## Cns 017

17) 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 is C
18) 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 is C
19) 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 is A
20) Wrong about midbrain at the level of superior colliculus

A- pretectal nucleus is at the lateral part of the superior colliculus.
B- Lateral leminiscus is posterior to substantia nigra
C- Medial longitudinal fasciculus is anterolateral to oculomotor nucleus
21) Wrong about fast pain

A- it is less related to emotion than slow pain
B- transmitted by A- alpha
C- synapse in lamina $1+5$
D- Mostly from superficial structures and well localized
Answer is B
22) 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 is B
23) Tonsillar herniation cause all of the following except

A-Hypertension
B- increase in intracranial pressure
C- hyperventilation
D- Dilation of pupil
E- Decreasing levels of consciousness
Answer is D
24) choose the wrong statement

A- Gamma fibers activate the muscle fibers indirectly
B- Secondary afferent is found around nuclear chain
C- Primary afferent is found around nuclear bag
D- Knee jerk is an example on static stretch reflex
E- Nuclear Bag Fibers are supplied by dynamic Gamma

## Answer is D

25) 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 is C
26) 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 is C
27) Wrong about glossopharyngeal nerve

A- preganglionic Parasympathetic fibers synapse in Otic ganglia
B- Sensory to the carotid sinus come from tractus solitarisu

C- Fiber from stylopharyngeus muscle synapse directly beneath the floor of 4th ventricle

D- supply middle ear general sensation from spinal nucleus of trigeminal
Answer is C
28) 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
29) 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 motor weakness) IPSI lateral
Answer is $A$
30) Choose the wrong about parasympathetic

A- Parotid is supplied by nerve from Superior salivary
B- Lacrimal is supplied from nerve from superior lacrimal
Answer is A
CNS 018

5-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. Si 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 SI 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 the thigh

Answer is A
6-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 is C
15-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 is $B$
17-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 is $B$
20-Regarding Corticospinal tracts, choose the WRONG statement :
a. The vast majority of fibers will decussates 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

22-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 is D
24-All of the following are characteristics of lower motor neuron lesion EXCEPT:
a. Flaccid paralysis
b. Hyportonia
c. Clasp knife reaction
d. Hyporeflexia
e. Muscle atrophy

Answer is C
27-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 is A
28-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 is $B$
32-Inability to hear by one ear which is beyond any means of correction can be due to a lesion located at: (Physio)
a. Unilateral inferior colliculus .
b. Unilateral superior temporal cortex.
c. Unilateral basilar membrane involving its organs of Corti .
d. Unilateral superior olivary nucleus .
e. Unilateral lateral lemniscus.

33-Regarding the parasympathetic nuclei of the brainstem, all are true EXCEPT :
a. Fibers from the inferior salivatory nucleus synapse in the pterygopalatine ganglion
b. The dorsal vagal nucleus is located underneath the floor of the 4th ventricle
c. Fibers from the superior salivatory nucleus synapse in the submandibular gangilion
d. The Edinger-Westphal nucleus supplies the constrictor pupillae muscle
e. Superior salivatory nucleus supplies the sublingual salivary gland

Answer is $A$

## CNS 019

Q1 : 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 heals. The patient has a herniated disc in what region?

## L5

Q3. regarding lateral spinothalamic tract. choose the wrong statement:
-lesion of the ascending tract lose the sensation ipsilateral.
Q5. 13 years old visited neurologic Clinic his main compliant 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?

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-seringomyelia.
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Q6. regarding pyramidal tract choose the wrong statement.

## -that control axial muscle crosses the midline in the lower part of the medulla oblongata

Q7. which of the following is the characteristic of upper motor nerve lesion?
هاي المحاضرة مههة اجى عليها كثبر أسئلة بالامتحان clonus + hyperreflexia

Q8. 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 أنوقع ?the face .which of the following he suffering from

## Lateral medullary syndrome (Wallenberg syndrome)

Q9. which of the following tracts responsible for reflex movement of head and neck in response to visual stimuli ?

## -tectospinal tract

Q10. An MRI of vessels. Showed occlusion of vessels the medial portion of the midbrain Right side involving oculomotor nerve and cross cerebra this patient isn't suffering of which of the following?

A- deviation the tung 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 is C
Q11.regarding transverse section though caudal part at the pones ,which of the following can be seen?
b-sensory nucleus that receive pain and temperature from the face.
Q12.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 tung located in the anterior of the tectospinal tract.

## Collected Past Papers

1-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

2-Wrong about Extrapyramidal tracts?
a. Medullary reticulospinal is in lateral white column
b. Vestibulospinal tracts are uncrossed
c. Rubrospinal tract isn't tonically active

3-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

4-Wrong about midbrain at the level of superior colliculus
a. Pretectal nucleus is at the lateral part of the superior colliculus|
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5-Wrong about fast pain
a. It is less related to emotion than slow pain
b. Transmitted by A- alpha
c. Synapse in lamina $1+5$
d. Mostly from superficial structures and well localized

8-Choose the wrong statement
a. Gamma fibers activate the muscle fibers indirectly
b. Secondary afferent is found around nuclear chain
c. Primary afferent is found around nuclear bag
d. Knee jerk is an example on static stretch reflex
e. Nuclear Bag Fibers are supplied by dynamic Gamma

9-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

10-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

11-Wrong about glossopharyngeal nerve
a. Preganglionic Parasympathetic fibers synapse in Otic ganglia
b. Sensory to the carotid sinus come from tractus solitarisu
c. Fiber from stylopharyngeus muscle synapse directly beneath the floor of 4th ventricle
d. Supply middle ear general sensation from spinal nucleus of trigeminal

12-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

13-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 motor weakness) IPSI lateral

14-Choose the wrong about parasympathetic
a. Parotid is supplied by nerve from Superior salivary
b. Lacrimal is supplied from nerve from superior lacrimal nucleus

15-Which of the following means Collection of axon in the central nervous
system
a. Ganglion
b. Nerve
c. Nucleus
d. Soma
e. Tract

16 -The outer layer of connctive tissue that surrounds the nerve is called\{
a. Epineurium
b. Epithelium
c. Glial cells
d. Endoneurium
e. Perineurium

17-The term "Mesencephalon" means\{
a. Pons
b. Cerebellum
c. Midbrain
d. Medulla
e. Cerebrum

18-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

19-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

20-Which of the following is the most common direction of Disc herniation
a. Posteromedial direction
b. Anteromedial direction
c. Superior direction
d. Anterolateral direction
e. Posterolateral direction

21-Which of the following represents the function of Posterior White ColumnMedial Lemniscal Pathway ?
a. Temperature
b. Pain
c. Conscious Proprioception
d. Crude touch
e. Unconscious Proprioception

22-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

23-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

24-Which of the following tracts provides afferent information for spinovisual reflexs??
a. Anterior spinothalamic
b. Lateral spinothalamic
c. Posterior spinocerebellar
d. Anterior spinocerebellar
e. Spinotectal

25-Which of the following fibers carry the sensation of fast pain?
a. A alpha fibers
b. A beta fibers
c. A delta fibers
d. C fibers
e. None of the above

26-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

27-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

28-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

29-Which of the following anchors spinal cord to coccyx?
a. Denticulate ligament
b. filum terminale
c. Cauda equaina
d. Conus medullaris
e. None of the above

30-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

31-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

32-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

33-Anterolateral aspect Regarding a transverse section through the inferior colliculus of midbrain, choose the WRONG statement
a. Tempropontine 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 posteriolateral to the motor nucleus of trochlear nerve
d. Decussation of superior cerebellar peduncles is anterior to the cerebral aqueduct
e. Medial Crebellar peduncle And spinal leminisci are located posterior to substantia nigra

34-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

35-Which one of the following cranial nerves is arising from interpeduncular fossa?
a. Optic
b. Olfactory
c. Trigiminal
d. Occulomotor
e. Trochlear

36-Which one of the following cranial nerve nuclei is not present in the pons?
a. Main sensory nucleus of trigiminal
b. Motor nucleus of trigiminal
c. Superior salivary nucleus of facial
d. Nucleus ambiguus
e. Abducent motor nucleus

37-Which of the following structures lies in the midbrain?
a. In Optic chiasma
b. Fascial colliculus
c. Substantia nigra
d. Basilar groove
e. Pyramidal eminence

38-Which of the following cranial nerves emerges from the posterior aspect of the brain stem?
a. Vestibulocochlear
b. Fascial
c. Trochlear
d. Abducent
e. Trigiminal

39-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

40-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

41-Regarding reticular formation, which of the following contains intermediatesize neurons?
a. Superior column
b. Lateral column
c. Inferior column
d. Medial column
e. Median column

42-All of the following are symptoms of Wallenberg syndrome EXCEPT回
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

43-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

44-Occlusion of Anterior spinal artery may cause
a. Foville syndrome
b. Benedikt syndrome
c. Millard-Gubler syndrome
d. Wallenberg syndrome
e. Dejerine syndrome

45-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

46-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

47-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

48-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

49-The initial resistance observed in the Clasp knife reaction is due to\{
a. Exaggerated stretch reflex
b. Lost stretch reflex
c. Exaggerated Golgi tendon reflex
d. Lost Golgi tendon reflex
e. None of the above

50-Which of the following represents the cavity found in a cross section of Midbrain回
a. Cerebral aqueduct
b. Cerebral canal
c. Fourth ventricle
d. Foramen of Mono
e. Foramen of luschka

51-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

52-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

53-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

54-Regarding Extrapyramidal 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

55-Which of the following tracts has descending autonomic fiber providing a pathway by which the hypothalamus can control the sympathetic sacral parasympathetic outflow?
a. Rubrospinal tracts
b. Tectospinal tracts
c. Vestibulospinal tracts
d. Anterior corticospinal tract
e. Reticulospinal tracts

56-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

57-Regarding Pontine reticulospinal tract, choose the WRONG statement
a. Its fibers descend from reticular formaion 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

58-Which of the following tracts is responsible for reflex movement of head and neck in response to visual stimuli?
a. Rubrospinal tracts
b. Vestibulospinal tracts
c. Anterior spinothalamic
d. Reticulospinal tracts
e. Tectospinal tracts

59-All of the following are symptoms of upper motor neuron lesions EXCEPT?
a. Hyperreflexia
b. Hypertonia
c. Wasting
d. Clasp knife reaction
e. Clonus

60-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 forth ventricle
d. Central canal
e. Lower part of the forth ventricle

61-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

62-Which of the following structures receives taste fibres?
a. Hypoglossal nucleus
b. Vestibular nuclei (medial and inferior)
c. Nucleus ambiguus
d. Dorsal nucleus of vagus
e. Solitary nucleus (nucleus of tractus solitaries)

63-All of the following structures Lies beneath the floor of 4 th ventricle EXCEPT?
a. Dorsal nucleus of vagus
b. Hypoglossal nucleus
c. Nucleus ambiguus
d. Vestibular nuclei (medial and inferior)
e. Solitary nucleus

64-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 leminiscus
b. Fasciculus gracilis
c. Lateral leminiscus
d. Medial longitudinal fasciculus
e. Fasciculus cuneatus

65-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

66-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

67-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 thalamusy 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

## Done By Mohammed Diab

بالتوفيق للجميع .

