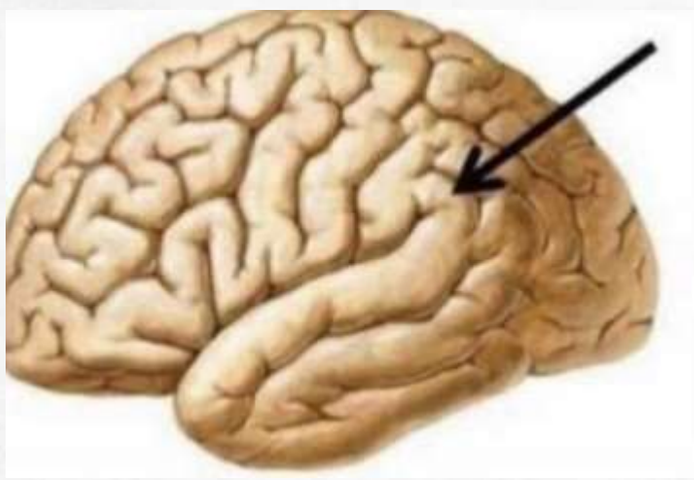
330. The pointed structure is connected with one of the following deep nuclei :



A) Fastigeal
B) Globose
C) Emboliform
D) Dentate
E) Floculonodular

ANSWER : A

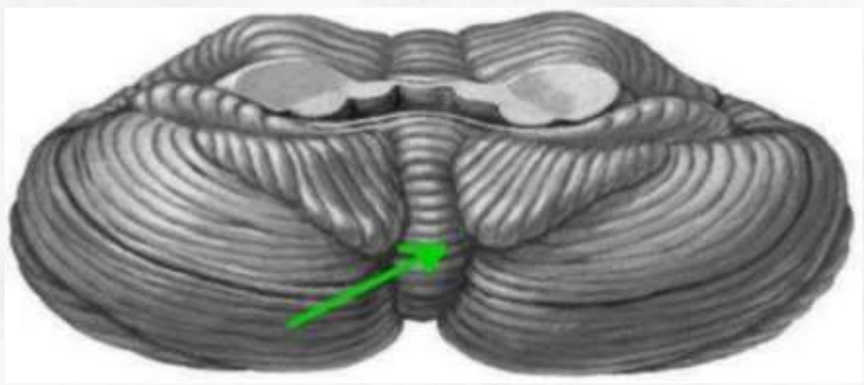
331. Which of the following statements is incorrect about the pointed structure:



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

ANSWER : D

332. Identify the pointed structure:

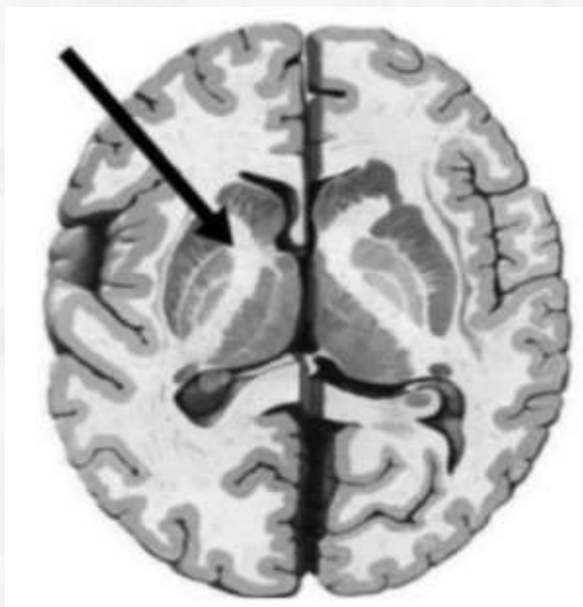


ANSWER : inferior vermis

Lab

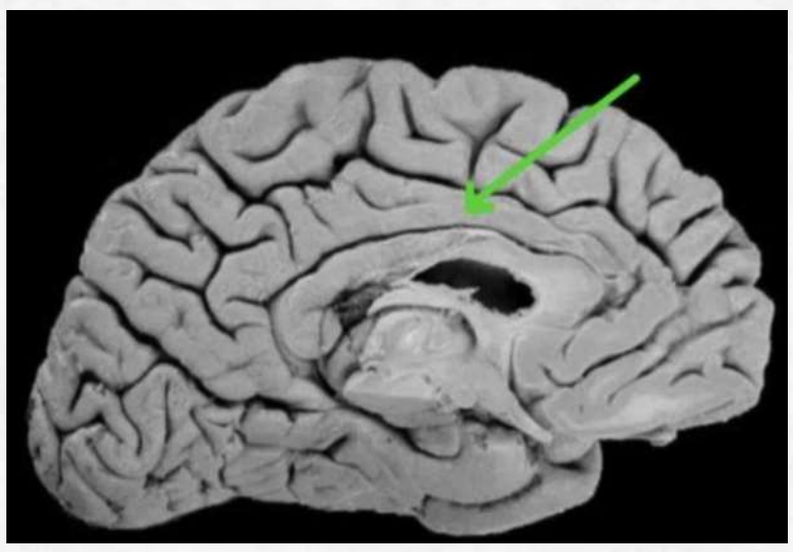
Anatomy

333. The pointed structure is situated between:



ANSWER : The Caudate and Lentiform nucleus

334. What is the function of the pointed gyrus:

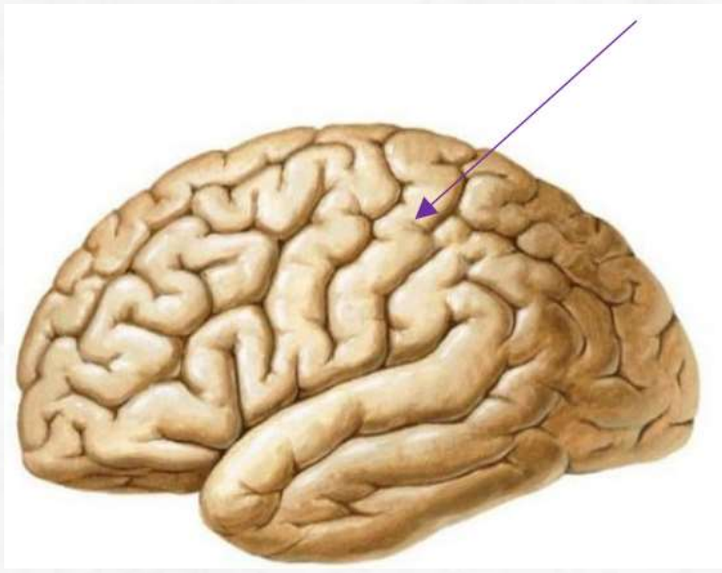


ANSWER : Behavior and emotions

335. Identify the pointed structure:

ANSWER : Fornix

336. The purple arrow refers to:



ANSWER : Postcentral gyrus

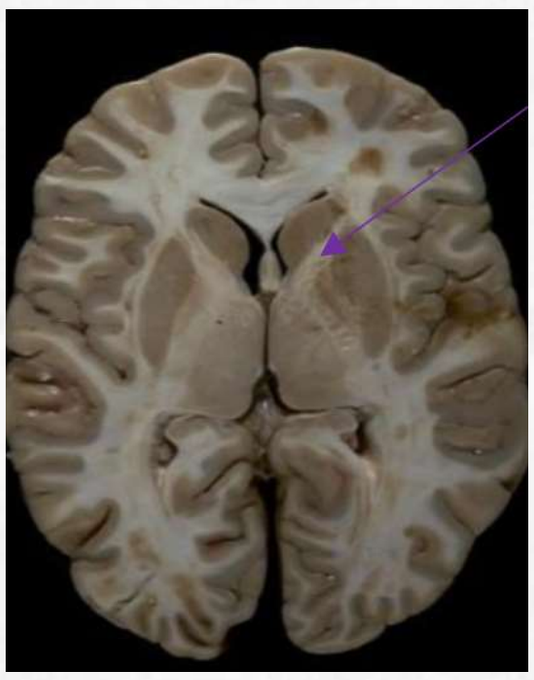
Lab

Anatomy

337. The red arrow refers to:

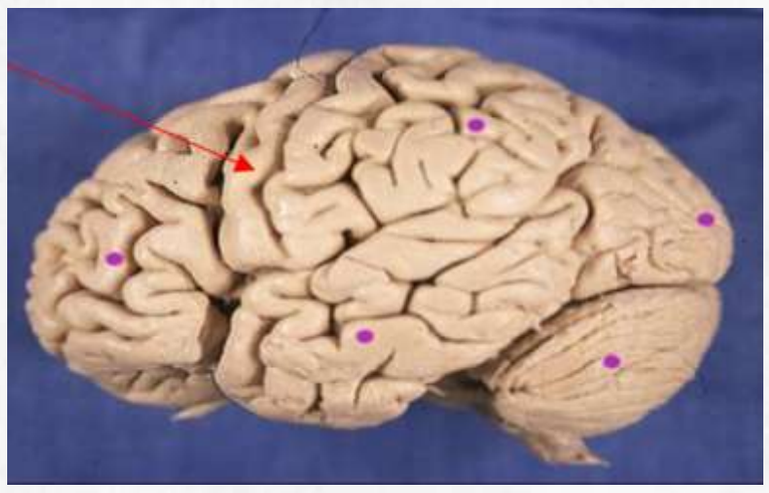
ANSWER : Calcarine sulcus

338. The purple arrow refers to:



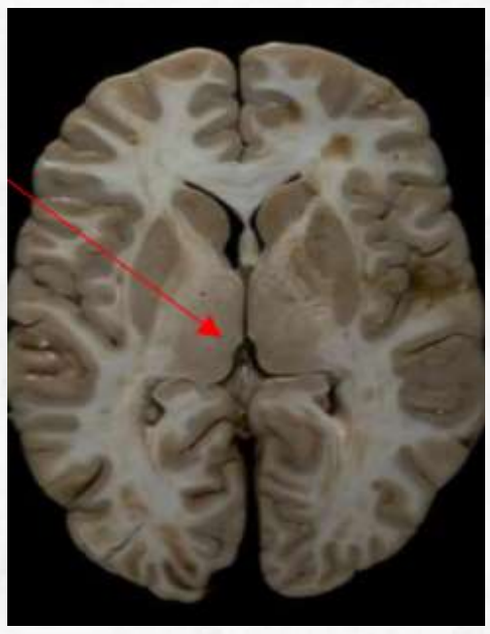
ANSWER : Anterior limb of internal capsule

339. Arrow pointing to:



ANSWER : Precentral gyrus

340. Arrow pointing to:



ANSWER : thalamus

Lab

Anatomy

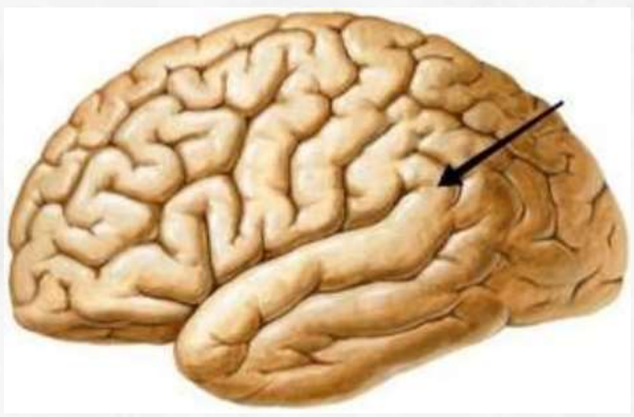
341. The pointed structure is related to which of the following:

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

ANSWER : E

342. Identify the pointed structure:

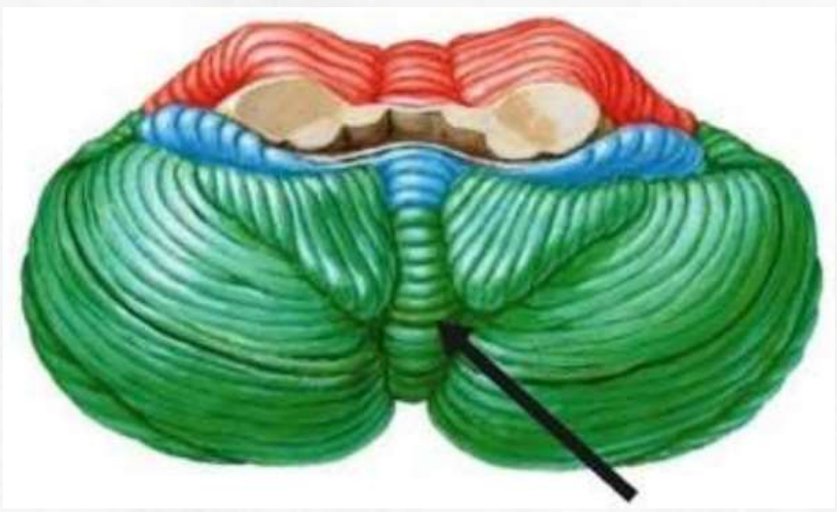
A) Angular gyrus
B) Supramarginal gyrus
C) Ascending gyrus



ANSWER : B

343. Identify the pointed structure:

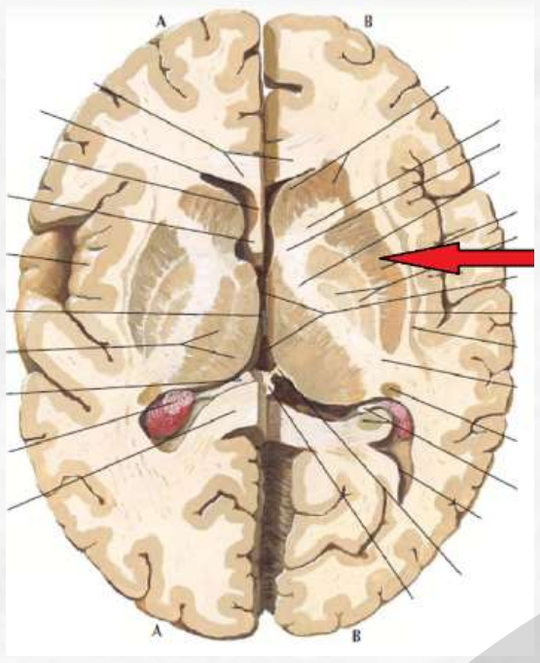
A) Vermis
B) Tonsil



ANSWER : A

344. The pointed structure is:

A) Caudate nucleus
B) Claustrum
C) Amygdaloid nucleus
D) Putamen nucleus
E) Globus pallidus



ANSWER : D

Lab

Physiology

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

ANSWER : B

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

A) Clonus
B) Spasticity
C) Negative Babinski sign
D) Hyperreflexia

ANSWER : C

347. 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

348. 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

Lab

Physiology

349. A test used to asses lower limb coordination :

A) Finger-to-nose test
B) Rapid-alternating movement test
C) knee-jerk reflex
D) Heel-to-shin test

ANSWER : D

350. All of the following are tested at inspection except :

A) Tremors
B) Rigidity
C) Fasciculations
D) Muscle wasting

ANSWER : B

351. 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

ANSWER : A

352. 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 .

ANSWER : E

اللهم سلم غزة وأهلها من كل سوء وشر,اللهم انصرهم وثبت أقدامهم وكن لهم ناصرًا ومعينًا

لا تحسَبِ المجدَ تمرًا أنتَ آكلُه
لن تبلغَ المجد حتى تلعَق الصَّبِر

لا تنسوني من صالح دعائكم

Malek Abu Rahma

The End
Good Luck シ