

UNIVERSITY OF OTTAWA
ANP1106B
Midterm 2

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1. A person with a damaged visual association area may be
 - A) unable to see rows of letters
 - B) declared legally blind
 - C) unable to recognize letters but able to identify whole words and their meanings
 - D) able to see letters but unable to associate them into words
 - E) unable to understand spoken words

2. Which of the following statements regarding spinal nerves is TRUE?
 - A) The dorsal ramus carries only sensory information while the ventral ramus carries only motor information
 - B) The dorsal root carries information only toward the spinal cord while the ventral root carries information away from the spinal cord
 - C) The dorsal ramus carries information toward the posterior compartment of the body while the ventral ramus carries information toward the anterior compartment of the body
 - D) The dorsal root is equivalent to the dorsal ramus
 - E) The dorsal ramus carries only motor information while the ventral ramus carries only sensory information

3. Choose the muscle(s) that retract the jaw:
 - A) temporalis
 - B) masseter
 - C) medial pterygoid
 - D) both A and B are correct
 - E) all three muscles retract the jaw

4. The action of the pectoralis major muscle is to:
 - A) abduct the arm and rotate the arm laterally
 - B) flex, adduct and rotate the arm medially
 - C) adduct the arm and rotate the arm laterally
 - D) abduct the arm and rotate the arm medially
 - E) abduct and raise the arm

5. The tensor fasciae latae performs all of the following *except*:
- A) stabilizes the hip joint
 - B) stabilizes the knee joint
 - C) abducts the thigh
 - D) extends the thigh
6. Muscles of which group share a common origin on the ischium and act to extend the thigh and flex the leg?
- A) Gluteal muscles
 - B) Adductor muscles
 - C) Peroneal muscles
 - D) Quadriceps muscles
 - E) Hamstrings muscles
7. The _____ connects the two cerebral hemispheres
- A) association fibers
 - B) internal capsules
 - C) commissures
 - D) projection fibers
8. Spinal nerves are all classified as:
- A) mixed nerves
 - B) sensory nerves
 - C) afferent nerves
 - D) motor nerves
9. The pectineus, psoas major, adductor longus, and iliacus muscles have one action in common. They _____ the thigh.
- A) flex
 - B) extend
 - C) abduct
 - D) laterally rotate
10. The body's main parasympathetic nerve is the
- A) glossopharyngeal nerve
 - B) soleus and gracilis
 - C) vagus nerve
 - D) accessory nerve

11. Two muscles that utilize the calcaneal tendon to insert on the calcaneus are the
- A) gastrocnemius and sartorius
 - B) soleus and gracilis
 - C) gastrocnemius and soleus
 - D) gastrocnemius and tensor fasciae latae
12. Which of the following is not a function of the neuroglia?
- A) support
 - B) memory
 - C) secretion of cerebrospinal fluid
 - D) maintenance of the blood-brain barrier
 - E) phagocytosis
13. The sternocleidomastoid inserts on the
- A) occipital bone
 - B) clavicle
 - C) mastoid process
 - D) sternum
 - E) none of the above
14. Which of the following muscles has its origin on the hyoid bone and inserts on the tongue?
- A) hypoglossus
 - B) lateral pterygoid
 - C) sternohyoid
 - D) thyrohyoid
15. During abdominal surgery, the surgeon makes a cut lateral to the linea alba. The muscle that would be cut is the _____
- A) splenius
 - B) external abdominal oblique
 - C) rectus abdominis
 - D) scalenes
16. The levator ani and coccygeus muscles insert on the _____
- A) iliac crest
 - B) coccyx
 - C) ischial spine
 - D) sacrum

17. Muscles that insert on the olecranon process of the ulna act to
- A) flex the forearm
 - B) extend the forearm
 - C) abduct the forearm
 - D) adduct the forearm
18. The muscle that medially rotates and flexes (unlocks) the knee joint is the
- A) iliacus
 - B) gracilis
 - C) sartorius
 - D) popliteus
19. Muscles of the rotator cuff include all of the following, except the
- A) supraspinatus
 - B) infraspinatus
 - C) teres major
 - D) rhomboid
20. The powerful abductor muscle of the upper arm is the
- A) pectoralis major
 - B) brachioradialis
 - C) deltoid
 - D) coracobrachialis
21. Damage to the somatic motor association area of the frontal lobe would interfere with the ability to
- A) understand written words
 - B) understand spoken words
 - C) understand visual images
 - D) play the piano
22. If the ventral root of a spinal nerve were cut, what would be the result in the tissue or region that nerve supplies?
- A) a complete loss of voluntary movement
 - B) complete loss of sensation
 - C) a complete loss of sensation and movement
 - D) loss of neither sensation nor movement, but only of autonomic control
23. Which of these muscles is a member of the quadriceps group?
- A) vastus lateralis
 - B) vastus medialis
 - C) vastus intermedius

- D) rectus femoris
- E) all of the above

24. An antagonist to the gastrocnemius muscle is the _____ muscle.

- A) tibialis anterior
- B) extensor digitorum longus
- C) soleus
- D) tibialis posterior

25. Which of the following is incorrectly paired?

- A) spinocerebellar tracts // proprioceptive inputs to the cerebellum
- B) spinothalamic tract // information to the brain about burning pain
- C) pyramidal and corticospinal tracts // motor tracts serving voluntary movements
- D) extrapyramidal tracts // sensory information to the brain

26. The flax cerebri is:

- A) the deep groove between the pre central and postcentral gyro
- B) the lobe of the cerebrum not visible on the surface
- C) an extension of the dura mater separating the cerebral hemispheres
- D) an extension of the dura mater separating the cerebellar hemispheres
- E) an extension of the dura mater separating the cerebrum from the cerebellum

27. Which of the following is a function of the thalamus?

- A) secrete cerebrospinal fluid
- B) secrete melatonin
- C) process sensory information and relay it to the cerebrum
- D) store memories

28. Spinal nerves _____ go directly to the tissues they supply without forming a plexus.

- A) C1 through C4
- B) C4 through T1
- C) T2 through T12
- D) L1 through L5
- E) S1 through S5

29. The action(s) of the extensor digitorum longus muscle is to _____

- A) flex the digits
- B) assist with plantar flexion of the foot
- C) extend digits
- D) assist with dorsiflexion of the foot
- E) both C and D

30. The _____ nerve is *not* a branch of the trigeminal nerve:

- A) mandibular
- B) ophthalmic
- C) cervical
- D) maxillary

31. Problems in balance may follow trauma to which nerve?

- A) abducens
- B) vestibulocochlear
- C) trigeminal
- D) accessory

32. The flexor muscles in the anterior arm (biceps brachii and brachialis) are innervated by what nerve?

- A) radial
- B) median
- C) ulnar
- D) musculocutaneous

33. If a person has a crush injury to the C3-C5 spinal segments, you would expect that he:

- A) might be unable to breathe on his own
- B) could breathe without difficulty
- C) would have full range of motion in all extremities
- D) would be in a coma
- E) would exhibit none of the above

34. The brachial plexus gives rise to all of the following nerves, except the

- A) radial
- B) median
- C) ulnar
- D) musculocutaneous
- E) phrenic

35. Cerebrospinal fluid flows from the 3rd ventricle to the 4th ventricle through the

- A) subarachnoid space

- B) lateral ventricle
- C) cerebral aqueduct
- D) interventricular foramen

36. Overseeing the postural muscles of the body and making rapid adjustments to maintain balance and equilibrium are functions of the _____.

- A) cerebrum
- B) midbrain
- C) cerebellum
- D) pons
- E) medulla oblongata

37. Stimulation of the reticular formation results in

- A) increased consciousness
- B) sleep
- C) coma
- D) all of the above

38. Which of the following is not a property of the limbic system?

- A) contains cerebral and diencephalic components
- B) functions in maintaining homeostasis in cold weather
- C) located between the border of the cerebrum and diencephalon
- D) functions in emotions, learning, and memory

39. The surface of the postcentral gyrus contains the _____ cortex.

- A) primary sensory
- B) primary motor
- C) visual
- D) olfactory
- E) auditory

40. After suffering a stroke, Mary finds that she cannot move her right arm. This would suggest that the stroke damage is in the area of the _____ lobe.

- A) right frontal
- B) left frontal
- C) right temporal
- D) left temporal

41. The basal nuclei

- A) plan and coordinate voluntary muscle activity

- B) provide the general pattern and rhythm for movements such as walking
- C) coordinate sensory information
- D) control respiration and blood pressure

42. Tom, a trumpet player, asks you which muscles he should develop in order to be a better trumpeter. What would you tell him?

- A) the masseter and buccinator
- B) the buccinator and orbicularis oris
- C) the orbicularis oris and risorius
- D) the buccinator and zygomaticus

43. A tumor is growing in the left lateral horns of several segments of a patient's spinal cord. How might these tumors affect the patient?

- A) the patient may not be able to feel somatic sensations from the chest down
- B) the patient may not be able to move the lower extremities
- C) the patient may have difficulty regulating cardiac and smooth muscle contractions
- D) A and B are correct

44. Paralysis of which of the following would make an individual unable to flex the thigh?

- A) biceps
- B) soleus
- C) vastus medialis
- D) iliopsoas and rectus femurs
- E) none of the above

45. Neurons can be classified structurally by the number of processes extending from their cell body. Which is the most common neuron type in humans?

- A) tripolar
- B) bipolar
- C) unipolar
- D) multipolar