

Endocrine System

True/False

Indicate whether the statement is true or false.

- ___ 1. The thymus gland secretes hormones linked to the body's stress level.
- ___ 2. The largest gland is the pancreas.
- ___ 3. Hormones are classified by the response that they produce.
- ___ 4. Hormones produced within the endocrine glands enter the bloodstream to reach their target site.
- ___ 5. Melatonin is released more during the night than during the day.
- ___ 6. Glucagon is released by the pancreas in response to high blood sugar.
- ___ 7. Somatostatin inhibits the release of insulin and glucagon.
- ___ 8. If production of growth hormones is present in children, the resulting condition is known as acromegaly.
- ___ 9. Pheochromocytomas are benign and can usually be removed surgically.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 10. Which of the following is not a gland located in the head?
 - a. Pituitary
 - b. Hypothalamus
 - c. Thyroid
 - d. Pineal
- ___ 11. Which gland is a bridge between the nervous system and hormone system?
 - a. Pituitary
 - b. Hypothalamus
 - c. Thyroid
 - d. Pineal
- ___ 12. Which gland is responsible for controlling sexual growth?
 - a. Pituitary
 - b. Hypothalamus
 - c. Thyroid
 - d. Pineal
- ___ 13. Which gland is responsible for hormones that participate in metabolism?
 - a. Parathyroid
 - b. Hypothalamus
 - c. Thyroid
 - d. Pineal
- ___ 14. Which gland secretes hormones that help the body keep the calcium levels adequate?
 - a. Parathyroid
 - b. Hypothalamus
 - c. Thyroid
 - d. Pineal
- ___ 15. Which gland is responsible for the production of insulin and glucagon?
 - a. Adrenal
 - b. Pancreas
 - c. Thymus
 - d. Parathyroid

- _____ 16. Which chemical regulates the sleep-wake cycle?
 a. Oxytocin c. Melatonin
 b. Releasing hormones d. Thyroxine
- _____ 17. Which gland is known as the “master” gland?
 a. Thyroid c. Pancreas
 b. Parathyroid d. Pituitary
- _____ 18. Which hormone increases blood sugar concentration?
 a. Glucocorticoids c. Sex hormones
 b. Mineralocorticoids d. Melatonin
- _____ 19. Which hormone increases urinary output?
 a. Glucocorticoids c. Sex hormones
 b. Mineralocorticoids d. Melatonin
- _____ 20. Which of the following medications is not used to treat hypothyroidism?
 a. Synthroid c. Cytomel
 b. Tapazole d. Liotrix
- _____ 21. Which of the following medications is not used in the treatment of Paget’s disease?
 a. Calcimar c. Alendronate
 b. Didronel d. Florinef

Matching

Match the term with its correct definition.

- | | |
|-----------------------|----------------------|
| a. Addison’s disease | f. Myxedema |
| b. Paget’s disease | g. Cushing’s disease |
| c. Osteoporosis | h. Goiter |
| d. Autoimmune disease | i. Graves’ disease |
| e. Cretinism | |

- _____ 22. Disease causing an increase of adrenocorticotrophic hormone
- _____ 23. Condition resulting in a decrease in corticoids
- _____ 24. Condition in which a long-acting thyroid stimulator protein is constantly produced
- _____ 25. Condition associated with the decrease of bone density
- _____ 26. Condition in which a person’s tissues are attacked by their immune system
- _____ 27. Condition associated with a decrease in overall thyroid function
- _____ 28. Results in softening and weakening of bones
- _____ 29. Condition in which the thyroid is enlarged because of a lack of iodine
- _____ 30. Condition in which the development of the brain and body is inhibited

Nervous System

True/False

Indicate whether the statement is true or false.

- ___ 1. The nervous system has five main functions.
- ___ 2. The somatic neurons control voluntary actions of the skeletal muscles.
- ___ 3. The cerebrum controls muscle functions.
- ___ 4. The thalamus is in charge of most of the sensory stimuli.
- ___ 5. The autonomic system responds to stressful situations.
- ___ 6. The three main states of the neuron are polarized, depolarized, and repolarized.
- ___ 7. The gray matter of the brain is made up of bundles of nerve fibers.
- ___ 8. The medulla oblongata controls cardiac rate.
- ___ 9. Drugs cannot pass through the blood-brain barrier.
- ___ 10. Emotions, such as anxiety, hate, and stress, are sympathetic reactions.
- ___ 11. One of the main functions of the parasympathetic system is the activation of the digestive system.
- ___ 12. Myasthenia gravis affects more men than women.
- ___ 13. Generalized seizures affect only one hemisphere of the brain.
- ___ 14. Parkinson's disease is associated with the loss or deficiency of dopamine.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 15. What is the smallest part of the nervous system?
 - a. Axon
 - b. Neuron
 - c. Dendrites
 - d. Ganglions
- ___ 16. What are the bundles of cell bodies called?
 - a. Ganglions
 - b. Dendrites
 - c. Neurons
 - d. Axons
- ___ 17. What are extensions of the neuron that receive electrical impulses?
 - a. Axon
 - b. Nerve terminal
 - c. Cell body
 - d. Dendrites
- ___ 18. What part of the nerve cell conducts impulses?
 - a. Axon
 - b. Dendrites
 - c. Neuron
 - d. Ganglions

Respiratory System

True/False

Indicate whether the statement is true or false.

- ___ 1. The lining of the pleural cavity is called mucous.
- ___ 2. The total lung capacity is 500 ml.
- ___ 3. Pneumonia is an infection of the lower respiratory system.
- ___ 4. Tuberculosis is the most common bacterial disease affecting the pulmonary system.
- ___ 5. Decongestants break up thick mucous secretions of the lungs or bronchi.
- ___ 6. Common side effects of bronchodilators are headache, nervousness, and shakiness.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 7. Which of the following is not part of the upper respiratory system?
 - a. Pharynx
 - b. Larynx
 - c. Nose
 - d. Trachea
- ___ 8. Which part of the respiratory system is responsible for providing oxygen distribution and a passageway for air to reach the alveoli?
 - a. Bronchioles
 - b. Trachea
 - c. Alveoli
 - d. Bronchi
- ___ 9. What is also known as the “voice box?”
 - a. Trachea
 - b. Pharynx
 - c. Larynx
 - d. Diaphragm
- ___ 10. Which of the following is not used to treat asthma?
 - a. Bronchodilators
 - b. Antihistamines
 - c. Corticosteroids
 - d. Xanthenes
- ___ 11. What is characterized by a collapse of the alveoli resulting from air escaping into the pleural space?
 - a. Aspiration
 - b. Pulmonary embolism
 - c. Pneumothorax
 - d. Hemothorax
- ___ 12. What is a collapse of a lung resulting from blood leaking into the pleural space?
 - a. Aspiration
 - b. Pulmonary embolism
 - c. Pneumothorax
 - d. Hemothorax
- ___ 13. Which class of medications are used to relax the smooth muscle of the bronchi and pulmonary blood vessels?
 - a. Xanthine bronchodilators
 - b. Leukotriene receptor antagonists
 - c. Corticosteroids
 - d. Anticholinergics

Matching

Match the term to the correct definition.

- a. COPD
- b. Asthma
- c. Influenza
- d. Cystic fibrosis

- _____ 14. An inherited disorder that causes production of very thick mucus
- _____ 15. A condition in which narrowing of the airways impedes breathing
- _____ 16. A respiratory tract infection caused by a virus
- _____ 17. Known as emphysema and chronic bronchitis

Match the condition with the symptoms.

- a. Bradypnea
- b. Apnea
- c. Orthopnea
- d. Dyspnea
- e. Cyanosis
- f. Tachypnea
- g. Hyperventilation
- h. Hypoventilation

- _____ 18. Respiration stops as in heart failure
- _____ 19. Shallow breathing
- _____ 20. Slow breathing
- _____ 21. Labored or difficult breathing while lying down
- _____ 22. Deep and rapid breathing
- _____ 23. Rapid breathing
- _____ 24. Labored and difficult breathing
- _____ 25. Lack of breathing causing skin to turn blue gray

Match the condition with the correct definition.

- a. Croup
- b. Pulmonary edema
- c. Pleurisy
- d. Whooping cough
- e. Aspiration

- _____ 26. A childhood condition that causes obstruction of the larynx
- _____ 27. Also known as pertussis
- _____ 28. Inflammation of the lining of the lungs and lung cavities
- _____ 29. The act of removing substances, such as mucus, from the airways
- _____ 30. Caused by fluid filling the respiratory air sacs and bronchioles

Visual and Auditory Systems

True/False

Indicate whether the statement is true or false.

- ___ 1. There are three major muscles of the eye that are responsible for the movement of the eye.
- ___ 2. Cones are responsible for detecting color in bright light.
- ___ 3. Conjunctivitis is not a contagious eye infection.
- ___ 4. Beta-adrenergic blockers work on both of the beta-receptor sites of the eye.
- ___ 5. Unlike miotics, CAI agents are only used preoperatively for persons with angle-closure glaucoma.
- ___ 6. Sympathomimetics are used specifically for persons suffering from allergies and congestion in the eyes.
- ___ 7. Sulfonamides are bacteriostatic to both gram-negative and gram-positive microbes.
- ___ 8. The only function that the ear has is hearing.
- ___ 9. The tympanic membrane is responsible for protecting the middle ear and transmitting sounds to the middle ear.
- ___ 10. There are two semicircular canals filled with fluid that help with the transfer of messages to a cranial nerve.
- ___ 11. Otitis media is an infection of the inner ear.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 12. Which of the following is the enzyme contained in tears that has antimicrobial properties?
 - a. Rhodopsin
 - b. Lysozyme
 - c. Vitreous humor
 - d. Lacrimal fluid
- ___ 13. What is the condition in which the pressure within the eye is higher than normal?
 - a. Conjunctivitis
 - b. Viral infections
 - c. Bacterial infections
 - d. Glaucoma
- ___ 14. What condition is also known as “pink eye?”
 - a. Conjunctivitis
 - b. Viral infections
 - c. Bacterial infections
 - d. Glaucoma
- ___ 15. Which type of glaucoma do 90% of glaucoma patients have?
 - a. Secondary
 - b. Congenital
 - c. Chronic simple
 - d. Acute congestive
- ___ 16. Which of the following agents is used to lower the IOP in open-angle glaucoma only?
 - a. Beta-adrenergic blocker
 - b. Carbonic anhydrase inhibitor
 - c. Miotic
 - d. Sympathomimetic

Name: _____

ID: A

- _____ 32. Responsible for the color of the eye
- _____ 33. Fluid that is responsible for cleaning and nourishing the eye
- _____ 34. Protective white portions of the eye
- _____ 35. Area where the sharpest vision occurs

Gastrointestinal System

True/False

Indicate whether the statement is true or false.

- _____ 1. The three functions of the GI system are digestion, absorption, and excretion.
- _____ 2. The breaking down of molecules to release energy is known as anabolism.
- _____ 3. Intrinsic factor is needed for the breakdown of B₁₂.
- _____ 4. Lack of good oral hygiene is the most common reason for conditions affecting the mouth.
- _____ 5. Diarrhea and constipation are two of the most common symptoms affecting the intestinal tract.
- _____ 6. The part of the brain that controls emesis is located in the medulla oblongata.
- _____ 7. The large intestines are responsible for the final steps in the digestion of food.
- _____ 8. Bulk-forming agents are used to treat constipation by pulling water and fatty compounds into the intestines to aid in elimination.
- _____ 9. The CTZ is located in the stomach and is responsible for signaling the vomit center.
- _____ 10. Saliva's only function is the enzymatic breakdown of food.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 11. What connects the mouth to the esophagus?
 - a. Pharynx
 - b. Epiglottis
 - c. Larynx
 - d. Lumen
- _____ 12. What is the movement of the esophagus that pushes food to the stomach called?
 - a. Osmosis
 - b. Contraction
 - c. Spasm
 - d. Peristalsis
- _____ 13. Which part of the intestines is also connected to the liver and pancreas?
 - a. Ileum
 - b. Jejunum
 - c. Duodenum
 - d. Descending colon
- _____ 14. The large intestines are limited to the absorption of what?
 - a. Water and electrolytes
 - b. Water and vitamins
 - c. Vitamins and electrolytes
 - d. Water and minerals
- _____ 15. The condition in which stomach acid is allowed to backup into the esophagus is called?
 - a. *H. pylori*
 - b. GERD
 - c. Hyperacidity
 - d. Duodenal ulcer
- _____ 16. Which of the following is not a class of medication used to treat GERD?
 - a. Antacid
 - b. H₂ antagonist
 - c. Anticonvulsants
 - d. Proton pump inhibitors

- _____ 17. Patients taking TCN should not take antacids containing magnesium or aluminum at the same time because they _____.
a. Can cause severe constipation
b. Can cause severe diarrhea
c. Can increase the absorption of the antibiotic
d. Can decrease the absorption of the antibiotic
- _____ 18. What are the four agents that are most effective against *H. pylori*?
a. TCN, omeprazole, clarithromycin, bismuth
b. Bismuth, TCN, amoxicillin, clarithromycin
c. Omeprazole, bismuth, TCN, amoxicillin
d. Bismuth, metronidazole, TCN, omeprazole
- _____ 19. What are protrusions of the colon wall resulting from a weakened intestinal wall called?
a. Diverticulum disease
b. Hemorrhoids
c. Crohn's disease
d. Colitis
- _____ 20. Which of the following is not one of the salivary glands?
a. Sublingual
b. Jejunum
c. Submandibular
d. Parotid
- _____ 21. Where are carbohydrates broken down from disaccharides into monosaccharides?
a. Gallbladder
b. Cecum
c. Duodenum
d. Colon

Matching

Match the condition with its correct description.

- | | |
|----------------|-------------------------|
| a. Hemorrhoids | c. Diverticular disease |
| b. Colitis | d. Crohn's disease |
- _____ 22. Protrusions of the colon wall resulting from a weakened intestinal wall
- _____ 23. Inflammation of the intestines that commonly occurs in the large intestines
- _____ 24. Chronic inflammation of the GI tract
- _____ 25. Lesions caused by enlargement and inflammation of veins in the rectum

Urinary System

True/False

Indicate whether the statement is true or false.

- _____ 1. The ureter carries waste from the bladder to the outside of the body.
- _____ 2. The kidneys are located inside the upper abdominal cavity.
- _____ 3. The loop of Henle is the up-and-down part of the nephron.
- _____ 4. The first function of the nephrons is secretion of waste products.
- _____ 5. A person cannot live with only one kidney functioning properly.
- _____ 6. Infection of the bladder is called cystitis.
- _____ 7. Hemodialysis can be done at home at night while the patient sleeps.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 8. What is the fibrous connective tissue that holds the kidneys stationary?
 - a. Renal artery
 - b. Renal vein
 - c. Hilus
 - d. Renal fascia
- _____ 9. Which of the following is not a major function of the body?
 - a. Absorption
 - b. Maturation
 - c. Distribution
 - d. Metabolism
- _____ 10. What is the portion of the kidney that does the work of separation?
 - a. Nephrons
 - b. Renal artery
 - c. Renal vein
 - d. Pyramid
- _____ 11. What is the test used to determine levels of acid in a patient's system?
 - a. Blood alkalosis test
 - b. Blood acidosis test
 - c. Urine output test
 - d. Blood urea nitrogen test
- _____ 12. Which component of the nephron covers the glomerulus?
 - a. Loop of Henle
 - b. Afferent arteriole
 - c. Bowman's capsule
 - d. Efferent arteriole
- _____ 13. What is an infection that is picked up while in the hospital called?
 - a. Bladder infection
 - b. Nosocomial infection
 - c. Kidney infection
 - d. Fungal infection
- _____ 14. Which agent used to treat edema equally increases the urinary excretion of both sodium and chloride ions?
 - a. Thiazide diuretic
 - b. Potassium-sparing diuretic
 - c. Loop diuretic
 - d. Carbonic anhydrase inhibitor

Cardiovascular System

True/False

Indicate whether the statement is true or false.

- ___ 1. A normal heart beats anywhere from 30 to 60 times per minute.
- ___ 2. The superior vena cava brings blood from the upper portion of the body to the heart.
- ___ 3. The left ventricle contracts and expels blood into the lungs for oxygenation.
- ___ 4. Systole is when the myocardium squeezes blood from the heart chamber into the pulmonary artery or aorta.
- ___ 5. Family history is not a factor in determining the potential for hyperlipidemia.
- ___ 6. Diet is only used in conjunction with medications to treat hypertension.
- ___ 7. ACE inhibitors help reduce blood pressure by causing a decrease of pressure in the arteries.
- ___ 8. Nitrates are used to increase the workload of the heart in order to make it stronger.
- ___ 9. Nitroglycerin is good for 1 year after opening the container.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 10. What layer of the heart has a smooth accordion-pleat-like surface?
 - a. Myocardium
 - b. Epicardium
 - c. Pericardium
 - d. Endocardium
- ___ 11. What is the outer layer of the heart?
 - a. Myocardium
 - b. Epicardium
 - c. Pericardium
 - d. Endocardium
- ___ 12. What is the heart muscle that contracts?
 - a. Myocardium
 - b. Epicardium
 - c. Pericardium
 - d. Endocardium
- ___ 13. What is the connective tissue that surrounds the heart?
 - a. Myocardium
 - b. Epicardium
 - c. Pericardium
 - d. Endocardium
- ___ 14. What are the main arteries that supply blood to the heart?
 - a. Coronary arteries
 - b. Pulmonary arteries
 - c. Arterioles
 - d. Cardiac arteries
- ___ 15. What is known as the “silent killer?”
 - a. Hyperlipidemia
 - b. Hypertension
 - c. Angina pectoris
 - d. Myocardial infarction

Reproductive System

True/False

Indicate whether the statement is true or false.

- ___ 1. The epididymis is where fluids are secreted to enhance sperm motility and viability.
- ___ 2. Testosterone is the most abundant androgen.
- ___ 3. Women produce one egg each month.
- ___ 4. Unlike females, the male hormones are secreted by the endocrine system continuously.
- ___ 5. Female hormones are used to treat conditions of the male reproductive tract.
- ___ 6. Estrogen is prescribed at the highest dose needed because the effect should last as long as possible.
- ___ 7. The feminization of males on estrogen is not reversible.
- ___ 8. Oral administration of natural progestin preparations is not a recommended route.
- ___ 9. Lamb intestine condoms are the most effective protection against the transmission of viruses and bacteria.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 10. Which hormone stimulates the male sex hormones?
 - a. Luteinizing hormone
 - b. Gonadotropin-releasing hormone
 - c. Interstitial cell stimulating hormone
 - d. Follicle-stimulating hormone
- ___ 11. Where does most fertilization of the egg occur?
 - a. Uterus
 - b. Ovary
 - c. Fallopian tube
 - d. Endometrium
- ___ 12. Which medication is obtained naturally from the testes of bulls?
 - a. Testosterone
 - b. Methyltestosterone
 - c. Danazol
 - d. Nandrolone
- ___ 13. Which of the following medications is used to treat benign prostatic hypertrophy?
 - a. Nandrolone
 - b. Stanozolol
 - c. Oreton
 - d. Proscar
- ___ 14. Which of the following is not a use of estrogen?
 - a. Treatment of aplastic anemia
 - b. Oral contraception
 - c. Treatment of prostate cancer
 - d. Decrease risk of cardiac disease
- ___ 15. Which of the following is the hormone released on days 14 through 28 of the female menstrual cycle?
 - a. Delestrogen
 - b. Progesterone
 - c. Estrace
 - d. Premarin

Name: _____

ID: A

- _____ 16. Which of the following medications is a progesterone?
- a. Ogen
 - b. Cardura
 - c. Flomax
 - d. Crinone

Matching

Match the term with the correct definition.

- a. Amenorrhea
- b. Chloasma
- c. Dysmenorrhea
- d. Menopause
- e. Endometriosis

- _____ 17. Painful menstruation
- _____ 18. Condition in which tissue resembling endometrium is found outside the uterine cavity
- _____ 19. Absence or suppression of menses
- _____ 20. Cessation of menstruation
- _____ 21. Hyperpigmentation of skin

Future of Pharmacy Technicians

True/False

Indicate whether the statement is true or false.

- _____ 1. There is currently a national standard that governs all technicians in each state.
- _____ 2. Technicians can use the same CE units as pharmacists.
- _____ 3. Pharmacy is predominantly a liberal profession.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 4. Which of the following is not a main association concerned with the practice of pharmacy?
 - a. NPTA
 - b. APHA
 - c. ASHP
 - d. PTCB
- _____ 5. Which group was founded in 1995 with the intent to certify that a technician has met a basic skill level?
 - a. MPA
 - b. PTCB
 - c. ASHP
 - d. APHA

Conversions and Calculations**Completion**

Complete each statement.

1. 3000 mg = _____ g
2. 2 L = _____ ml
3. 0.8 mg = _____ mcg
4. 3.2 kg = _____ g
5. 5 pints = _____ fluid ounces
6. Acetaminophen elixir contains 500 mg of APAP per 5 ml. _____ milligrams of APAP are in 7 ml of the elixir.
7. A physician orders 8 mg of morphine sulfate to be administered to a patient. Morphine is labeled 10 mg/ml. _____ milliliters is required to fill the order.
8. A vial contains 1.25 g of Unasyn in 10 ml of solution. _____ milligrams of Unasyn are contained in 1.3 ml of solution.
9. The recommended dose of a medication for a pediatric patient is 25 mg/kg/day. _____ milligrams must be given daily to a 35-lb child.
10. A recommended dose for administration of a medication is 12 mg/lb/day. _____ milligrams of this drug must be administered daily to a 72-kg adult.
11. The physician orders 1500 ml of D₅W solution to be administered over a 12-hour-period. The IV set is calibrated to deliver 20 gtt/ml. The patient should receive _____ drops per minute.
12. A patient is to receive 250 ml of an IV infusion over a period of 4 hours. The IV set is calibrated to deliver 17 gtt/ml. The patient should receive _____ drops per minute.
13. An IV infusion containing 750 ml is to be administered at a drop rate of 43 gtt/min. The IV set is calibrated to deliver 21 gtt/ml. It will take _____ to administer the entire infusion.
14. An IV piggyback containing 1 g of drug in 50 ml is to be infused over 1 hour. The IV set is calibrated to deliver 15 gtt/ml. _____ drops per minute should be administered.

Convert the following to Roman numerals.

15. 15 = _____
16. 26 = _____
17. 43 = _____
18. 12 = _____
19. 105 = _____

Convert the following to Arabic numerals.

20. XVIII = _____
21. MCM = _____
22. XCVIII = _____
23. IX = _____
24. MMIII = _____
25. A medication is labeled as having 125 mg/5 ml. A physician writes for 35 mg of the medication to be given every 4 hours. _____ milliliters of the drug will be dispensed for a 7-day supply
26. A recommended dose for the administration of a drug is 12 mg/lb/day in three divided doses. _____ milligrams of this drug must be administered for one dose to a 65-kg adult.
27. The physician orders 1000 ml of a drug solution to be administered at a rate of 50 gtt/min. The IV set is calibrated to deliver 25 gtt/ml. It will take _____ to administer the entire infusion.
28. A recommended dose for the administration of a drug is 25 mg/kg/day. _____ milligrams of this drug must be administered per day to a 128-lb adult.
29. A medication is supplied in a 250-mg scored tablet. A physician prescribes 125 mg every 8 hours for 10 days. _____ tablets will be dispensed for the entire course of therapy.
30. A medication contains 2.25 g of a drug in powder form. If 10 ml of sterile water is added to the drug, _____ milligrams of the drug will be contained in 1 ml of solution (assuming that the powder does not add volume to the final solution).