

Mid-Term Assignment

Course Title: Basic Physiology I

MLT 1st semester

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Marks: 30

Note:

- Attempt all questions, all questions carry equal marks.
- Answer Briefly and to the point, avoid un-necessary details

Q1: (A) What is respiratory system?write down defferent organs of repiratory system and its function as well.

Ans:The respiratory system is the organs and other parts of your body involved in breathing, when you exchange oxygen and carbon dioxide.

Diffrenet parts of respiratory system,...

The respiratory system consists of all the organs involved in breathing. These include the nose, pharynx, larynx, trachea, bronchi and lungs. The respiratory system does two very important things: it brings oxygen into our bodies, which we need for our cells to live and function properly; and it helps us get rid of carbon dioxide, which is a waste product of cellular function. The nose, pharynx, larynx, trachea and bronchi all work like a system of pipes through which the air is funnelled down into our lungs. There, in very small air sacs called alveoli, oxygen is brought into the bloodstream and carbon dioxide is pushed from the blood out into the air. When something goes wrong with part of the respiratory system, such as an infection like pneumonia, it makes it harder for us to get the oxygen we need and to get rid of the waste product carbon dioxide. Common respiratory symptoms include breathlessness, cough, and chest pain.

Function.

There are five functions of the respiratory system.

Gas Exchange – oxygen and carbon dioxide.

Breathing – movement of air.

Sound Production.

Olfactory Assistance – sense of smell.

Protection – from dust and microbes entering body through mucus production, cilia, and coughing

(B) What is cycle of breathing? Explain it in detail.

PartB Ans:

The process of breathing (respiration) is divided into two distinct phases, inspiration (inhalation) and expiration (exhalation). During inspiration, the diaphragm contracts and pulls downward while the muscles between the ribs contract and pull upward. Explanation: The breathing of all vertebrates with lungs consists of repetitive cycles of inhalation and exhalation through a highly branched system of tubes or airways which lead from the nose to the alveoli. The number of respiratory cycles per minute is the breathing or respiratory rate, and is one of the four primary vital signs of life. Under normal conditions the breathing depth and rate is automatically, and unconsciously, controlled by several homeostatic mechanisms which keep the partial pressures of carbon dioxide and oxygen

Q 2: (A) What is urinary system?

A part Ans: The urinary system produces, stores, and excretes urine via a filtration mechanism in which potentially harmful molecules are removed from the body. It also plays a crucial role in water homeostasis, electrolyte and acid-base balance, and red blood cell production. The human urinary tract is comprised of two kidneys, two ureters, one bladder, two sphincters, and one urethra.

(B) What are the organs involve in urinary system? Explain that organs and its function.

B part Ans:

The urinary system consists of the kidneys, ureters, urinary bladder, and urethra. The kidneys form the urine and account for the other functions attributed to the urinary system. The ureters carry the urine away from kidneys to the urinary bladder, which is a temporary reservoir for the urine.

The organs of the urinary system include the kidneys, renal pelvis, ureters, bladder and urethra. The body takes nutrients from food and converts them to energy

Function: Remove waste products and medicines from the body.

Balance the body's fluids.

Balance a variety of electrolytes.

Release hormones to control blood pressure.

Release a hormone to control red blood cell production.

Help with bone health by controlling calcium and phosphorus.

Q3: (A) Write a difference between small and large intestine in detail

Ans: **small intestine** :The small intestine or small bowel is an organ in the gastrointestinal tract where most of the end absorption of nutrients and minerals

from food takes place. It lies between the stomach and large intestine, and receives bile and pancreatic juice through the pancreatic duct to aid in digestion.

The small intestine consists of three parts. The first part, called the duodenum, connects to the stomach. The middle part is the jejunum. The third part, called the ileum, attaches to the colon

large intestine The large intestine, or large bowel, is the last part of the digestive system in vertebrate animals. Its function is to absorb water from the remaining indigestible food matter, and then to pass the useless waste material from the body. The large intestine consists of the cecum, colon, rectum, and anal canal.

The purpose of the large intestine is to absorb water and salts from the material that has not been digested as food, and get rid of any waste products left over. By the time food mixed with digestive juices reaches your large intestine, most digestion and absorption has already taken place

The first part of the large intestine, called the colon, absorbs water and nutrients from food and stores waste matter. The colon consists of five sections: the cecum, the ascending colon, the transverse colon, the descending colon, and the sigmoid colon.