1. The 4 gram mass called the hypothalamus does a tremendous amount for you. Which of the following does it NOT do?
   A. regulate appetite
   B. regulate thirst
   C. regulate hormone secretion from the anterior pituitary
   D. Act as the body’s thermostat
   E. innervate the superior oblique eye muscle

2. All sensory information coming into the brain is relayed to other parts of the brain through the:
   A. hypothalamus       B. thalamus   C. pineal
   D. pituitary   E. corpus callosum

3. The facial nerve is known as cranial nerve number:
   A. 1  B. 3  C. 5  D. 7  E. 9

4. The primary motor cortex of the brain is located in the:
   A. precentral gyrus  B. thalamus       C. central sulcus
   D. postcentral gyrus E. occipital lobe

5. An inability to chew might indicate damage to which cranial nerve?
   A. IV       B. V       C. VI  D. VII  E. X

6. The phrenic nerve innervates the:
   A. perineum       B. diaphragm   C. biceps brachii
   D. heart       E. lungs

7. The dorsal root ganglia contain:
   A. motor neuron cell bodies
   B. only nerve fibers of motor neurons
   C. somatic sensory neuron cell bodies
   D. only nerve fibers of sensory neurons
   E. interneuron cell bodies

8. When you point your toes, the action that occurs at the ankle is called:
   A. plantarflexion       B. dorsiflexion   C. pointyflexion
   D. inversion       E. eversion

9. Spinal nerves exit the vertebral column via the ________ foramen.
   A. vertebral       B. spinal       C. intervertebral
   D. pedicelar       E. lateral
10. The lacrimal glands receive parasympathetic innervation via which cranial nerve?
   A. oculomotor    B. trochlear    C. facial
   D. vagus        E. hypoglossal

11. The ciliary muscle of the eye receives parasympathetic innervation via which cranial nerve?
   A. III    B. IV    C. VII    D. X    E. XII

12. The trigeminal nerve innervates which of the following muscles?
   A. muscles of facial expression    B. Intrinsic muscles of the tongue
   C. muscles of the larynx    D. extraocular eye muscles
   E. muscles of mastication

13. The cranial nerve that innervates the taste buds on the posterior 1/3 of the tongue is number:
   A. V    B. VII    C. IX    D. X    E. VIII

14. Injury of this cranial nerve on the right side would cause difficulty turning the head to the left.
   A. V    B. VII    C. XI    D. XII    E. VI

15. This cranial nerve innervates the cochlea.
   A. VIII    B. VII    C. III    D. XI    E. IV

16. When this cranial nerve is injured, the heart rate speeds up to about 90 beats per minute.
   A. IX    B. X    C. XI    D. VIII    E. V

17. Cranial nerve supplying motor innervation to the lateral rectus eye muscle.
   A. II    B. V    C. III    D. IV    E. VI

18. Cranial nerve supplying motor innervation to the superior oblique eye muscle.
   A. II    B. V    C. III    D. IV    E. VI

19. Cranial nerve carrying special sense of smell from the olfactory epithelium.
   A. I    B. II    C. III    D. IV    E. V

20. Cranial nerve supplying intrinsic muscles of the tongue.
   A. VII    B. XII    C. IX    D. VII    E. V

21. Cranial nerve carrying visual information from the retina of the eye.
   A. I    B. II    C. III    D. IV    E. V
22. Cranial nerve carrying motor information to the medial rectus eye muscle
   A. II  B. V  C. III  D. IV  E. VI

23. Cranial nerve innervating the sublingual and submandibular salivary glands.
   A. V  B. VII  C. IX  D. IV  E. XII

24. The part of the brain which functions primarily in auditory reflexes is the:
   A. temporal lobe  B. parietal lobe  C. occipital lobe
   D. superior colliculi  E. inferior colliculi

25. Which of the following bones develops via intramembranous ossification?
   a. xiphoid  b. humerus  c. mandible  
   d. atlas  e. scapula

26. Bursitis is:
   a. The inflammation of a synarthrotic joint
   b. The inflammation of a meniscus
   c. The inflammation of a synovial joint
   d. The inflammation of a synovial sac
   e. None of the above

27. In the anatomical position, the ulna is ________ to the radius.
   a. lateral  b. medial  c. inferior  d. proximal  e. distal

28. Which of the following is NOT a characteristic of cardiac muscle?
   a. Centrally located nuclei  b. multinucleate
   c. Striations  d. intercalated discs
   e. branched cells

29. The Z-disc in skeletal muscle represents:
   c. Sarcoplasmic reticulum  d. T-tubules
   e. Boundary of the sarcomere

30. The A-band of skeletal muscle appears dark under the microscope due to the presence of:
   a. myosin  b. actin  c. titin  d. nebulin  e. all of the above
31. Which of the following is characteristic of smooth muscle?
   a. Intercalated discs  b. striations  c. multinucleate
d. spindle-shaped  e. none of the above

32. Articular cartilages are made up of:
   a. Fibrocartilage  b. Hyaline cartilage  c. Elastic cartilage

33. The joints between adjacent vertebrae are classified as:
   a. Synarthroses  b. Symphyses  c. Amphiarthroses
d. both a and b  e. both b and c

34. There is an interosseous membrane at the distal radio-ulnar joint. This joint is classified as a:
   a. synarthrosis  b. amphiarthrosis  c. gomphosis
d. a and b  e. b and c

35. The joint between a tooth and an alveolar process of the mandible or maxilla is classified as a:
   a. amphiarthrosis  b. syndesmosis  c. synarthrosis
d. a and b  e. b and c

36. A tendon sheath contains:
   a. A synovial membrane  b. synovial fluid  c. hyaline cartilage
d. all of the above  e. a and b

37. Lack of activity of a synovial joint makes the joint "stiff." This is because:
   a. There is a buildup of uric acid crystals in the joint leading to gout
   b. The articular cartilages start to fuse with each other
   c. There is a buildup of synovial fluid within the joint
d. There is too little synovial fluid within the joint
e. All of the above are possible reasons

38. Invaginations of the sarcolemma at the Z-discs are called:
   a. terminal cisternae  b. Z-tubules
c. T-tubules  d. sarcoplasmic extensions
e. none of the above

39. The connective tissue which surrounds an entire muscle is called:
   a. endomysium  b. endoneurium  c. perimysium
d. epimysium  e. sarcoplasm

40. Intercalated discs contain:
   a. tight junctions  b. gap junctions  c. hemidesmosomes
d. all of the above  e. b and c only
41. Small cylindrical bundles of actin and myosin within a muscle cell are called:
   a. myofibers  b. myofibrils  c. sarcomeres
d. myoblasts  e. myofilaments

42. Pseudounipolar cells are found:
   a. in the ANS  b. in the PNS  c. in the CNS
c. both a and b  d. both a and c

43. The epithelium that lines the ureters is called:
   a. simple squamous  b. stratified squamous  c. transitional
d. simple cuboidal  e. pseudostratified columnar with cilia

44. Which of the following cell types are responsible for providing myelination in the CNS?
   a. Oligodendrocytes  b. ependymal cells  c. Schwann cells
d. both a and b  e. both a and c

45. The choroid plexus contains both ___________ and ___________.
   a. continuous capillaries; ependymal cells
   b. continuous capillaries; astrocytes
c. fenestrated capillaries; ependymal cells
d. fenestrated capillaries; astrocytes
e. continuous capillaries; microglia

46. Which of the following glial cell types is responsible for removing cellular debris and pathogens from the CNS?
   a. Oligodendrocytes  b. microglia  c. ependymal cells
d. astrocytes  e. macroglia

47. The parts of an axon where there is an absence of myelination are called:
   a. Schwann cells  b. axon terminals  c. Nodes of Ranvier
d. internodal spaces  e. terminal boutons

48. Bipolar neurons are found in:
   a. The DRG  b. dorsal horns  c. the retina
d. ventral horns  e. none of the above

49. The connective tissue surrounding an individual axon is called:
   a. myelin  b. epineurium  c. endomysium
d. oligodendrin  e. endoneurium

50. The dorsal root ganglion contains
   a. somatic motor neurons  b. somatic sensory neurons
c. satellite cells  d. all of the above
e. b and c only