

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

## Worksheet

1. The largest compartment of the stomach of a cow is the \_\_\_\_\_, which contains \_\_\_\_\_.
  - A. Omasum: microbes responsible for the breakdown of glucose.
  - B. Rumen: microbes responsible for the breakdown of cellulose.
  - C. Abomasum: stomach acids responsible for the breakdown of protein
  - D. Rumen: microbes responsible for the breakdown of glucose
  
2. This compartment is responsible for filtering out large, undigested particles of fiber.
  - A. Rumen
  - B. Omasum
  - C. Abomasum
  - D. Reticulum
  
3. Microbes produce \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ as waste products.
  - A. Carbon dioxide, methane, and carbon CO
  - B. Carbon dioxide, heat, and volatile fatty acids
  - C. Carbon dioxide, methane, and heat
  - D. Volatile fatty acids, carbon dioxide, and b-vitamins
  
4. \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ are absorbed in the \_\_\_\_\_.
  - A. Glucose, VFA, AA; large intestine
  - B. Glucose, VFA, AA; small intestine
  - C. Carbohydrates, iron, methionine; large intestine
  - D. Carbohydrates, iron, methionine; small intestine
  
5. Briefly compare and contrast the ruminant and non-ruminant=s digestive tract and explain how those differences relate to what the animal eats. Be sure to give an example of a ruminant and non-ruminant animal.

6. In the Nonruminant, gastric juices contain gastric lipase, pepsin, and rennin. These are considered \_\_\_\_\_?

- A. amino acids
- B. maltase
- C. enzymes
- D. bacteria

7. The gizzard is a \_\_\_\_\_?

- A. vent
- B. cloaca
- C. glandular stomach
- D. muscular stomach

8. \_\_\_\_\_ are responsible for absorption of nutrients into the bloodstream.

- A. villi
- B. large intestine
- C. cecum
- D. intestinal juices

#### Discussion

9. Explain the role of enzymes during digestion.

- A. Saliva-begin breakdown of carbohydrates and lubricate food particles (secreted in mouth by salivary gland)
- B. Pepsin & HCL -begin digestion of proteins & coagulate milk (secretes in stomach)
- C. Bile-emulsification of lipids, fat-soluble vitamins (A, D, E, K), neutralization

- D. Pancreatic Amylase-carbohydrate breakdown (synthesized by pancreas, secreted in small intestine)
- E. Lipase-fat breakdown (synthesized by Lipase, secreted in small intestine)