

Gilead Pathophysiology Sample Quiz 4 - Endocrine System and Diabetes**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

1. Insulin:
 - a. is secreted by the kidneys
 - b. is secreted in response to decreased blood glucose
 - c. stimulates the production of glycogen and fat
 - d. stimulates the release of glucose from cells
2. Which of the following best describes the interactions between insulin and glucagon?
 - a. synergistic
 - b. permissive
 - c. antagonistic
 - d. cooperative
3. Which of the following is true of diabetes mellitus?
 - a. cells starve of glucose
 - b. blood is high in glucose
 - c. patients urinate frequently
 - d. all of the above are true
4. Which of the following is NOT an action of insulin?
 - a. stimulates glucose uptake by cells
 - b. stimulates glycolysis
 - c. stimulates production of fat from glucose
 - d. stimulates glycogenolysis
5. Which of the following is NOT a mechanism of controlling hormone secretion?
 - a. hormonal control
 - b. neural control
 - c. erythrocyte control
 - d. humoral control

Matching












Match the terms to their definition.

- | | |
|---------------------|---------------------------|
| a. ketones in urine | c. excessive urine output |
| b. excessive thirst | d. faster breathing rate |
| 6. polyuria | |
| 7. polydipsia | |
| 8. hyperpnea | |
| 9. ketonuria | |

Short Answer

10. Draw the negative feedback cycle that would occur if glucose levels in the blood increase, as they do after a meal. (3pts)

11. **Acute Complications of Low Insulin**

Organs/tissue involved	Organ/tissue responses to insulin deficiency	Resulting conditions:		Signs and symptoms
		In blood	In urine	
  	Decreased glucose uptake and utilization	Hyperglycemia	A	C Polydipsia (and fatigue, weight loss) D
	Glycogenolysis		Osmotic diuresis	
 	Protein catabolism and gluconeogenesis			
 	Lipolysis and ketogenesis	B	Ketonuria Loss of Na ⁺ , K ⁺ ; electrolyte and acid-base imbalances	Acetone breath Hyperpnea Nausea/vomiting/abdominal pain Cardiac irregularities Central nervous system depression; coma
 = Muscle  = Adipose tissue  = Liver				

Match the table blanks to the choices below.

_____ lipidemia and ketoacidosis

_____ glycosuria

_____ polyphagia

_____ polyuria

Gilead Pathophysiology Sample Quiz 4 - Endocrine System and Diabetes Answer Section

MULTIPLE CHOICE

- | | |
|-----------|--------|
| 1. ANS: C | PTS: 1 |
| 2. ANS: C | PTS: 1 |
| 3. ANS: D | PTS: 1 |
| 4. ANS: D | PTS: 1 |
| 5. ANS: C | PTS: 1 |

MATCHING

- | | |
|-----------|--------|
| 6. ANS: C | PTS: 1 |
| 7. ANS: B | PTS: 1 |
| 8. ANS: D | PTS: 1 |
| 9. ANS: A | PTS: 1 |

SHORT ANSWER

10. ANS:
see book
- PTS: 3
11. ANS:
A - polyuria
B - lipidemia and ketoacidosis
C - polyphagia or polyuria
D - polyphagia or polyuria
- PTS: 4