1. Which of the following are the parts of neurons?
   a. Brain, spinal cord, and vertebral column
   b. Dendrite, axon, and cell body
   c. Sensory and motor
   d. Cortex, medulla, and sheath
   e. Sympathetic and parasympathetic

2. A dendrite conducts nerve impulses ______ the cell body.
   a. Away from
   b. Toward
   c. Both toward and away from
   d. Around, bypassing
   e. Only inside

3. An axon conducts nerve impulses ______ the cell body.
   a. Away from
   b. Toward
   c. Both toward and away from
   d. Around, bypassing
   e. Only inside

4. Which of the following is/are type(s) of neurons?
   a. Sensory
   b. Motor
   c. Interneurons
   d. All of the above

5. Sensory nerve cells act as the decision-making cells to sum up all signals for certain stimuli.
   a. True
   b. False

6. Neuroglial cells support and provide nutrition for the ____________________________
   a. Muscle Cells
   b. Glands
   c. Neurons
   d. Nephrons

7. Neurons often have many short dendrites and a long axon.
   a. True
   b. False

8. A sensory neuron of the peripheral nervous system take nerve impulses from sensory receptors to the ________
   a. Motor neurons
   b. Interneurons
   c. Autonomic nervous system
   d. Central nervous system

9. Nerve impulses go from sensory neurons in sense organs directly to the muscles and glands that respond.
   a. True
   b. False

10. An interneuron has __________.
    a. Long dendrites and a short axon
    b. Long dendrites and long axon
    c. Short dendrites and long axon
    d. Short dendrites and a long or short axon
11. Schwann cells are the main neuron of the spinal cord.
   a. True
   b. False

12. Schwann cells are one of several types of _______ cells in the nervous system.
   a. Sensory
   b. Motor
   c. Association
   d. Neurological

13. Schwann cells produce layers of membrane containing myelin, which provides nutrition for the dendrites.
   a. True
   b. False

14. Gaps in the myelin sheath are called _______.
   a. Nodes of Ranvier
   b. The synapse
   c. Axonal interstices
   d. myelinoids

15. _____________ is a disease of the myelin sheath
   a. Leprosy
   b. Alzheimer Disease
   c. Multiple Sclerosis
   d. Polio

16. A nerve impulse is the way a sensory neuron receives information.
   a. True
   b. False

17. Nerve impulses create a change in voltage which is measured by and can be seen on a(n) _______.
   a. Stethoscope
   b. Electrocardiogram
   c. Oscilloscope
   d. Aparoscope

18. Axoplasm is the _____________.
   a. Blood plasma that nourishes a nerve
   b. Fluid external to the axon but inside the myelin sheath
   c. Cytoplasm of the dendrite
   d. Cytoplasm of the axon

19. When the axon is conducting an impulse, the oscilloscope records a constant membrane potential, equal to about -65mV.
   a. True
   b. False

20. The resting potential indicates that the inside of the neuron is _____ compared to the outside.
   a. Under ionic pressure
   b. Positive
   c. Negative
   d. Inactive

21. The "sodium-postassium pump” pumps _________.
   a. Sodium ions out and potassium ions in
   b. Sodium ions in and potassium ions out
   c. Sodium and potassium ions in
   d. Sodium and potassium out
22. The action potential pattern that appears on the oscilloscope screen is caused by rapid ____.  
   a. Polarity changes  
   b. pH changes  
   c. breakdown of the membrane structure  
   d. all of the above  
23. The action potential is measured in millivolts (mV) and is ranged from:  
   a. -90mV to +20mV  
   b. -70mV to +30mV  
   c. -65mV to +40mV  
   d. -30mV to +60mV  
24. With an action potential, depolarization of the axon membrane is recorded as the gates open, allowing ______ to flow into the axon.  
   a. Potassium ions  
   b. H+ ions  
   c. Sodium ions  
   d. All of the above  
25. The action potential changes the charge inside the axon from positive to negative.  
   a. True  
   b. False  
26. A nerve fiber obeys an all or none law insofar as it either fires or does not fire depending on whether the stimulus is above a threshold.  
   a. True  
   b. False  
27. As the action potential swings down,  
   a. Potassium ions move out of the axon  
   b. Potassium ions move into the axon  
   c. Sodium ions move into the axon  
28. As the potassium ions move out of the axon, the oscilloscope records a ________.  
   a. Depolarization  
   b. Repolarization  
   c. Equalizing of negative and positive ions  
   d. Shutdown of the membrane pumps  
29. A refractory period is ___________.  
   a. A brief time when a neuron is unable to conduct an impulse  
   b. The period during which potassium and sodium ions are completely stable  
   c. The same as the resting potential  
   d. The short time the myelin sheath provides insulation from another impulse  
   e. Is a reserve impulse that resets the sodium and potassium balance.  
30. In humans, transmission of nerve impulses across a synaptic cleft is carried out by ____.  
   a. Sodium ions  
   b. Potassium ions  
   c. Neurotransmitter molecules  
   d. The nodes of Ranvier  
31. Along with the nervous system, the __________ system coordinates the various activities of body parts.  
   a. Digestive  
   b. Endocrine  
   c. Circulatory  
   d. Respiratory  
   e. Excretory
32. A moth sex attractant would be a ________.
   a. Hormone
   b. Neurotransmitter
   c. Pheromone
   d. Steroid

33. ________ are chemical messengers that are produced in one body region but affect a different body region.
   a. Enzymes
   b. Endocrines
   c. Neurotransmitters
   d. Nucleic acids
   e. Hormones

34. The endocrine system is quicker than the nervous system.
   a. True
   b. False

35. Certain cells respond to one hormone and not to another, depending on their receptors.
   a. True
   b. False

36. Endocrine Glands secrete hormones into the bloodstream for transport to target organs.
   a. True
   b. False

37. Hormones are substances that fall into two basic categories: ________________.
   a. Stimulator hormones and receptor hormones
   b. Proteins and sugars
   c. Male hormones and female hormones
   d. Non-steroid (peptide) hormones and steroid hormones

38. Non-steroid hormones are produced by the adrenal glands, the ovaries, and the testes.
   a. True
   b. False

39. The receptors for non-steroid peptide hormones are on the ________.
   a. Plasma membrane
   b. Nuclear envelope
   c. DNA receptor complex
   d. Peptide chain

40. Non-steroid peptide hormones enter the cell.
   a. True
   b. False

41. Steroid hormones do NOT bind to plasma membrane receptors.
   a. True
   b. False

42. Steroid hormones lead to the ________.
   a. Destruction of normal DNA
   b. Replication of hormones by the cell DNA
   c. Synthesis of new enzymes
   d. Alteration of the Krebs cycle
   e. Better health and longer life

43. The pituitary is located beneath the thalamus in the brain.
   a. True
   b. False
44. The hypothalamus regulates ________________.
   a. Heart rate
   b. Body temperature
   c. Water balance
   d. Glandular secretions
   e. All of the above

45. The posterior pituitary stores and secretes ________________.
   a. ADH and oxytocin
   b. Growth hormone and gonadotropin-releasing hormone
   c. Estrogen and testosterone
   d. Aldosterone and cortisone
   e. Adrenalin and insulin

46. ADH promotes the expulsion of water from the collecting duct, a portion of the nephron.
   a. True
   b. False

47. The function(s) of oxytocin is/are to ________________.
   a. Cause the uterus to contract
   b. Induce labor
   c. Stimulate the release of milk from the mother's mammary glands when her baby is nursing
   d. All of the above

48. Hypothalamic releasing and release-inhibiting hormones are transported from the hypothalamus to the anterior pituitary by way of ________________.
   a. The general bloodstream
   b. A portal system of blood vessels directly connecting the two organs
   c. Direct contact between the two organs
   d. A cascade of release-inhibit-release/etc. interactions

49. Hormones produced by the anterior pituitary that have a direct effect on the body, rather than trigger another gland, are ________________.
   a. GHH, prolactin, and MSH
   b. TSH, ACTH, and gonadotrophic hormones
   c. Testosterone and estrogen
   d. FH, LSH, and progesterone

50. If the production of GH increases in an adult after full height has been attained, only certain bones respond and result in acromegaly.
   a. True
   b. False

51. Why is the endocrine system considered one of the integrative systems of the body? What other physiological system also has this function?

52. What is the relationship between the hypothalamus and the hypophysis?