Human Physiology 2 Exam 1

HUMAN PHYSIOLOGY II - MAIN EXAM
THERE ARE 3 SECTIONS IN THIS PAPER
ANSWER ALL THE QUESTIONS.

1) The visual sensory area of the cortex is located in?
a) Parietal lobe
b) Occipital lobe
c) Frontal lobe
d) Temporal lobe

2) What stimulates the release of ADH from the posterior pituitary gland
a) Increased blood levels of sodium
b) Decreased blood levels of sodium
c) Increased blood levels of glucose
d) Decreased blood levels of glucose

3) Muscarinic receptors are found in?
a) Motor end plate of skeletal muscles
b) All ganglionic neurons
c) The hormone producing cells of adrenal glands
d) All effector cells stimulated by post-ganglionic cholinergic fibers.

4) In females the effect of follicle stimulating hormone is
a) The final maturation of the ovarian follicles and the release of oestrogen
b) The early maturation of the ovarian follicles and the release of progesterone
c) The final maturation of ovarian follicles and the release of progesterone
d) The early maturation of the ovarian follicles and the release of progesterone

5) What is the function of insulin
a) Increase glucose uptake by cells
b) Increase urine formation
c) Speed glucose excretion by the liver
d) Increase calcium deposition in bone

6) A decrease in secretion of antidiretic hormone will result in
a) Diabetes inspidus
b) Graves disease
c) Diabetes mellitus
d) Adrenogenital syndrome

7) Which the following is completely reabsorbed in the proximal convulated tubule
a. Sodium
b. urea
c. glucose

d. water

8) The main barrier precluding the free passage of albumin across the glomerular capillary walls is formed by:
A. the fenestrated glomerular endothelium
B. anionic proteoglycan clusters within the glomerular basement membrane
C. the filtration slits in between visceral epithelial cells (podocytes)
D. none are correct
E. all are correct

9) The emotional and affective (feeling) region of the brain is?
A. The limbic system.
B. The reticular system.
C. The cerebellum.
D. The midbrain

10) Which of the following is not a function of the kidneys
a. Blood pressure regulation
b. Regulate acid base balance
c. Production of vitamin B complex
d. Excretion of waste products

11) Concering the function of proximal convulated tubule
a) Most of the glumerular ultrafiltrate is reabsorbed in the proximal tubule in an iso osmatic fashion
b) The concentration of PAH doesn't change much along the length of the proximal tubule
c) Under normal conditions most of the filtered glucose and bicarbonate are reabsorped on the proximal tubule
d) A and C are correct

12 Which structure detects changes in temperature?
a) Pons
b) Medullar
c) Thermoreceptors
d) Pituitary gland

13 The action potential relies upon the movement of which of the ions into and out of the cell
a) Calcium and magnesium
b) Iron and iodide
c) Sodium and potassium
d) Iron and iodide

14 Which of the following produces male sex hormones
a) Seminal vesicles
b) Corpus luteum
c) Developing follicles of the testis
d) Intestitials cells of lydig

15 Which of these is an example of a neurotransmitter
a) Dopamine

b) Norepinephrine
c) Acetylcholine
d) All the above

16 The sex of the child is determined by the?
a) The sex chromosomes in the testis
b) The sex chromosomes in the ocyte
c) The sex chromosome in the sperm
d) The position of the fetus in the uterus
e) The timing of conception.

17 Sperms are produced at a temperature that is
a) Higher than body temperature
b) Immaterial
c) Lower than body temperature
d) The same is body temperature

18 Hypersecretion of which hormone causes exophthalmos?
a) Thyroid hormone
b) Parathyroid hormone
c) Andogens
d) Aldosterone

19 Hormones Of the following male organs which one is considered primary sex organ
a) Are produced by exocrine glands
b) Are carried to all parts of the body in blood
c) Remain at constant concentration in the blood
d) Affect only non-hormone producing organs

20 In general hormonal secretion may be stimulated by all the following except
a) Nerves
b) Alteration in the concentration of a specific substance
c) Instructions from another endocrine organ
d) Genetic make up

SHORT ANSWER QUESTIONS (SAQ)
1) Describe briefly the chemical structure and mechanism of action of hormones (6marks).
2) Briefly state the anatomical divisions of the adrenal gland and the type of hormones produced by each. (8 marks).
3) Classify sensory according to type of stimuli and give examples (6 marks)
4) Describe, in brief, the role of kidney in acid-base balance. (6 marks).
5) Describe the phases and events of ovarian cycle. (6 marks).
6) Describe in brief the process of sperm formation. (6 marks).
7 Define reflex, and name the five parts of a reflex arc. (6 marks).
8 Describe how a nerve impulse crosses a synapse. (6 marks).

LONG ESSAY QUESTIONS.
1 Describe in detail how urine is formed.
2. Concerning the pancreas.

a. Name the functional parts of the pancreas (2 marks).
b. List the endocrine cells of the pancreas and the hormones they produce (4 marks).
c. How is insulin produced and secreted (3 marks).
d. What is the mechanism of action of insulin and its effects (6 marks).