Study Sheet
MODULE 15 & 16

Get over 90% to get a 20% boost on your worst exam!

Digestive System:

- **Protein**: Understand what proteins are composed of. Amino acids to peptides to proteins!
- **Fat**: Many fatty acids forming bonds to form lipids which form fats.
- **Carbohydrates**: Composed of many monosaccharides (one sugar) or disaccharides bonded together to form carbohydrates.

Know the 5 phases of digestion and be able to explain what happens at each one of them.

**Alimentary Canal**: What is the alimentary canal and what organs does it consist of?

The digestion of our food is a beautiful process that supplies our body’s cells with energy and the micronutrients needed to survive.

1. **THE MOUTH**: Know what happens in the mouth as food first enters. How do salivary glands aid in digestion? What is deglutition? What is a bolus? How does food not get into the nasal cavity or the larynx?
2. **Swallowing**: Know the 3 stages of swallowing.

3. **Stomach**: What are the main roles/functions of the stomach? What is its acidity? Why is our stomach acidic? What does the stomach acid do to the chemical bonds?

4. **Small Intestine**: What are the three parts of the small intestine? What is the main function of each part?

5. **Microvilli**: What is their role? What would happen if we didn’t have them?

6. **Large Intestine**: What does it do? What is the role of the bacteria in the large intestine?

**Accessory Organs**

- Are accessory organs part of the alimentary canal?
- What is the role of the liver? Know the 6 main functions of the liver.
- What is the role of the gallbladder? What does it do?
- What is the role of the pancreas? How is it both a digestive and an endocrine organ?

**RESPIRATORY SYSTEM:**

- **Anatomy**: Know the anatomy of the respiratory system (slide 3)
- Know the 4 basic functions of the respiratory system (found on 3)
  1. **Nasal Cavity**: What does it do (two primary functions)
  2. **Passageway of air**: Understand how air travels from the nasal cavity all the way to the alveoli (slide 5)
  3. **Diaphragm**: What is its role?
  4. **Alveoli**: Know the differences between type 1 and type two alveolar cells.
  5. **Surfactant**: What is its role?
  6. **Gas Exchange**: Understand how fresh oxygen is absorbed into the body and carbon dioxide is expelled. How do capillaries and alveoli work together to do this?
  7. **Cardiorespiratory System**: How does both the cardiovascular system and respiratory system work together to supply your body with fresh oxygen all while getting rid of waste (slide 11)?
  8. **Compliance**: What is compliance? What is fibrosis? What is NRDS?
  9. **Lung Volume**: Know what tidal volume, IRV, ERV, RV and total lung capacity are.
  10. **Nervous System Control**: What are beta 1 and beta 2 receptors? How does the parasympathetic and sympathetic systems influence these? What is the difference
between hypo and hyper ventilation? What is the difference between bronchoconstriction and bronchodilation?