Endocrine Syst. Qs. Bank1

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

____ 1. Which of the following controls the pituitary gland?A
a. Hypothalamus
b. Thyroid gland
c. Adrenal gland
d. Hippocampus

____ 2. What kind of hormones bind to receptors in the cytoplasm of cells?B
a. Amino acid hormones
b. Steroid hormones
c. Both A and B
d. Neither A nor B

____ 3. Which of the following hormones does the adrenal gland produce?D
a. Aldosterone
b. Adrenaline
c. Glucocorticoids
d. All of the above

____ 4. The hormone that stimulates the release of calcium from bone tissue is called —C
a. thyroid hormone.
b. calcitonin.
c. parathyroid hormone.
d. human growth hormone.

____ 5. Which hormone causes an increase in blood glucose?C
a. glycogen
b. gastrin
c. glucagon
d. sucrase

____ 6. The hormone _____ stimulates the liver to release glucose into the blood when glucose levels are low.A
a. glucagon
b. insulin
c. bile
d. gastrin

____ 7. The hormone that causes a decrease in blood glucose is _____.B
a. glucagon
b. insulin
c. gastrin
d. nuclease

____ 8. The liver reacts to a high level of glucose in the blood by converting some of the glucose to _____.D
a. insulin
b. glucagon
c. galactose
d. glycogen

____ 9. What controls the release of food from the stomach to the small intestine?D
a. villus
b. larynx
c. epiglottis
d. muscular valve

____ 10. The body's preferred energy source is _____.A
a. carbohydrates
b. fats
c. proteins
d. minerals

____ 11. What is the most abundant substance in the body?B
a. fat
b. water
c. sugar
d. protein

____ 12. Which of the following occurs in the large intestine as the work of anaerobic bacteria?B
a. absorption of water
b. synthesis of vitamin K and some B vitamins
c. change of glucose to glycogen
d. elimination of indigestible matter

____ 13. Which hormone keeps both the fluid level of the body and blood pressure from decreasing?A
a. antidiuretic hormone
b. aldosterone
c. cholesterol
d. plaque

____ 14. ____ is a hormone produced by the hypothalamus that stimulates the reabsorption of water in kidney cells.C

a. Aldosterone
b. Insulin
c. Antidiuretic hormone
d. Glucagon

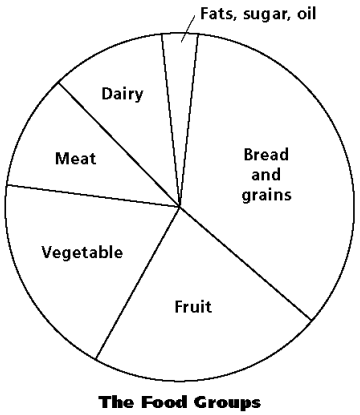

Figure 35-2

____ 15. Which of the main nutrients is most represented in the food groups shown in Figure 35-2?A

a. carbohydrates
b. fats
c. proteins
d. vitamins

____ 16. Which of the main nutrients is least represented in the food groups shown in Figure 35-2?B

a. carbohydrates
b. fats
c. proteins
d. vitamins

____ 17. What is not easily accounted for in Figure 35-2?D

a. sugar
b. oils
c. proteins
d. water

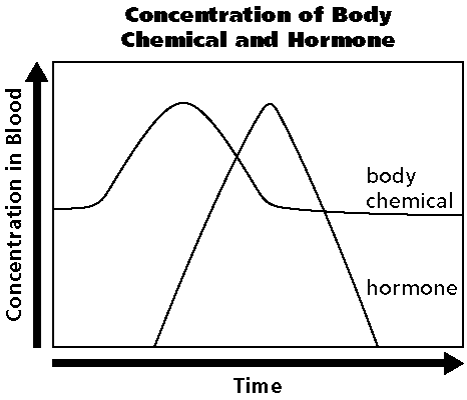

Figure 35-3

____ 18. What type of system is shown in Figure 35-3?C

a. reverse feedback
b. positive feedback
c. negative feedback
d. anti feedback

____ 19. What is likely to have triggered hormone production shown in Figure 35-3?D

a. the presence of the body chemical
b. a decrease in the body chemical
c. a total lack of the body chemical
d. an increase in the body chemical

1. After having a double-bacon cheeseburger with a milkshake, which of the following hormones would be expected to increase?

   A. Prolactin
   B. Glucagon
   C. Insulin
   D. Parathyroid Hormone

2. After having a double-bacon cheeseburger with a milkshake, which of the following hormones would NOT be expected to increase?

A. Secretin
B. Insulin
C. Cholecystokinin
D. Glucagon

3. Which of the following hormones would bind to receptors located on the inside of a cell?

A. Testosterone
B. Follicle-Stimulating Hormone
C. Prolactin
D. Growth Hormone

4. Hormones that are derived from amino acids are hydrophilic whereas hormones derived from cholesterol are hydrophobic. Which of the following accurately describes thyroid hormone?

A. Released from the anterior pituitary
B. Binds to receptors on the outside of the cell
C. Derived from cholesterol
D. Binds to receptors on the inside of the cell

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   C. Derived from cholesterol
   D. Binds to receptors on the inside of the cell

6. Which of the following is a physiological function that is mediated by a hormone released by the posterior pituitary?

A. Maturation of the egg and sperm
B. Decrease in calcium levels
C. Water retention
D. Increase in thyroid hormone level

7. Hormones travel through the blood stream and bind to receptors located on target cells. Which of the following would NOT bind to transmembrane proteins on the target cells?

A. Estrogen
B. Prolactin
C. Insulin
D. Antidiuretic Hormone

8. Which of the following hormones would be expected to increase if you were studying all day for a test and skipped breakfast and lunch?

A. Glucagon
B. Growth Hormone
C. Insulin
D. Calcitonin

9. Which hormone increases basal metabolic rate in the body?

A. Thyroid Hormone
B. Parathyroid Hormone
C. Secretin
D. Glucagon

10. Growth factors and histamine are chemical agents released in small amounts that act locally on neighboring cells. Which of the following best describes the function of growth factors and histamine?

A. Endocrine function
B. Autocrine function
C. Paracrine function
D. None of the above

11. Which of the following is both an endocrine and exocrine gland?

A. Thyroid Gland
B. Adrenal Glands
C. Parathyroid Glands
D. Liver

12. The primary role of the parathyroid gland is:

A. To maintain metabolic homeostasis
B. To regulate serum calcium levels
C. To send hormonal signals to other endocrine organs
D. To receive hormonal signals from the hypothalamus

13. Antibodies directed against pancreatic cells result in these cells' destruction. What laboratory abnormality might be seen in this scenario?

A. Depressed serum calcium
B. Elevated serum glucose
C. Depressed serum sodium
D. Elevated serum calcium

14. Each hormone's organ specificity is determined by:

A. Whether it is a corticosteroid or a gonadotropic hormone
B. Its ability to interact with a specific receptor
C. The signaling cascade it initiates
D. Whether it is lipophilic or lipophobic

15. Hormones secreted by the hypothalamus would be classified as:

A. Intracrine
B. Autocrine
C. Paracrine
D. Endocrine

16. All of the following are true of posterior pituitary hormones EXCEPT:

A. They include direct and tropic hormones
B. They are released from the posterior pituitary
C. A nerve signal from the hypothalamus stimulates their release
D. They include antidiuretic hormone and oxytocin

17. The concentration of hormones in the bloodstream is regulated by:

A. Production of receptor antagonists
B. Indirect growth-promoting effects
C. Nutritional signals to the endocrine gland
D. Positive and negative feedback loops

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19. Unlike polypeptide hormones, steroid hormones:

A. Demonstrate rapid onset of effect
B. Are more likely to have an associated receptor in the cytosol or nucleus
C. More commonly function via specific second messengers
D. Are more rapidly degraded and therefore demonstrate more temporary effects

20. The role of adenylate cyclase is:

A. To degrade steroid hormones, terminating their function
B. To activate G protein-coupled receptors via phosphorylation
C. To aid in signal amplification via conversion of GTP to GDP
D. To cyclize ATP in order to generate second messengers

21. Biosynthesis of steroids begins with:

A. Methylation of a sesquiterpene
B. Binding of pyrophosphate to a terpene
C. Generation of a sterol
D. Binding of two terpene groups

22. Steroid hormones include which of the following:

A. Thyroid hormones and adrenal cortical hormones
B. Pancreatic and thyroid hormones
C. Sex hormones and adrenal medullary hormones
D. Sex hormones and adrenal cortical hormones

23. Which gland is responsible for the flight-or-fight response?

A. adrenal gland
B. parathyroid gland
C. pituitary gland

24. Which gland is responsible for calcium regulation?

A. pancreas
B. parathyroid gland
C. pineal gland

25. Which gland may enlarge (goiter) due to an iodine deficiency?

A. parathyroid gland
B. pituitary gland
C. thyroid gland

26. The animal body has two levels of coordination; what are they?

A. chemical and mental
B. nervous and cellular
C. nervous and chemical

27. Hormones can be made of each of the following EXCEPT:

A. carbohydrates
B. lipids
C. proteins

28. How do hormones differ from the nervous system?

A. Hormones are faster.
B. Hormones are only secreted by one specific type of cell.
C. Hormones travel farther.

29. How many hormones are secreted by the anterior lobe of the pituitary gland?

A. 3
B. 5
C. 7

30. A deficiency in what hormone leads to dwarfism?

A. lactogenic hormone
B. luteinizing hormone
C. somatotropin hormone

31. What two hormones are produced by the pancreas?

A. epinephrine and norepinephrine
B. insulin and glucagon
C. parathormone and vasopressin

The Endocrine System Qs. Bank 3

1. Which of the following statements regarding pituitary hormones is *false*?B

A) The hypothalamus makes oxytocin and antidiuretic hormone, which are transported the posterior pituitary for storage.
B) Antidiuretic hormone, released by the posterior pituitary, causes urine volume to increase and blood volume to decrease.
C) Luteinizing hormone, an anterior pituitary hormone, triggers ovulation of an egg from the ovary and causes the ruptured follicle to produce progesterone and some estrogens.
D) Hyposecretion of follicle-stimulating hormone or luteinizing hormone leads to sterility in both males and females.
E) (B) and (C)

2. Androgens are produced by the_____.B

A) ovaries.
B) testes.
C) hypothalamus.
D) islets of Langerhans.

3. One of the two hormones made by the pituitary that help regulate reproductive cells is luteinizing hormone. The other hormone is_____.B

A) Androgens
B) Follicle stimulating hormone
C) Epinephrine
D) Norepinephrine

4. Calcium level in the blood is regulated by the:A

A) Parathyroid and thyroid
B) Adrenal medulla and pancreas
C) Testes
D) Parathyroid and thymus

5. Which one of the following is NOT typical of the changes that follow the binding of a hormone to its target cells:B

A) plasma membrane permeability changes
B) cellular mutations occur
C) enzymes are activated or inactivated
D) mitosis is stimulated

6. Being lipid soluble, steroids can do all the following EXCEPT:A

A) catalyze cyclic AMP
B) diffuse through the plasma membranes of target cells
C) enter the nucleus
D) activate genes to transcribe mRNA for protein synthesis

7. Estrogens and progesterone are produced by:B

A) the testes.
B) the ovaries.
C) the adrenal glands.
D) the hypothalamus.

8. Failure of the pituitary to stop producing growth hormone after body growth is completed results in_____.D

A) Gigantism
B) Tetany
C) Kidney failure
D) Acromegaly

9. Most endocrine organs are prodded into action by other hormones; this type of stimulus is called:A

A) hormonal stimulus
B) humoral stimulus
C) neural stimulus
D) receptor-mediated stimulus

10. Tropic hormones:C

A) stimulate the pineal gland to secrete hormones
B) stimulate the thymus gland to secrete hormones
C) stimulate other endocrines glands to secrete hormones
D) stimulate nervous tissue

11. The body's major metabolic hormone is released from the:B

A) Pituitary
B) Thyroid
C) Thymus
D) Hypothalamus

12. Most of the endocrine system is regulated by:A

A) negative feedback mechanisms.
B) positive feedback mechanisms.
C) hormone-receptor complexes.
D) hormone-gene complexes.

13. Nervousness, increased body temperature, and increased blood-pressure are indications of _____.D

A) diabetes mellitus
B) hypoglycemia
C) hypothyroidism
D) hyperthyroidism

14. The alpha cells of the pancreas secrete_____which targets the_____.A

A) glucagon; liver
B) melatonin; liver
C) glucagon; kidney
D) calcitonin; thyroid

15. The growth hormone produced by the pituitary gland is known as_____.A

A) somatotropin
B) prolactin
C) luteinizing hormone
D) follicle-stimulating hormone

16. The rate of metabolism of all body cells is regulated by_____.D

A) parathyroid hormone
B) aldosterone
C) calcitonin
D) thyroid hormone

17. The relatively constant internal environment of the body is maintained by_____.C

A) negative feedback.
B) positive feedback.
C) homeostasis.
D) metabolism.

18. The secretions from which of these glands differs between males and females?C

A) Adrenal.
B) Parathyroid.
C) Gonadal.
D) Pancreas.

19. The two regulatory systems of the body are the endocrine system and the_____.A

A) nervous system
B) immune system
C) circulatory system
D) respiratory system
E) skeletal system

20. Why can a single endocrine hormone produce a wider spread of responses in more of the body than a single nerve cell?B

A) A single hormone can target many different responses, whereas a nerve only targets a single response.
B) Blood can carry all the same hormones throughout the body simultaneously, producing responses all over the body; nerve cells can only target a small number of cells.
C) Nerve cells and blood work together. The endocrine has nothing to do with the nervous system.
D) Endocrine hormones only target a very small number of precise responses.

21. Which of the following has both endocrine and exocrine functions?D

A) anterior pituitary
B) thyroid
C) adrenal medulla
D) pancreas

22. Which of the following produce antagonistic results?A

A) calcitonin and parathryroid hormone
B) FSH and LH
C) ADH and vasopressin
D) oxytocin and prolactin

23. If you drank a liter of water very quickly, the result would be..B

A) increased secretion of oxytocin
B) decreased secretion of antidiuretic hormone
C) decreased secretion of oxytocin
D) increased secretion of antidiuretic hormone

24. How is hormone secretion regulated?D

A) by the nervous system
B) by other hormones
C) by changes in blood composition
D) all of the above

25. Target cells for hypothalamic releasing hormones are in the..C

A) thyroid
B) hypothalamus
C) anterior pituitary
D) posterior pituitary

26. The posterior pituitary gland stores and secretes..A

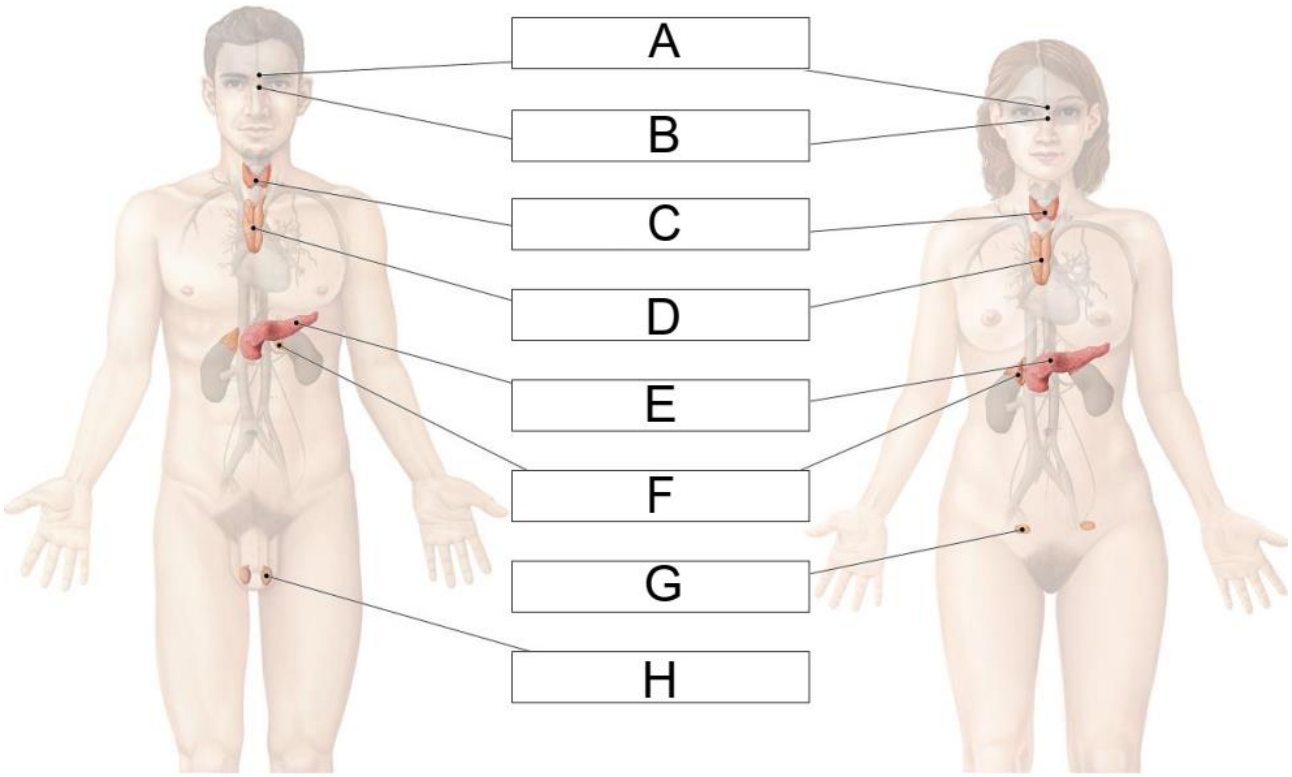
A) oxytocin and antidiuretic hormone
B) human growth hormone and thyroid stimulating hormone
C) prolactin and follicle stimulating hormone
D) glucocorticoids and androgens

27. What stimulates the release of PTH from the parathyroid gland?D

A) TSH from the posterior pituitary gland
B) high levels of calcium in the blood
C) calcitonin from the anterior pituitary gland
D) low levels of calcium in the blood

28. The release of cortisol is stimulated by..D

A) aldosterone
B) angiotensin
C) antidiuretic hormone (ADH)
D) adrenocorticotropic hormone (ACTH)



1. Pineal gland.A
2. Pitutary gland.B
3. Thyroid gland.C
4. Thymus gland.D
5. Pancreas.E
6. Adrenal gland.F
7. Ovary.G
8. Testes.H