

Name _____ Per _____ Date _____

Protein and Lipid Digestion

I. Protein Digestion

A. Begins in the _____, by the action of _____

1. _____ breaks down _____ into short chains of _____ called _____
2. pepsin is released as _____ and is activated by _____ in the stomach.

B. In the _____, several enzymes act

1. _____ (made in the _____) breaks down the _____ into _____ (_____)
 - a. _____ will digest the _____ that make up the _____
 - b. It is released as _____
 - c. In the _____, the regulatory enzyme _____, an _____ enzyme activates _____ from inactive trypsinogen.

C. A group of intestinal enzymes called _____ (_____ is one such enzyme) that completes protein digestion by converting _____ into individual _____.

D. _____ are absorbed by _____ into _____ cells of the _____, then into the _____ by _____ (same pathway as _____ or _____) like glucose, fructose, and galactose.

The process of _____ = the removal of H₂O to form a _____ from 2 amino acids.

The process of _____ = the addition of water to form two _____ from the _____ (ex. Sucrose)

II. Lipid Digestion

- A. The main lipids stored in the body are _____
- _____ are attached to a single _____
- B. Lipid digestion begins in the _____
- _____ (_____ - made in the _____, stored in the _____) _____ fat into tiny droplets which (_____)
 - pancreatic _____ breaks down _____ into _____ and _____ (by _____)
- C. Absorption of lipids is more _____
- If the _____ is short (_____) absorption follows the same path as _____ or _____
 - Large fats take a more complicated route
 - _____ form around the lipid creating _____
 - In the _____ cells, fats are broken down to _____ and _____ and enter the _____ by _____
 - in the _____, the lipid products are reassembled into _____ and coated with _____ to form _____.
- Then, they are passed into the _____ in the center of each _____ (_____)
- The _____ is part of the _____ system
 - Lipids can then be _____ as _____ tissue until needed to fulfill energy requirements. Then they are _____ to the _____ as energy for metabolism.