



SCIENCE/BIOLOGY STATIC GK

HUMAN BODY

PART
#1



Target STATIC GK: All upcoming exams!



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Name the largest muscle of the human body?

- A. Masseter
- B. Soleus
- C. Gluteus Maximus
- D. Heart



Source: themichelcenter.com

Points to Know/Note (PTN):

- There are more than 650 muscles in the human body.
- The three main types of muscle include skeletal, smooth and cardiac.
- Stapedius muscle of the middle ear is the smallest skeletal muscle.

What are the functions of the organ named Spleen in the human body?

- A. Filter the blood and help defend the body against pathogens
- B. It stores blood and releases it during significant loss of blood.
- C. Detects pathogens and triggers immune response
- D. All of these



Source: [livescience.com](https://www.livescience.com)

PTN:

Old and damaged RBC's are destroyed in the spleen and It is known as the 'RBCs Graveyard'.

Which of the following is the largest cell in human body?

A. Nerve cell

B. Ovum

C. Sperm

D. Red Blood cell

PTN:

The ovum also called egg cell is the reproductive cell in the female body.

Neurons or nerve cells are the longest cells in human biology (can be 3 feet long).

The largest cell in living beings is an ostrich egg.

Sperm is the smallest cell in human body.

Which is the largest bone in the human body?

- A. Skull
- B. Spine
- C. Pelvis
- D. Femur



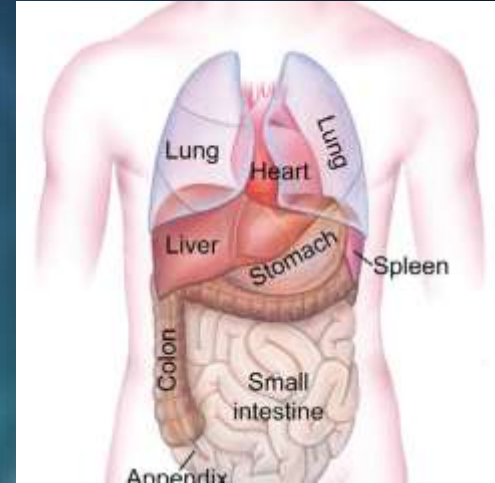
Source: Orthoinfo.aaos.org

PTN:

- Femur is the largest, longest, and strongest bone in the human body.
- The smallest bone in the human body is called stapes, located in the middle ear.

Which is the largest gland in the human body?

- A. Pituitary
- B. Lacrimal
- C. Mammary
- D. Liver



Source: ResearchGate

PTN:

A gland is an organ which produces and releases substances that perform a specific function in the body. Liver secretes Bile juice into the intestine which helps in digestion. Bile is stored in 'gall bladder'. Liver is the only organ in the human body that can regenerate.

HUMAN BLOOD

PLASMA

Liquid Part of blood.

1. ~55% of blood is plasma.
2. Plasma consists of:
 - 90% water & 10% made up of ions, proteins, dissolved gases, nutrient molecules, and wastes.

Functions:

- Transport nutrients, hormones, & proteins to the parts of the body that need it.
- Cells also put their waste products into the plasma & it eliminates this waste from the body.

BLOOD CORPUSCLES

Remaining 45% of the blood

RBCs
(Erythrocyte)

Main Function:
Transport oxygen
from & to various
tissues & organs.

WBCs
(Leukocytes)

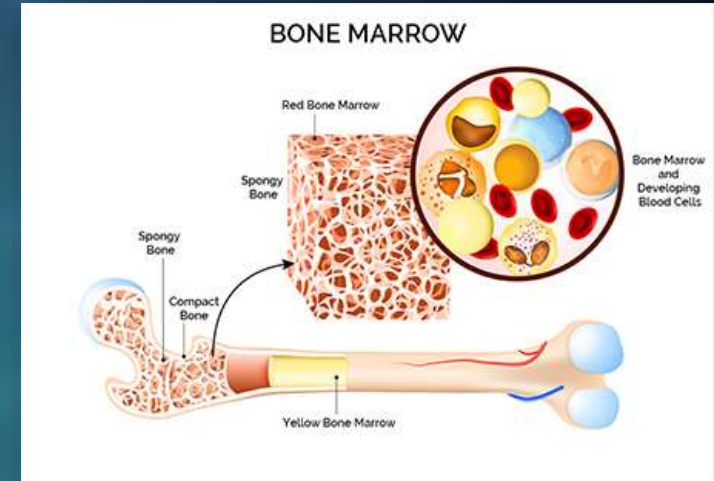
Main Function:
Immunity and
defence
mechanism.

Platelets
(Thrombocytes)

Main Function:
Help in clotting &
coagulation of
blood.

Which of these proteins are responsible for the red colouration of RBCs?

- A. Albumins
- B. Haemoglobin
- C. Globulins
- D. Serum



Source: tlr.org.au

PTN:

- RBCs contain the iron-rich protein called haemoglobin responsible for red color.
- The iron compound found in haemoglobin is called 'haematin'.
- Red blood cells are formed in the red bone marrow of bones.
- Blood cells are counted using 'haemocytometer' instrument.

Which of these disease is caused due to the deficiency of Haemoglobin?

A. Anaemia

B. Scurvy

C. Rickets

D. Goiter

PTN:

- Goiter: Deficiency of Iodine
- Rickets: Deficiency of Vitamin D
- Scurvy: Deficiency of Vitamin C

Which among these is correct?

- A. White Blood Cells have nucleus whereas RBCs lack a nucleus – False.
- B. Cell ratio in normal human blood is roughly 600 RBCs: 1 WBC – True
- C. Platelets are also formed in Bone Marrow. – False
- D. All are correct

PTN:

- RBCs eject their nuclei, so they can carry more hemoglobin, and thus, more oxygen.
- Liver produces an anticoagulant compound called heparin which prevent clotting inside the blood vessels.

HUMAN BLOOD GROUPS

- Karl Landsteiner, an Austrian scientist discovered the ABO blood group system in the year 1900 and also received Nobel Prize in 1930.
- The main reason for different blood groups (A, B, AB, O) is the glycol protein called 'antigen'. They are found on the surface of RBCs. Types: A and B
- An opposite type of protein found in plasma is called 'Antibody', which are made by the body in response to infections.
- Another protein found on surface of RBCs: Rh-factor which determines if the blood group will be +ve or -ve.

HUMAN BLOOD GROUPS

S.no.	Blood Group	Antigen	Antibody
1	A	Only 'A'	Only 'b'
2	B	Only 'B'	Only 'a'
3	AB	Both 'A' and 'B'	Absent
4	O	Absent	Both 'a' and 'b'

Which of the following blood group is called a universal acceptor?

- A. O
- B. AB
- C. A
- D. B

PTN:

- Blood group O is the universal donor.

‘Australian antigen’ is related to which of the following disease/virus?

A. Hepatitis B

B. HIV

C. Ebola

D. COVID19

PTN:

- Australia antigen is the surface antigen of the hepatitis B virus (HBV).
- Hepatitis B is spread when blood, semen, or other body fluids from a person infected with the virus enters the body of someone who is not infected.

Which of the following blood vessels carry de-oxygenated blood?

- A. Pulmonary artery
- B. Pulmonary vein
- C. Vein
- D. Both A and C

PTN:

Arteries are attached directly to the heart and are in charge of taking oxygenated blood (pure blood) away from the heart, except the pulmonary arteries, which transport deoxygenated blood from the right side of the heart to the lungs for oxygenation.

Which of the following proteins are responsible for the generation of finger or toe nails?

A. Actin

B. Elastin

C. Keratin

D. Coronin

PTN:

Keratin, a type of protein that's a basic component of hair, skin, and nails. Keratin in the skin's outer layer helps create a protective barrier.

HUMAN SKIN

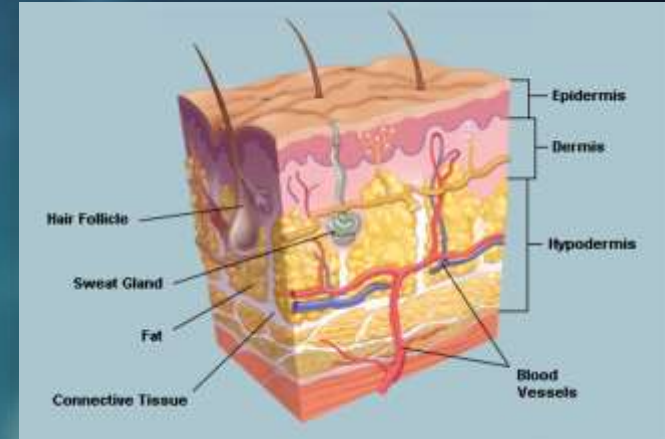
- The skin is the largest external organ of the body, with a total area of about 20 square feet.

- Skin has **three layers**:

1. **The epidermis:** The outermost layer of skin, provides a waterproof barrier and creates our skin tone.

2. **The dermis:** Beneath the epidermis, contains hair follicles, & sweat glands.

3. The deeper subcutaneous tissue (**hypodermis**) is made of fat and connective tissue.



Source: WebMD

Which of the following tissues join muscle to a bone?

- A. Ligament
- B. Skin
- C. Tendon
- D. None of these



Source: atlantaequine.com

PTN:

A ligament is a fibrous connective tissue which attaches bone to bone, and usually serves to hold structures together and keep them stable.

Assignment!

1. Name the human body's largest internal organ.
2. What is the shape of Human DNA called?
3. Name the 4 substances responsible for the generation of teeth.

Thanks a lot for watching!



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