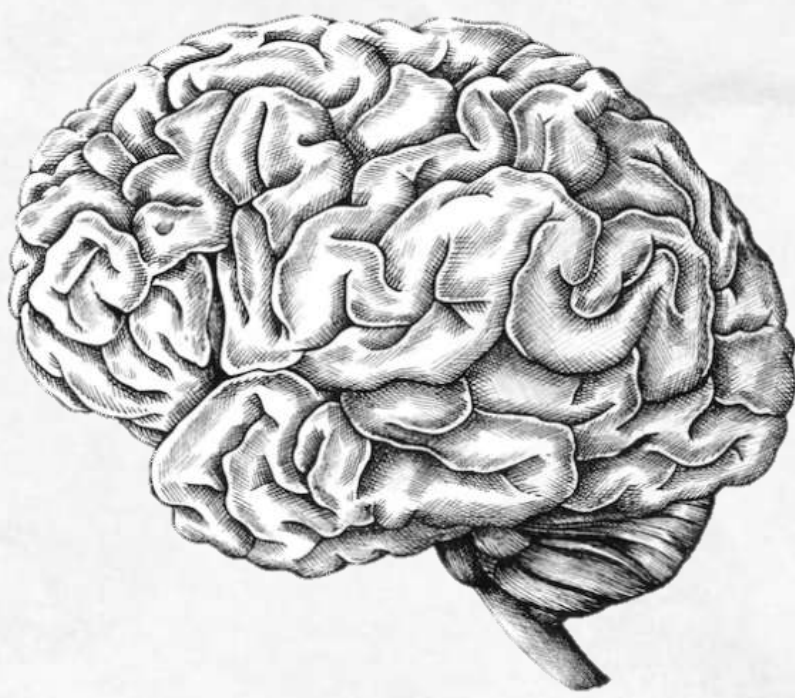


# **Center Nervous System**



**Past papers – Mid**

***Done by: Malek Abu Rahma***



# Pathology

## Lecture 1

1. A 54 year old man complained of severe headache and vomiting. imaging studies showed a large subdural hematoma. Two days later he had dilated pupil of the right eye with and his visual acuity decreased. Which of the following is incorrect about his condition?

- A) Can be complicated by haemorrhage in the pons.
- B) His eye symptoms could be related to ischemic injury to the visual cortex
- C) The medial aspect of his temporal lobe is compressed against the free margin of the tentorium
- D) The dilated pupil indicated damage of the left third cranial nerve
- E) He might develop fatal brain stem complications.

**ANSWER : D**

2. which of the following statements is incorrect regarding stroke?

- A) Occlusion of the middle cerebral artery is the most common cause of strokes.
- B) Ischemic stroke results in liquefactive necrosis
- C) Hemorrhagic strokes can result as a complication of hypertension
- D) TIA (transient Ischemic attacks) can precede full blown Ischemic stroke and hence should be treated promptly
- E) Thrombotic strokes are commoner than embolic strokes

**ANSWER : E**

3. which of the following is not a complication of transtentorial herniation?

- A) Duret hemorrhage
- B) Ischemia of the visual cortex
- C) Third cranial nerve compression
- D) Compression of the anterior cerebral artery
- E) Impaired ocular movement on the side of the Lesion

**ANSWER : D**

4. Choose the correct statement regarding red neurons:

- A) They indicate irreversible injury to neurons.
- B) Their nuclei are small and hyperchromatic.
- C) They are characterized by increased cytoplasmic endoplasmic reticulum.
- D) Their dendrites are the main component of gliosis
- E) They are seen in multiple sclerosis quiescent plaques.

**ANSWER : B**

# Pathology

## Lecture 1

5. The most common site of embolic obstruction:

- A) Middle cerebral artery
- B) Anterior cerebral artery
- C) Basilarartery

**ANSWER : A**

6. Which of the following is a fatal complication of transtentorial herniation?

- A) Durret haemorrhages
- B) Compressed anterior cerebral artery
- C) Compressed posterior cerebral artery
- D) Compression of the oculomotor nerve
- E) All of the above

**ANSWER : A**

7. All of the following are complications of trans-tentorial herniation except :

- A) Compression of the anterior cerebral artery.
- B) Impaired ocular movement
- C) linear bleedings in the midbrain.
- D) Ischemic injury to the visual cortex .
- E) Duret hemorrhage.

**ANSWER : A**

8. Wrong about brain herniation:

**ANSWER : Cingulate gyrus herniates in transtentorial herniations**



# Pathology

## Lecture 2

9. which of the following is not characteristic of epidural haemorrhage?

- A) Usually not associated with a fracture.
- B) Usually middle meningeal artery is torn.
- C) Blood accumulate under arterial pressure, and dissects the Dura.
- D) Biconvex shape on CT scan
- E) Brain parenchyma is compressed by the bleeding

**ANSWER : A**

10. The most common cause of brain hemorrhage is hypertention

- A) True
- B) False

**ANSWER : A**

11. The main cause of vessele weakness in hypertention is

- A) hyaline arteriolosclerosis
- B) edema
- C) berry aneurysms

**ANSWER : A**

12. in eipdural hematoma, usually the middle meningeal artery is torn.

- A) True
- B) False

**ANSWER : A**



# Pathology

## Lecture 2

13. A 67 year old lady complained of sudden weakness in her right arm followed by slurred speech and facial asymmetry. No hemorrhage was seen on a CT scan. The most common cause of her symptoms is:

- A) Thrombotic occlusion of the middle cerebral artery.
- B) Embolic occlusion of the middle cerebral artery
- C) embolic occlusion of the middle meningeal artery
- D) Thrombotic occlusion of the middle meningeal artery.
- E) Paradoxical embolus

**ANSWER : B**

14. A 66 year old lady suffered from severe headache. Her radiological imaging revealed an intracerebral hemorrhage. Her past medical history included hypertension and long standing bronchiectasis. Her brain hemorrhage is least likely caused by:

- A) Ruptured aneurysm
- B) Amyloid angiopathy
- C) Complication of hyaline arteriolosclerosis
- D) Autoimmune arteritis
- E) Primary brain hemorrhage

**ANSWER : D**

15. It affects both peripheral and central nerves

**ANSWER : Hypertension**

16. Wrong about Alzheimer's disease :

**ANSWER : Increased ICP**

# Pathology

## Lecture 2

**17. Choose the incorrect statement regarding epidural hematoma**

- A) The accumulated blood is arterial in origin.
- B) Blood accumulates between the dura and the skull
- C) Associated with skull fracture
- D) Bleeding appears crescentic in shape on CT scan.
- E) Caused by ruptured middle meningeal artery

**ANSWER : D**

**18. Which of the following is not a feature of epidural hematoma ?**

- A) Almost always due to trauma .
- B) Associated with skull fractures
- C) Hemorrhage caused by bridging veins tear .
- D) Brain parenchyma is compressed
- E) Appears as biconvex shape with CT scan

**ANSWER : C**

**19. Epidural hematoma results from injury to :**

- A) Middle cerebral artery
- B) Bridging veins
- C) Middle meningeal artery

**ANSWER : C**

**20. The source of blood in the subdural hematoma is :**

- A) Bridging veins
- B) Middle cerebral
- C) Middle meningeal
- D) Basilar
- E) Anterior cerebral

**ANSWER : A**



# Pathology

## Lecture 3

21. Which of the following combinations is correct?

- A) IL 2 receptor polymorphisms and better outcome of MS
- B) Central pontine myelinolysis and predominance of sensory symptoms.
- C) Acute disseminating encephalomyelitis and viral infection of oligodendrocytes.
- D) Neuromyelitis optica and cellular autoimmune myelin destruction affecting optic nerve and spinal cord
- E) Quiescent Plaques in MS and astrocyte proliferation.

**ANSWER : E**

22. Choose the incorrect combination:

- A) Guillain-Barre syndrome and viral infection.
- B) Multiple sclerosis and grey matter plaques
- C) Central pontine myelinolysis and rapid correction of hyponatremia
- D) Amyloid angiopathy and brain hemorrhage
- E) Neuromyelitis Optica and humoral immunity

**ANSWER : B**

23. which of the following is incorrect regarding Multiple Sclerosis?

- A) T-helper 17 plays a major role in its pathogenesis.
- B) Oligoclonal bands are used as a diagnostic tests
- C) secondary axonal damage can be permanent
- D) Quiescent plaques show inflammation and Myelin destruction
- E) The disease is commoner in female

**ANSWER : D**

24. Choose the INCORRECT statement regarding multiple sclerosis (MS):

- A) Axonal damage occurs late in the disease process.
- B) The disease is caused by loss of immune tolerance to a myelin protein
- C) Characterized by grey matter plaques separated in time and space.
- D) T helper cells play a major role in MS pathogenesis
- E) Patients have more IgG in their CSF than in the serum

**ANSWER : C**

# Pathology

## Lecture 3

25. The following combinations are true except : مكرر كثير

- A) Multiple scleross and oligoclonal bands.
- B) Central pontine myelinolysis and rapid correction of hyponatremia
- C) Quiescente plaques in multiple sclerosis and gliosis
- D) Neuromylitis optica and aquaporin 4 antibodies
- E) Multiple sclerosis and grey matter plaques

**ANSWER : E**

26. Wrong about MS

**ANSWER : It affects both peripheral and central nerves**



# Pathology

## Lecture 4

**27. which of the following statements is incorrect regarding peripheral neuropathies?**

- A) The most common cause of generalized peripheral neuropathy is diabetic neuropathy.
- B) Ischemia is thought to play a role in the pathogenesis of diabetic neuropathy
- C) Hypertrophic neuropathy reflects a chronic demyelinating disease and is characterized microscopically by onion bulb appearance
- D) Guillian barre syndrome is a neuropathy, characterized by an acute, asymmetric, descending muscle weakness
- E) Chronic inflammatory demyelinating polyneuropathy the occurs in association with autoimmune diseases and an AIDS patients

**ANSWER : D**

**28. All of the following statements are correct regarding diabetic neuropathy except:**

- A) Autonomic nerves are never affected
- B) Is the most common cause of peripheral neuropathy
- C) distal symmetric sensorimotor polyneuropathy is the most common form of diabetic neuropathy
- D) Can be mononeuropathic ( affecting one nerve)

**ANSWER : A**

**29. Which of the following is not a feature of Gullian Barrie syndrome?**

- A) Respiratory failure is a possible complication.
- B) Asymmetrical paralysis
- C) Acute onset after immunization or infection.
- D) Muscle weakness starts distally then progresses proximally.
- E) The neuropathy resolves within 4 weeks

**ANSWER : B**

**30. Choose the incorrect combination:**

- A) Acute disseminating encephalitis and full recovery in survivals.
- B) Central pontine myelinolysis and sudden change in osmotic pressure.
- C) Hypertrophic neuropathy and proliferation of Schwann cells.
- D) AGE-RAGE interaction and increased anticoagulation
- E) Diabetic neuropathy and sensory symptoms in the feet and hands

**ANSWER : D**



# Pathology

## Lecture 4

**31. Choose the incorrect combination :**

- A) Gemistocytes and repair.
- B) Red neurons and loss of Nissl substance.
- C) Rod cells and microglia
- D) Oligodendrocytes and peripheral nervous system myelin production
- E) Lewy bodies and Parkinson disease

**ANSWER : D**

**32. Symmetrical ascending motor weakness, areflexia, and mild-to- moderate sensory abnormalities are likely to occur following an infection with one of the following pathogens**

- A) Streptococcus pneumoniae
- B) Escherichia coli
- C) Clostridium botulinum.
- D) Campylobacter jejuni .
- E) Herpes simplex type-1 virus.

**ANSWER : D**

**33. A 33-year-old healthy man underwent a surgical operation, after which he started having symmetric muscle weakness in the legs followed by arm weakness. The symptoms resolved within 4 weeks. This patient most likely has :**

- A) Chronic inflammatory demyelinating polyneuropathy
- B) An attack of multiple sclerosis
- C) Central pontine myelinolysis.
- D) Guillian Barrie syndrome .
- E) Distal symmetric sensorimotor polyneuropathy

**ANSWER : D**



# Anatomy

## Lecture 1

**34. Which of the following means Collection of axon in the central nervous system:**

- A) Ganglion
- B) Nerve
- C) Nucleus
- D) soma
- E) Tract

**ANSWER : E**

**35. The outer layer of connctive tissue that surrounds the nerve is called:**

- A) Epineurium
- B) Epithelium
- C) Glial cells
- D) Endoneurium
- E) Perineurium

**ANSWER : A**

**36. The term "Mesencephalon" means:**

- A) Pons
- B) Cerebellum
- C) Midbrain
- D) Medulla
- E) Cerebrum

**ANSWER : C**

**37. The Dura matter extends from the level of the foramen magnum to the level of:**

- A) L2
- B) S1
- C) S2
- D) S3
- E) S4

**ANSWER : C**

# Anatomy

## Lecture 1

**38. Which of the following anchors spinal cord to coccyx:**

- A) Denticulate ligament
- B) filum terminale
- C) Cauda equina
- D) Conus medullaris
- E) None of the above

**ANSWER : B**

**39. Which following statements concerning the spinal cord is correct:**

- A) The spinal cord has a cervical enlargement for the brachial plexus.
- B) The spinal cord possesses spinal nerves that are attached to the cord by anterior and posterior rami.
- C) In the adult, the spinal cord usually ends inferiorly at the lower border of the fourth lumbar vertebra.
- D) The ligamentum denticulatum anchors the spinal cord to the pedicles of the vertebra along each side.
- E) The central canal does not communicate with the fourth ventricle of the brain

**ANSWER : A**

**40. Tracing an impulse from the brain to the effector organ, which of the following is NOT part of the motor pathway that will ultimately end in parasympathetic stimulation of the parotid gland:**

- A) Motor nuclei in the hypothalamus
- B) Autonomic nuclei in the lateral horn gray matter
- C) A synapse outside the CNS
- D) A preganglionic neuron whose cell body is within the CNS
- E) A cranial nerve

**ANSWER : B**

**41. In “fight or flight” conditions, the pupil of the eye dilates. The motor impulse that is initiated in the hypothalamus and ultimately causes this pupillary dilation can be best described by which of the following statements:**

- A) The impulse will pass through upper and lower motor neurons
- B) No ganglia are present along the course of the impulse
- C) The impulse will pass through a synapse in autonomic nuclei in the brain stem
- D) The impulse will pass through the ventral root of a spinal nerve
- E) The impulse is mainly relayed to neurons in lamina 2 of spinal cord gray

**ANSWER : D**



# Anatomy

## Lecture 1

**43. Regarding the spinal cord, which of the following is false:**

- A) Cell bodies of sympathetic neurons lie in the lateral horn of the spinal gray matter from T1-L2
- B) In the typical adult the terminal end of the spinal cord lies within the vertebral canal at the level of vertebrae L1/L2
- C) Denticulate ligaments are lateral extensions of the arachnoid mater
- D) There are 31 segments of the spinal cord
- E) Dorsal root ganglia are outside the spinal cord

**ANSWER : C**

**44. Choose the correct statement regarding the meninges and associated spaces:**

- A) The dura mater extends to as far as L2
- B) The pia mater gives rise to filum terminale externum
- C) A lumbar puncture needle penetrates all three meningeal layers
- D) Denticulate ligaments attach the outer two meningeal layers to the spinal cord
- E) CSF fills the space between arachnoid and dura mater

**ANSWER : D**

**45. Which of the following statements is true:**

- A) Cerebrospinal fluid (CSF) is found in the subdural space
- B) From superficial to deep, the order of the meningeal layers is: dura mater, pia mater and arachnoid mater
- C) The cauda equina is composed of ventral roots only
- D) Cerebrospinal fluid can be drawn from the sacral hiatus because the dural sac extends all the way down the coccyx
- E) Ventral and dorsal roots come together in the intervertebral foramina to form the spinal nerves which then subsequently branch into ventral and dorsal rami

**ANSWER : E**

**46. Select the incorrect statement:**

- A) When the fetus is three months old the length of the spinal cord is equal to the length of the vertebral canal
- B) At birth the spinal cord reaches the level of the third lumbar vertebra
- C) The dura mater ends in the second lumbar vertebra
- D) As development proceeds the vertebral column grows faster than the spinal cord
- E) The spinal pia mater extends as the filum terminale

**ANSWER : C**



# Anatomy

## Lecture 1

47. Which statement about the spinal cord is false:

- A) The cervical spinal cord has 8 segments
- B) The lumbosacral enlargement of the spinal cord is called the conus medullaris
- C) Cell bodies of somatic motor nerves are located in the ventral horn
- D) There are 5 pairs of sacral spinal nerves
- E) The filum terminale attaches the inferior end of the spinal cord to the coccyx

**ANSWER : B**

48. Select the wrong statement:

- A) The pia mater is closely adherent to the spinal cord
- B) The denticulate ligaments are thickening of the dura mater
- C) The arachnoid mater lines the inner surface of the dura mater
- D) The pia mater continues below as the film terminale
- E) The dura mater ends at the level of the second sacral vertebra

**ANSWER : B**

49. Choose the true statement:

- A) The arachnoid mater ends at S2
- B) The spinal cord has a cervical enlargement and a lumbosacral enlargement
- C) Cerebrospinal fluid (CSF) is found between the dura mater and arachnoid mater
- D) The bundle of spinal nerve roots in the subarachnoid space caudal to the termination of the spinal cord is called conus medullaris
- E) The spinal cord in the children ends at the level of L3

**ANSWER : A**

50. The dorsal root ganglion:

- A) Contains somatic motor cell bodies
- B) Contains parasympathetic cell bodies
- C) Is also called the lateral horn
- D) Contains visceral sensory and somatic sensory cell bodies
- E) Is attached to white and gray rami communicantes

**ANSWER : D**



# Anatomy

## Lecture 1

**51. Concerning the glial cells, choose the Incorrect statement**

- A) Oligodendrocytes are responsible for myelination of peripheral nerves
- B) Microglia are phagocytic cells of the Central Nervous System
- C) Ependymal cells are lining the ventricles of the brain
- D) Astrocytes are forming the Blood brain barrier
- E) Schwann cells are derived from the neural tube

**ANSWER : A**

**52. Which of the following glial cells is responsible for the myelination of peripheral nerves**

- A) oligodendrocytes
- B) Shwan
- C) astrocytes
- D) microglia
- E) ependymal

**ANSWER : B**

**53. The cluster of nerve cell bodies in central nervous system is called:**

- A) Tract
- B) Epineurium
- C) Nucleus
- D) Nerve
- E) Ganglion

**ANSWER : C**

**54. The Lateral horn of the spinal cord contains the cell bodies of:**

- A) Upper motor neurons
- B) Second order neurons
- C) Lower motor neurons
- D) Preganglionic neurons
- E) Postganglionic neurons

**ANSWER : D**

# Anatomy

## Lecture 1

**55. Which of the following structures represents the tapered inferior end of the spinal cord?**

- A) Filum terminale externum
- B) Conus medullaris
- C) Denticulate ligament
- D) Cauda equina
- E) Filum terminale internum

**ANSWER : B**

**56. Which of the following represents the best level to take lumbar puncture?**

- A) S3-S4
- B) L3-L4
- C) L1-L2
- D) T3-T4
- E) S1-S2

**ANSWER : B**

**57. The lower end of spinal cord called:**

- A) Conus medullaris
- B) Filum terminale
- C) Cauda equina
- D) Lumbar enlargement

**ANSWER : A**

**58. Arachnoid matter ends at the level of:**

- A) Between first and second lumbar vertebrae
- B) At the level of second sacral vertebra
- C) At the level of second lumbar vertebra
- D) At the level of first lumbar vertebra

**ANSWER : B**



# Anatomy

## Lecture 1

**59. Which of these is not a part of Rhombencephalon:**

- A) Cerebellum
- B) Pons
- C) Medulla oblongata
- D) Crus cerebri

**ANSWER : D**

**60. The cell body of the lower motor neuron is located in ?**

- A) Ventral horn of the spinal cord.
- B) Dorsal horn of the spinal cord.
- C) Lateral horn of the spinal cord.
- D) Thalamus.
- E) Pyramids.

**ANSWER : A**

# Anatomy

## Lecture 2

**61. Wrong about disk on L4 root:**

- A) It affects knee jerk
- B) Sensory is affected in anteromedial leg aspect
- C) It is the most common disk
- D) Extension of the knee is affected because quadriceps femoris

**ANSWER : C**

**62. A 40 years old worker suffered from lower back pain in the gluteal region, physical examination revealed a sensory defect in the anterolateral aspect of his leg. Also, the patient can't stand on his heels. The patient has a herniated disc in what region:**

**ANSWER : L5**

**63. Which of the following is the most common direction of Disc herniation:**

- A) Posteromedial direction
- B) Anteromedial direction
- C) Superiordirection
- D) Anterolateral direction
- E) Posterolateraldirection

**ANSWER : E**

**64. A patient presents with lower back pain that radiates to the back of his thigh. He is unable to stand on his heels and reports abnormal sensations across the anterolateral aspect of his leg. MRI scans confirm the diagnosis of a herniated disc. The most likely affected nerve root emerges from the vertebral column directly:**

- A) under vertebra L4
- B) above vertebra L4
- C) above vertebra L5
- D) above vertebra S1
- E) A and C

**ANSWER : D**



# Anatomy

## Lecture 2

65. If the knee jerk is lost, which of the following roots is most likely affected

- A) L3
- B) L4
- C) S1
- D) S2
- E) L5

**ANSWER : B**

66. Regarding disc herniation , all of the following are true EXCEPT:

- A) If the disc between L4 / L5 is herniated sensory changes will likely occur at the medial border of leg
- B) S1 spinal nerve is tested by asking the patient to stand on his tiptoes
- C) If the spinal nerve L4 is compressed by a herniated disc knee jerk will be lost
- D) If the spinal nerve S1 is compressed by a herniated disc gastrocnemius muscle will be weakened
- E) It may cause low back pain radiating to the gluteal region and the back of their thigh

**ANSWER : A**

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

- A) L5
- B) L4
- C) S1

**ANSWER : C**

68. Which of the following spinal nerves is tested by asking the patient to stand on his heels?

- A) L5
- B) S3
- C) S2
- D) S1
- E) L2

**ANSWER : A**

# Anatomy

## Lecture 3

69. Which of the following represents the modality of posterior column medial lemniscal pathway?

- A) Discriminative touch
- B) Temperature
- C) Crude touch
- D) Pain

**ANSWER : A**

70. Which of the following represents the modality of the lateral spinothalamic tract?

- A) Unconscious Proprioception
- B) Vision
- C) pain
- D) Discriminative Touch
- E) Conscious Proprioception

**ANSWER : C**

71. Wrong about lateral spinothalamic:

- A) It is early crossed by anterior white commissure
- B) Has wide spread cortical region
- C) Synapse in ventral posteromedial nucleus of the thalamus
- D) Related to pain and temperature

**ANSWER : C**

72. One of the following structures is important to recognize the position of the lower limbs:

- A) the medial lemniscus.
- B) the dorsal spinocerebellar tract.
- C) the spinothalamic tract.
- D) the ventral spinocerebellar tract.
- E) the gracile tract.

**ANSWER : E**



# Anatomy

## Lecture 3

**73. Which of the following represents the function of Posterior White Column-Medial Lemniscal Pathway:**

- A) Temperature
- B) Pain
- C) Conscious Proprioception
- D) Crude touch
- E) Unconscious Proprioception

**ANSWER : C**

**74. the dorsolateral tract of Lissauer carries:**

- A) pain and temperature.
- B) Simple touch.
- C) Discriminative touch.
- D) Conscious proprioception.
- E) Unconscious proprioception.

**ANSWER : A**

**75. Which of the following represents the location second order neuron of the lateral spinothalamic tract:**

- A) Thalamus
- B) Substantia gelatinosa of spinal cord
- C) Dorsal root ganglia
- D) Medulla
- E) Nucleus Gracilis

**ANSWER : B**

**76. the internal arcuate fibers arise from the:**

- A) gracile and cuneate nuclei.
- B) solitary nucleus.
- C) accessory cuneate nucleus.
- D) nucleus dorsalis of Clarke.
- E) spinal trigeminal nucleus.

**ANSWER : A**

# Anatomy

## Lecture 3

**77. 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**

**78. Lamina 3 and 4 of grey matter of spinal cord contains:**

- A) Intermedio-medial nucleus
- B) Intermedio-lateral nucleus
- C) Nucleus proprius
- D) Substantia gelatinosa
- E) Dorsal nucleus of Clark's

**ANSWER : C**

**79. A 29 year old patient was investigated at the neurology clinic, and it was noted that she lacks the 'two point discrimination' ability in her left hand.**

**What is the most likely cause of such a presentation:**

- A) Fasciculus cuneatus lesion on the right side of the spinal cord at the level of C2.
- B) Dorsal column lesion on the right side of the spinal cord at the level of C5.
- C) Medial lemniscus lesion in the right side of the pons.
- D) Fasciculus gracilis lesion in the right side of the medulla.
- E) Spinothalamic lesion on the right side of the spinal cord.

**ANSWER : C**

**80. During a neurological examination, a patient cannot tell with his eyes closed whether the neurologist flexed or extended his toe, there is likely damage to:**

- A) The anterolateral spinothalamic system pathway.
- B) The precentral gyrus of the cerebral cortex.
- C) The ventral (anterior) of the spinal cord.
- D) The dorsal column medial lemniscal pathway.
- E) Central canal of the spinal cord enlargement (syringomyelia)

**ANSWER : D**



# Anatomy

## Lecture 3

**81. All of the following statements apply to first order neurons that transmit discriminative tactile sensations from the arm EXCEPT:**

- A) In the spinal cord, they ascend in the dorsal white column
- B) They synapse with 2nd order neurons in nucleus cuneatus
- C) They form internal arcuate fibers as they decussate
- D) They are pseudounipolar neurons
- E) None of the above

**ANSWER : C**

**82. Regarding posterior white column medial lemniscal pathway, choose the WRONG statement:**

- A) Sensory fibers used in this system are faster than those used in the anteriolateral system (ALS)
- B) Fasciculus cuneatus transmits information coming from areas inferior to T6
- C) Lesion of this tract will result in loss of discriminative touch below the level of the lesion on the ipsilateral side of the body
- D) This system employs most receptors except free nerve endings
- E) Nucleus gracilis and nucleus cuneatus represent the location of the cell body of the second order neurons

**ANSWER : B**

**83. In the dorsal horn-medial lemniscal pathway, the cell bodies of the first, second, and third order neurons are located in, respectively:**

- A) Dorsal column, nucleus gracilis or cuneatus, thalamus
- B) Dorsal horn, hindbrain, forebrain
- C) Dorsal horn, medulla oblongata, prosencephalon
- D) Dorsal root ganglia, rhombencephalon, telencephalon
- E) Dorsal root ganglia, brain stem, diencephalon

**ANSWER : E**

**84. Consider the sensory pathways for the following two sensations:**

- (1) Discriminative touch sensations from the left foot
- (2) Heat sensations from the right leg

**Choose the correct statement:**

- A) Pathways for both sensations ascend in the right half of the spinal cord
- B) Both pathways include a synapse in nucleus gracilis
- C) The first sensation is transmitted to the right frontal lobe, while the second is transmitted to the left frontal lobe
- D) A right hemisection in the spinal cord at the level of the C4 segment would spare (preserve) both sensations
- E) Both pathways include a synapse in substantia gelatinosa

**ANSWER : D**

# Anatomy

## Lecture 3

85. Regarding the Lateral spinothalamic tract, choose the **WRONG** statement:

- A) The cell bodies of its second order neuron is located in the dorsal horn (substantia gelatinosa)
- B) The cell bodies of its third order neuron is located in the thalamus
- C) It is located in the lateral column of the spinal cord
- D) The cell bodies of its first order neuron is located in the dorsal root ganglia
- E) It transmits the sensation of fine touch

**ANSWER : E**

86. 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**



# Anatomy

## Lecture 3

87. regarding lateral spinothalamic tract. choose the wrong statement:

**ANSWER : lesion of the ascending tract lose the sensation ipsilateral.**

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

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

89. Right fasciculus cuneatus lesion will lead to

**ANSWER : Right upper limb will be affected**

90. An MRI. Showed lesion to Right gracilis, this patient is mostly like suffering of which of the following:

**ANSWER : LOSS OF VIBRATION FROM RIGHT LOWER LIMB**

# Anatomy

## Lecture 4

**91. Which of the following tracts provides afferent information for spinovisual reflexes:**

- A) Anterior spinothalamic
- B) Lateral spinothalamic
- C) Posterior spinocerebellar
- D) Anterior spinocerebellar
- E) Spinotectal

**ANSWER : E**

**92. The posterior horn of the spinal cord contains the following nuclei except:**

- A) Nucleus dorsalis
- B) Gracile
- C) Proprius
- D) Substantia gelatinosa
- E) Afferent visceral

**ANSWER : B**

**93. Second order neuron of Posterior spinocerebellar tract will enter cerebellum through:**

- A) Superior cerebellar peduncle
- B) Middle cerebellar peduncle
- C) Inferior cerebellar peduncle
- D) Crus cerebri
- E) None of the above

**ANSWER : C**

**94. Which of the following statements concerning the nucleus of termination of the tracts listed below is correct:**

- A) The posterior white column tracts terminate in the inferior colliculus.
- B) The spinoreticular tract terminates on the neurons of the hippocampus.
- C) The spinotectal tract terminates in the inferior colliculus.
- D) The anterior spinothalamic tract terminates in the ventral posterolateral nucleus of the thalamus.
- E) The anterior spinocerebellar tract terminates in the dentate nucleus of the cerebellum.

**ANSWER : D**



# Anatomy

## Lecture 4

**95. Which of the following statements concerning the white columns of the spinal cord is correct:**

- A) The posterior spinocerebellar tract is situated in the posterior white column.
- B) The anterior spinothalamic tract is found in the anterior white column.
- C) The lateral spinothalamic tract is found in the anterior white column.
- D) The fasciculus gracilis is found in the lateral white column.
- E) The rubrospinal tract is found in the anterior white column.

**ANSWER : B**

**96. the pathway the descends from brain stem to the spinal cord to excite pain inhibitory interneurons secretes:**

- A) endorphin
- B) enkephalin
- C) serotonin
- D) substance p

**ANSWER : C**

**97. One of the following statements relate sensations with the appropriate nervous pathways:**

- A) Two-point tactile discrimination travels in the lateral spinothalamic tract.
- B) Pain travels in the anterior spinothalamic tract.
- C) Unconscious muscle joint sense travels in the anterior spinocerebellar tract.
- D) Pressure travels in the posterior spinothalamic tract.
- E) Vibration travels in the posterior spinocerebellar tract

**ANSWER : C**

**98. Which of the following applies to both the anterolateral pathway and dorsal column-medial lemniscal pathway:**

- A) Decussation occurs before reaching the brain stem
- B) First synapse occurs in dorsal root ganglia
- C) Main sensory receptors are free nerve endings
- D) Contralateral loss of sensation occurs as a result of a hemisection above the level of the medulla
- E) Two of the above

**ANSWER : D**

# Anatomy

## Lecture 4

**99. Which brain structure plays a pivotal role in the descending control of pain?**

- A) Periaqueductal gray
- B) Corpus callosum
- C) Hippocampus
- D) Basal ganglia
- E) Substantia nigra

**ANSWER : A**

**100. Which nuclei are responsible for the transmission of visceral pain?**

- A) Intermedio-medial nucleus
- B) Dorsal nucleus of Clarke
- C) Raphe nucleus
- D) Locus coeruleus

**ANSWER : A**

**101. What distinguishes the anterior spinocerebellar tract from the posterior spinocerebellar tract?**

- A) The termination point in the cerebellum
- B) The type of sensory input transmitted
- C) The direction of axon crossing in the spinal cord
- D) The neurotransmitters involved in signal transmission
- E) The speed of transmission along the tract

**ANSWER : C**

**102. What is the mechanism underlying referred pain?**

- A) Convergence theory
- B) Divergence theory
- C) Gate control theory
- D) Opioid modulation
- E) Nociceptive inhibition

**ANSWER : A**



# Anatomy

## Lecture 4

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

**ANSWER : Clark's nucleus**

104. Which of the following tracts provides afferent information for spinovisual reflexes?

- A) Anterior spinocerebellar tract
- B) Spinotectal Tract
- C) Posterior spinocerebellar
- D) Anterior spinothalamic tract
- E) Posterior white column-medial lemniscal tract

**ANSWER : B**

105. Regarding Spinocerebellar tracts, choose the **WRONG** statement:

- A) 1st order neuron axons terminate at the nucleus dorsalis of dorsal gray horn
- B) The majority of fibers of the anterior spinocerebellar tract enter cerebellum through superior cerebellar peduncle
- C) Fibers of these tracts will finally reach the ipsilateral cerebellar cortex
- D) Fibers of the posterior spinocerebellar tract enter cerebellum through middle cerebellar peduncle
- E) Convey proprioceptive information from skeletal muscles and joints

**ANSWER : D**

106. What kind of sensation does the spinocerebellar tract transmit:

- A) Unconscious Proprioception
- B) Pain & Temperature Sensation
- C) General Sensation

**ANSWER : A**

# Anatomy

## Lecture 4

107. Crude touch is the modality of which tract:

- A) Anterior spinothalamic tract
- B) lateral spinothalamic tract
- C) posterior white column medial lemniscal pathway
- D) spinotectal tract

**ANSWER : A**



# Anatomy

## Lecture 5

**108. Wrong about Extrapyramidal tracts:**

- A) Medullary reticulospinal is in lateral white column
- B) Vestibulospinal tracts are uncrossed
- C) Rubrospinal tract isn't tonically active

**ANSWER : C**

**109. Select the incorrect statement:**

- A) The crossed pyramidal tract lies in the lateral white matter of the spinal cord
- B) The fibers of the uncrossed pyramidal tract lie in the anterior white matter of the spinal cord
- C) The cortico-spinal tract lies in the anterior limb of the internal capsule
- D) The uncrossed pyramidal tract constitutes about 10-20% of the fibers of the original pyramidal tract when it lies in the pyramid
- E) The pyramidal decussation lies in the lower part of the medulla

**ANSWER : C**

**110. Which of the following tracts has descending autonomic fibers providing a pathway by which the hypothalamus can control the sympathetic and sacral parasympathetic outflow:**

- A) Rubrospinal tracts
- B) Tectospinal tracts
- C) Vestibulospinal tracts
- D) Anterior corticospinal tract
- E) Reticulospinal tracts

**ANSWER : E**

**111. which of the following statements regarding the role of brainstem in control of motor function is true:**

- A) Pontine reticulospinal tract excites limb muscles.
- B) Pontine reticulospinal tract inhibits axial muscles.
- C) Vestibulospinal tract inhibits antigravity muscles.
- D) Medullary reticulospinal tract inhibits pontine reticulospinal tract.
- E) Pontine reticulospinal tract is located in the lateral column of the spinal cord.

**ANSWER : D**



# Anatomy

## Lecture 5

**112. Regarding the Lateral corticospinal tract, choose the WRONG statement:**

- A) This tract is a pyramidal tract
- B) In the midbrain they pass through the middle three fifths of the basis pedunculi of the midbrain
- C) This tract passes through the basilar part of pons
- D) Their function is subconscious regulation of balance and muscle tone
- E) This tract decussates to the opposite side in the lower part of medulla

**ANSWER : D**

**113. which of the following tracts controls reflex movement of the head in response to visual stimuli:**

- A) Vestibulospinal tract.
- B) Rubrospinal tract.
- C) Reticulospinal tract.
- D) Olivospinal tract.
- E) Tectospinal tract.

**ANSWER : E**

**114. The majority of fibers of the Lateral corticospinal tract synapse:**

- A) Thoracic region
- B) Cervical region
- C) Coccygeal region
- D) Lumbar region
- E) Sacral region

**ANSWER : B**

**115. Numbered below are various descending motor tracts:**

1. Lateral cortico spinal tract
2. Rubrospinal tract
3. Vestibulospinal tract
4. Medullary reticulospinal tract

**Choose the correct statement:**

- A) 1 and 2 cross the midline in the brain stem
- B) Cell bodies of tract 2 are located in the superior colliculus
- C) 3 and 4 both help maintain an upright position
- D) 3 and 4 descend in the anterior white column
- E) 1,2,3 and 4 all descend in the lateral white column

**ANSWER : A**



# Anatomy

## Lecture 5

**116. Regarding Anterior corticospinal tract, choose the WRONG statement:**

- A) It acts on the proximal (axial) muscles
- B) It passes through the basilar part of the pons
- C) In the midbrain they pass through the middle three fifths of the basis pedunculi of the midbrain
- D) 55% of its fibers synapse in the upper cervical region
- E) Its fibers will descend on the same (ipsilateral) side of the cord

**ANSWER : D**

**117. Choose the incorrect pair of (tract - level of decussation):**

- A) Lateral corticospinal tract - medulla
- B) Tract for pain sensation from the arm - spinal cord
- C) Rubrospinal tract - brain stem
- D) Pontine reticulospinal tract - spinal cord
- E) Posterior spinocerebellar tract - No decussation

**ANSWER : D**

**118. Regarding Extrapyrarnidal tracts, choose the WRONG statement:**

- A) Vestibulospinal tract facilitates the activity of antigravity muscles
- B) Pontine reticulospinal tract descend uncrossed into the spinal cord
- C) Rubrospinal tract is part of the lateral motor system
- D) Tectospinal tract descends in the anterior white column close to anterior median fissure
- E) Medullary reticulospinal tracts is tonically active

**ANSWER : E**

**119. Which of the following statements regarding the course taken by the tracts is**

**Correct:**

- A) The rubrospinal tract crosses the midline of the neuroaxis in the medulla oblongata.
- B) The tectospinal tract (most of the nerve fibers) crosses the midline in the posterior commissure.
- C) The vestibulospinal tract crosses the midline in the midbrain.
- D) The lateral corticospinal tract has crossed the midline in the medulla oblongata.
- E) The anterior corticospinal tract crosses the midline in the midbrain.

**ANSWER : D**



# Anatomy

## Lecture 5

**120. Regarding Rubrospinal tract, choose the WRONG statement:**

- A) Located in the anterior white column
- B) It is crossed
- C) Facilitate the activity of flexors
- D) Its fibers descend from red nucleus
- E) Inhibit the activity of extensors

**ANSWER : A**

**121. Regarding Extrapyramidal tracts, choose the WRONG statement:**

- A) Vestibulospinal tract facilitates the activity of antigravity muscles
- B) Rubrospinal tract mainly supply the distal extensors muscles with little effect on the proximal muscles
- C) Tectospinal tract is responsible for reflex movement of head & neck in response to visual stimuli
- D) Medullary reticulospinal tracts runs in the lateral white column
- E) Pontine reticulospinal tract is tonically active

**ANSWER : B**

**122. Regarding Pontine reticulospinal tract, choose the WRONG statement:**

- A) Its fibers descend from reticular formation of the pons
- B) It is tonically active
- C) It is normally under inhibition from cortex
- D) Located in the anterior white column
- E) It activate the axial and proximal limb flexors

**ANSWER : E**

**123. Regarding Corticospinal tracts choose the WRONG statement:**

- A) The vast majority of fibers will decussate to the opposite side in the lower part of medulla forming the lateral corticospinal tract
- B) In the midbrain they pass through the middle three fifths of the basis pedunculi of the midbrain
- C) It passes through the basilar part of the pons
- D) The anterior corticospinal tract acts on the proximal (axial) muscles
- E) 55% of lateral corticospinal tract fibers synapse in the thoracic region

**ANSWER : E**



# Anatomy

## Lecture 5

124. 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**

125. 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) It is located anterior to the primary motor area

**ANSWER : A**

126. regarding pyramidal tract choose the wrong statement:

**ANSWER : that control axial muscle crosses the midline in the lower part of the medulla oblongata**

127. Wrong about motor cortex:

**ANSWER : Connected to ipsilateral body**

# Anatomy

## Lecture 5

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

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

**ANSWER : B**

**129. What's the function of the Rubrospinal tract:**

- A) Inhibit the axial and proximal limb extensors
- B) Facilitate the activity of extensor muscles and inhibit the activity of flexor muscles
- C) Facilitate the activity of flexors and inhibit the activity of extensors
- D) Activate the axial and proximal limb extensors

**ANSWER : C**

**130. One of the following tracts has no crossing:**

- A) vestibulospinal
- B) rubrospinal
- C) tectospinal

**ANSWER : A**

**131. Regarding Corticospinal tracts, choose the WRONG statement:**

- A) It passes through the basilar part of the pons
- B) In the midbrain they pass through the middle three fifths of the basis pedunculi of the midbrain
- C) 55% of lateral corticospinal tract fibers synapse in the cervical region
- D) The vast majority of fibers will decussate to the opposite side in the lower part of pons forming the lateral corticospinal tract
- E) The anterior corticospinal tract acts on the proximal (axial) muscles

**ANSWER : D**



# Anatomy

## Lecture 5

132. The pyramidal tract is represented mainly in ?

- A) Area 6.
- B) Area 132.
- C) Area 4.
- D) Area 21.
- E) Area 43.

**ANSWER : C**

# Anatomy

## Lecture 6

**133. Wrong about central cord syndrome:**

- A) May be caused by hyperextension of the neck
- B) Occlusion in anterior spinal artery
- C) Lower limbs are more affected than upper
- D) Bilateral ALS+ some autonomic loss

**ANSWER : C**

**134. 13 years old visited neurologic Clinic his main complaint was Loss of temperature Sense, which Cause him many skin burns during his work in the university Cafeteria physical examination reveal Sensory defect on both upper limbs and shoulder no motor were detected This patient most likely suffered from:**

**ANSWER : syringomyelia.**

**135. A patient with a traumatic lesion of the left half of the spinal cord at the level of the eighth cervical segment might present with:**

- A) Loss of pain and temperature sensations on the left side below the level of the lesion
- B) Loss of position sense of the right leg
- C) Right hemiplegia
- D) Left positive Babinski sign
- E) Right-sided lower motor paralysis in the segment of the lesion and muscular atrophy

**ANSWER : D**

**136. Choose the wrong sentence about decerebrate and decorticate:**

- A) Both will cause extension of Lower limb
- B) Decerebrate will cause extension of upper limb
- C) Decerebrate have better prognosis
- D) Decorticate will cause flexion of upper limb

**ANSWER : C**



# Anatomy

## Lecture 6

**137. All of the following are associated with Brown-Sequard syndrome EXCEPT:**

- A) Ipsilateral loss of proprioception and sense of vibration below the level of the lesion.
- B) Ipsilateral spastic paralysis below the level of the lesion.
- C) Contralateral anesthesia.
- D) Ipsilateral loss of all touch sensations below the level of the lesion.
- E) Loss of all modalities of sensation and flaccid paralysis at the level of the lesion.

**ANSWER : D**

**138. Wrong about Brown sequard syndrome:**

- A) Causes loss of ALS above the lesion
- B) Causes loss of PCML IPSI lateral at the same level and below
- C) Affects motor(cause motorw eakness) IPSilateral

**ANSWER : A**

**139. A left hemisection at the level of the C4 spinal segment (Brown- Séquard syndrome) is associated with which of the following:**

- A) Loss of discriminative touch in the right lower limb
- B) Damage to the lateral corticospinal tract originating from the right frontal lobe
- C) Paralysis of facial muscles on the right side
- D) Loss of pain and temperature sensations from the left lower limb
- E) None of the above

**ANSWER : B**

**140. The initial resistance observed in the Clasp knife reaction is due to:**

- A) Exaggerated stretch reflex
- B) Lost stretch reflex
- C) ExaggeratedGolgitendonreflex
- D) Lost Golgi tendon reflex
- E) None of the above

**ANSWER : A**

# Anatomy

## Lecture 6

**141. All of the following are characteristics of lower motor neuron lesion EXCEPT:**

- A) Flaccid paralysis
- B) Hypotonia
- C) Clasp knife reaction
- D) Hyporeflexia
- E) Muscle atrophy

**ANSWER : C**

**142. All of the following are symptoms of upper motor neuron lesions EXCEPT:**

- A) Hyperreflexia
- B) Hypertonia
- C) Wasting/ Atrophy of muscle.
- D) Clasp knife reaction
- E) Clonus

**ANSWER : C**

**143. Regarding Syringomyelia affecting C4 to C5 levels, choose the WRONG statement:**

- A) If it extends to include one anterior horn, it will cause an ipsilateral weakness of the upper extremity
- B) Discriminative touch will be affected
- C) Symptoms of syringomyelia occur due to the damage of fibers crossing in the anterior white commissure in both directions
- D) It occurs due to cavitation of the central region of the spinal cord
- E) Loss of pain and thermal sensation will include both shoulders and extend down to nipple level

**ANSWER : B**

**144. Regarding Central Cord Syndrome, choose the WRONG statement:**

- A) Bladder dysfunction
- B) Can cause two point discrimination loss
- C) Can cause bilateral weakness of the extremities
- D) Occur due to occlusion of the anterior spinal artery
- E) May result from hyperextension of the neck

**ANSWER : B**



# Anatomy

## Lecture 6

145. The union of the two vertebral arteries forms

- A) Posterior spinal artery
- B) Basilar artery
- C) Anterior spinal artery
- D) Vertebral artery
- E) Posterior cerebral artery

**ANSWER : B**

146. All of the following are symptoms of upper motor neuron lesions EXCEPT

- A) Hyperreflexia
- B) Hypertonia
- C) Wasting
- D) Clasp knife reaction
- E) Clonus

**ANSWER : C**

147. which of the following is the characteristic of upper motor nerve lesion?

**ANSWER : clonus + hyperreflex**

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

**ANSWER : Caused by occlusion PICA**

# Anatomy

## Lecture 6

**149. Which of the following is characteristic of lower motor neuron lesion:**

- A) Hypertonia
- B) Hyprereflexia
- C) Fasciculations

**ANSWER : C**

**150. Lesion of lateral spinothalamic tract on the right side will cause:**

- A) Loss of pain sensation on the right side of the body below the level of the lesion
- B) Loss of discriminative touch sensation on the left side of the body below the level of the lesion
- C) Loss of discriminative touch sensation on the right side of the body below the level of the lesion
- D) Loss of pain sensation on the left side of the body below the level of the lesion

**ANSWER : D**

**151. Anterior spinal artery is branch from:**

- A) Basilar artery
- B) Posterior inferior cerebellar artery
- C) Anterior inferior cerebellar artery
- D) Vertebral artery

**ANSWER : D**

**152. With regards to the spinal cord blood supply, choose the correct statement:**

- A) The posterior spinal artery is singular.
- B) There are two anterior spinal arteries
- C) The posterior spinal artery arises from the posterior superior cerebellar
- D) The anterior spinal artery supplies the Medial Lemniscus
- E) The anterior spinal arises from the vertebral artery.

**ANSWER : E**



# Anatomy

## Lecture 6

**153. All of the following are characteristics of upper motor neuron lesion EXCEPT:**

- A) Hypertonia
- B) Hyperflexia
- C) Flaccidity
- D) Clasp knife reaction
- E) Positive Babinski sign

**ANSWER : C**

**154. When stimulating the sole, a positive Babinski sign means:**

- A) Rhythmic contractions relaxation of foot muscles
- B) Rigidity of the foot muscles
- C) The great toe is plantarly flexed and the other toes are fanning out
- D) The little toe is dorsally flexed, and the other toes are fanning out
- E) The great toe is dorsally flexed and the other toes are fanning out

**ANSWER : E**

**155. Regarding blood supply of the spinal cord, choose the WRONG statement:**

- A) Artery of Adamkiewicz reinforces the arterial supply to the lower portion of the spinal cord
- B) The artery that runs on the anterior median fissure is branch from basilar artery
- C) Hyperextension of the neck may cause bilateral weakness of the extremities
- D) Posterior spinal artery is branch from posterior inferior cerebellar artery
- E) Anterior spinal artery supplies most of the gray matter of spinal cord

**ANSWER : B**

**156. Which of the following enters the foramen magnum ?**

- A) Internal carotid artery.
- B) Vertebral artery.
- C) Basilar artery.
- D) Anterior inferior cerebellar artery.
- E) Posterior inferior cerebellar artery.

**ANSWER : B**

# Anatomy

## Lecture 6

**157. the wrong statement regarding the blood supply is ?**

- A) Anterior spinal artery is branch from basilar artery.
- B) The posterior spinal artery is dual.
- C) There is one anterior spinal arteries.
- D) The posterior spinal artery arises from PICA.
- E) The anterior spinal artery supplies the ventral horn.

**ANSWER : A**

**158. All of the following regarding UMNL signs are correct EXCEPT:**

- A) Three characteristic features that occur in an UMNL are due to the same mechanism.
- B) Positive Babinski's sign is physiological in a one year old child.
- C) Absence of certain flexion reflexes.
- D) Hyperreflexia with or without positive Babinski's sign is an indicator of UMNL.
- E) Clonus is associated with increased gamma discharge

**ANSWER : D**

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

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



# Anatomy

## Lecture 7

**160. All the following structures Lies beneath the floor of 4th ventricle EXCEPT?**

- A) Dorsal nucleus of vagus.
- B) Hypoglossal nucleus.
- C) Nucleus ambiguous.
- D) Vestibular nuclei (medial and inferior).
- E) Solitary nucleus.

**ANSWER : C**

**161. Which of the following cavities can be seen at the level of pyramidal decussation?**

- A) Cerebral aqueduct.
- B) Third ventricle.
- C) Upper part of the fourth ventricle.
- D) Central canal.
- E) Lower part of the fourth ventricle.

**ANSWER : D**

**162. Which of the following structures is composed of ascending fibers from the vestibular nuclei to the motor nuclei of the third, fourth and sixth cranial nerves?**

- A) Medial lemniscus.
- B) Fasciculus gracilis.
- C) Lateral lemniscus.
- D) Medial longitudinal fasciculus
- E) Fasciculus cuneatus.

**ANSWER : D**

**163. The motor nucleus of cranial nerves IX, X, XI is called ?**

- A) Ambiguous.
- B) Red nucleus.
- C) Substantia nigra.
- D) Medial longitudinal fasciculus.
- E) Lateral lemniscus.

**ANSWER : A**

# Anatomy

## Lecture 7

**164. Which of the following structures receives taste fibers ?**

- A) Hypoglossal nucleus.
- B) Vestibular nuclei (medial and inferior).
- C) Nucleus ambiguus.
- D) Dorsal nucleus of vagus.
- E) Solitary nucleus (nucleus of tractus solitaries).

**ANSWER : E**

**165. Which of the following cavities can be seen at the level of medial lemniscus decussation?**

- A) Cerebral aqueduct.
- B) Third ventricle.
- C) Upper part of the fourth ventricle.
- D) Central canal.
- E) Lower part of the fourth ventricle.

**ANSWER : D**

**166. The most medial and anterior structure of medulla is ?**

- A) Fasciculus gracilis.
- B) Nucleus gracilis.
- C) Spinal nucleus of the trigeminal nerve.
- D) Pyramids.
- E) Anterolateral system.

**ANSWER : D**

**167. Regarding a cross section through the Level of olives, choose the WRONG statement:**

- A) Motor nucleus of hypoglossal nerve is located just underneath the floor of fourth ventricle.
- B) Tectospinal tract is located posterior to the medial lemniscus
- C) Pyramids occupy the anteriomedial aspect of the section
- D) Nucleus ambiguus gives rise to the motor fibers of the glossopharyngeal, Vagus, and hypoglossal nerves.
- E) Inferior cerebellar peduncle occupies the posterolateral corner of the section

**ANSWER : D**



# Anatomy

## Lecture 7

**168. Concerning the medulla oblongata:**

- A) The abducent nerve emerges between its pyramid and pons
- B) Rootlets of hypoglossal nerve emerges between the pyramid and olive
- C) Damage to the anterior spinal artery leads to the medial medullary syndrome
- D) Its closed part is at its lower end
- E) All of the above

**ANSWER : E**

**169. The following nuclei are contained in the medulla oblongata except:**

- A) Spinal nucleus of the trigeminal nerve )
- B) Dorsal vagus
- C) Inferior olivary
- D) Substantia gelatinosa
- E) Hypoglossal

**ANSWER : D**

**170. regarding cross section of the level of olive ,chose the wrong statement:**

- A) Inferior cerebellar peduncle occupies the posteriolateral corner of the section .
- B) Sensory nucleus that receives taste from the posterior 1/3 of the tongue located in the anterior of the tectospinal tract .

**ANSWER : B**

# Anatomy

## Lecture 8

**171. Which of the following cranial nerves emerges from the posterior aspect of the brain stem?**

- A) Vestibulocochlear.
- B) Facial.
- C) Trochlear.
- D) Abducent.
- E) Trigeminal

**ANSWER : C**

**172. Which of the following represents the cavity found in a cross section of Midbrain?**

- A) Cerebral aqueduct.
- B) Cerebral canal.
- C) Fourth ventricle.
- D) Foramen of Mono.
- E) Foramen of Luschka.

**ANSWER : A**

**173. Regarding the nuclei of the brainstem, choose the WRONG statement ?**

- A) Spinal nucleus of trigeminal is located in the posteromedial aspect of inferior cerebellar peduncle.
- B) Mesencephalic nucleus of trigeminal is located lateral to cerebral aqueduct.
- C) Main Sensory nucleus of trigeminal nerve is located lateral to motor nucleus of trigeminal nerve.
- D) Nucleus ambiguus is located deep in the reticular formation of medulla oblongata.
- E) The dorsal vagal nucleus is parasympathetic nucleus.

**ANSWER : A**

**174. One of the following nerves doesn't exit through the pontomedullary junction ?**

- A) Sensory of facial nerve.
- B) Motor of facial nerve.
- C) Abducent nerve.
- D) vestibulocochlear.
- E) Trigeminal.

**ANSWER : E**



# Anatomy

## Lecture 8

**175. what separates tegmentum from the basal part in pons ?**

- A) Corticopontine fibers.
- B) Trapezoid body.
- C) Motor nucleus of facial nerve.
- D) Medial lemniscus.
- E) Pontine nuclei.

**ANSWER : B**

**176. Which of the following structures cannot be seen in pons ?**

- A) Spinal nucleus of trigeminal.
- B) Sensory of trigeminal.
- C) Motor nucleus of vagus.
- D) Superior cerebellar peduncle.
- E) Medial lemniscus.

**ANSWER : C**

**177. Which nerve exits from the pontomedullary junction?**

- A) Oculomotor N.
- B) Optic N.
- C) Abducent N.
- D) Trigeminal N.

**ANSWER : C**

**178. Which nerve exits from the back of midbrain?**

- A) Nerve IV
- B) Nerve V
- C) Nerve II
- D) Nerve IX

**ANSWER : A**

# Anatomy

## Lecture 8

**179. Which of the following can be found in the posterior surface of pons:**

- A) Pyramidal eminence
- B) Middle cerebellar peduncle
- C) Facial colliculus
- D) Superior colliculi

**ANSWER : C**

**180. Which of the following connects inferior Colliculus with medial geniculate body?**

- A) Medial longitudinal fasciculus
- B) Lateral lemniscus
- C) Medial lemniscus
- D) Inferior brachium
- E) Superior brachium

**ANSWER : D**

**181. Which one of the following cranial nerve nuclei is not present in the pons?**

- A) Main sensory nucleus of trigeminal
- B) Motor nucleus of trigeminal
- C) Superior salivary nucleus of facial
- D) Nucleus ambiguus
- E) Abducent motor nucleus

**ANSWER : D**

**182. Regarding Internal structure of pons, which of the following is located anterior to trapezoid body?**

- A) Tectum
- B) facial colliculus
- C) Tapetum
- D) Tegmentum
- E) Basal part

**ANSWER : E**



# Anatomy

## Lecture 8

**183. Which of the following is considered as part of the acoustic pathway?**

- A) Facial nucleus
- B) Trigeminal lemniscus
- C) Spinal lemniscus
- D) Lateral lemniscus
- E) Medial lemniscus

**ANSWER : D**

**184. Which of the following represents the location of the Facial nucleus?**

- A) Lateral to the spinal nucleus
- B) Posterior to the lateral part of the medial lemniscus
- C) Lateral to the abducent nucleus
- D) Beneath the floor of the fourth ventricle

**ANSWER : B**

**185. Contain descending tracts from cerebral cortex**

**ANSWER : crus cerebri**

**186. Wrong about pons at level of facial colliculus:**

- A) Vestibular nucleus is medial to abducent nucleus at this level
- B) Facial nucleus is posterior to the lateral part of the medial lemniscus
- C) Spinal nucleus of trigeminal is anteromedial to Inferior Cerebellar Peduncle

**ANSWER : A**

# Anatomy

## Lecture 8

**187. Choose the wrong about parasympathetic:**

- A) Parotid is supplied by nerve from Superior salivary
- B) Lacrimal is supplied from nerve from superior lacrimal nucleus

**ANSWER : A**

**188. Which of the following brain stem nuclei supplies parasympathetic stimulation to the submandibular gland:**

- A) Solitary nucleus
- B) Edinger-Westphal nucleus
- C) Superior salivatory nucleus
- D) Dorsal vagal nucleus
- E) Inferior salivatory nucleus

**ANSWER : C**

**189. Regarding a transverse section through the caudal part of pons , all of the following are true EXCEPT:**

- A) Medial longitudinal fasciculus is located beneath the floor of the fourth ventricle
- B) Basal part of pons is located anterior to trapezoid body
- C) Facial nucleus is located anterior to the lateral part of the medial lemniscus
- D) Spinal nucleus of trigeminal is located on the anteromedial aspect of inferior cerebellar peduncle
- E) Medial vestibular nucleus is located lateral to the abducent nucleus

**ANSWER : C**

**190. The superior brachium connects the superior colliculus with the:**

- A) Hypothalamus
- B) Uncus
- C) Mamillary body
- D) Lateral geniculate body

**ANSWER : D**



# Anatomy

## Lecture 8

**191. most of the fibers of the lateral lemniscus arise from the:**

- A) cochlear nuclei.
- B) solitary nucleus.
- C) vestibular nuclei.
- D) spinal trigeminal nucleus.
- E) inferior colliculus

**ANSWER : A**

**192. Lesion in the tegmentum of the pons may damage the following, EXCEPT the:**

- A) corticopontine fibers:
- B) Spinal lemniscus.
- C) Trigeminal lemniscus.
- D) Medial lemniscus.
- E) Facial motor nucleus

**ANSWER : A**

**193. regarding transverse section though caudal part at the pones ,which of the following can be seen:**

**ANSWER : sensory nucleus that receive pain and temperature from the face .**

# Anatomy

## Lecture 9

**194. One of the following can be found inside the midbrain ?**

- A) Central canal.
- B) Trapezoid body.
- C) Substantia nigra.
- D) Motor nucleus of facial nerve.
- E) Optic chiasm.

**ANSWER : C**

**195. The parasympathetic nucleus of oculomotor nerve is located in ?**

- A) Pretectal nucleus.
- B) Superior colliculus.
- C) Inferior colliculus.
- D) Edinger Westphal nucleus.
- E) Nucleus ambiguus.

**ANSWER : D**

**196. All of the following is located posterior to substantia nigra except ?**

- A) Decussation of rubrospinal.
- B) Frontopontine fibers.
- C) Red nucleus.
- D) Nucleus of oculomotor.
- E) Reticular formation.

**ANSWER : B**

**197. Which of the following represents the location Corticospinal fibers in cross section of a midbrain?**

- A) Substantia nigra
- B) Red nucleus
- C) Tectum
- D) Crus cerebri
- E) Tegmentum

**ANSWER : D**



# Anatomy

## Lecture 9

198. Which of the following structures lies de the midbrain?

- A) in Optic chiasma
- B) Fascial colliculus
- C) Substantia nigra
- D) Basilar groove
- E) Pyramidal eminence

**ANSWER : C**

199. Which one of the following cranial nerves is arising from interpeduncular fossa?

- A) Optic
- B) Olfactory
- C) Trigeminal
- D) Oculomotor
- E) Trochlear

**ANSWER : D**

200. Regarding a transverse section through the superior colliculus of midbrain, all of the following are true EXCEPT:

- A) Mesencephalic nucleus of trigeminal nerve is located lateral to cerebral aqueduct.
- B) Medial longitudinal fasciculus is located anteriolateral to the motor nucleus of oculomotor nerve.
- C) Lateral lemniscus is located posterior to substantia nigra.
- D) Red nucleus is situated between cerebral aqueduct and substantia nigra.
- E) Frontopontine fibers is located anterior to substantia nigra.

**ANSWER : C**

201. Regarding a transverse section through the inferior colliculus of midbrain, choose the WRONG statement:

- A) Medial and spinal lemnisci are located posterior to substantia nigra
- B) Medial longitudinal fasciculus is located anteriolateral to the motor nucleus of trochlear nerve.
- C) Tempopontine fibers are located anterior to substantia nigra
- D) Decussation of inferior cerebellar peduncles is anterior to the cerebral aqueduct
- E) Mesencephalic nucleus of trigeminal nerve is located lateral to cerebral aqueduct

**ANSWER : D**



# Anatomy

## Lecture 9

**202. Which of the following diseases is caused by the death of neurons in the substantia nigra?**

- A) Alzheimer's disease
- B) Schizophrenia
- C) Parkinson disease
- D) Multiple sclerosis
- E) Huntington disease

**ANSWER : C**

**203. Which of the following modalities are transmitted to the spinal nucleus of trigeminal nerve?**

- A) Conscious Proprioception
- B) Unconscious Proprioception
- C) Pain and temperature
- D) Two point discrimination
- E) None of the above

**ANSWER : C**

**204. Anterolateral aspect Regarding a transverse section through the inferior colliculus of midbrain, choose the WRONG statement:**

- A) Temporo-pontine fibers are located anterior to substantia nigra
- B) Mesencephalic nucleus of trigeminal nerve is located lateral to cerebral aqueduct
- C) Medial longitudinal fasciculus is located posterolateral to the motor nucleus of trochlear nerve
- D) Decussation of superior cerebellar peduncles is anterior to the cerebral aqueduct
- E) Medial Cerebellar peduncle and spinal lemnisci are located posterior to substantia nigra

**ANSWER : C**

**205. Choose the incorrect pair of (neuron - location of cell body):**

- A) Upper motor neuron of corticospinal tract - frontal lobe
- B) Preganglionic parasympathetic neuron in oculomotor nerve - hindbrain
- C) 3rd order neuron in discriminative touch pathway - thalamus
- D) 1st order sensory neuron - dorsal root ganglia
- E) 2nd order neuron in the dorsal column pathway - medulla oblongata

**ANSWER : B**



# Anatomy

## Lecture 9

**206. Which of the following statement is (are) correct concerning the third cranial nerve nuclei:**

- A) The oculomotor nucleus is situated in the central gray matter
- B) The parasympathetic part of the oculomotor nucleus is called the Edinger Westphal nucleus.
- C) The fibers from the oculomotor nucleus pass through the red nucleus
- D) The oculomotor nucleus lies just posterior to the medial longitudinal fasciculus
- E) All of the above

**ANSWER : E**

**207. Which of the following statement is incorrect concerning the internal structure of the midbrain:**

- A) The tectum is the part posterior to the cerebral aqueduct
- B) The crus cerebri on each side lies anterior to the substantia nigra
- C) The tegmentum lies posterior to the substantia nigra
- D) The central gray matter encircles the red nuclei

**ANSWER : E**

**208. Concerning the mid brain:**

- A) It lies below the diencephalon
- B) It occupies the notch (hiatus) of the tentorium cerebelli
- C) It has roots of nerves concerned with innervation of the eye muscles
- D) All of the above is correct
- E) None of the above is correct

**ANSWER : D**

**209. Wrong about trigeminal nerve:**

**ANSWER : :Innervates stapedius muscle**

# Anatomy

## Lecture 9

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

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

**ANSWER : B**



# Anatomy

## Lecture 10 (Blood supply of brain stem and lesions)

211. A 60 years old man with a history of hypertension and smoking brought to neurology clinic. The neurologic examination reveals hemiparesis and loss of proprioception and vibratory sense on the right side of the body and a deviation of the tongue to the left side when it is protruded; This patient is likely suffering from:

- A) Benedikt Syndrome
- B) Medial medullary syndrome
- C) Millard-Gubler syndrome
- D) Lateral medullary syndrome
- E) Claude syndrome

ANSWER : B

212. All of the following are symptoms of Wallenberg syndrome EXCEPT?

- A) Contralateral loss of pain and temperature sensation from the body
- B) Ipsilateral loss of pain and temperature sensation from the face
- C) Vertigo and nystagmus
- D) Hoarseness and dysphagia
- E) Loss of taste from the contralateral half of the tongue

ANSWER : E

213. Anterior inferior cerebellar artery is branch from:

- A) Basilar artery
- B) Anterior spinal artery
- C) Posterior cerebral artery
- D) Vertebral artery
- E) Posterior spinal artery

ANSWER : A

214. The union of the two vertebral arteries forms:

- A) Posterior spinal artery
- B) Basilar artery
- C) Anterior spinal artery
- D) Vertebral artery
- E) Posterior cerebral artery

ANSWER : B

# Anatomy

## Lecture 10

**215. 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**

**216. Brain lesion causes loss of pain and temperature in left side of the body and right side of face with hoarseness, name the region of the lesion:**

- A) Medial medullary lesion
- B) lateral medullary lesion
- C) Millard Gubler
- D) Benedikt syndrome
- E) Weber syndrome

**ANSWER : B**

**217. Tonsillar herniation cause all of the following except:**

- A) Hypertension
- b) increase in intracranial pressure
- C) Hyperventilation
- D) Dilation of pupil
- E) Decreasing level of consciousness

**ANSWER : D**

**218. Regarding Foville syndrome, Choose the wrong statement:**

- A) It causes Ipsilateral dilatation of pupil
- B) It causes contralateral hemiparesis
- C) It occurs due to occlusion of the paramedial branches of basilar artery
- D) It causes variable contralateral sensory loss
- E) It causes ipsilateral abducens nerve paralysis

**ANSWER : A**



# Anatomy

## Lecture 10

**219. All of the following are symptoms of Wallenberg syndrome EXCEPT:**

- A) Contralateral loss of pain and temperature sensation from the body
- B) Ipsilateral loss of pain and temperature sensation from the face
- C) Vertigo and nystagmus
- D) Hoarseness and dysphagia
- E) Loss of taste from the contralateral half of the tongue

**ANSWER : E**

**220. Anterior inferior cerebellar artery is branch from:**

- A) Basilar artery
- B) Anterior spinal artery
- C) Posterior cerebral artery
- D) Vertebral artery
- E) Posterior spinal artery

**ANSWER : A**

**221. Occlusion of Anterior spinal artery may cause:**

- A) Foville syndrome
- B) Benedikt syndrome
- C) Millard-Gubler syndrome
- D) Wallenberg syndrome
- E) Dejerine syndrome

**ANSWER : E**

**222. All of the following are symptoms of the Syndrome of the midpontine base EXCEPT:**

- A) Ataxia
- B) Ipsilateral paralysis of the masticatory muscles
- C) Ipsilateral loss of pain and thermal sense
- D) Contralateral dilatation of pupil
- E) Contralateral hemiparesis

**ANSWER : D**

# Anatomy

## Lecture 10

223. A 65 years old man with a history of hypertension and smoking brought to neurology clinic. The neurologic examination reveals loss of pain and temperature sensation from the right side of the body, loss of pain and temperature sensation from the left side of the face, loss of taste from the left half of the tongue and hoarseness, which of the following arteries is likely affected in this patient?

- A) Posterior inferior cerebellar artery
- B) Anterior inferior cerebellar artery
- C) Anterior cerebral artery
- D) Middle cerebral artery
- E) Anterior spinal artery

**ANSWER : A**

224. All of the following are associated with problems in the brain stem EXCEPT:

- A) Dysphagia
- B) Visual deficits
- C) Respiratory problems
- D) Dysphasia
- E) Altered equilibrium

**ANSWER : D**

225. Which of the following does not match between an artery and its branch:

- A) Internal carotid/ posterior communicating
- B) Basilar/ posterior inferior cerebellar
- C) Vertebral/ anterior spinal
- D) Anterior cerebral/ anterior communicating
- E) Ophthalmic/ anterior ethmoidal

**ANSWER : B**

226. The medial medullary syndrome includes:

- A) Contralateral hemiplegia
- B) Ipsilateral paralysis of the tongue
- C) Contralateral loss of the deep sensations .
- D) All of the above
- E) None of the above

**ANSWER : D**



# Anatomy

## Lecture 10

**227. The medial medullary syndrome is caused by damage of the:**

- A) corticospinal, corticobulbar and corticopontine fibers.
- B) corticospinal tract and oculomotor nerve.
- C) corticospinal tract, medial lemniscus and hypoglossal nerve.
- D) corticospinal tract and abducens nerve.
- E) crus cerebri and oculomotor nerve.

**ANSWER : C**

**228. Paralysis of the right upper and lower limbs with paralysis of the left lateral rectus muscle suggest lesion in the:**

- A) right medulla.
- B) left medulla.
- C) right pons.
- D) left pons.
- E) right crus cerebri

**ANSWER : D**

**229. An MRI of vessels. Showed occlusion of vessels the medial portion of the midbrain Right side involving oculomotor nerve and cross cerebra this patient is mostly like not suffering of which of the following:**

- A) deviation the tongue to the left side when is protruded
- B) paralysis of extremities on the left side.
- C) loss of pain and thermal Sensation on the Right Thermal side of the face.
- D) dilatation of the pupil:
- E) Weakness of lower facial muscle

**ANSWER : C**

**230. 65 years old man with a history of hypertension and smoking go to neurologic clinic, the neurologic examination reveals loss of pain and temperature Sensation from the right side of the body, loss of pain and temperature from the left side of the face .which of the following he suffering from:**

**ANSWER : Lateral medullary syndrome (Wallenberg syndrome)**

# Anatomy

## Lecture 10

231. A woman who had lost cold and hot differentiation from the right half of her face, and the left half of her body, with left nystagmus. The lesion is mostly in:

**ANSWER : Right medulla**

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

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

**ANSWER : A**

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

**ANSWER : Anterior spinal artery**



# Anatomy

## Lecture 11 (Cranial Nerves)

**234. Tumor on the pontine part of the 4th ventricle, affect:**

- A) Smell
- B) Smiling
- C) Respiration

**ANSWER : B**

**235. Regarding the reticular formation, choose the WRONG statement:**

- A) Its lateral column extends to midbrain.
- B) Its medial column contains large neurons
- C) Its median column contains intermediate-size neurons
- D) It has important role in the control of heart rate and respiration
- E) It is continuous network of nerve cells and fibers that extend from the spinal cord through brain stem to diencephalon.

**ANSWER : A**

**236. Regarding reticular formation, which of the following contains intermediate-size neurons**

- A) Superior column
- B) Lateral column
- C) Inferior column
- D) Medial column
- E) Median column

**ANSWER : E**

**237. Tracing an impulse from the brain to the effector organ, which of the following is NOT part of the motor pathway that will ultimately end in parasympathetic stimulation of the parotid gland:**

- A) Motor nuclei in the hypothalamus
- B) Autonomic nuclei in the lateral horn gray matter
- C) A synapse outside the CNS
- D) A preganglionic neuron whose cell body is within the CNS
- E) A cranial nerve

**ANSWER : B**

# Anatomy

## Lecture 11

**238. the principle trigeminal nucleus receives:**

- A) the pain fibers of the trigeminal nerve.
- B) the temperature fibers of the trigeminal nerve.
- C) the taste fibers of the facial nerve.
- D) the discriminative touch fibers of the trigeminal nerve.
- E) the prorioceptive fibers of the trigeminal nerve.

**ANSWER : D**

**239. The following cranial nerves have parasympathetic functions except:**

- A) X
- B) IX
- C) VII
- D) V
- E) III

**ANSWER : D**

**240. The cranial nerve does not contain parasympathetic nuclei:**

- A) 3rd
- B) 7th
- C) 9th
- D) 10th
- E) 11th

**ANSWER : E**

**241. The antereolateral sulcus of the medulla between pyramid & olive transmit:**

- A) Hypoglossal nerve
- B) Spinal accessory nerve
- C) 9th, 10th and 11th cranial nerves
- D) All of the above
- E) None of the above

**ANSWER : A**



# Anatomy

## Lecture 11

242. Wrong about glossopharyngeal injury:

ANSWER : Dysphagia and nervous type dysphagia

243. Wrong about hypoglossal nerve:

ANSWER : Supplies tongue with SVE(special visceral efferent) fibers

244. Wrong about oculomotor lesion:

ANSWER : Mild ptosis

# Behavioral

## Lecture 1

**245. which of the following is not a common type of conflict?**

- A) A man versus man.
- B) A man versus nature
- C) A man versus himself
- D) A man versus rock
- E) A man versus society

**ANSWER : D**

**246. explaining behaviour according to neurotransmitters, belongs to which of the following the schools?**

- A) Behavioural school.
- B) Biological school
- C) Psychoanalytic school
- D) Evolutionary school
- E) Developmental school

**ANSWER : B**

**247. Which of the following research methods is used for determining causation?**

- A) Correlational studies.
- B) Experimental studies
- C) Cross-sectionalstudies
- D) Observational studies
- E) Descriptivestudies

**ANSWER : B**

**248. Which of the following statements regarding correlational studies is CORRECT?**

- A) We can observe and register behavioral changes.
- B) We can measure relationship of variables.
- C) We can explain the effects of therapy on behaviors.
- D) We can interpret causes of certain behaviors.
- E) We can suggest remedies for certain behaviors.

**ANSWER : B**



# Behavioral

## Lecture 1

**249. Which of the following schools of psychology studied personality through the unconscious?**

- A) Trait school
- B) Biological school
- C) Humanistic school
- D) Psychodynamic school
- E) Social cognitive school

**ANSWER : D**

**250. All of the following factors play important roles in behaviour, EXCEPT?**

- A) Individual's values
- B) Genetic makeup
- C) Individual's skin colour
- D) Individual's culture
- E) Emotional states

**ANSWER : C**

**251. Which of the following is correct definition of psychology?**

- A) Psychology studies behaviour and mental processes
- B) Is the science of studying social problems
- C) Is the science of anatomy of a nervous system
- D) Is the science of physiology of the cerebral hemisphere
- E) Is the study of human societies and cultures

**ANSWER : A**

# Behavioral

## Lecture 2

**252. Which of the following statements is true about intelligence ?**

- A) The first to assess intelligence through test is Durkheim in 1890
- B) Intelligence changes overtime while growing up
- C) Environment has no effect on intelligence
- D) Most people score between 90 - 110 in Wechsler intelligence scale
- E) The average correlation between parents IQ and their children is 90

**ANSWER : D**

**253. Which of the following is not a well-known form of intelligence:**

- A) mathematical
- B) recreational
- C) musical
- D) kinaesthetic

**ANSWER : B**

**254. Which of the following is wrong about IQ:**

- A) average correlation btw parents IQ and their children is 80
- B) average correlation btw adopted children is 25
- C) average correlation btw MZ twins is 90
- D) average correlation btw DZ twins is 55

**ANSWER : A**

**255. Which of the following is true about Wechsler intelligence scale:**

- A) assess the intelligence of children
- B) contains 9 verbal scales
- C) contains 3 performance scales
- D) high validity and low reliability of the test
- E) most people score btw 90 and 110

**ANSWER : E**



# Behavioral

## Lecture 2

**256. Which of the following statements is true about Wechsler intelligence scale?**

- A) Has moderate validity.
- B) Has 6 verbal and 5 performance scales.
- C) It is no more used to assess intelligence.
- D) It is a group test.
- E) Minority of people score between 70 & 110

**ANSWER : B**

**257. Which of the following factors is irrelevant to the individual's IQ?**

- A) Genetics
- B) Birth order
- C) Socioeconomic class
- D) Quality of stimulation
- E) Emotional climate

**ANSWER : B**

**258. The following are the most agreed upon aspects of intelligence EXCEPT:**

- A) Verbal skills
- B) Problem solving
- C) Adaptation
- D) Ability to learn
- E) Getting rich

**ANSWER : E**

**259. Which of the following statements is true about intelligence?**

- A) Environment has no effect on intelligence.
- B) Intelligence changes over time while growing up.
- C) The first to assess intelligence through test is Durkheim in 1890.
- D) People score between 90 - 110 in Wechsler intelligence scale.
- E) The average correlation between parents IQ and their children is 90.

**ANSWER : D**

# Behavioral

## Lecture 2

**260. The following are recognized types of intelligence, EXCEPT?**

- A) Musical
- B) Linguistic
- C) Intrapersonal
- D) Historical
- E) Mathematical

**ANSWER : D**

**261. Which of the followings is true about intelligence?**

- A) Good education increases intelligence significantly.
- B) Intelligence is not inherited.
- C) The difference in intelligence is inter-racial.
- D) Intelligence changes significantly over time.
- E) Intelligence difference between sexes is significant.

**ANSWER : A**

**262. Which of the following is irrelevant to the individual IQ\*?**

- A) Uncle's IQ.
- B) Emotional climate.
- C) Quality of stimulation.
- D) Socioeconomic class.
- E) Marital status

**ANSWER : E**

**263. All the following are false about intelligence except:**

- A) Intelligence is the product of stimulation in early childhood only
- B) IQ was calculated according to mental age over chronological age
- C) Intelligence continues growing until age of 25
- D) Successful people are not necessarily highly intelligent
- E) People of are usually low in intelligence

**ANSWER : B**



# Behavioral

## Lecture 2

**264. Which of the following is wrong about intelligence:**

- A) first assessment of intelligence was done by Binet in 1904
- B) IQ is stable over time
- C) there are no IQ differences btw races
- D) education increase intelligence by 30 points in WISC
- E) there is no correlation btw parents IQ and their children.

**ANSWER : E**

**265. which of the following statements is true about Wechsler intelligence scale?**

- A) It is a group test.
- B) Has moderate validity
- C) Has 6 verbal and 5 performance skills
- D) Minority of people score between 70 and 110
- E) It is no more used to assess intelligence

**ANSWER : C**

**266. Which of the following is true about intelligence?**

- A) Intelligence changes significantly overtime
- B) Intelligence difference between sexes is significant
- C) Intelligence is not inherited
- D) the difference in intelligence is intraracial
- E) Good education increases intelligence significantly

**ANSWER : D**

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

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

**ANSWER : B**

# Behavioral

## Lecture 2

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

- A) Spearman developed the concept of general (g) factor
- B) most people have average IQ
- C) 68% of people lies within one standard deviation of IQ curve
- D) genes are the only determinant of IQ
- E) no difference in IQ among human race

**ANSWER : D**

**269. Regarding intelligence which of the following statements is false?**

- A) Intelligence can be increased by 30 points with good teaching .
- B) Intelligence assessment started by Binet in 1904 .
- C) There is no real IQ differences between races .
- D) IQ is fairly stable over time .
- E) There is correlation between parents IQ and there children

**ANSWER : A**

**270. which factor is not significant in development of intelligence :**

- A) genetic factors
- B) environmental factors
- C) early childhood mental stimulation
- D) racial factors
- E) nutritional factors

**ANSWER : D**

**271. Wrong about intelligence :**

**ANSWER : can be increased by 30 points with good education**



# Behavioral

## Lecture 2

272. Nature vs. nurture can be expressed as

**ANSWER : genetics vs. learning**

273. Wrong about IQ:

**ANSWER : Parent IQ is not related to their offspring's**

274. True about intelligence:

**ANSWER : more differences are intraracial than interracial.**

# Behavioral

## Lecture 3

**275. All the following are part of big five traits of personality except:**

- A) emotional stability
- B) extroversion
- C) openness
- D) agreeableness
- E) reaction formation

**ANSWER : E**

**276. The most important factor when assessing personality is:**

- A) family life
- B) relationships
- C) professional affiliations
- D) employment record

**ANSWER : B**

**277. The following are true about psychological defense mechanisms EXCEPT:**

- A) They are unconscious behaviors
- B) They are protective to personality
- C) They occur in stressful situation
- D) They do not distort reality
- E) may lead to anxiety in excessive use

**ANSWER : D**

**278. The following are known as the big five personality traits except one:**

- A) Emotional stability
- B) Vulnerability
- C) Extraversion
- D) Openness
- E) Agreeableness

**ANSWER : B**



# Behavioral

## Lecture 3

**279. which of the following statements is an example of 'intrinsic motivation'?**

- A) Competing in a contest to win a scholarship.
- B) Participating in a sport to obtain a medal
- C) Working extra hours to be rewarded with money
- D) Studying hard to achieve high marks
- E) Watching a football game for enjoyment

**ANSWER : E**

**280. The following are psychological defense mechanisms except**

- A) Repression
- B) Egression
- C) Derealization
- D) Reaction formation
- E) Rationalization

**ANSWER : C**

**281. Which of the following statements is true about personality:**

- A) Body built is highly correlated with personality type
- B) Projective personality tests tap the unconscious
- C) Thematic apperception test is an objective test
- D) MMPI is a projective personality test
- E) People with external locus of control don't believe in luck

**ANSWER : B**

**282. All the following are true about defense mechanisms except:**

- A) reaction formation is a defense mechanism
- B) they usually occur when anxiety is intolerable
- C) rationalization is a rare defense mechanism
- D) denial occurs a lot in cancer patients
- E) projection can be a defense mechanism

**ANSWER : C**

# Behavioral

## Lecture 3

283. All of the following are recognized psychological defense mechanisms, EXCEPT?

- A) Regression
- B) Reaction formation
- C) Repression
- D) Realization
- E) Rationalization

**ANSWER : D**

284. Which of the following is not part of Freud's stages of development ?

- A) Visual
- B) Oral
- C) Anal
- D) Phallic
- E) Latency

**ANSWER : A**

285. The big five personality dimensions include the following, except:

- A) Extraversion
- B) Agreeableness
- C) Recklessness
- D) Emotional stability
- E) Openness

**ANSWER : C**

286. Which of the following statements regarding personality is correct:

- A) Objective personality tests assess conscious personality aspects
- B) Roger considered that it is composed of two parts the ego and superego
- C) Trait theory emphasizes the role of neurodevelopment
- D) Freud studied personality through self-actualization
- E) Personality of humans changes over time.

**ANSWER : A**



# Behavioral

## Lecture 3

287. How you view yourself as male or female regardless of your external sexual characteristics is which of the followings?

- A) Gender identity
- B) Sexual orientation
- C) Sex-role perception
- D) Gender role
- E) Sexual scripting

**ANSWER : A**

289. A school that focused on the unconscious

**ANSWER : psychoanalytic**

290. Not a defense mechanism

**ANSWER : re-realization**

291. All are effective to asses personality except :

**ANSWER : family structure**

# Behavioral

## Lecture 4

**292. The dog salivation in response to the sight of food is referred to as?**

- A) Extinction
- B) Unconditioned stimulus
- C) Unconditioned response
- D) Conditioned response
- E) Conditioned stimulus

**ANSWER : C**

**293. Laith's mother buys him a sailor's cap before they go to a family fishing trip. On the boat Laith gets nauseated and vomits. The next day he gets nauseated just from looking at the sailor's cap. The sailor's cap has become?**

- A) Unconditioned stimulus
- B) Reconditioned stimulus
- C) Unconditioned response
- D) Conditioned response
- E) Conditioned stimulus

**ANSWER : E**

**294. After conditioning an animal to salivate to a tone, what would happen if you continue to sound the tone but no longer paired it with food?**

- A) Initiation
- B) Discrimination
- C) Extinction
- D) Generalization
- E) Acquisition

**ANSWER : C**

**295. Understanding crossing the road as the plan to reach a goal is a**

**ANSWER : cognitive Perspective**



# Behavioral

## Lecture 5

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

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

**ANSWER : D**

**297. The following are recognized stress disorders, except ?**

- A) Acute stress disorder
- B) Posttraumatic stress disorder
- C) Chronic stress disorder
- D) Psychosomatic disorders
- E) Adjustment disorder

**ANSWER : D**

**298. All of the following statements regarding psychosocial relations are correct, EXCEPT?**

- A) Individuals with low social relation are more likely to die in younger age
- B) Benefits of social relationships are equally distributed in the society
- C) Social relationships are important in the prevention and treatment of diseases
- D) Social relationships shape health throughout the individual's life
- E) Social relationships affect health through physiological pathways.

**ANSWER : B**

**299. Adaptive strategies to cope with “stress” include all of the following, EXCEPT?**

- A) Regular physical exercising
- B) Joining a self-help group
- B) Using Relaxation techniques
- D) Having a time management schedule
- E) Sleeping after meals

**ANSWER : E**



# Behavioral

## Lecture 5

**300. all the following are conflicts of approach avoidance type except:**

- A) dependence Vs. independence
- B) intimacy Vs. isolation
- C) danger Vs. isolation
- D) competition Vs. cooperation
- E) impulse-expression Vs. moral standards

**ANSWER : C**

**301. The following are common symptoms of stress except?**

- A) Insomnia
- B) Increased heart rate
- C) Thyroid dysfunction
- D) Increased appetite
- E) Sexual problems

**ANSWER : C**

**302. one of the following statements concerning " approach avoidance conflict" is true :**

- A) the individual can choose between 2 positive goals
- B) the conflict involve 2 desired goals
- C) the conflict results because the individual can't choose between 2 negative goals
- D) the individual can choose either the positive or the negative aspect in one goal
- E) the individual can choose 2 goals simultaneously

**ANSWER : D**

**303. 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 5

**304. Psychological conflicts result from all the following mechanisms except :**

- A) Dependence versus independence
- B) Intimacy versus isolation
- C) Denial versus projection
- D) Competition versus cooperation
- E) Impulse expression versus moral standards

**ANSWER : C**

**305. Adaptive coping strategy is which of the following ?**

- A) Substance abuse
- B) Working through problems
- C) Aggressive behavior
- D) Deliberate self-harm

**ANSWER : B**

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

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

**ANSWER : D**

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

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

**ANSWER : D**

# Behavioral

## Lecture 5

**308. All of the following are maladaptive coping strategies except?**

- A) Deliberate self-harm
- B) Histrionic behaviour
- C) Aggressive behaviour
- D) Alcohol use
- E) Repression

**ANSWER : E**

**309. Adaptive coping strategy is which of the following?**

- A) Substance abuse
- B) Working through problems
- C) Aggressive behavior
- D) Deliberate self-harm
- E) Avoidance

**ANSWER : B&E**



# Microbiology

## Lecture 1&2

**310. Choose the right sentence about immunity in CNS:**

- A) The immune system is a critical part of a functioning central nervous system (CNS).
- B) Brain parenchyma doesn't have immune cells even if injured.
- C) Microglial cells have a lower threshold than macrophages.
- D) Neutrophils are the main immune cells in CNS.

**ANSWER : A**

**311. A patient is present with meningitis signs, which of the following is correct?**

- A) Antibiotics usage may give false negative results.
- B) Negative kernigs and breduzski signs exclude meningitis.
- C) High glucose level is most likely to be found.

**ANSWER : A**

**312. A 60 years old man has chronic meningitis for more than 12 weeks, there is no gram stain and the most abundant immune cells are lymphocytes:**

- A) Mycobacterium tuberculosis.
- B) H. Influenza.

**ANSWER : A**

**313. which of the following is true regarding immunity in the central nervous system (CNS)?**

- A) Normal lymphocyte count in the cerebrospinal fluid (CSF) is equal to that in the blood
- B) Monocytes are the main immune cells present in the brain parenchyma
- C) The bacterial microbiota in the CSF is important in maturity of the immune system
- D) Immune cells can infiltrate the brain parenchyma following brain injury
- E) The brain is rich in resident neutrophils, called microglia

**ANSWER : D**



# Microbiology

## Lecture 1&2

**314. Which of the following is true regarding immunity in the central nervous system (CNS)?**

- A) Microglia and complement proteins are immune components found in the brain parenchyma.
- B) The concentration of antibodies in the CSF is higher than in serum.
- C) Polymorphonuclear cells are abundant within the CSF (> 100 cells/microliter).
- D) Pathogen access to the brain parenchyma is not restricted by immunological barriers.
- E) The bacterial microbiota in the CSF is important in the maturity of the immune system.

**ANSWER : A**

**315. Which one of the following causes chronic Meningitis?**

- A) *S. pneumonia*
- B) *N. meningitidis*
- C) *Candida albicans*

**ANSWER : C**

**316. a 40-year-old male presented to the emergency department with severe headache and fever of a few hours duration. On physical examination, The patient had a stiff neck, and a positive kernig's sign. No signs of focal neurological deficit were present. Which of the following tests should be ordered first?**

- A) CSF analysis
- B) Blood culture
- C) Brain magnetic resonance imaging, MRI
- D) Tetanus immunity test

**ANSWER : A**

**317. which of the following pathogens should be considered first in a case of meningitis in a four week old baby?**

- A) Group A streptococcus
- B) *Escherichia coli*
- C) *Streptococcus pneumonia*
- D) *Neisseria meningitidis*
- E) *Staphylococcus aureus*

**ANSWER : B**



# Microbiology

## Lecture 1&2

**318. Which of the following is part of the pathological response that leads to increased intracranial pressure in chronic meningitis?**

- A) Decreased secretion of inflammatory cytokines
- B) Increased leakage of CSF into blood vessels
- C) Increased resorption of CSF in the subarchnoid space.
- D) Increased permeability of blood vessels

**ANSWER : D**

**319. 7 year old with acute headache, fever and altered mental status, on examination he is positive to kernig's test and no signs to increased intracranial pressure, choose the true statement about this case .**

- A) Should start treatment before lumbar Puncture
- B) Meningoencephalitis because of decreased level of consciousness
- C) Kernig's positive rules out fungal meningitis
- D) Test for TB is required and done immediately

**ANSWER : B**

**320. The least likely found result in the above case :**

- A) Gram positive bacteria
- B) Gram negative rod
- C) Increase CSF: serum glucose level
- D) Slightly increase in protein level
- E) Increase in WBCs

**ANSWER : C**

**321. CSF analysis of a patient that presented with headache, fever and meningeal showed normal glucose and protein levels, increase in WBC with lymphocyte predominance and a negative gram stain. Which of the following tests is most useful in determining the causative agent ?**

- A) CSF Polymerase chain reaction (PCR)
- B) Brain biopsy
- C) CSF culture on chocolate agar
- D) Testing cranial nerves function
- E) Serology for arbovirus IgG antibodies

**ANSWER : A**



# Biochemistry

## Lecture 1

**322. Visual transduction involves the following molecular feature:**

- A)  $\text{Ca}^{2+}$  ions bind to rhodopsin kinase and inhibit it
- B) Retinal plasma membrane is very fluidic easing molecular interactions
- C) Amplification involves activation of cGMP phosphodiesterase by G proteins
- D) Arrestin binding to rhodopsin activate its phosphorylation
- E) During adaptation to the dark, recoverin is mainly localized to the inner segment

**ANSWER : B**

**323. Which of the following is TRUE about arrestin:**

- A) Works by phosphorylation of target protein
- B) In Dark it is existed at high levels at the outer segments of photoreceptors
- C) It causes the release of all cis retinal rhodopsin

**ANSWER : A**

**324. All of the following are mechanisms to amplify visual signal except:**

- A) Each photon excites many rhodopsin
- B) Each rhodopsin excites many transducin
- C) Each transducin excites many PDE
- D) Each PDE converts many cGMP
- E) All in the same compartment

**ANSWER : C**

**325. Activation of transducin by light activates an enzyme which:**

- A) Hydrolyzes cGMP
- B) Increases the dark current
- C) Activates adenylyl cyclase
- D) Releases calcium from intracellular stores
- E) Depolarizes the membrane

**ANSWER : A**



# Biochemistry

## Lecture 1

326. When light strikes the eye there is an increase in:

- A) The activity of the transducin
- B) The amount of transmitter released from the photoreceptors
- C) The concentration of all-trans retinal within the photoreceptors
- D) The concentration of calcium within the photoreceptors
- E) The activity of guanylyl cyclase

**ANSWER : A**

327. Which one of the following is TRUE about vision:

**ANSWER : cGMP decreases when transducin activated**

328. The function of Cones:

**ANSWER : For color vision**

329. Which statement is WRONG about signal termination in photoreceptor cells:

**ANSWER : Inactivation of G cyclase due to decrease intracellular [Ca]**

# Biochemistry

## Lecture 2

**330. Deficiency of vitamin B6 (pyridoxal phosphate) will result in the impairment of all the following pathways EXCEPT:**

- A) DOPA to dopamine
- B) Norepinephrine to epinephrine
- C) Aspartate to glutamate
- D) Tryptophan to serotonin
- E) Histidine to histamine

**ANSWER : B**

**331. A neurotransmitter that is not deactivated by MAO:**

- A) GABA
- B) Histamine

**ANSWER : A**

**332. Which is true about neuropeptides and small transmitters?**

- A) Both released by vesicular mechanism.
- B) Both synthesized in cell body of presynaptic cell.
- C) Both can be released from a site far away from the site of Ca entry.
- D) Both induce a signal that can be terminated by reuptake.

**ANSWER : A**

**333. An excitatory neurotransmitter that leaks to the cytosol to be converted to another neurotransmitter, can be recycled through a presynaptic neuron transporter and degraded by the liver or presynaptic enzymes is:**

- A) Gama-aminobutyric acid
- B) Glycine
- C) Norepinephrine
- D) Serotonin
- E) Acetylcholine

**ANSWER : C**



# Biochemistry

## Lecture 2

334. The 'retrograde' mechanism of NO (nitric oxide) means:

- A) It is produced in the post-synaptic neuron.
- B) It regulates the pre-synaptic neuron.
- C) It activates guanylyl cyclase.
- D) It diffuses to nearby cells.
- E) It binds to post-synaptic receptors.

**ANSWER : B**

335. SAM is used in all of the following except:

- A) N-methyl trans
- B) Deamination
- C) Methylation of phosphodylether
- D) COMT

**ANSWER : B**

336. Can't cross BBB:

**ANSWER : Glutamate**

337. Which one of the following is WRONG about glutamate?

**ANSWER : Cannot be synthesized inside neurons**

# Biochemistry

## Lecture 2

338. The indicator of Parkinson's disease is:

**ANSWER : homovanillic acid**

339. Which one of the following is WRONG about catecholamine synthesis:

**ANSWER : Dopamine and norepinephrine have vesical synthesis**

340. TRUE about Histidine to histamine reaction:

**ANSWER : Requires pyridoxal phosphate.**



# Pharmacology

**341. Which one of the following represents the stages of general analgesia ?**

- A) Stage I (analgesia).
- B) Stage II (excitement).
- C) Stage III (surgical anesthesia).
- D) Stage IV (medullary paralysis).
- E) All of the above.

**ANSWER : E**

**342. A 55-year-old lady presented to ER with acute migraine attacks, the drug of choice for her situation is ?**

- A) Beta blocker.
- B) Serotonin agonist.
- C) Anticholinesterase.
- D) Beta agonist.
- E) methylamphetamine.

**ANSWER : B**

**343. The most used general anesthetic in operations with fast and short induction ?**

- A) propofol.
- B) Thiopental.
- C) Etomidate.
- D) Ketamine.
- E) Halothane.

**ANSWER : A**

**344. One of the following is categorized as local anesthetic :**

- A) halothane.
- B) Nitrous oxide.
- C) Mepivacaine.
- D) Thiopental.
- E) Ketamine.

**ANSWER : C**

# Pharmacology

**345. Patients with attention-defect hyperactivity disorder should take which one of the following ?**

- A) amphetamines.
- B) GABA reuptake inhibitor.
- C) Serotonin antagonist.
- D) D2 blocker.
- E) SSRI.

**ANSWER : A**

**346. A patient presented to your clinic suffering from narcolepsy, the proper drug to use is ?**

- A) MAOI.
- B) Amphetamine.
- C) SNRI.
- D) SSRI.
- E) Serotonin antagonist.

**ANSWER : B**

**347. A 34-year-old female presented to your clinic with acute migraine attacks, after taking the**

**348. Patients with Alzheimer disease which of the following drug Is good to treat their condition ?**

- A) NMDA receptor antagonist.
- B) Acetylcholine receptor antagonist.
- C) Giving acetylcholine esterase.
- D) MAOI's.
- E) Levodopa

**ANSWER : A**



# Pharmacology

**349. Patient with Parkinson's disease are advised to take ?**

- A) dopamine.
- B) Levodopa.
- C) Acetylcholine.
- D) SSRI.
- E) Anti-acetylcholine esterase.

**ANSWER : B**

**350. In Parkinson disease we give levodopa as a drug instead of dopamine, the reason behind**

**351. A 22-year-old female presented to ER suffering of epileptic attack, which one of the following drugs you should not give ?**

- A) Sodium channels blocker.
- B) calcium channels blocker.
- C) GABA reuptake enhancer.
- D) Phenytoin.
- E) All of the above can be given to epileptic patient.

**ANSWER : C**

**352. In which of the following stages of anaesthesia , surgical operation should be performed?**

- A) Stage I
- B) Stage II
- C) Stage III
- D) Stage IV
- E) Stage V

**ANSWER : C**

# Physiology

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

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

**ANSWER : B**

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

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

**ANSWER : A**

**355. True about pain receptors:**

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

**ANSWER : A**

**356. If a sharp pointed object touches the foot of a person, the foot is immediately withdrawn from the object involuntarily. This action involves the receptors :**

- A) Free nerve endings .
- B) Ruffini's end organs .
- C) Hair follicle receptors .
- D) Meissners's corpuscles .
- E) Pacinian corpuscles .

**ANSWER : A**



# Physiology

357. Which of the following is not true ?

**ANSWER :** cortical representation proportional to the size of organ .

358. True about olfaction:

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

**ANSWER : B**

359. Which of the following is true concerning vision:

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

**ANSWER : E**

360. True about taste receptors:

**ANSWER :** Smell sensations affect the taste.

# Physiology

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

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

**ANSWER : A**

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

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

**ANSWER : C**

**363. The somatic sensory modalities that ARE not transmitted through the Posterior column Medial Lemniscus Pathway are**

- A) Pain
- B) Temperature
- C) Itch
- D) Tickle
- E) All of the above

**ANSWER : E**

**364. characteristics of Posterior Column Pathway are:**

**ANSWER : conduction velocity is faster and high degree of spatial orientation**



# Physiology

365. characteristics of Anterolateral Spinothalamic Pathways are:

**ANSWER :** the ability to transmit broad spectrum of sensory modalities and transmits signals that do not require highly discrete localization of signals

366. Being a G-protein coupled receptor, is very important in the high sensitivity of olfactory receptor.

- A) True
- B) False

**ANSWER : A**

367. Which tract is concerned with regulating the autonomic function in response to smell?

- A) lateral olfactory tract
- B) medial olfactory tract

**ANSWER : B**

368. The reason why bitter taste induces rejection, and it has the lowest threshold among taste sensations, is that the body tries to protect itself from potential poisonous substances.

- A) True
- B) False

**ANSWER : A**

# Physiology

**369. Where are the taste buds located?**

- A) Tonsillar pillars.
- B) Proximal part of the pharynx
- C) Palate.
- D) Anterior part of the tongue.
- E) Posterior part of the tongue

**ANSWER : All of the above**

**370. Activation of the tendon reflex activates the antagonistic muscle.**

- A) True
- B) False

**ANSWER : A**

**371. The stimulus for the crossed extensor reflex is**

**ANSWER : pain**

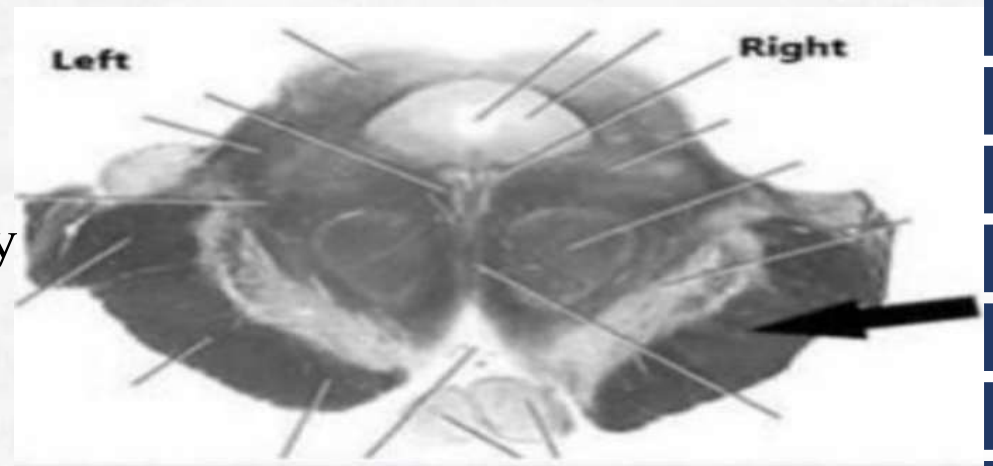


# Lab

## Anatomy

372. The pointed area contains mainly :

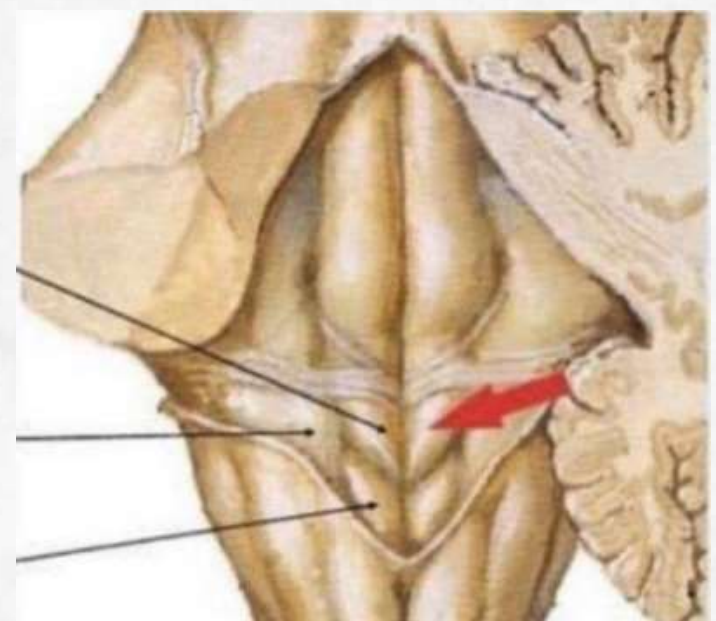
- A) Right pyramid
- B) Proprioceptive fibers from right side of body
- C) Corticospinal fibers that control right side of body
- D) Proprioceptive fibers from left side of body
- E) Corticospinal fibers that control left side of body



**ANSWER : E**

373. The pointed structure (red) is :

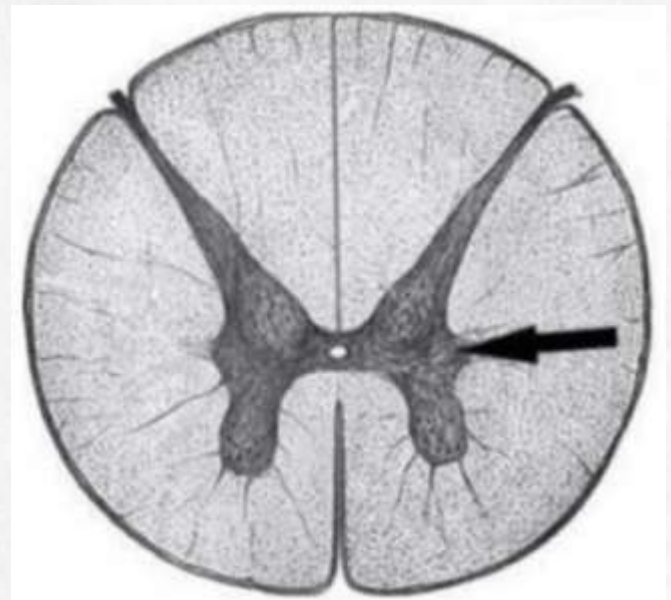
- A) Hypoglossal triangle
- B) Medial eminence
- C) Facial colliculus
- D) Vagal triangle
- E) Vestibular area



**ANSWER : A**

374. The cell bodies in the pointed area are cell:

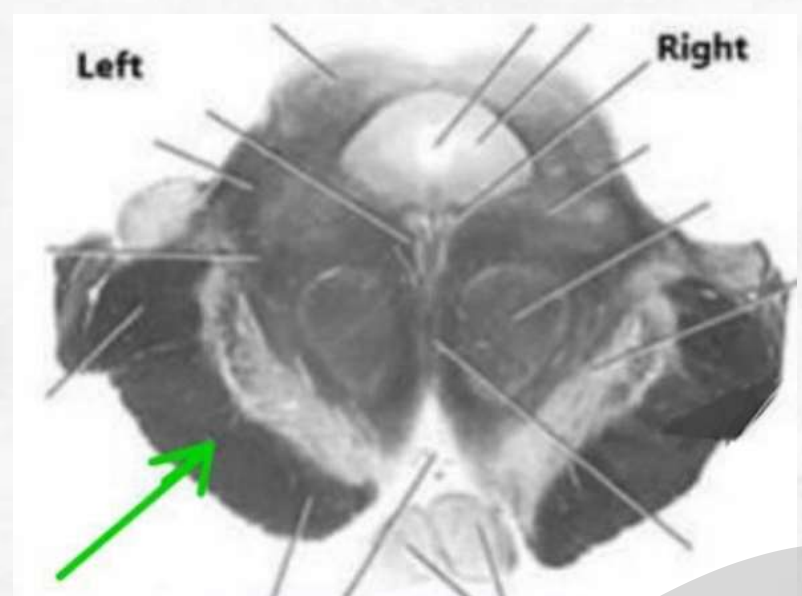
- A) Post ganglionic parasympathetic neurons
- B) Ist order sensory neurons
- C) Lower motor neurons
- D) Preganglionic sympathetic neurons
- E) Preganglionic parasympathetic neurons



**ANSWER : D**

375. The pointed area contains mainly :

- A) Right pyramid
- B) Proprioceptive fibers from right side of body
- C) Corticospinal fibers that control right side of body
- D) Proprioceptive fibers from left side of body
- E) Corticospinal fibers that control left side of body



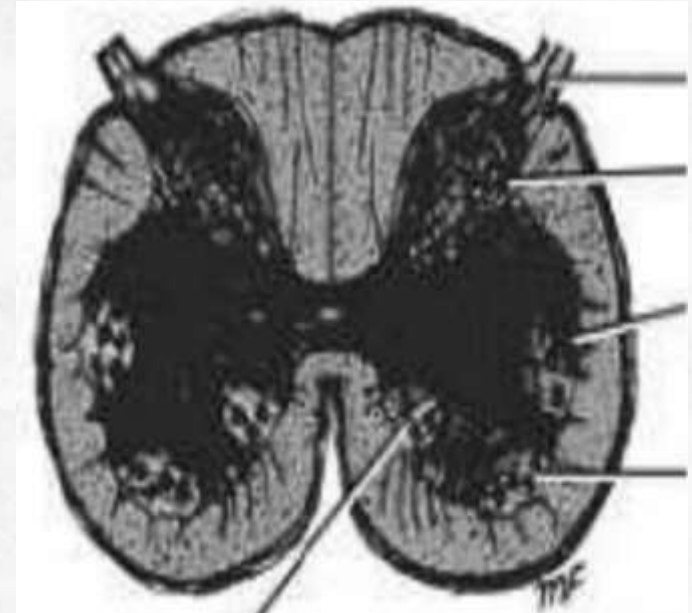
**ANSWER : C**



# Lab

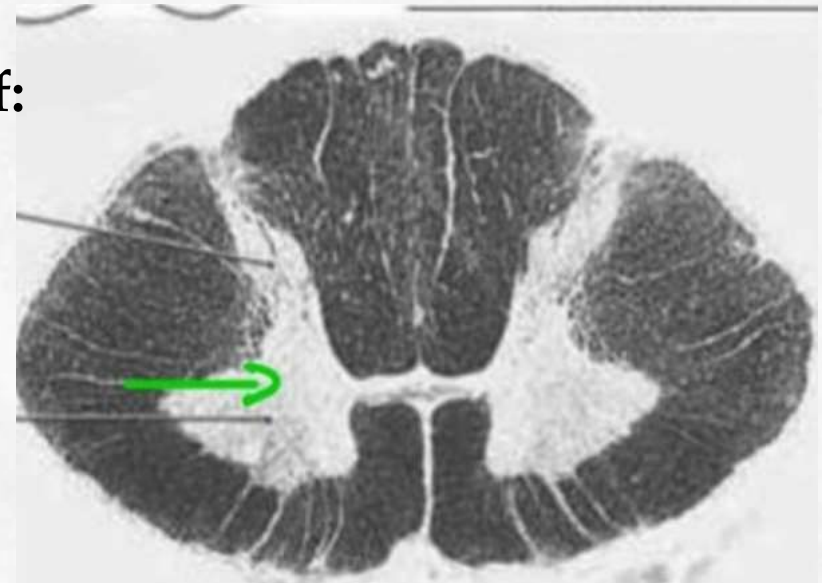
## Anatomy

376. This cross section taken at level:



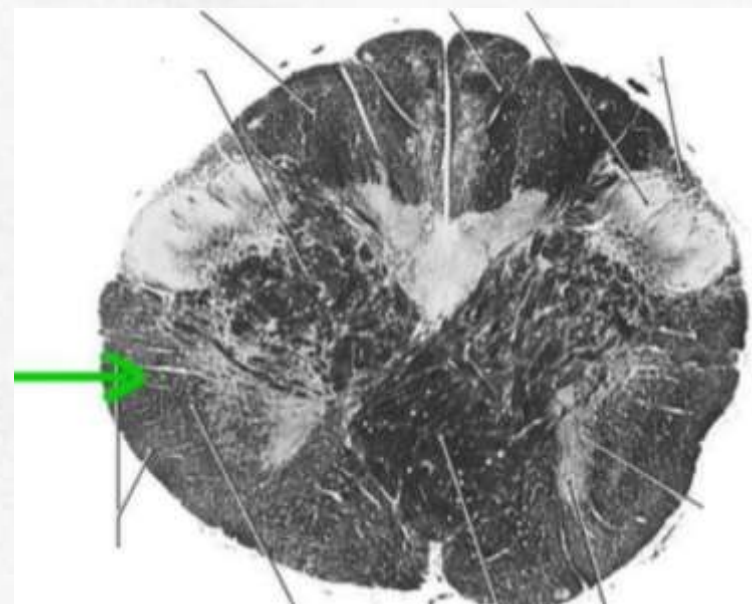
ANSWER : S3

377. The cell bodies in the pointed area are cell of:



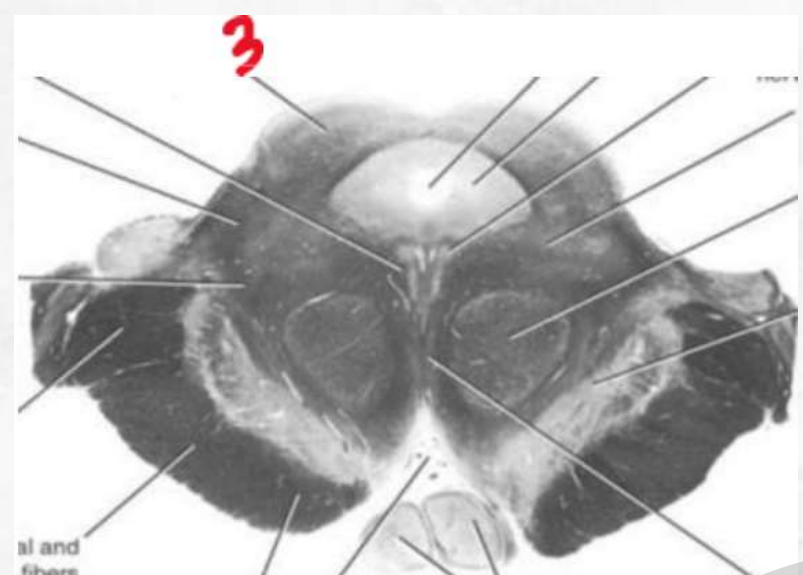
ANSWER : Lower motor neurons that supply upper extremities

378. The pointed area contains mainly:



ANSWER : Posterior spinocerebellar tract

379. Number 3 refers to:



ANSWER : Superior colliculus

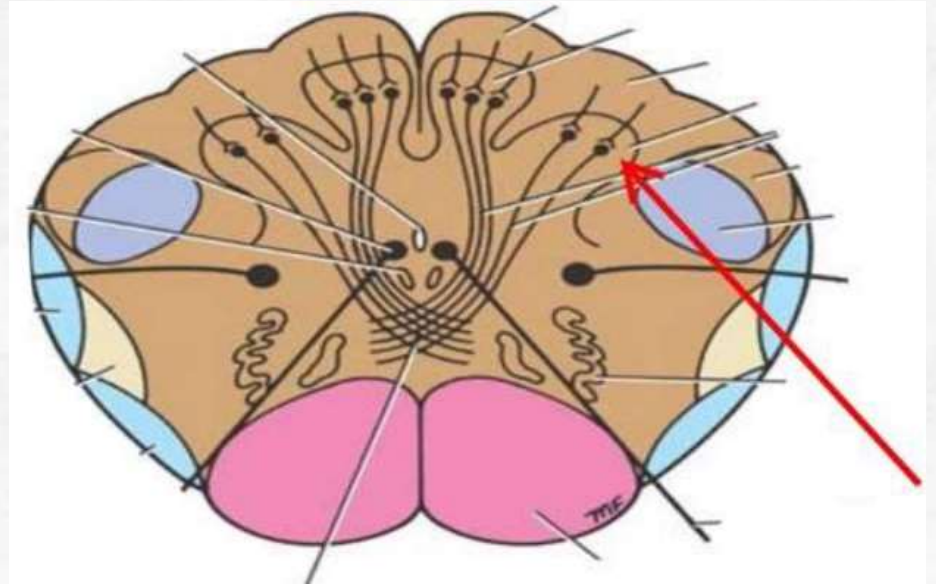


# Lab

## Anatomy

380. The red arrow refers to:

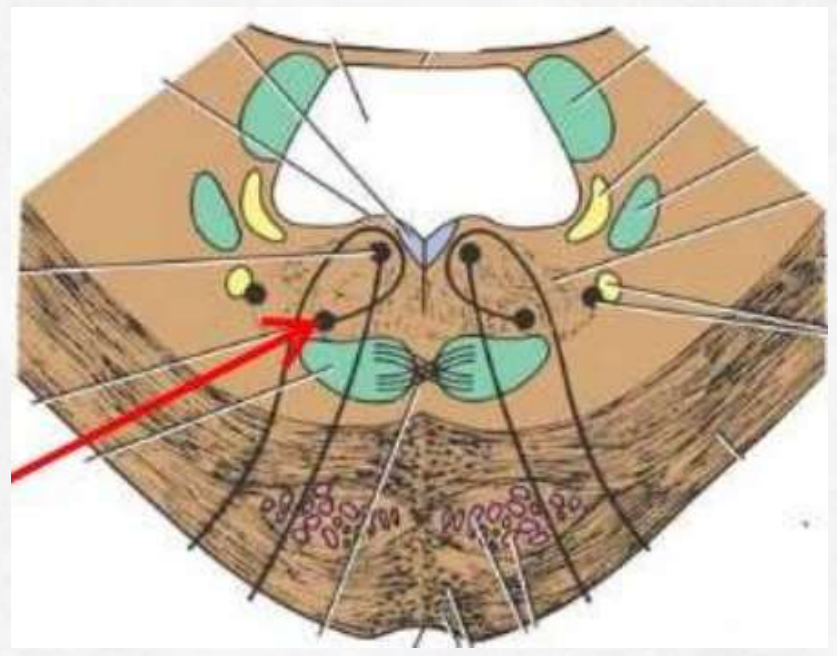
- A) Nucleus cuneatus
- B) Nucleus gracilis



ANSWER : A

381. The red arrow refers to:

ANSWER : Facial nucleus



اللهم سلم غزاة وأهلها من كل سوء وشر، اللهم انصرهم وثبت أقدامهم وكن لهم ناصرًا ومعينًا

لا تنسوني من صالح دعائكم

***Malek Abu Rahma***

**The End**  
**Good Luck シ**