**Chapter 45,46: Endocrine System and Some Animal Reproduction**

1) Which of the following may result with Iodine deficiency?

A) Cretinism

B) Acromegaly

C) Gigantism

D) Insulinomia

2) Which of the following is correct regarding pancreatic somatostatin?

A) It is always inhibitory

B) It is regulated by levels of cortisol

C) It regulates PTH and Calcitonin secretion

D) It’s secreted when plasma sugar is high

3) A hormone NOT derived from cholesterol

A) Estradiol

B) Progesterone

C) Epinephrine

D) Testosterone

4) A woman undergoing menopause will have an increase of which of the following hormones?

A) Estrogen and Progesterone

B) PTH and Calcitonin

C) GH and Aldosterone

D) FSH and LH

5) A hormone in pregnant women produced in large amounts and excreted in urine. Actually, home pregnancy tests are designed to detect the presence of this hormone.

A) FSH

B) Estrogen

C) Progesterone

D) hCG

6) Insulinoma is a common tumor of the pancreas. A patient diagnosed with this disease will show…

A) hyperthyroidism

B) hyperglycemia

C) increased rate of glycolysis

D) increase rate of protein synthesis

7) A hormone stored in the posterior pituitary but secreted by the hypothalamus.

A) Oxytocin

B) Calcitonin

C) Seratonin

D) Melatonin

8) At which two points of the menstrual cycle are the levels of estrogen highest? (Kaplan 2010)

A) Immediately before and after ovulation

B) At ovulation and during the menstrual flow

C) During the menstrual flow and pregnancy

D) During pregnancy and after menopause

9) A woman who is 17 weeks pregnant was told by her physician that she was pregnant during her last menstrual period, there was already implantation of a fertilized ovum. Hence she is 19 weeks and not 17 as she thought. Which of the following best supports the doctor’s conclusion?

A) Excess FSH and LH in her last cycle

B) Most likely a progesterone deficiency

C) hCG deficiency, hence her home test could not give her accurate results.

D) GnRH over production, in addition to answer A above.

10) A patient presents to your office with muscle weakness, slowness in movement, and calcium deposits on his bones. A blood test reveals very low calcium levels in the blood. What is one treatment option for your patient? (Kaplan 2010)

A) Increase calcitonin levels

B) Increase PTH levels

C) Increase mineralcorticoid levels

D) Increase growth hormone levels

**Questions 11-15, courtesy of EXAMKRACKERS 2006.**

11) Captopril, an ACE inhibitor, is utilized to treat high blood pressure for all of the following reasons EXCEPT

A) It stimulates vasodilations of blood vessels.

B) It inhibits the endocrine system from releasing aldosterone.

C) It competitively inhibits angiotensin II receptors

D) It decreases angiotensin II, which decreases blood pressure.

12) A fluorescent dye is utilized to “tag” antidiuretic hormone receptors. The greatest concentration of dye is expected in which of the following structures?

A) Distal convoluted tubule

B) Loops of Henle

C) Proximal convoluted tubule

D) Renal capillaries

E) Collecting duct

13) A person stranded in the desert daces the risk of severe dehydration. Which of the following will be maximally stimulated to prevent water loss?

A) anterior and posterior pituitary

B) adrenal cortex and thyroid gland

C) hypothalamus and adrenal gland

D) Renal gland and anterior pituitary

E) A & B only

14) The ascending loop of Henle is NOT permeable to which of the following?

A) Sodium

B) Potassium

C) Chloride

D) Water

15) What structure originates from the renal pelvis and extends all the way to the urinary bladder?

A) Urethra

B) The vas deference

C) Ureter

D) the major calyx

16) A man has been told that he is not synthesizing enough FSH, and for this reason he may be unable to father a child. Which of the following best explains the problem? (Dr. Bernard, 2011)

A) FSH stimulates estrogen secretion by ovarian cells; therefore it is not synthesized by males.

B) The physician is wrong – a hormone made in adenohypophysis could not influence fertility

C) FSH stimulates sperm production in the testes.

D) The man must be producing progesterone, which inhibits the synthesis of FSH.

17) Hormone(s) that would increase blood glucose concentrations?

A) Insulin

B) Glucocorticoids

C) Glucagon

D) B & C only

E) All of the above increase blood glucose concentrations

18) When steroid hormones bind to their receptors;

A) adenylyl cyclase is activated

B) G proteins are inhibited

C) Cyclic nucleotides are formed

D) Gene transcription may start or stop

19) Endocrine organs can be regulated by all of the following except;

A) Hormones from other endocrine glands

B) Changes in the genetic makeup of certain hypothalamic cells

C) Direct neural stimulation

D) Releasing hormones from the hypothalamus

20) In a laboratory experiment with 3 groups, 1 group of people drinks pure water, a 2nd group drinks an equal amount of beer, and a 3rd group drinks an equal amount of concentrated salt solution all during the same time period. Their urine production is monitored for several hours. At the end of the measurement period, which group will have produced the greatest volume of urine and which group the least (respectively)?

A) beer the most, salt solution the least

B) salt solution the most, water the least

C) water the most, beer the least

D) beer the most, water the least

E) There will be no significant difference between these groups.