The Endocrine System Quiz

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

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) Hyposcretion 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 _______.

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 _______.

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

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

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:

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) 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:
   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 ________.
   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) hormonal stimulus
   B) humoral stimulus
   C) neural stimulus
   D) receptor-mediated stimulus

10. Tropic hormones:
    A) stimulate the pineal gland to secrete hormones
    B) stimulate the thymus gland to secrete hormones
    C) stimulate other endocrine glands to secrete hormones
    D) stimulate nervous tissue

11. The body’s major metabolic hormone is released from the:
    A) Pituitary
    B) Thyroid
    C) Thymus
    D) Hypothalamus
12. Most of the endocrine system is regulated by:

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 ________.

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

14. The alpha cells of the pancreas secrete ________ which targets the ________.

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

16. The rate of metabolism of all body cells is regulated by ________.

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

17. The relatively constant internal environment of the body is maintained by ________.

A) negative feedback.
B) positive feedback.
C) homeostasis.
D) metabolism.
18. The secretions from which of these glands differs between males and females?

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

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

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?

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?

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

22. Which of the following produce antagonistic results?

A) calcitonin and parathyroid 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

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?

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

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

26. The posterior pituitary gland stores and secretes

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?

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

The release of cortisol is stimulated by

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

1. B
2. B
3. B
4. A
5. B
6. A
7. B
8. D
9. A
10. C
11. B
12. A
13. D
14. A
15. A
16. D
17. C
18. C
19. A
20. B
21. D
22. A
23. B
24. D
25. C
26. A
27. D
28. D