**Unit 7 Study Guide**

What are the 4 macromolecules of life –carbs, lipids, proteins, nucleic acids

What version of carbohydrates does your body want to get? – glucose

What version of proteins does your body want to get- amino acids

What version of lipids does your body want to get- fatty acids

What are the two sphincters of the stomach? – cardiac between esophagus and stomach and pyloric between stomach and duodenum.

What is the difference between absorption and digestion- absorption is taking nutrients from GI tract into blood and digestion is breaking large macromolecules into their base units.

The majority of digestion happens here? – Jejunum of small intestine

Majority of absorption happens- ileum of small intestine.

Describe the breakdown of starch in words including the 3 enzymes that play a role and where each is made and acts.

Name the blood supply of the GI tract- splanchnic

Name the nerve supply of the GI tract- enteric nervous system (parasympathetic)

What are the two special cells of the Stomach- Chief cells that secrete pepsin and parietal cells that secrete HCl.

Three regions of the small intestine? Duodenum / jejunum/ ileum

4 layers of the GI tract wall in order from inside to outside and importance of each= mucosa (production of mucous and enzymes and absorption)/ submucosa( connective tissue with blood and nerve supply)/ muscularis externa ( inner circular layer for segmentation and outer longitudinal layer for peristalsis)/ serosa (outer protective layer)

3 enzymes of lipid digestion? – lingual lipase (mouth) / gastric lipase (stomach) / pancreatic lipase (small intestine)

What helps fat get absorbed into blood? – bile (made in liver and stored in gallbladder)

What is the difference between mechanical and chemical digestion? Mechanical is physically making food into smaller pieces ( teeth and smooth muscle) / chemical is using enzymes to break bonds

Two other names of digestive tract- alimentary canal / Gastrointestinal tract

Order of digestive tract- mouth / pharynx/ esophagus/ stomach/ duodenum/ jejunum/ ileum/ ascending colon/ transverse/ descending colon/ sigmoid colon/ rectum

Describe protein digestion – proteins are long chains of amino acids. Digestion begins in the stomach with pepsin. This breaks the large protein into more manageable polypeptide chains of amino acids. In the small intestine, trypsin and chymotrypsin from the pancreas continues the digestion to smaller chunks and it is finished with the brush border enzymes aminopeptidase and carboxylpeptidase to individual amino acids in the small intestine.

Name the three salivary glands: submandibular/ sublingual / parietal

Teeth- how many (32) / baby teeth = deciduous / canines- sharp for tearing molars- flat for grinding.

Define: Mastication/ crown of tooth/ GERD/ RUGAE / deglutination/ enamel/ peristalsis/ chyme/ bolus

Diseases: GERD / Hiatal hernia/ Peptic ulcers/