

Course No: DNTS 1210
Course Title: Basic Physiology
Date: 01-04-2015
No. of Questions: (2)
Time: 1 hr
Using Calculator (No)

University of Palestine



Mid term Exam
2014/2015
Total Grade: 20

Instructor: Dr. Essameddin Elzatma
Student No.: _____
Student Name: _____
College Name: Dentistry
Dep. / Specialist: _____
Using Dictionary (No)

Multiple choice questions (10 Marks)

1-Which two hormones are released from the posterior lobe of the pituitary gland?

- A. ADH and GH
B. CTH and TSH
C. ADH and oxytocin
D. TRH and CRH

2- Human growth hormone binds to a specific protein on the plasma membrane. This protein is called a

- A. ligand. B. clathrin C. receptor. D. hydrophobic protein.

3- The two main hormones which control the blood glucose level are:

- A) insulin and adrenaline B) glucagon and adrenaline
C) adrenaline and noradrenaline D) insulin and glucagon

4- Endocrine glands

- A) function only after puberty. B) function only before puberty.
C) release products through ducts. D) release products into the bloodstream.

5- What is diabetes insipidus?

- A) undersecretion of ADH.
B) undersecretion of adrenal cortex.
C) high levels of glucose in the bloodstream
D) a form of high blood pressure

6- Steroid hormones

- A) are produced only by the adrenal cortex.
B) have only cell surface receptors.
C) are water-soluble.
D) act by altering gene expression in the target cell.

7- hypothalamus produces one of the following hormones

- A) oxytocin B) epinephrine C) growth hormone D) ACTH

8- Hormones released by nerve cells of the _____ regulate hormones secreted by the _____.

- A. hypothalamus, anterior pituitary. B. hypothalamus, posterior pituitary.
C. anterior pituitary, hypothalamus. D. cerebellum, posterior pituitary

9- Which statement is false?

- A. the endocrine system is composed of ductless glands.
B. contents of the endocrine system are released into the bloodstream.
C. the mammary gland is part of the endocrine system.
D. exocrine glands are not part of the endocrine system

10- What is the target of ACTH?

- A. most cells B. thyroid gland C. mammary glands D. adrenal cortex

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11- Hormone that is responsible for lactation from mammary glands:

- A) oxytosin B) estrogen C) Insulin D) progesterone E) Non of these

12- Which one of the following disease results from endocrine disorder?

- A) respiratory infection b) cretinism c) jaundice d) typhoid

13- Which of the following is mismatched?

- A) oxytocin— pituitary gland B) insulin—pancreas
C) glucagon—pancreas D) thyroid releasing hormone—pituitary gland

14- Decrease of the axon potential from -70 mV to -30 mV is a(n)

- A) Action potential B) Threshold potential C) Depolarization
D) Hyperpolarization E) Excitatory local potential

15- The threshold voltage level at which an action potential is triggered is around

- A) -70 mV B) -55 mV C) -30 mV D) +30 mV E) Non of these
E) Equilibrium point

16- Hyposecretion of which hormone causes cretinism:

- A) Parathyroid hormone B) Melatonin C) Thyarocalcitonin D) Non of these

17- The sodium-potassium pump transports which of the following?

- A. both Na⁺ and K⁺ into the cell.
B. both Na⁺ and K⁺ out of the cell.
C. Na⁺ into the cell and K⁺ out of the cell.
D. Na⁺ out of the cell and K⁺ into the cell

18- The resting voltage.

- A. is around -70 mV in most cells.
B. attracts chloride ions in from the extracellular medium.
C. is mainly determined by the chloride concentration gradient across the plasma membrane.
D. helps retain ATP and glucose within cells.
E. helps keep the sodium concentration low in the cytosol.

19- Solute movement through which channels is mainly responsible for the resting voltage?

- A. Calcium B. Gap junction channels C. Glucose D. Potassium
E. All of the above contribute equally to the resting voltage.

20- What is the color of Black tea?

- A) White B) Green C) Red D) Black

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True or False Question (10 Marks)

- 1- (T / F) Under resting conditions, there is more K^+ inside the cell than outside the cell.
- 2- (T / F) Steroid hormones are secreted by the thyroid gland.
- 3- (T / F) The interactions of insulin and glucagon is cooperative.
- 4- (T / F) Melatonin has a primary role in many circadian rhythm.
- 5- (T / F) Exchanges between blood and tissue fluid occur across the walls of venules.
- 6- (T / F) A "fight or flight" situation stimulates the secretion of adrenaline.
- 7- (T / F) An enlargement of the thyroid gland is the condition known as parathyroidism.
- 8- (T / F) Calcium level in the blood is regulated by the adrenal medulla.
- 9- (T / F) The hormone involved in rhythmic activities, such as day/night and seasonal changes is melatonin.
- 10- (T / F) The hormones of the pituitary gland reach their target cells through the neurosecretory cells.
- 11- (T / F) Thyroid hormone deficiency is known as hyperthyroidism.
- 12- (T / F) In females, LH and FSH stimulate secretion of estrogen and progesterone from the ovaries.
- 13- (T / F) Insulin lowers the blood sugar level by stimulating muscle to store glucose or use it for energy.
- 14- (T / F) The endocrine glands secrete hormones and deliver them to the blood through specialized tubes.
- 15- (T / F) The potassium channel allows potassium ions to pass from one side of the plasma membrane to the other.
- 16- (T / F) Potassium channel is a protein found in the plasma membrane of almost all cells.
- 17- (T / F) A change in a neuron's membrane potential from -70 mV to -50 mV is an example of hyperpolarization.
- 18- (T / F) The return of the membrane potential toward the resting potential is called depolarization.

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19- (T / F) If K^+ were the only ion that could diffuse through a cell membrane, there would be a membrane potential of +60 mV when potassium ions finally reached an equilibrium.

20- (T / F) A living cell normally has a high concentration of K^+ inside than in the extracellular fluid.

GOOD LUCK