

# PRACTICE QUESTIONS

## CHAPTER 8 : Nutrition & Digestion

## What is Digestion?

- A. Eating Food
- B. Chewing Food
- C. Breaking Food
- D. Eliminating Food

**Which is the correct order of the four steps of animal digestion?**

**A. Ingestion, Absorption, Digestion, Elimination**

**B. Absorption, Ingestion, Digestion, Elimination**

**C. Digestion, Ingestion, Elimination, Absorption**

**D. Ingestion, Digestion, Absorption, Elimination**

**Excess of calories is stored in the body as:**

- A. Proteins and fats**
- B. Starch and collagen**
- C. Glycogen and fats**
- D. Minerals and vitamins**

**An animal that eats only plants is called a(n):**

**A. Herbivore**

**B. Omnivore**

**C. Autotroph**

**D. Carnivore.**

**Human belongs to which of the following dietary categories?**

**A. Herbivore**

**B. Carnivore**

**C. Omnivore**

**D. Autotroph**

**A fluid Feeder that sucks blood from a living host.**

**A. Baleen whale**

**B. Mosquito**

**C. Caterpillar**

**D. Grey heron**

**They strain food particles out of water - have to be living in the water; examples: tube worms and bivalves (clams /oysters).**

- A. Bulk feeders**
- B. Fluid feeders**
- C. Suspension feeders**
- D. Substrate feeders**



**Live on/in what they are eating; examples: caterpillars, earthworms, some parasites.**

**A. Bulk feeders**

**B. Fluid feeders**

**C. Suspension feeders**

**D. Substrate feeders**

**Ingest large pieces of food; examples: humans, cows, lions**

**A. Suspension feeders**

**B. Bulk feeders**

**C. Substrate feeders**

**D. Fluid feeders**

**Which of the following are considered as essential nutrients?**

**A. Vitamins and Minerals**

**B. Fatty acids**

**C. Amino acids**

**D. All of them**

\_\_\_\_\_ is a muscular, hollow, dilated part of the digestive system located between the esophagus and the small intestine.

A. Rectum

B. Gall bladder

C. Stomach

D. Large intestine

**Bile is stored in the \_\_\_\_\_.**

**A. Gall bladder**

**B. Salivary glands**

**C. Pancreas**

**D. Liver**

**An enzyme that begins the chemical digestion of proteins.**

**A. Leptin**

**B. Insuline**

**C. Pepsin**

**D. Amylase**

**Which of these is not an accessory organ in the human digestive system?**

**A. Liver**

**B. Gallbladder**

**C. Salivary glands**

**D. Esophagus**

The surface area of the small intestine is increased for absorption by small finger-like structures called:

A. Pits

B. Pilli

C. Villi

D. Chyme.



**Bile is responsible for breaking down:**

A. Sugar

B. Cellulose

C. Fats

D. Carbohydrates

**The final portion of the large intestine is called:**

**A. Anus**

**B. Appendix**

**C. Rectum**

**D. Gall bladder**

**Where does the partly-digested food (in liquid form) go after it leaves the stomach?**

- A. The esophagus**
- B. The appendix**
- C. The small intestine**
- D. The large intestine**

**Which of the following does NOT manufacture digestive juices?**

**A. Liver**

**B. Esophagus**

**C. Stomach**

**D. Pancreas**

The mammalian trachea and esophagus both connect to the\_\_\_\_\_.

A. Stomach.

B. Colon

C. Pharynx

D. Large intestine

**The organ that has the function of cleaning the blood.**

**A. Heart**

**B. Liver**

**C. Lungs**

**D. Pancreas**

\_\_\_\_\_ secretes a hormone that helps regulate the glucose level in the blood stream.

- A. Gall bladder
- B. Liver
- C. Stomach
- D. Pancreas

The \_\_\_\_\_ is located near the junction of small intestine and the colon.

A. Gall bladder

B. Pancreas

C. Appendix

D. Spleen



\_\_\_\_\_ emulsifies fat before they get attacked by pancreatic enzymes.

A. Insulin

B. Bile

C. Adrenaline

D. Gastrin

**Small glands responsible of the secretion of amylase.**

**A. Adrenal**

**B. Thyroid**

**C. Pineal**

**D. Salivary**

**Stomach cell walls secrete hydrogen & chloride ions, which combine to make \_\_\_\_\_.**

**A. Nitric acid**

**B. Citric acid**

**C. Hydrochloric acid**

**D. Acetic acid**

**A semi-liquid mass of partially digested food leaving the stomach.**

**A. Bile**

**B. Chyme**

**C. Feces**

**D. Bolus**

**Nutrient molecules enter the body cells by \_\_\_\_\_.**

**A. Ingestion**

**B. Digestion**

**C. Absorption**

**D. Elimination**

Animals cannot produce \_\_\_\_\_ of the 20 amino acids named essential amino acids.

A. Six

B. Eight

C. Ten

D. Twelve

**This organ produces a digestive juice that contains a wide array of enzymes to break down fats, carbohydrates and proteins in food.**

- A. Liver
- B. stomach
- C. gall bladder
- D. Pancreas**

**Which one of the following enzymes begins carbohydrate digestion by breaking down starch?**

**A. Pepsin**

**B. Catalase**

**C. Lipase**

**D. Amylase**



**The part of the digestive tract that moves food towards the stomach by waves of muscle contraction and relaxation.**

**A. Small intestines**

**B. Esophagus**

**C. Trachea**

**D. Stomach**

**The liver is located in the abdomen and performs many functions. Which of the following is NOT a function of the liver?**

- A. Secretes insulin**
- B. Detoxifies poisons**
- C. Secretes bile**
- D. Stores glycogen**

**The metabolic rate (MR) is defined as the energy required for:**

- A. Body physiological activity only**
- B. Body physical activity only**
- C. Both physiological and physical activities**
- D. None of them**

**What prevents the gastric juice from digesting the stomach walls:**

**A. Mucus**

**B. Constant renewal of the stomach lining**

**C. Alkaline pancreatic juice**

**D. All of them**

**Pancreatic \_\_\_\_\_ hydrolyze nucleic acids present in the cells of food sources.**

**A. Amylase**

**B. Lipase**

**C. Nuclease**

**D. Pepsin**

**A component of hemoglobin structure.**

**A. Calcium**

**B. Phosphorus**

**C. Iron**

**D. Magnesium**

**Which of the following is mismatched with its function?**

**A. calcium – bone and teeth formation**

**B. vitamin A – component of visual pigments**

**C. phosphorus – nucleotide synthesis**

**D. iron – component of thyroid hormones**

**Which of the following organ is incorrectly paired with its function?**

- A. Esophagus – Peristalsis**
- B. Small Intestine – Food Absorption**
- C. Large Intestine – Chemical Digestion**
- D. Stomach – Enzymatic Digestion**



**How does digested food finally reach the bloodstream?**

- A. It is absorbed through the pancreas into the blood.**
- B. It goes into the large intestine to await disposal.**
- C. It is absorbed through the wall of small intestines into the blood vessels.**
- D. It passes from the small intestine into the large intestine, then into the blood.**

# PRACTICE QUESTIONS

## CHAPTER 9 : Gas Exchange and Circulation

### What is the respiratory system?

- A. The body's breathing system
- B. The body's system of nerves
- C. The body's food-processing system
- D. The body's blood-transporting system

**Bivalves and fish have \_\_\_\_\_.**

- A. No specialized respiratory organ
- B. Lungs
- C. Gills
- D. Tracheal system

\_\_\_\_\_ **use small lungs and their body surfaces.**

A. Humans

B. Fish

C. Amphibians

D. Insects

**What important activity takes place in the lungs?**

- A. Food is digested.
- B. Liquid waste is filtered from the blood.
- C. The carbon dioxide is exchanged by oxygen.
- D. Nutrients are absorbed

The gas exchange between air and blood in mammals occurs across the walls of the \_\_\_\_\_.

- A. Bronchi
- B. Bronchioles
- C. Alveoli
- D. Trachea

**Air can enter the body and travels to the lungs.**

- A. Through the nose and the mouth
- B. Through the esophagus and stomach
- C. Through the eyes and the ears
- D. Through the nose and the nervous system



**During exhalation in humans, air moves from the bronchus into the:**

- A. Bronchioles
- B. Alveoli
- C. Pharynx
- D. Trachea

**Which of the following animals have tracheal system that provides direct exchange between the air and body cells?**

- A. Reptiles
- B. Amphibians
- C. Insects
- D. Fish

**Diffusion occurs when molecules move from an area of:**

- A. High concentration to an area of low concentration
- B. High concentration to an area of high concentration
- C. Low concentration to an area of low concentration
- D. Low concentration to an area of High concentration

**Gases in the tissues have \_\_\_\_\_ than in the blood.**

- A. more CO<sub>2</sub> and less O<sub>2</sub>
- B. more O<sub>2</sub> and less CO<sub>2</sub>
- C. more N<sub>2</sub> and less CO<sub>2</sub>
- D. more O<sub>2</sub> and less N<sub>2</sub>

**The heart right side pumps \_\_\_\_\_ blood to the lungs.**

- A. nitrogen-poor
- B. nitrogen-rich
- C. oxygen-rich
- D. oxygen-poor

**Most oxygen in the blood is transported**

- A. as gas dissolved in plasma.
- B. as oxyhemoglobin.
- C. as carbaminohemoglobin.
- D. as bicarbonate.

\_\_\_\_\_ is an iron compound which constitutes the pigment portion of the hemoglobin molecule.

A. Hemolymph

B. Heme group

C. Hematocrit

D. Hemorrhoid

**Hemoglobin in red blood cells carries up to \_\_\_\_\_  $O_2$  molecules.**

- A. One
- B. Two
- C. Three
- D. Four**



**When we breathe in, the muscle below the rib cage is pulled down, and air fills the lungs. What is this muscle called?**

- A. Esophagus
- B. Diaphragm
- C. Cartilage
- D. Epiglottis

is a passive process because no muscular contractions are involved.

- A. Inhalation
- B. Inspiration
- C. Exhalation
- D. Ingestion

\_\_\_\_\_ carries O<sub>2</sub>, helps transport CO<sub>2</sub>, and buffers the blood.

- A. Leukocyte
- B. Hemoglobin
- C. Plasma
- D. Platelet

**What part of the blood carries minerals, vitamins, sugar, and other foods to the body's cells?**

A. Red Blood Cells

B. White Blood Cells

C. Platelets

D. Plasma

**Which of these factors increases respiratory rate?**

- A. increased blood  $\text{PCO}_2$
- B. decreased blood  $\text{PCO}_2$
- C. increased blood  $\text{PO}_2$
- D. All of them

**Some of the carbon dioxide is transported in the blood:**

- A. as bicarbonate ions dissolved in the plasma
- B. attached to hemoglobin
- C. as bicarbonate ions in the white blood cells
- D. bound to oxygen

**What is the organ that pumps blood all throughout the human body?**

A. The lungs

B. The heart

C. The blood vessels

D. The liver

**What is the function of the blood vessels and capillaries?**

- A. They pump blood to the heart only.
- B. They filter impurities from the blood.
- C. They carry blood to all parts of the body.
- D. They carry messages from the brain to the muscles.



**Which of the following is/are NOT part of the cardiovascular system?**

- A. Heart
- B. Lungs**
- C. Vessels
- D. Blood

**Which of the following is the smallest blood vessel?**

A. Artery

B. Vein

C. Capillary

D. Arteriole

\_\_\_\_\_ **carry deoxygenated blood.**

A. Arteries

B. Veins

C. Capillaries

D. Arterioles

**Plasma contains:**

A. Inorganic ions

B. Gases

C. Hormones

D. All of the above

**Which type of blood vessels carries blood away from the heart?**

A. Arteries

B. Veins

C. Capillaries

D. Atria

**White blood cells are also called :**

- A. Erythrocytes
- B. Platelets
- C. Leukocytes
- D. Lipocytes

**Which of the following are not blood cells :**

A. Leukocytes

B. platelets

C. Erythrocytes

D. Squamos

**The human heart has:**

- A. One atrium and two ventricles
- B. One atrium and one ventricle
- C. Two atria and two ventricles
- D. Two atria and one ventricle



In the body tissues, blood

- A. drops off  $\text{CO}_2$  and picks up  $\text{O}_2$
- B. drops off  $\text{N}_2$  and picks up  $\text{CO}_2$
- C. drops off  $\text{O}_2$  and picks up  $\text{CO}_2$
- D. drops off  $\text{O}_2$  and picks up  $\text{N}_2$

**What organ system of the body includes the heart?**

A. Respiratory

B. Cardiovascular

C. Nervous

D. Endocrine

**A grapelike clusters of air sacs called :**

A. Bronchi

B. Bronchioles

C. Atria

D. Alveoli

In the lungs, blood

- A. drops off  $\text{CO}_2$  and picks up  $\text{O}_2$
- B. drops off  $\text{N}_2$  and picks up  $\text{CO}_2$
- C. drops off  $\text{O}_2$  and picks up  $\text{CO}_2$
- D. drops off  $\text{O}_2$  and picks up  $\text{N}_2$

During exhalation, the chest contracts and the diaphragm moves \_\_\_\_\_.

- A. downward
- B. upward
- C. to the left
- D. to the right

**How many chambers does the human heart have?**

- A. One
- B. Two
- C. Three
- D. Four**

**With circulation, the heart provides your body with:**

- A. Oxygen
- B. Eliminates wastes
- C. Nutrients
- D. All of them

**The respiratory organs made of spongy structure and located on either side of the chest.**

- A. Heart
- B. Lungs
- C. Kidneys
- D. Intestines



**The upper chambers of the heart are called :**

A. Capillaries

B. Arteries

C. Atria

D. Ventricle s

**What links the arteries to veins?**

A. Vessels

B. Capillaries

C. Aorta

D. Venules

**Which of the following statements about erythrocytes is correct?**

- A. They clot blood
- B. They fight infectious disease
- C. They transport gases
- D. They break down bacteria

**The lower chamber of the heart is called :**

- A. Capillary
- B. Artery
- C. Atrium
- D. Ventricle

**The voice box which contains 2 vocal cords is called :**

- A. Pharynx
- B. Larynx
- C. Epiglottis
- D. Diaphragm

\_\_\_\_\_ is made of muscle and elastic fibers with rings of cartilage.

- A. Diaphragm
- B. Epiglottis
- C. Trachea
- D. Alveoli

**When you inhale, the diaphragm**

- A. relaxes, and moves upward
- B. contracts, and moves upward
- C. Relaxes, and moves downwards
- D. contracts, and moves downwards

# PRACTICE QUESTIONS

## CHAPTER 10 : Plant structure and reproduction

**1<sup>st</sup> Semester**

**1441 / 2019-2020**

**23 Slides**



## Question 1

The \_\_\_\_\_ will become a seed once fertilization has taken place ?

- a) ovary
- b) stigma
- c) ovule
- d) style

\_\_\_\_\_ cells are the most abundant type of cells in most plants.

- A. collenchyma
- B. phloem
- C. sclerenchyma
- D. parenchyma

Stigma, style and ovary are the components of the .....

- A. Sepals
- B. Petals
- C. Carpel
- D. Stamen

The major function of \_\_\_\_\_ cells are photosynthesis and storage.

- A. collenchyma
- B. endodermis
- C. parenchyma
- D. sclerenchyma

The primary role of the petals in reproduction is to\_\_\_\_\_.

- A. protect flower bud
- B. attract pollinators
- C. fertilize an egg
- D. produce pollen

Leaves generally consist of \_\_\_\_\_

- a. leaf blade
- b. petiole
- c. leaf blade and petiole
- d. None of them

Periderm is a component of \_\_\_\_\_ tissue .

- A. Ground
- B. Vascular
- C. Dermal
- D. Water conduction cells

\_\_\_\_\_ cells have thick secondary cell walls usually strengthened with lignin.

- A. collenchyma
- B. sclerenchyma
- C. parenchyma
- D. phloem



Storage, photosynthesis and support are the functions of \_\_\_\_\_ tissue.

- A. Ground
- B. Vascular
- C. Epidermal
- D. Dermal

The four structures of a complete flower are \_\_\_\_\_.

- A. petals, stigma, style, and ovary.
- B. sepals, petals, stamens, and carpels.
- C. petals, anther, stamen, and stigma.
- D. sepals, petals, anthers, and ovary.

Which of the following is true about plant?

- A. It is a multicellular
- B. It is a unicellular
- C. It is a unicellular and multicellular
- D. None of them

What are the 3 main parts of a plant?

- A. Stem
- B. Leaves
- C. Root
- D. All answers are correct

What is a node in a plant?

- A. Attachment point between stem and leaves
- B. Attachment point between root and leaves
- C. Attachment point between soil and leaves
- D. None of them

What is the bud of a plant?

- a. It is a lateral protuberance on the stem
- b. It is a lateral or terminal protuberance on the stem
- c. It is a terminal protuberance on the stem
- d. None of them

What is the function of axillary buds in plants?

- a. Formation of lateral shoot
- b. Formation of root hair
- c. Formation of the soil
- d. All answers are correct

How many types of buds in plants?

a. 2

b. 3

c. 4

d. 5



Plant tissue systems include.....

- a. Dermal
- b. Vascular
- c. Ground
- d. All answers are correct

Vascular tissue consists of.....

- a. Xylem
- b. Phloem
- c. Xylem and Phloem
- d. None of them

What is the function of the phloem ?

- a. Carry water
- b. Carry minerals
- c. Carry organic nutrient
- d. Carry water and minerals

Most monocots have.....

- a. Branching veins
- b. Parallel veins
- c. Two cotyledons
- d. None of them

Branching veins are found in .....

- a. monocot leaf
- b. dicots leaf
- c. monocot root
- d. None of them

What are the function of parenchyma cells?

- a. Photosynthesis
- b. Storage
- c. Photosynthesis and storage
- d. support