

The Pancreas

I. The Endocrine System

A. Introduction

1. Where is the pancreas located? \_\_\_\_\_
2. List the two main functions \_\_\_\_\_ and \_\_\_\_\_
3. Describe the function of the exocrine pancreas \_\_\_\_\_
4. What are the islets of Langerhans? \_\_\_\_\_
5. What do they do? \_\_\_\_\_

B. Four Kinds of Islet Cells

1. List the 4 kinds of islet cells \_\_\_\_\_  
\_\_\_\_\_
2. List the hormones of alpha & beta cells \_\_\_\_\_
3. What is the function of these two hormones?  
\_\_\_\_\_

C. Insulin

1. When blood sugar rises the pancreas \_\_\_\_\_
2. This stimulates the \_\_\_\_\_ of \_\_\_\_\_ across cell membranes
3. Glucose is pulled into the \_\_\_\_\_

D. Glucagon

1. When blood sugar drops \_\_\_\_\_ is released
2. How does this affect the liver? \_\_\_\_\_  
\_\_\_\_\_

II. Diabetes Mellitus

A. In a normal person, glucose almost \_\_\_\_\_ leaves the body

B. A person with diabetes mellitus has what in their urine? \_\_\_\_\_

C. List the two types of diabetes mellitus

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_