



THE MINISTRY OF EDUCATION AND SCIENCE OF
KYRGYZ REPUBLIC
OSH STATE UNIVERSITY
INTERNATIONAL MEDICAL FACULTY
Department of anatomy, histology and normal physiology

«Approved» 
at faculty meeting, protocol № _____
from "28" of _____ 2019.
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«Agreed» 
The chair of the UMC faculty
Assoc. Sakibaev K. Sh.
from "28" of _____ 2019.

Option #1

1. Specify the source of development of the nervous system:

- A. Ectoderm
- B. Chord
- C. mesoderm of somites
- D. Mesoderm of splanchnotomy
- E. Endoderm

2. Specify which parts (bubbles) the forebrain (bubble) is differentiated into):

- 1) telencephalon,
- 2) midbrain,
- 3) diencephalon brain,
- 4) the medulla oblongata.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

3. Specify which departments the midbrain is differentiated into (the midbrain bubble):

- 1) telencephalon,
- 2) diencephalon
- 3) hind brain,
- 4) midbrain.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

4. Specify which fissures of the spinal cord are the exit points of the spinal nerve roots:

- 1) anterior lateral sulcus,
- 2) posterior intermediate sulcus
- 3) posterior lateral sulcus
- 4) posterior median fissures .

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

5. Specify which substance of the spinal cord forms columns (horns):

- A. White matter
- B. Grey matter
- C. Both
- D. Neither

6. Specify in which cord of the spinal cord the red-core-spinal pathway passes:

- A. Ventral funiculis
- B. Lateral funiculis
- C. Dorsal funiculis
- D. None of the above

7. Specify in which cord of the spinal cord passes the vestibulospinal pathway:

- A. Ventral funiculus
- B. Lateral funiculus
- C. Dorsal funiculus
- D. None of the above

8. Specify which cord of the spinal cord passes the anterior reticular-spinal pathway:

- A. Ventral funiculus
- B. Lateral funiculus
- C. Dorsal funiculus
- D. None of the above

9. Specify which neurons are located in the spinal nodes:

- A. Sensitive pseudounipolar neurons
- B. Insertion neurons of the autonomic reflex arc
- C. Insertion neurons of the somatic reflex arc
- D. Efferent somatic neurons
- E. None of the above

10. Specify the location of the first (receptor, afferent) neuron of the reflex arc:

- 1) spinal nodes,
- 2) the nuclei of the anterior horns of the spinal cord,
- 3) the nodes of the cranial nerves,
- 4) the nucleus of the posterior horns of the spinal cord.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

11. Specify which meninges separates the subarachnoid and subdural spaces:

- A. Periosteum
- B. Arachnoid
- C. Pia
- D. Dura
- E. None of the above

12. Specify which formations are bordered by the medulla oblongata at the top (ventrally):

- A. Brain strips
- B. Pons
- C. Visual tracts and mastoid bodies
- D. Thalamus
- E. the roots of the trochlear nerve

13. Specify the border between the medulla oblongata and the pons(dorsally):

- A. Brain strips
- B. Pons
- C. Visual tracts and mastoid bodies
- D. Thalamus
- E. the roots of the trochlear nerve

14. Specify which formations border the midbrain at the bottom (ventrally):

- A. Brain strips
- B. Pons
- C. Visual tracts and mastoid bodies
- D. Thalamus
- E. the roots of the trochlear nerve

15. Specify which formations border the midbrain at the top (ventrally):

- A. Brain strips(medullary striae)
- B. Pons

- C. Visual tracts and mastoid bodies
- D. Thalamus
- E. the roots of the trochlear nerve

16. Specify which part of the brain stem is the posterior perforated substance:

- A. the medulla oblongata
- B. Diencephalon
- C. Pons
- D. Isthmus
- E. Midbrain

17. Specify the part of the brain where the nuclei of the lateral and medial cranial bodies are located:

- A. the medulla oblongata
- B. Pons
- C. The Cerebellum
- D. Midbrain
- E. Diencephalon

18. Specify which fibers form the medial loop:

- A. Processes of neurons of sensitive nuclei V pairs of cranial nerves
- B. Processes of neurons motor neurons V pairs of cranial nerves
- C. Processes of neurons of the anterior and posterior cochlear nuclei
- D. Processes of neurons of the nuclei of the fasciculus cuneatus and gracilis
- E. Processes of neurons of the posterior horn's own nucleus of the spinal cord

19. Specify which fibers form the trigeminal loop:

- A. Processes of neurons of sensitive nuclei V pairs of cranial nerves
- B. Processes of neurons motor neurons V pairs of cranial nerves
- C. Processes of neurons of the anterior and posterior cochlear nuclei
- D. Processes of neurons of the nuclei of the of the fasciculus cuneatus and gracilis
- E. Processes of neurons of the posterior horn's own nucleus of the spinal cord

20. Specify which fibers form the lateral loop:

- A. Processes of neurons of sensitive nuclei V pairs of cranial nerves
- B. Processes of neurons motor neurons V pairs of cranial nerves
- C. Processes of neurons of the anterior and posterior cochlear nuclei
- D. Processes of neurons of the nuclei of the of the fasciculus cuneatus and gracilis
- E. Processes of neurons of the posterior horn's own nucleus of the spinal cord

21. A patient complains of loss sense of taste from anterior 2/3 of the tongue. Damage to which of the following nerves would result in such symptoms?

- a) Cranial nerve 5
- b) Cranial nerve 7
- c) Cranial nerve 9
- d) Cranial nerve 10
- e) Cranial nerve 11

22. A patient complains of loss sense of taste from posterior 1/3 of the tongue. Damage to which of the following nerves would result in such symptoms?

- a) Cranial nerve 5
- b) Cranial nerve 7
- c) Cranial nerve 9
- d) Cranial nerve 10
- e) Cranial nerve

23. Which of the following cranial nerves mediates input from the carotid sinus?

- a) Facial nerve
 - b) Glossopharyngeal nerve
 - c) Vagus nerve
 - d) Hypoglossal nerve
 - e) Trigeminal nerve
24. Which of the following cranial nerves innervates the sternocleidomastoid and trapezius muscle?
- a) Facial nerve
 - b) Glossopharyngeal nerve
 - c) Vagus nerve
 - d) Accessory nerve
 - e) Hypoglossal nerve
25. 11 cranial nerves emerge from the base of the brain and only 1 cranial nerve doesn't emerge from the base of the brain. Which of the following nerves emerge from the dorsum of the brain?
- a) Optic nerve
 - b) Oculomotor nerve
 - c) Trochlear nerve
 - d) Ophthalmic nerve
 - e) Abducens nerve
26. A sharp instrument passing through the superior orbital fissure would most likely sever which of the following structures?
- a) Abducens nerve
 - b) Facial nerve
 - c) Mandibular nerve
 - d) Maxillary nerve
 - e) Ophthalmic artery
27. Specify what cavity (the ventricle) of the brain is directly reported with subarachnoid space:
- A) Right side ventricle
 - B) Left side ventricle
 - C) The third ventricle
 - D) cerebral aqueduct
 - E) Fourth ventricle
28. The average number of cerebrospinal fluid of a person;
- A) 30-50ml
 - B) 60-100ml
 - C) 120-150ml
 - D) 160-200ml
 - E) 220-300ml
29. Indicate the paths forming the dorsal midbrain intersection:
- A) red nuclear cortico-spinal tract
 - B) Tegmental-spinal tract
 - C) Front cortico-spinal tract
 - D) Lateral cortico-spinal tract
 - E) Cortical-nuclear tract
30. Indicate which type of sensitivity is guided by the posterior spinal-cerebellar path:
- A) Pain sensitivity
 - B) Temperature sensitivity
 - C) Proprioceptive sensitivity

D) Proprioceptive sensitivity cerebellar directions

E) Tactile sensitivity

Option #2

1. Specify which parts of the diamond-shaped brain (bubble) is differentiated into):

- 1) telencephalon,
- 2) hind brain,
- 3) diencephalon ,
- 4) medulla oblongata.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

2. Specify which part of the brain includes the crus cerebri of the brain:

- A. telencephalon
- B. diencephalon ,
- C. Midbrain
- D. hind brain,
- E. medulla Oblongata

3. Specify which part of the brain includes the pons:

- A.telencephalon
- B. diencephalon
- C. Midbrain
- D. hind brain
- E. medulla Oblongata

4. Specify the lower border of the spinal cord in an adult:

- A. 11-12 thoracic vertebrae
- B. 12 thoracic-1 lumbar vertebrae
- C. 1-2 lumbar vertebrae
- D. 2-3 lumbar vertebrae
- E. 3-4 lumbar vertebrae

5. Specify the upper border of the spinal cord:

- A. Upper edge of the large occipital opening
- B. Lower edge of the large occipital opening
- C. 1 cervical vertebra
- D. 1 intervertebral cartilage
- E. 2 cervical vertebra

6. Specify which furrows(fissures) of the spinal cord are the exit points of the spinal nerve roots:

- 1) anterior lateral sulcus,
- 2) posterior intermediate sulcus
- 3) posterior lateral sulcus
- 4) posterior median fissures .

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

7. Specify which substance(matter) of the spinal cord forms columns (horns):

- A. White matter
- B. Grey matter
- C. Both
- D. Neither

8. Specify in which cord of the spinal cord the rubrospinal pathway passes:

- A. Ventral funiculus
- B. Lateral funiculus

- C. Dorsal funiculus
- D. None of the above

9. Specify in which cord of the spinal cord passes the vestibulospinal pathway:

- A. Ventral funiculus
- B. Lateral funiculus
- C. Dorsal funiculus
- D. None of the above

10. Specify which cord of the spinal cord passes the anterior reticular-spinal pathway:

- A. Ventral funiculus
- B. Lateral funiculus
- C. Dorsal funiculus
- D. None of the above

11. Specify the location of the first (receptor, afferent) neuron of the reflex arc:

- 1) spinal nodes,
- 2) the nuclei of the anterior horns of the spinal cord,
- 3) the nodes of the cranial nerves,
- 4) the nucleus of the posterior horns of the spinal cord.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

12. Specify the location of the second (inter) neuron of the reflex arc:

- 1) medial intermediate,
- 2) pons. horn cores,
- 3) sensitive cranial nerve nuclei,
- 4) the nuclei of the anterior horns.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

13. Specify the location of the third (motor) neuron of the reflex arc:

- 1) post. horn cores,
- 2) of the anterior horns,
- 3) medial intermediate,
- 4) motor nuclei of cranial nerves.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

14. Specify the location of the second neuron of the lateral spinal-thalamic pathway:

- A. Nuclei of the anterior horns
- B. Medial intermediate
- C. Thoracic nuclei
- D. Proper posterior horn
- E. Gelatinous substance

15. Specify the part of the brain with which the cerebellum is connected by the inferior cerebellar peduncle:

- A. the Spinal cord
- B. the medulla oblongata
- C. Pons
- D. Midbrain
- E. diencephalon

16. Specify the part of the brain with which the cerebellum is connected by the middle cerebellar legs:

- A. the Spinal cord

B. the medulla oblongata

C. Pons

D. Midbrain

E. diencephalon

17. Specify which pathway fibers form the dorsal intersection of the midbrain tire:

A. rubrospinal pathway

B. tecto-spinal pathway

C. Anterior cerebrospinal pathway

D. Posterior cerebrospinal pathway

E. Cortical-spinal pathway

18. Specify which pathway fibers form the ventral intersection of the midbrain tire:

A. rubrospinal pathway

B. tecto-spinal pathway

C. Anterior cerebrospinal pathway

D. Posterior cerebrospinal pathway

E. Cortical-spinal pathway

19. Indicate fiber a conductive path is formed by the decussation of the pyramids:

A. rubrospinal pathway

B. the tecto-spinal pathway

C. Anterior cerebrospinal pathway

D. Posterior cerebrospinal pathway

E. Cortical-spinal pathway

20. Specify the part of the brain where the globular nucleus is located:

A. the medulla oblongata

B. Pons

C. The Cerebellum

D. Midbrain

E. diencephalon

21. From which of the following structures exits vestibulocochlear nerve?

a) Optic canal

b) Jugular foramen

c) Hypoglossal canal

d) Internal acoustic meatus

e) Superior orbital fissure

22. From which of the following structures exits facial nerve?

a) Optic canal

b) Jugular foramen

c) Hypoglossal canal

d) Internal acoustic meatus

e) Superior orbital fissure

23. From which of the following structures exits ophthalmic nerve?

a) Optic canal

b) Jugular foramen

c) Hypoglossal canal

d) Internal acoustic meatus

e) Superior orbital fissure

24. Indicate what formations the hypothalamus is represented by:

A) the optic cross and the optic tract,

B) gray tubercle with funnel and pituitary gland,

C) mastoid bodies,

D) back perforated substance.

When choosing an answer, use the code: A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

25. Indicate which pathways are included in the upper cerebellar legs:

- A) the posterior spinal cord pathway,
- B) the anterior spinal cord pathway,
- C) cerebellar-vestibular pathway,
- D) the cerebellar-capillary tract.

When choosing an answer, use the code:

A true 1,2,3; B - 1.3; C 2.4; D is 4; E - all true.

26. Indicate which fibers form the corpus callosum:

- A) Short associative fibers
- B) Long associative fibers
- C) Commissural fibers
- D) Projection fibers
- E) None of the above

27. Indicate which fibers form the radiant crown of the cerebral hemispheres:

- A) Short associative fibers
- B) Long associative fibers
- C) Commissural fibers
- D) Projection fibers
- E) None of the above

28. Specify which shell forms vascular plexus ventricles brain:

- A) Endorachis
- B) Dura the membrane that lines the the cranial cavity
- C) Processes dura mater
- D) arachnoid
- E) pia-mater

29. Specify which shell divides epidural and subdural space:

- A) Periosteum
- B) arachnoid
- C) .pia mater
- D) dura mater
- E) Nothing the above

30. Indicate which projection paths make up the posterior cords of the spinal cord:

- A) Afferent
- B) Efferent
- C) And those and others
- D) Neither one nor the other

Option #3

1. Specify the lower border of the spinal cord in an adult:

- A. 11-12 thoracic vertebrae
- B. 12 thoracic-1 lumbar vertebrae
- C. 1-2 lumbar vertebrae
- D. 2-3 lumbar vertebrae
- E. 3-4 lumbar vertebrae

2. Specify the upper border of the spinal cord:

- A. Upper edge of the foramen Magnum
- B. Lower edge of the foramen Magnum
- C. 1 cervical vertebra
- D. 1 intervertebral cartilage
- E. 2 cervical vertebra

3. Specify which furrows of the spinal cord are the places where the roots of the spinal nerve exit:

- 1) anterior lateral sulcus,
- 2) posterior intermediate sulcus
- 3) posterior lateral sulcus
- 4) posterior median fissures

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true

4. Specify the location of the anterolateral nuclei of the spinal cord:

- A. posterior horn
- B. intermediate zone
- C. lateral horn
- D. anterior horn
- E. None of the above

5. Specify the location of the posterolateral nuclei of the spinal cord:

- A. posterior horn
- B. intermediate zone
- C. lateral horn
- D. anterior horn
- E. None of the above

6. Specify the location of the anteromedial nucleus of the spinal cord:

- A. posterior horn
- B. intermediate zone
- C. lateral horn
- D. anterior horn
- E. None of the above

7. Specify the location of the third (motor) neuron of the reflex arc:

- 1) nuclei of post. horn cores,
- 2) nuclei of the anterior horns,
- 3) medial intermediate,
- 4) motor nuclei of cranial nerves.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

8. Specify the location of the second neuron of the lateral spinal-thalamic pathway:

- A. Nuclei of the anterior horns
- B. Medial intermediate
- C. Thoracic nuclei
- D. Proper nuclei of posterior horn
- E. Gelatinous substance

9. Specify the location of the second neuron of the posterior spinal cord pathway:

- A. Nuclei of the anterior horns
- B. Medial intermediate
- C. Thoracic nuclei
- D. Proper nuclei of posterior horn
- E. Gelatinous substance

10. Specify the location of the second neuron of the anterior spinal cord pathway:

- A. Nuclei of the anterior horns
- B. Medial intermediate
- C. Thoracic nuclei
- D. Proper nuclei of posterior horn
- E. Gelatinous substance

11. Specify which formations border the midbrain at the top (dorsally):

- A. Brain strips
- B. Pons

- C. Visual tracts and mastoid bodies
 - D. Thalamus
 - E. the roots of the trochlear nerve
12. Specify which part of the brain stem olives are part of:
- A. the medulla oblongata
 - B. Diencephalon
 - C. pons
 - D. Isthmus
 - E. Midbrain
13. Specify which part of the brain stem is a gray bump:
- A. the medulla oblongata
 - B. Diencephalon
 - C. pons
 - D. Isthmus
 - E. Midbrain
14. Specify which part of the brain stem is the upper brain sail:&
- A. the medulla oblongata
 - B. Diencephalon
 - C. pons
 - D. Isthmus
 - E. Midbrain
15. Specify which part of the brain stem are the delicate and wedge-shaped tubercles:
- A. the medulla oblongata
 - B. Diencephalon
 - C. Bridge
 - D. Isthmus
 - E. Midbrain
16. Specify the part of the brain where the red nucleus is located:
- A. the medulla oblongata
 - B. pons
 - C. The Cerebellum
 - D. Midbrain
 - E. Diencephalon
17. Specify the part of the brain where the thin and wedge-shaped nuclei are located:
- A. the medulla oblongata
 - B. pons
 - C. The Cerebellum
 - D. Midbrain
 - E. Diencephalon
18. Specify which pathway fibers form the ventral intersection of the midbrain tire:
- A. rubrospinal pathway
 - B. the tecto-spinal pathway
 - C. Anterior cerebrospinal pathway
 - D. Posterior cerebrospinal pathway
 - E. Cortical-spinal pathway
19. Indicate fiber a conductive path is formed by the decussation of the pyramids:
- A. rubrospinal pathway
 - B. tecto-spinal pathway
 - C. Anterior cerebrospinal pathway
 - D. Posterior cerebrospinal pathway
 - E. Cortical-spinal pathway
20. Specify which fibers form the spinal loop:

- A. Processes of neurons of sensitive nuclei V pairs of cranial nerves
 - B. Processes of neurons motor neurons V pairs of cranial nerves
 - C. Processes of neurons of the anterior and posterior cochlear nuclei
 - D. Processes of neurons of the nuclei of the fasciculus cuneatus and gracilis
 - E. Processes of neurons of the posterior horn's own nucleus of the spinal cord
21. A patient complains of double vision (diplopia), eye “looks down and out”. Damage to which of the following nerves would result in such symptoms?
 - a) Cranial nerve 1
 - b) Cranial nerve 2
 - c) Cranial nerve 3
 - d) Cranial nerve 4
 - e) Cranial nerve 5
 22. A patient complains of loss of sensation of the face skin and paralysis of muscle of mastication. Damage to which of the following nerves would result in such symptoms?
 - a) Cranial nerve 5
 - b) Cranial nerve 7
 - c) Cranial nerve 9
 - d) Cranial nerve 10
 - e) Cranial nerve 11
 23. Which of the following cranial nerves mediates the sense of vision?
 - a) Olfactory nerve
 - b) Optic nerve
 - c) Oculomotor nerve
 - d) Trochlear nerve
 - e) Ophthalmic nerve
 24. Which of the following cranial nerves innervates muscles of the tongue?
 - a) Facial nerve
 - b) Glossopharyngeal nerve
 - c) Vagus nerve
 - d) Hypoglossal nerve
 - e) Trigeminal nerve
 25. Which of the following cranial nerves innervates superior oblique muscle of eye?
 - a) Optic nerve
 - b) Oculomotor nerve
 - c) Trochlear nerve
 - d) Ophthalmic nerve
 - e) Abducens nerve
 26. Which of the following nerves passes through the foramen ovale?
 - a) Trochlear nerve
 - b) Ophthalmic nerve
 - c) Maxillary nerve
 - d) Mandibular nerve
 - e) Facial nerve
 27. Which of the following nerves passes through the jugular foramen?
 - a) Trochlear nerve
 - b) Accessory nerve
 - c) Mandibular nerve
 - d) Facial nerve
 - e) Vestibulocochlear nerve
 28. From which of the following structures exits optic nerve?
 - a) Optic canal
 - b) Jugular foramen

- c) Hypoglossal canal
 - d) Internal acoustic meatus
 - e) Superior orbital fissure
29. Injury to the lower division of the facial nerve during parotid surgery will result in
- a) Inability to furrow the brow (to frown) on the same side
 - b) Numbness over the angle and mental region of the jaw on the same side
 - c) Ptosis of eye on the same side
 - d) Weakness in closing the eye on the same side
 - e) Weakness of the lower lip on the same side
30. Which of the following cranial nerves mediates the sense of smell?
- a) Olfactory nerve
 - b) Optic nerve
 - c) Oculomotor nerve
 - d) Trochlear nerve
 - e) Ophthalmic nerve

Option #4

1. Specify which formations make up the peripheral nervous system:

- 1) cranial and spinal nerves,
- 2) sensitive nodes of the cranial and spinal nerves,
- 3) nodes and nerves of the autonomic nervous system,
- 4) plexus of the somatic and vegetative nervous system.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

2. Specify the name of the nerve fibers that conduct an impulse to the Central nervous system:

- 1) efferent,
- 2) afferent,
- 3) centrifugal,
- 4) centripetal.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

3. Specify the name of the nerves that consist of axons of neurocytes, the nuclei of the anterior horns of the spinal cord and similar cranial nerve nuclei:

- A. Sensitive
- B. Motor Skills
- C. Mixed
- D. Vegetative

4. Specify the name of the nerves consisting of peripheral processes of pseudounipolar neurocytes of the spinal ganglia and cranial nerve ganglia:

- A. Vegetative
- B. Motor Skills
- C. Sensitive
- D. Mixed

5. Specify the name of the nerves consisting of processes of cells of the nuclei of the lateral horns of the spinal cord and similar nuclei of cranial nerves:

- A. Motor Skills
- B. Sensitive
- C. Somatic
- D. Vegetative

6. Specify which part of the brain stem is the triangle loop:

- A. the medulla oblongata
- B. Diencephalon
- C. pons

D. Isthmus

E. Midbrain

7. Specify which part of the brain stem are the lateral and medial cranial bodies:

A. the medulla oblongata

B. Diencephalon

C. pons

D. Isthmus

E. Midbrain

8. Specify which part of the brain stem are the legs of the brain:

A. the medulla oblongata

B. Diencephalon

C. pons

D. Isthmus

E. Midbrain

9. Specify the localization of efferent neurons of the descending pathways of the spinal cord:

A. Spinal node

C. Thoracic nuclei

D. Proper nuclei of posterior horn

E. Nuclei of the anterior horns

10. Specify which shell is directly attached to the spinal cord:

B. Arachnoid

C. Pia

D. Dura

D. Periosteum

E. None of the above

11. Specify which neurons are located in the spinal nodes:

A. pseudounipolar Sensitive neurons

B. Insertion neurons of the autonomic reflex arc

C. Insertion neurons of the somatic reflex arc

D. Efferent somatic neurons

E. None of the above

12. Specify the location of the first (receptor, afferent) neuron of the reflex arc:

1) spinal nodes,

2) the nuclei of the anterior horns of the spinal cord,

3) the nodes of the cranial nerves,

4) the nucleus of the posterior horns of the spinal cord.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true.

13. Specify the location of the second (insert) neuron of the reflex arc:

1) medial intermediate,

2) the nucleus of the posterior horns

3) sensitive cranial nerve cores,

4) the nucleus of the anterior horns.

When choosing a response, use the code:

A-true 1,2,3; B-1,3; C-2,4; D-4; E-all true

14. Specify which cord of the spinal cord passes the posterior proper bundle:

A. Ventral funiculis

B. Lateral funiculis

C. Dorsal funiculis

D. None of the above

15. Specify which neurons are located in the anterior horns of the spinal cord:

A. pseudounipolar Sensitive neurons

- B. Insertion neurons of the autonomic reflex arc
 - C. Insertion neurons of the somatic reflex arc
 - D. Efferent somatic neurons
 - E. None of the above
16. Specify the part of the brain with which the cerebellum is connected by the lower cerebellar legs:
- A. Spinal cord
 - B. medulla oblongata
 - C. Pons
 - D. Midbrain
 - E. Diencephalon
17. Specify the part of the brain with which the cerebellum is connected by the middle cerebellar legs:
- A. the Spinal cord
 - B. the medulla oblongata
 - C. Pons
 - D. Midbrain
 - E. Diencephalon
18. Specify which pathway fibers form the dorsal intersection of the midbrain tire:
- A. rubrospinal pathway
 - B. tectospinal pathway
 - C. Anterior cerebrospinal pathway
 - D. Posterior cerebrospinal pathway
 - E. Cortical-spinal pathway
19. Specify which neurons are located in the lateral horns of the spinal cord:
- A. pseudounipolar Sensitive neurons
 - B. Insertion neurons of the autonomic reflex arc
 - C. Insertion neurons of the somatic reflex arc
 - D. Efferent somatic neurons
 - E. None of the above
20. Specify which neurons are located in the spinal nodes:
- A. pseudounipolar Sensitive neurons
 - B. Insertion neurons of the autonomic reflex arc
 - C. Insertion neurons of the somatic reflex arc
 - D. Efferent somatic neurons
 - E. None of the above
21. Cranial nerves emerges from the base of the brain and only 1 cranial nerve doesn't emerges from the base of the brain. Which of the following nerves emerge from the dorsum of the brain?
- a) Optic nerve
 - b) Oculomotor nerve
 - c) Trochlear nerve
 - d) Ophthalmic nerve
 - e) Abducens nerve
22. A patient complains of loss sense of smell. Damage to which of the following nerves would result in such symptoms?
- a) Cranial nerve 1
 - b) Cranial nerve 2
 - c) Cranial nerve 3
 - d) Cranial nerve 4
 - e) Cranial nerve 5
23. A patient complains of double vision (diplopia), eye “looks down and out”. Damage to which of the following nerves would result in such symptoms?

- a) Cranial nerve 1
 - b) Cranial nerve 2
 - c) Cranial nerve 3
 - d) Cranial nerve 4
 - e) Cranial nerve 5
24. A patient complains of loss of sensation of the face skin and paralysis of muscle of mastication. Damage to which of the following nerves would result in such symptoms?
- a) Cranial nerve 5
 - b) Cranial nerve 7
 - c) Cranial nerve 9
 - d) Cranial nerve 10
 - e) Cranial nerve 11
25. A sharp instrument passing through the superior orbital fissure would most likely sever which of the following structures?
- a) Abducens nerve
 - b) Facial nerve
 - c) Mandibular nerve
 - d) Maxillary nerve
 - e) Ophthalmic artery
26. A patient's left hypoglossal nerve (CN XII) is injured during a carotid endarterectomy. Which of the following would most likely result from this injury?
- a) Decrease gag reflex on the left
 - b) Decrease salivation from the left submandibular and sublingual salivary glands
 - c) Deviation of tongue to the left on protrusion
 - d) Inability to elevate the pharynx on the left during swallow
 - e) Inability to perceive sweet and salt taste sensation on the anterior part of the left side of the tongue
27. Which of the following nerves passes through the optic canal?
- a) Olfactory nerve
 - b) Optic nerve
 - c) Oculomotor nerve
 - d) Trochlear nerve
 - e) Ophthalmic nerve
28. Which of the following nerves passes through the hypoglossal canal?
- a) Olfactory nerve
 - b) Accessory nerve
 - c) Hypoglossal nerve
 - d) Optic nerve
 - e) Oculomotor nerve
29. Indicate in which part of the cerebral cortex the nucleus of the olfactory analyzer is localized:
- A) On both sides of the furrow
 - B) Hook, hippocampus
 - C) Lower parietal lobe and supra marginal gyrus
 - D) Transverse temporal gyrus
 - E) Precentral gyrus and paracentral lobule
30. Indicate which furrow separates the direct gyrus from the orbital gyrus:
- A) Longitudinal slit of the large brain
 - B) Collateral sulcus
 - C) Spur furrow
 - D) Nasal sulcus
 - E) Olfactory sulcus