

# CDS 1 2024



# BIOLOGY

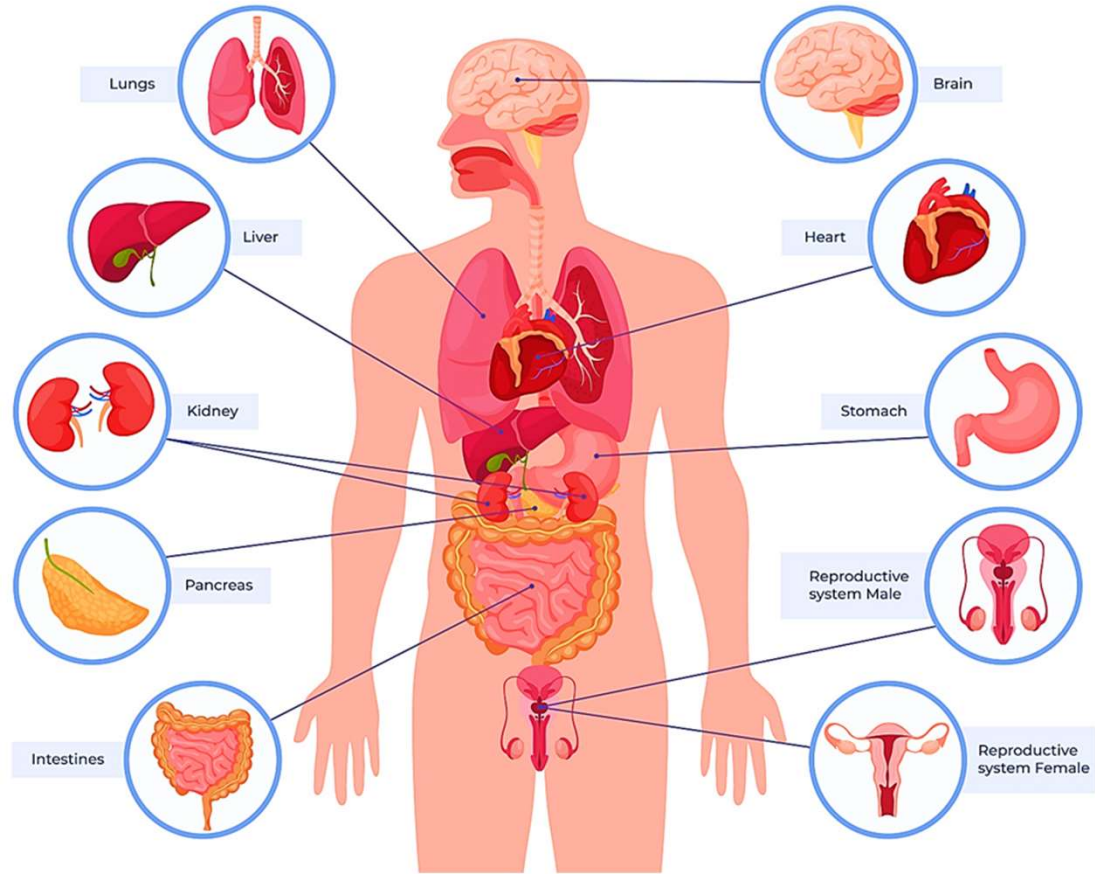
## HUMAN BODY

# MCQS



**SHIVANGI MA'AM**

# THE HUMAN BODY



**Q. Which Of The Following Statements Is FALSE With Reference To The Digestive System Processes In Human Beings?**

- a) digestion Is The Breakdown Of Food Into Simpler Form.
- b) ingestion Is The Intake Of Food Through The Mouth.
- c) egestion Is The Removal Of Digested Food From The Body.
- d) none Of The Above.

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**Q. After digestion, Protein is converted into ?**

- (a) Glucose
- (b) Sucrose
- (c) Fat
- (d) Amino acid

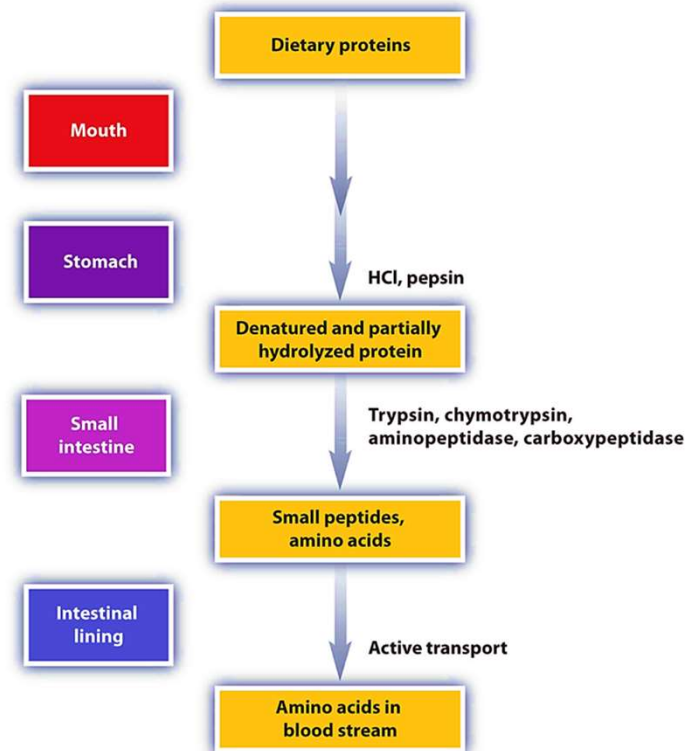
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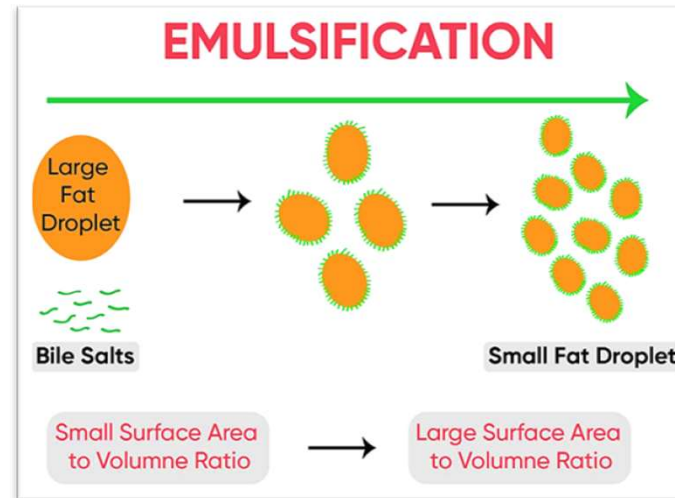


**Q. Which Juice Secreted By The Organs In The Alimentary Canal Plays An Important Role In The Digestion Of Fats?**

- (a) Pancreatic juice ,saliva
- (b) Hydrochloric acid ,mucus
- (c) Bile juice ,Pancreatic juice
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**Q. What Happens When We Exhale During Normal Breathing?**

- (a) A residual amount of air remains in the lungs
- (b) The diaphragm is flattened
- (c) The lungs are contracted
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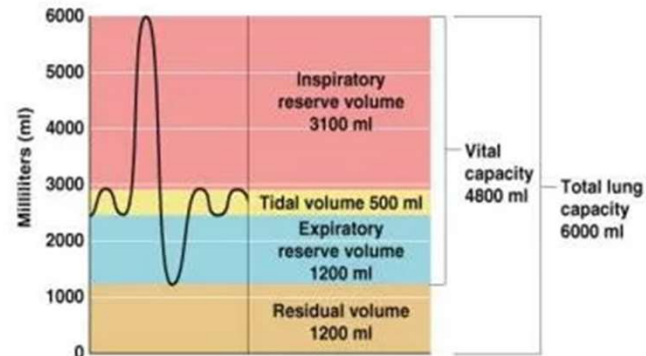
(b) The diaphragm is flattened

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- **Inspiratory Reserve Volume:**  
*Volume that can be inspired beyond a restful inspiration*
- **Tidal Volume:**  
*Volume of a single breath, usually at rest*
- **Expiratory Reserve Volume:**  
*Volume which can be expired beyond a restful expiration*
- **Residual Volume:**  
*Volume remaining in the lungs after maximum expiration. This volume keeps the alveoli inflated.*

## Lung Volumes



- 
- **Vital Capacity:** the maximum volume which can be ventilated in a single breath
  - **VC = IRV + TV + ERV**
  - VC varies with gender, age, and body build
  - Measuring VC gives a device for diagnosis of respiratory disorder, and a benchmark for judging effectiveness of treatment.
  - VC is reduced in restrictive disorders but not in disorders that are purely obstructive.
  - **FEV<sub>1</sub>** :the % of vital capacity (forced expiratory volume) expelled in the first second. Should be at least 75%. Reduced in obstructive disorders.

**Q. If A Person's Kidney Stops Working . They Cannot Survive Unless Their Blood Is Filtered By Artificial Kidney .This Process Is Called:**

- (a) Transpiration
- (b) Elimination
- (c) Excretion
- (d) Dialysis

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**Q. The Reason Why The Right Kidney Is Slightly Lower Than The Left Is**

- (a) The left kidney is bigger than right.
- (b) Considerable space occupied by heart.
- (c) Considerable space occupied by the liver on the right side.
- (d) The right kidney is bigger than the left.

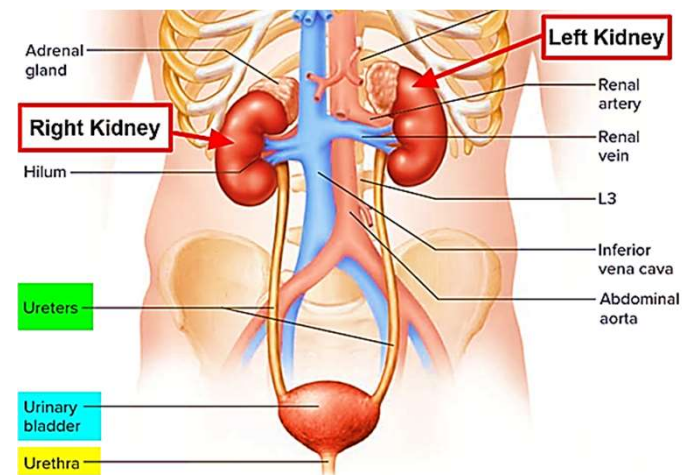
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**Q. What Is The Average Weight Of A Human Kidney?**

(a) 40 g

(b) 100 g

(c) 120 g

(d) 10 g

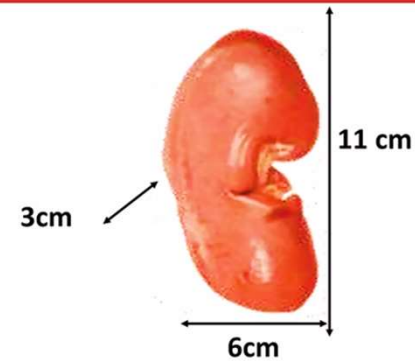


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**HEIGHT & WEIGHT:**

Each kidney is 11 cm (4-5") long, 6 cm (2-3") broad and 3 cm (1") thick, weight 150 g in males and 135 g in females.



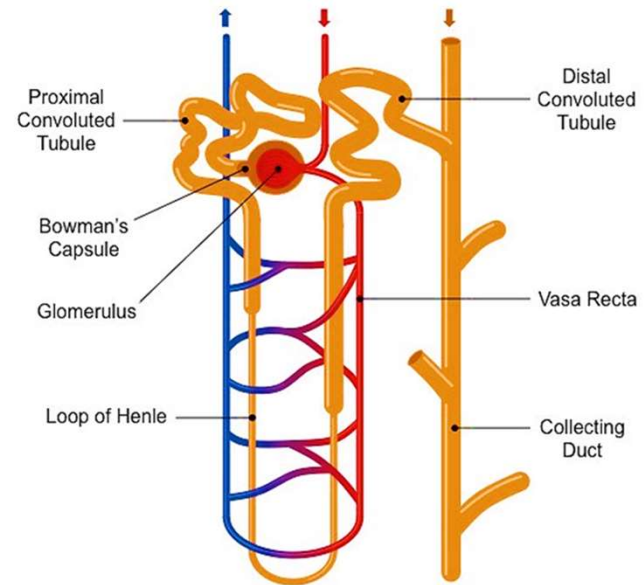
**Q. Which Part Of Nephron Is Responsible For Making The Urine Concentrated**

- (a) The descending limb of loop of Henle
- (b) Collecting Duct
- (c) The ascending limb of loop of Henle
- (d) Both 1&2

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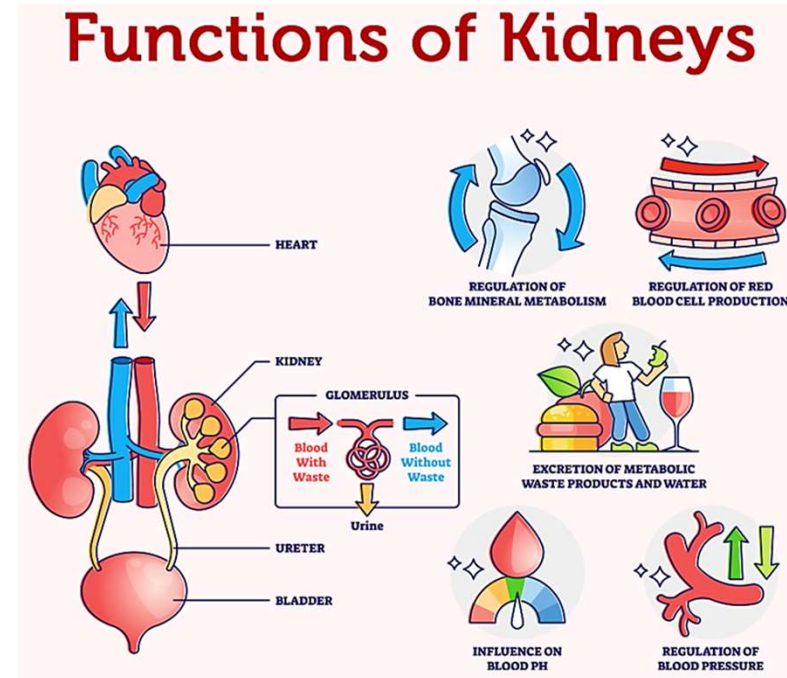
**Q. Kidneys Are Vital Organs Of The Body Because They Help In**

- (a) Regulation of body fluids
- (b) Regulation of acid-base balance
- (c) Removal of metabolic wastes
- (d) All of the above

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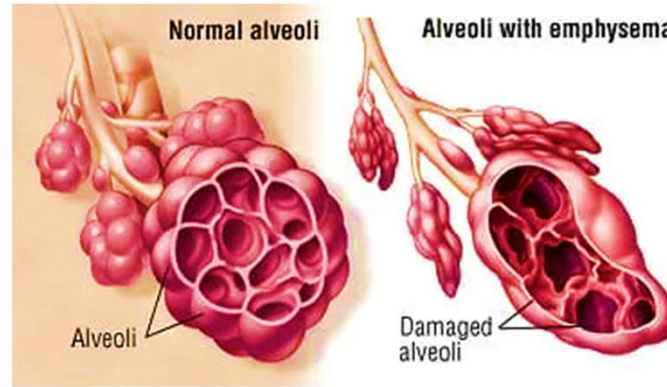


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- a) Arteriosclerosis
- b) Emphysema
- c) Hypertension
- d) Cough

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- Emphysema is a chronic disorder in which alveolar walls are damaged due to which respiratory surface is decreased. One of the major causes of this is cigarette smoking.
- The person experiences shorter breaths because of the reduced respiratory surface. The alveolar walls get damaged and over time they rupture.

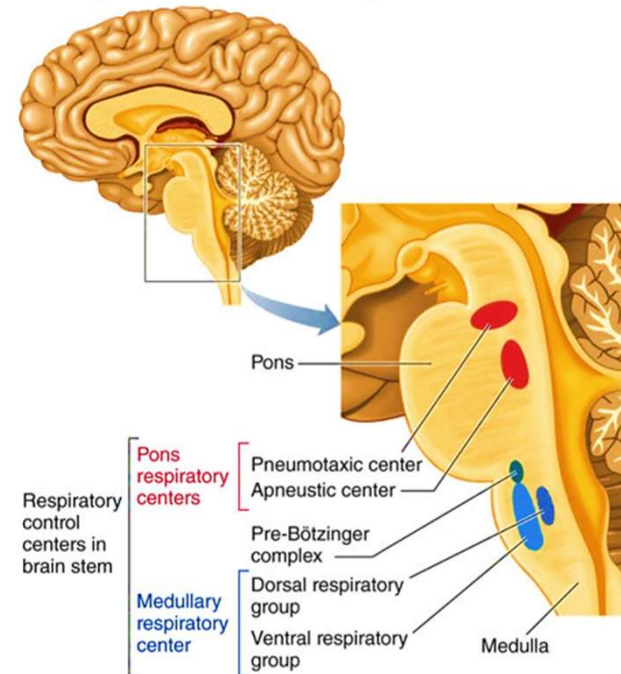
**Q. Respiratory Process Is Regulated By Certain Specialized Centers In The Brain. One Of The Following Centers Can Reduce The Inspiratory Duration Upon Stimulation**

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- b) Pneumotaxic centre
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- d) Chemosensitive centre



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- The center present in the pons region of the brain is called pneumotaxic center.



**Q. What Controls Involuntary Activities Like Coughing And Sneezing?**

- (a) Medulla
- (b) Cerebrum
- (c) Pons
- (d) Cerebellum

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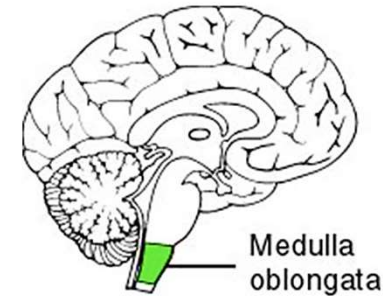
- Regulates heartbeat and respirations

(b) Cerebrum

(c) Pons

(d) Cerebellum

- Reflexes:
  - Swallowing
  - Vomiting
  - Coughing
  - Sneezing
  - Hiccuping



- The medulla plays a critical role in transmitting signals between the spinal cord and the higher parts of the brain and in controlling autonomic activities, such as heartbeat and respiration.

**Q. Which One Of The Following Organs Will Not Feel Any Pain On Being Pricked By A Needle?**

- a) Skin
- b) Brain
- c) Heart
- d) Eye

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- The brain is a painless organ ,so pricking or even removing a part of the brain, while a person is conscious, does not cause any pain.
- Operating brain in a conscious state is a common procedure which is known as “awake craniotomy”.

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Human Skeleton System Anatomy



Appendicular Skeleton



Axial Skeleton

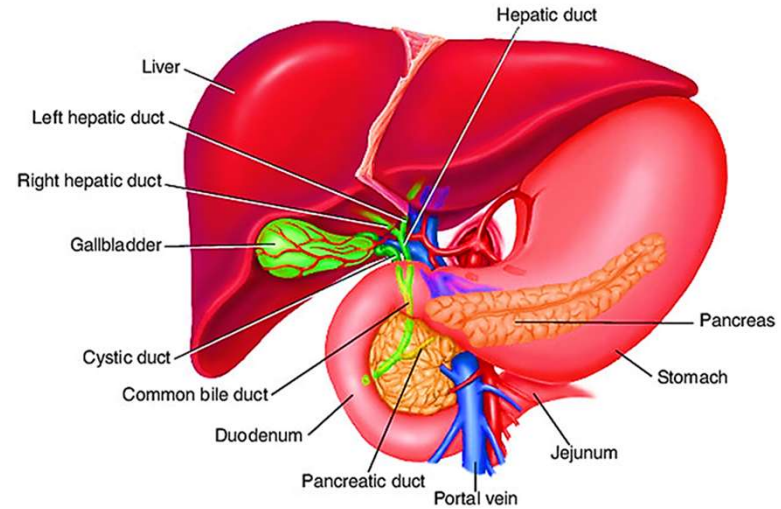
**Q. The Largest Gland In Human Body Is**

- a) Pancreas
- b) Liver
- c) Salivary gland
- d) Adrenal gland



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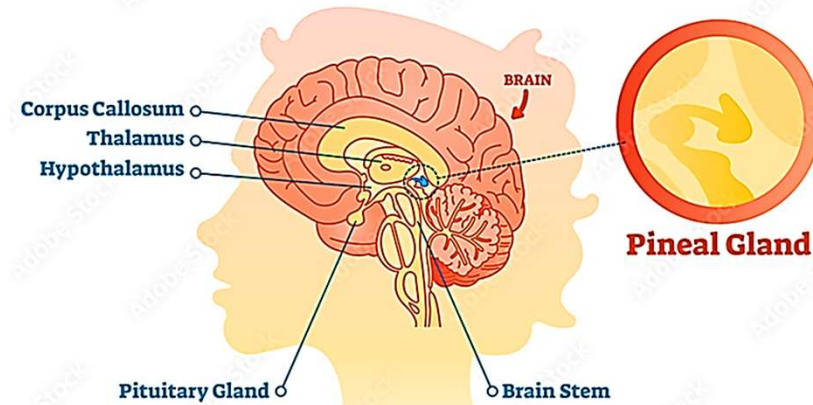


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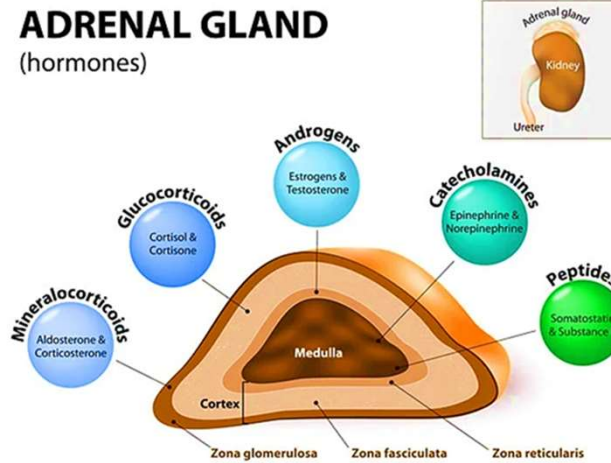
- Pineal gland is the smallest gland in the human body with a length of about 5-8 mm.

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- c) Thymus gland
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**Q. Which Of The Following Is NOT Correct For Cerebellum?**

- (a) It lies in the posterior region of the brain.
- (b) It controls movements, speech, sight, smell, taste, hearing, intelligence.
- (c) It is a part of hind brain.
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**CEREBELLUM = "LITTLE BRAIN"**



**CEREBELLUM**

- \* COORDINATES MOVEMENTS
- \* CONTROLS POSTURE, BALANCE & FINE MOTOR MOVEMENT
- \* INVOLVED IN MOTOR LEARNING

**Q. Which Is The Correct Sequence Of The Components Of A Reflex Arc?**

- a) Receptors → Muscles → Sensory neuron → Motor neuron → Spinal cord
- b) Receptors → Sensory neuron → Spinal cord → Motor neuron → Muscle
- c) Receptors → Spinal cord → Sensory neuron → Motor neuron → Muscle
- d) More than one of the above



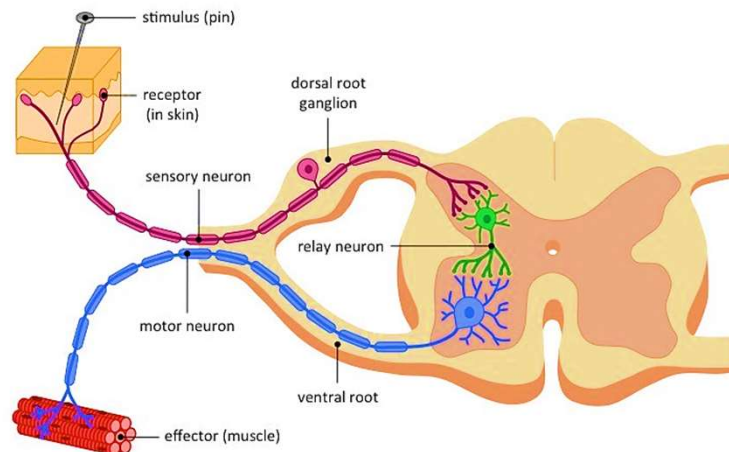
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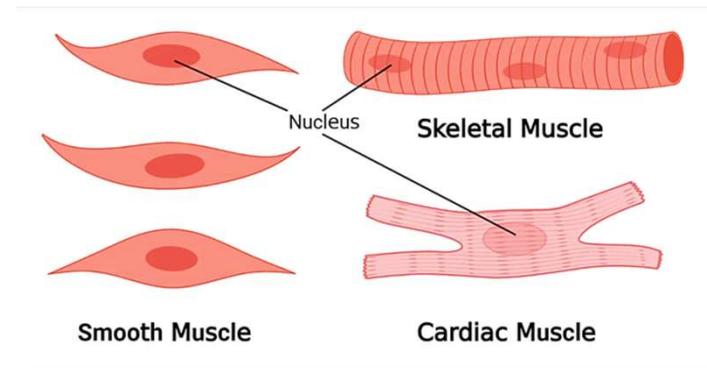


**Q. False About Skeletal Muscles Is \_\_\_\_\_.**

- a) Smallest functional unit is sarcomere
- b) Nuclei are peripherally placed
- c) Spindle shaped
- d) Sarcoplasmic reticulum is smooth endoplasmic reticulum

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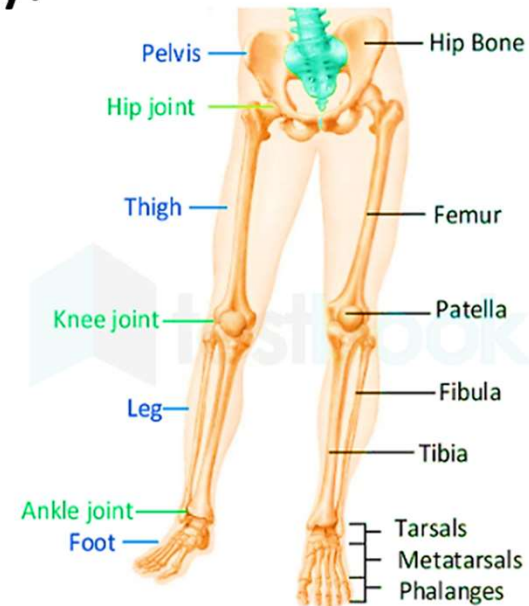


**Q. Which is the largest bone in the human body?**

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**Q. Fertilization In Human Female Occurs In Which Of The Following Parts?**

- (a) Ovaries
- (b) Uterus
- (c) Cervix
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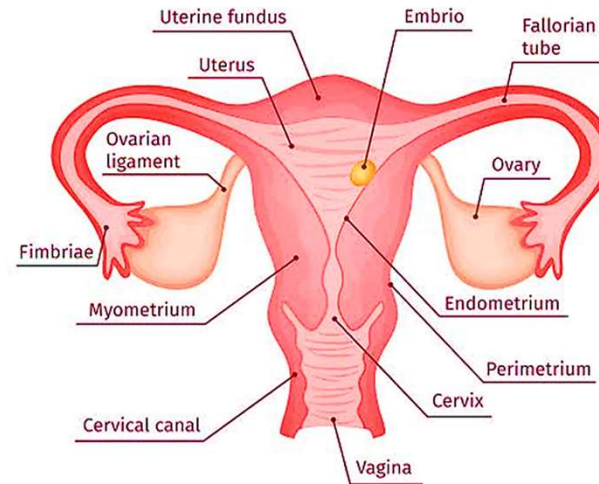
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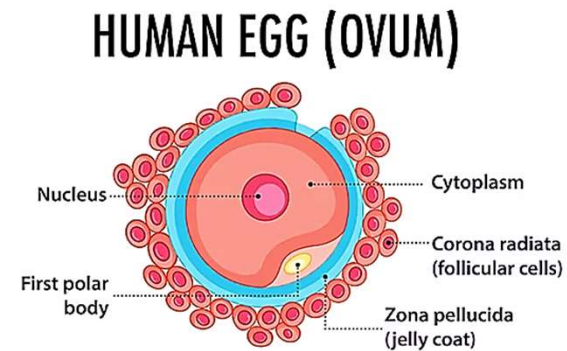
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- All the arteries carry pure blood except the pulmonary artery which carries impure blood.
- The pulmonary artery takes impure deoxygenated blood into the lungs from the right ventricle.

**Q. Reptiles have a three chambered heart, EXCEPT for:**

- a) Lizard
- b) Snakes
- c) Crocodiles
- d) More than one of the above

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- Crocodile is an exception in reptiles as it possesses a 4-chambered heart similar to mammals and birds, with two atrium & two ventricles. Crocodile show complete double circulation.

**Q.A Structure Present In Human Heart That Prevents The Backward Flow Of Oxygenated Blood When The Ventricular Pressure Falls.**

- a) Bicuspid valve
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- c) Semilunar valve
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- The bicuspid valve is also known as the mitral valve. It is a two-flap valve present between the left atrium and left ventricle. Due to the bicuspid valve, the flow of blood is unidirectional from the left atrium to the left ventricle.

**Q. One Can Save The Life Of Twelve People By Donating The Blood How Many Times**

**A Year?**

- a) Three
- b) One
- c) Two
- d) Four



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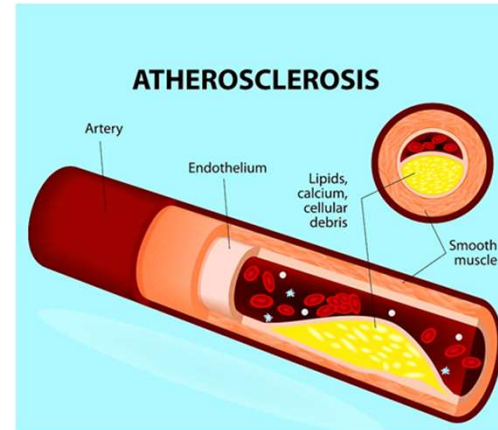
- So to save the lives of 12 people one needs to donate blood at least 4 times a year.

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- a) Heart failure
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- A narrowing of the coronary arteries that prevents adequate blood supply to the heart muscle is called Coronary Artery Disease (CAD). It is also known as ;Coronary Arteriosclerosis.

**Q. Why Sexual Reproduction Is A Better Mode Of Reproduction, Mark The Correct Reason(s).**

- I. Variation
  - II. Evolution
  - III. Adaptation
- a) 1 and 2 only
  - b) 2 and 3 only
  - c) 1,2 and 3
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**Q. Why Sexual Reproduction Is A Better Mode Of Reproduction, Mark The Correct Reason(s).**

I. Variation

- As variation as a factor of natural selection plays an important role in evolution.

II. Evolution

- It is adaptive to their environment as it results in meiosis cell division and crossing over.

III. Adaptation

a) 1 and 2 only

b) 2 and 3 only

**c) 1,2 and 3**

d) More than one of the above

**Q. Who Operates The First Heart Transplant Procedure?**

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- b) Watson
- c) Christian Bernard
- d) Khorana

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- Christiaan Neethling Barnard, a South African cardiac surgeon who is regarded as the founder of heart transplantation, carried out the first successful human-to-human heart transplant on December 3, 1967.