1. All of the following are functions of the spinal cord except:
    a. Relay center for incoming sensory information through dorsal roots and horn.
    b. It's the origin of upper motor neurons
    c. It is a conduit for ascending (afferent) and descending (efferent) pathways.
    d. none of the above

2. (True or False): The Bell-Magendie Law states that the pain and temperature sensations travel via C-fibers in the spinal cord in the lateral spinothalamic tract.

3. The function of the precornual cells is:
    a. pain "editing"
    b. to be the relay center for pain and temperature
    c. proprioception from the lower body
    d. proprioception from the upper body

4. The intermediolateral cell column contains _____ and is located in _____region(s) of the spinal cord.
    a. Postganglionic sympathetic neuron cell bodies; S2-S4
    b. Preganglionic parasympathetic cell bodies; TI-L2
    c. Preganglionic sympathetic neuron cell bodies; S2-S4
    d. Preganglionic parasympathetic cell bodies; S2-S4

5. Deep sensibility includes all of the following except:
    a. Pain
    b. crude touch
    c. conscious proprioception
    d. Stereognosis
    e. all of the above are part of deep sensibility

6. A lesion of Fasiculus Gracilis on the right would result in all the following except:
    a. loss of crude touch from the right lower body
    b. loss of proprioception from the right lower body
    c. loss of vibration sense from the right lower body
    d. all of the above would be a result of the lesion of the right fasiculus gracilis

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

7. A lesion of Fasiculus Cuneatus on the left would result in all of the following except:
    a. loss of pain from the left upper body
    b. loss of proprioception from the left upper body
    c. loss of stereognosis from the left upper body
    d. two of the above

8. The organization of many tracts, nuclei, and brain areas reflecting the body's organization is termed
    a. Corprotopy
    b. Somatonia
    c. Somatotopy
    d. Corpotopia

9. A lesion of the Spinocerebellar tract on the right would cause
    a. loss of crude touch from the right upper limb
    b. loss of pain and temperature from the right side of the body
    c. Ipsilateral spastic paralysis
    d. loss of proprioception from the right lower body

10. All of the following are true about the dorsolateral fasciculus except
    a. It contains secondary pain and temperature afferents
    b. Located ipsilateral to the stimulus
    c. ends in ipsilateral nucleus proprius two levels above where it entered the spinal cord
    d. the cell bodies are found in the dorsal root ganglion

11. A lesion of the left lateral spinothalamic tract at C6 would result in
    a. Bilateral loss of proprioception at T1
    b. loss of pain and temperature at C8 level on down on the right
    c. loss of deep sensibility at C8 on the right
    d. loss of pain and temperature at T1 on the right.

12. Choose the correct path sequence of the Corticospinal tracts
    a. Cerebral cortex - crus cerebri - internal capsule - corticospinal fibers of the pons – pyramids
    b. Cerebral cortex - intemal capsule - corticospinal fibers of the pons -crus cerebri –pyramids
    c. Cerebral cortex – intemal capsule - crus cerebIi – corticospinal fibers of the pons – pyramids
    d. Cerebral cortex - internal capsule - crus cerebri - pyramids - corticospinal fibers of the pons

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

13. The symptoms of Brown - Sequard Syndrome include:
    a. Ipsilateral loss of deep sensibility
    b. ipsilateral spastic paralysis
    c. loss of contralateral pain and temperature from two levels below the lesion, on down
    d. a and c
    e. all of the above

14. Syringomyelia of C5 will include:
    a. loss of pain and temperature at C5 on the right
    b. bilateral loss of pain and temperature from C7 only
    c. bilateral loss of pain and temperature from C5 and down
    d. loss of pain and temperature at C7 on the right

15. (True or False): Internal arcuate fibers contain third order neurons.

16. A lesion of the great sensory decussation would result in:
    a. ipsilateral loss of deep sensibility from the T6 and up.
    b. contralateral loss of deep sensibility from T6 and up
    c. bilateral loss of deep sensibility from the whole body
    d. bilateral loss of deep sensibility from T6 and down

17. A lesion to the right ventral part of the medial lemniscus would result in
    a. loss of deep sensibility from the left cervical region of the body
    b. loss of deep sensibility from the left body
    c. loss of deep sensibility from the right cervical region of the body
    d. loss of deep sensibility from the right body.

18. The dorsal spinocerebellar tract enters the cerebellum via _____ and the ventral spinocerebellar tract enters the cerebellum via _____.
    a. inferior cerebellar peduncle; middle cerebellar peduncle
    b. middle cerebellar peduncle; superior cerebellar peduncle
    c. middle cerebellar peduncle; inferior cerebellar peduncle
    d. inferior cerebellar peduncle; superior cerebellar peduncle.

19. (True or False): The medial lemniscus contains second order afferent neurons for deep sensibility on the contralateral side.

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

20. A lesion of the medial longitudinal fasciculus on the right will result in
    a. loss of deep sensibility from the left side of the middle body
    b. internuclear opthalmoplegia
    c. loss of sensibility from the face
    d. paralysis of the muscles of mastication on the right

21. A lesion of this structure could induce coma or death by affecting the sympathetic and parasympathetic inputs and affecting cardiovascular and respiratory centers
    a. Reticular formation
    b. Medial longitudinal fasciculus
    c. Locus coeruleus
    d. Posterior perforating substance

22. The solitary nucleus receives taste fibers from all of the following cranial nerves except:
    a. CN III
    b. CN VII
    c. CN IX
    d. CN X
    e. two of the above

23. All of the following are nuclei of the Vagus nerve except
    a. Dorsal motor nucleus
    b. Ventral motor nucleus
    c. Solitary nucleus
    d. Nucleus ambiguous
    e. All of the above are nuclei of the Vagus nerve

24. Lesion of the nucleus ambiguous leads to all of the following except
    a. Dysphonia
    b. Dysphagia
    c. uvula deviation away from the lesion
    d. all of the above result from the lesion of the nucleus ambiguous.

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

Match the following lesions with the appropriate cranial nerves. For each question there may be one answer or more than one.

e. CN VIII
f. CN IX
g. CN X
h. CN XI
i. CN XII

25. Paralysis of pharyngeal constrictors
26. Vertigo, nystagmus, vomiting
27. Loss of sensation from the carotid sinus and body
28. Deviation of the tongue to the affected side
29. Loss of gag reflex
30. Dysphagia, dysphonia
31. Paralysis of the sternocleidomastoid muscle
32. Loss of parasympathetics to the thorax and abdomen
33. Loss of hearing
34. Loss of taste from the epiglottis and larynx
35. Uvular deviation

36. Taste from the anterior 2/3 of the tongue is carried by ____, the posterior 1/3 is supplied by ____, and taste from the back of the throat including larynx and epiglottis is carried within ____.
    a. CN VIII, CN IX, CN X
    b. CN VII, CN X, CN XI
    c. CN IX, CN X, CN XI
    d. CN VII, CN IX, CN X

37. A patient presents to your office after having suffered a stroke, upon examination you find that his body on the right is paralyzed and appears to have lost all deep sensibility. His tongue deviates to the left upon protrusion and he also appears to have lost sensation in the left side of his face. The artery that has been occluded in this patient is:
    a. paramedian branches of the basilar artery
    b. posterior inferior cerebellar artery
    c. anterior inverior cerebellar artery
    d. posterior communicating artery

38. Lateral Medullary Syndrome is characterized by all of the following except
    a. complete loss of taste
    b. hoarseness of voice due to laryngeal paralysis
    c. spastic paralysis of the contralateral half of the body
    d. Homer's syndrome

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

Match the following lesions to the appropriate area of the cerebellum

a. Spinocerebellum
b. Cerebrocerebellum
c. Vestibulocerebellum

39. Ataxia~. 'n-coordination, may fall with their eyes open or closed, symptoms diminish when patient lying down or supported
40. Decomposition of movements, dysdiadoch\>kinesia
41. Hypotonia, Citysmetria, ataxic joint motion, intention tremor, pendular reflexes, scanning speech

Match the following structures with the appropriate area of the cerebellum

a. Spinocerebellum
b. Cerebrocerebellum
c. Vestibulocerebellum

42. Lateral portions of the hemisphere with the dentate nuclei
43. Vermis
44. Floccullus
45. Globose, Emboliform

46. All of the following are features of Bell's Palsy except
    a. drooping lower eyelid
    b. accentuated nasolabial groove
    c. crocodile tears
    d. absence of crow-feet wrinkles

47. Trigeminal neuralgia is
    a. unilateral sudden, severe, sharp, stabbing pain along the distribution of the nerve
    b. loss of sensation from the face
    c. deviation of the jaw to the affected side of the lesion
    d. loss of corneal reflex
48. Loss of saliva secretion from the submandibular and sublingual salivary glands indicates a lesion of
    a. CN VI
    b. CN VII
    c. CN IX
    d. CN XII

49. Lower motor neuron lesions are characterized by …
    a. flaccid paralysis and hyporeflexia
    b. spastic paralysis and hyporeflexia
    c. flaccid paralysis and hyperreflexia
    d. spastic paralysis and hypen'eflexia

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

Match the following lesions to the specific nucleus of the trigeminal nerve

50. Motor nucleus in the pons
51. Nucleus of the spinal tract of the trigeminal
52. principal sensory nucleus
53. mesencephalic nucleus

a. Paralysis of the muscles of mastication
b. Loss of proprioception from the face
c. Loss of pain and temperature from the face and oral cavity
d. Loss of pressure and discriminative tactile sensations from the face

54. Headaches are commonly seen with infections of the nose, sinuses, teeth and gums because of
    a. the close proximity of these structures
    b. increased intra-thecal pressure
    c. the wide sensory distribution of the trigeminal nerve
    d. all of the above

55. Acoustic neuroma is
    a. a lesion of the acoustic tubercle
    b. a brain tumor
    c. tumor of Schwann cell origin
    d. a benign lymphoma

56. Which of the following innervated by the Edinger-Westphall nucleus?
    a. Sphincter pupilae
    b. Dilator pupilae
    c. Ciliaris
    d. A & C
    e. B & C

57. The motor nucleus of the oculomotor nerve innervates all of the following muscles except
    a. Levator palpebrae superioris
    b. medial rectus
    c. superior rectus
    d. inferior rectus o all of the above are innervated by the motor nucleus of the oculomotor nerve

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

58. Inability to look down and in is a characteristic of lesion.
    a. CN III
    b. CN IV
    c. CN VI
    d. none of the above

59. The function of the Red Nucleus is
    a. to connect the cranial nerve nuclei to the cerebellum
    b. to maintain posture and muscle tone
    c. to connect to the ipsilateral cerebellar nuclei
    d. none of the above

60. A patient shuffles into your office with small steps. As you talk to him, you notice that his hands continue to move as though he were rolling a pill, when he goes to reach for a pen, however the movement in his hands looked completely normal. Immediately you suspect degeneration of
    a. Cerebellum
    b. Medial longitudinal fasciculus
    c. Substantia nigra
    d. primary motor cortex

61. A lesion of the superior colliculus of the midbrain affects the inferior colliculus of the midbrain affects
    a. vision; hearing
    b. hearing; vision
    c. vision; olfaction
    d. olfaction; vision

62. All of the following are intrinsic muscles of the eye except
    a. Sphincter papillae
    b. Levator palpebrae superioris
    c. Dilator papillae
    d. Ciliaris
    e. all of the above are intrinsic eye muscles

63. Lesion of the crus cerebri would result in
    a. Contralateral spastic paralysis
    b. Contralateral weakness of the lower face
    c. Ipsilateral weakness of the lower face
    d. A & C
    e. A & B

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.

ANSWERS

1. B
2. False
3. B
4. D
5. A
6. B
7. A
8. C
9. D
10. A
11. B
12. C
13. E
14. B
15. False
16. C
17. B
18. D
19. True
20. B
21. A
22. A
23. B
24. D
25. C
26. A
27. B
28. E
29. BC
30. BCD
31. D
32. C
33. A
34. C
35. C
36. D
37. A
38. C
39. C
40. B
41. A
42. B
43. A
44. C
45. A
46. B
47. A
48. B
49. A
50. D
51. B
52. C
53. C
54. C
55. B
56. A
57. D
58. A
59. F
60. E
61. C
62. C
63. E
64. B
65. B
66. C
67. A
68. B
69. E
70. A

Original Author Unknown. Reformatted by KRS Study guides, www.chiropracticstudent.vonviceroy.com.