

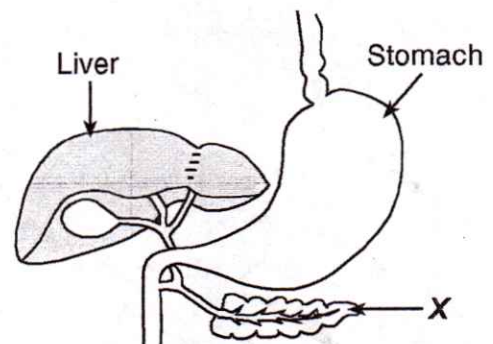
Name: _____

- 1) What glands secrete ^{hormones} chemical signals directly into the circulatory system?
 - A) Sebaceous glands
 - B) Exocrine glands
 - C) Sweat glands
 - D) Endocrine glands
- 2) Which of the following statements concerning hormones is true?
 - A) Hormones are produced only by the pituitary gland and regulated by other glands.
 - B) Every cell in an organism produces hormones.
 - C) Hormones produced in one part of the body may act in another part of the body.
 - D) Hormones produced by endocrine glands travel through ducts to various organs.
- 3) Which group consists of ^{chemicals} secretions produced by specialized cells in the human body?
 - A) Enzymes, hormones, and neurotransmitters
 - B) Neurotransmitters, ammonia, and cellulose
 - C) Poisons, urea, and auxins
 - D) Mucus, oils, and chitin
- 4) The pituitary gland is located in the

A) spinal cord.	C) testes.
B) brain.	D) kidneys.
- 5) What gland secretes nine major hormones that regulate numerous body functions and the secretions of several other endocrine glands?

A) Pituitary	C) Salivary
B) Thyroid	D) Adrenal
- 6) Basketball player Yao Ming probably grew taller than average because of a(n) _____ gland when he was growing up.
 - A) underactive thyroid gland
 - B) underactive pituitary gland
 - C) overactive thyroid gland
 - D) overactive pituitary gland

- 7) The hormone produced by the thyroid gland regulates
 - A) blood sugar levels.
 - B) water and salt levels.
 - C) sleep.
 - D) metabolism.
- 8) Secretion of thyroid hormone is essential for
 - A) maintenance of a healthy and normal blood glucose level.
 - B) staying healthy during periods of prolonged inactivity.
 - C) increased metabolic rate, which is required for normal growth and maturation.
 - D) production of a constant normal body temperature.
- 9) In the diagram below, gland X is part of both the digestive system and the endocrine system?



What is the name of gland X?

- | | |
|-------------|------------|
| A) Pancreas | C) Thymus |
| B) Liver | D) Stomach |
- 10) Explain the similarity between hormones and enzymes.
Both hormones and enzymes _____
are made of _____

10 points

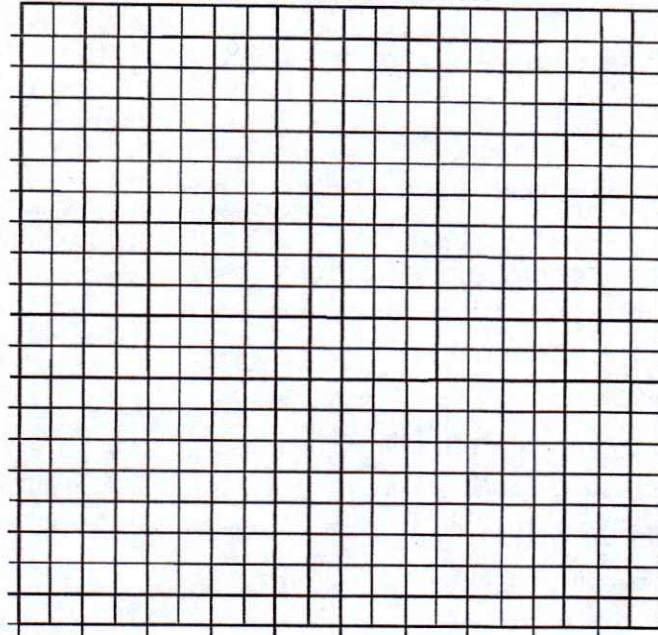
Questions 1 through 4 refer to the following:

The results of blood tests for two individuals are shown in the data table below. The blood glucose level before breakfast is normally 80-90 mg/100 mL of blood. A blood glucose level above 110 mg/100 mL of blood indicates a failure in a feedback mechanism. Injection of chemical X, a chemical normally produced in the body, may be required to correct this problem.

Time (a.m.)	Blood Glucose (mg/100 mL)	
	Individual 1	Individual 2
7:00	90	150
7:30	120	180
8:00	140	220
8:30	110	250
9:00	90	240
9:30	85	230
10:00	90	210
10:30	85	190
11:00	90	170

Blood Glucose (mg/100 mL)

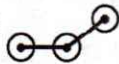
Blood Glucose Levels



Time

- 1) (a) Mark an appropriate scale on each labeled axis of the grid provided. (2 points)
 (b) On the same grid, plot the blood glucose levels for the individual who will most likely need injections of chemical X. Surround each point with a small circle and connect the points. (2 points)

EXAMPLE:



- 2) Based on the given information, identify ^(hormone) chemical X.
 _____ (2 points)

- 3) State one reason for the change in blood glucose level between 7:00 a.m. and 8:00 a.m., as shown in the table. (2 points)

- 4) What term refers to the relatively constant level of blood glucose of individual 1 in the table between 9:00 a.m. and 11:00 a.m.? (2 points)

_____ (another word for constant or balance)