HUMAN EAR:-

Date:

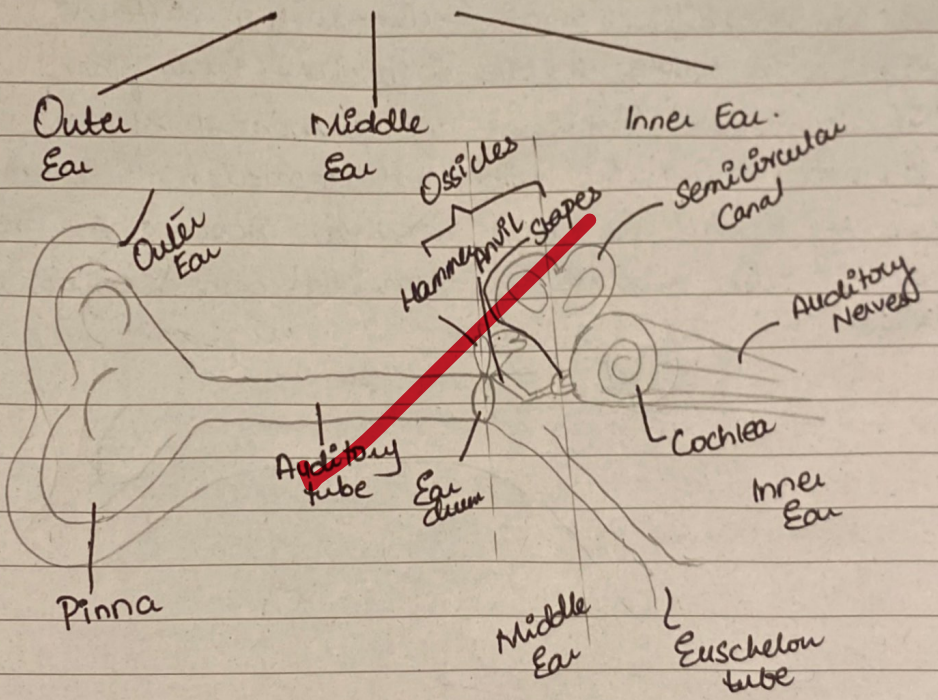
2017:

Q. Draw the structure of human ear and briefly explain its functions.

ANSER:

1) THE STRUCTURE OF HUMAN EAR:

Human Ear can be divided into three sections.



2) FUNCTION OF THE HUMAN EAR:

Human Ear works on three basic principles, collects sound, processes it and converts the signals.

M.M

Date:

i) OUTER EAR:

a) Pinna: It collects the sound and directs it to the auditory tube.

b) Auditory tube: The air molecules, vibrates and hits the Ear drum.

c) Ear drum: The part that separates the outer and the middle ear. Passes or transfers the vibration to the middle ear, muscles.

d) &

ii) MIDDLE EAR:

a) Ossicles: Comprises of three bones and are the smalles bones of the body. Namely: Hammer, Anvil, Stirrups/Stapes. The vibration passed by ear drum, the pressure is Increased by 20x and hits the inner ear. The main purpose is to amplify and transmit.

b) Eustachian tube: It connects the middle ear to the throat. Important to maintain equilibrium.

INNER EAR:

a, Semicircular canals: Important to maintain balance.

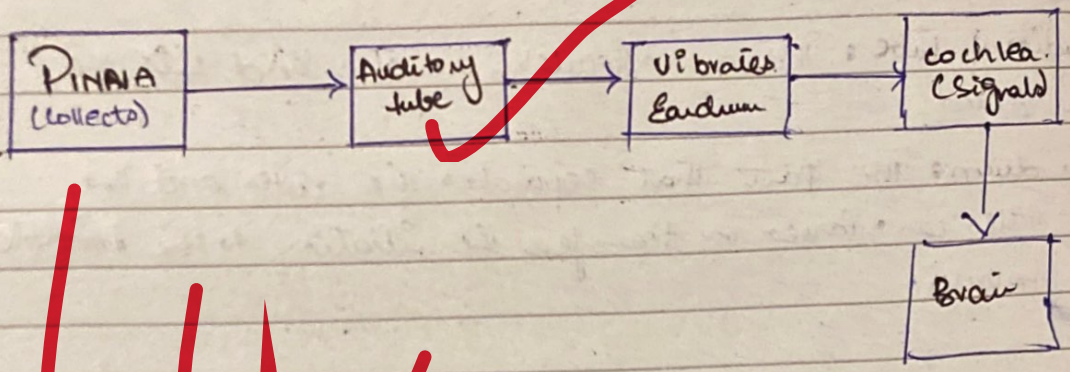
b, Cochlea: The main purpose is to move the ~~fluid~~ cilia present inside it and which ~~transconverts~~ the sounds to electrical sound signals and passes on to the

M.M

Date:

auditory nerves sending it to brain.

3) MAIN PROCESSES INVOLVED:



4/5

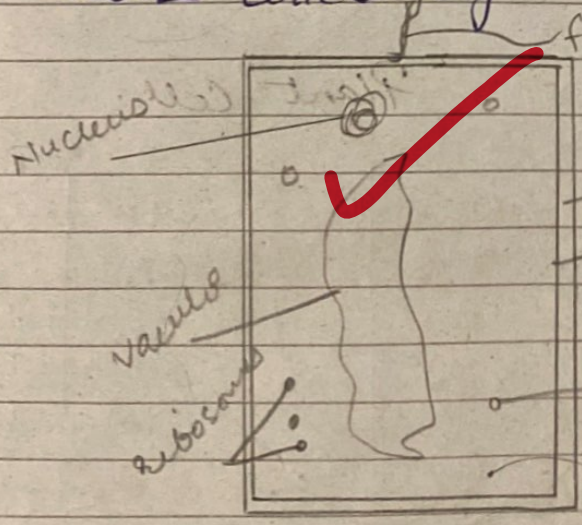
BIOLOGICAL SCIENCES:

Date:

Q Describe the cell structure. Write down at least 3 differences between an animal and plant structure?

What is a Cell STRUCTURE?

The smallest unit in living organism is known as a cell. It is not visible with a naked eye and there are billions of cells in a human body that help the person function. The cell consists of important organelles. Cell wall (in plant cell), cell membrane (All cells), cytoplasm, chloroplasts, ribosomes, golgi apparatus and others. Cell is found in different shapes regular or irregular. The cells are divided into different groups, based on major categories. The division on the basis of ~~Proto~~ cell number is common. Unicellular (Only one cell), multicellular (consists of many cells. Prokaryotes and Eukaryotes. The different organelles have proper functioning and are responsible for specific function as the cell works collectively.



A basic Prokaryotic cell

M.M

Date:

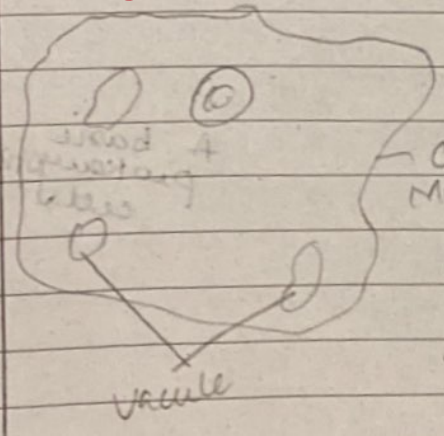
2) Differences Between An Animal & A Plant Cell:

Animal cell	Plant cell.
1) It does not contain a cell wall.	① It contains a cell wall.
② It is not the producer hence, it does not need Chloroplast.	② It needs chlorophyll and chloroplast for photosynthesis.
③ It has many small vacules.	③ It has a large vacule mainly a big one in the center.

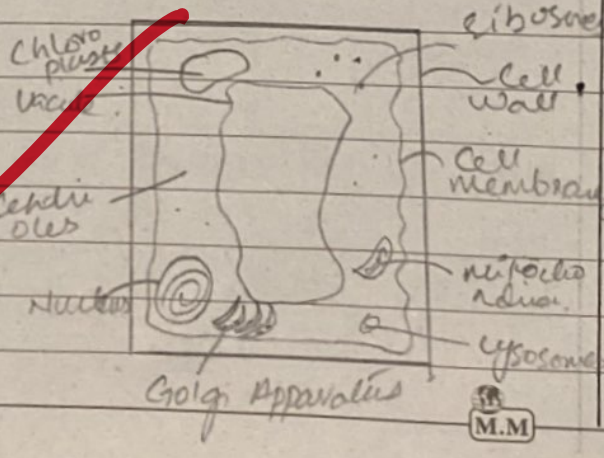
4/5

Cell's structures

Animal cell



Plant cell.



M.M

Date: 12 | 9 | 23

Topic: Human Physiology:
Heart:

Q. What is meant by the term double circulation? Briefly describe how the heart is adapted to keep blood flowing in a double circulation.

1) MEANING OF DOUBLE CIRCULATION:

Human heart functions through the process of double circulation. The double-circulation comprises of the oxygenated and deoxygenated blood, arteries, veins and capillaries.

Double Circulation.

Systemic circulation	Pulmonary Circulation
Carries the oxygenated blood to the body.	Carries the deoxygenated blood to the lungs.

The heart can only function through double-circulation.

2) THE HEART'S ABILITY TO KEEP BLOOD-FLOWING:

The heart contains four chambers, two upper known as left and right atriums (collectively, auricles and two lower chambers known as

M.M

Date:

ventricles.

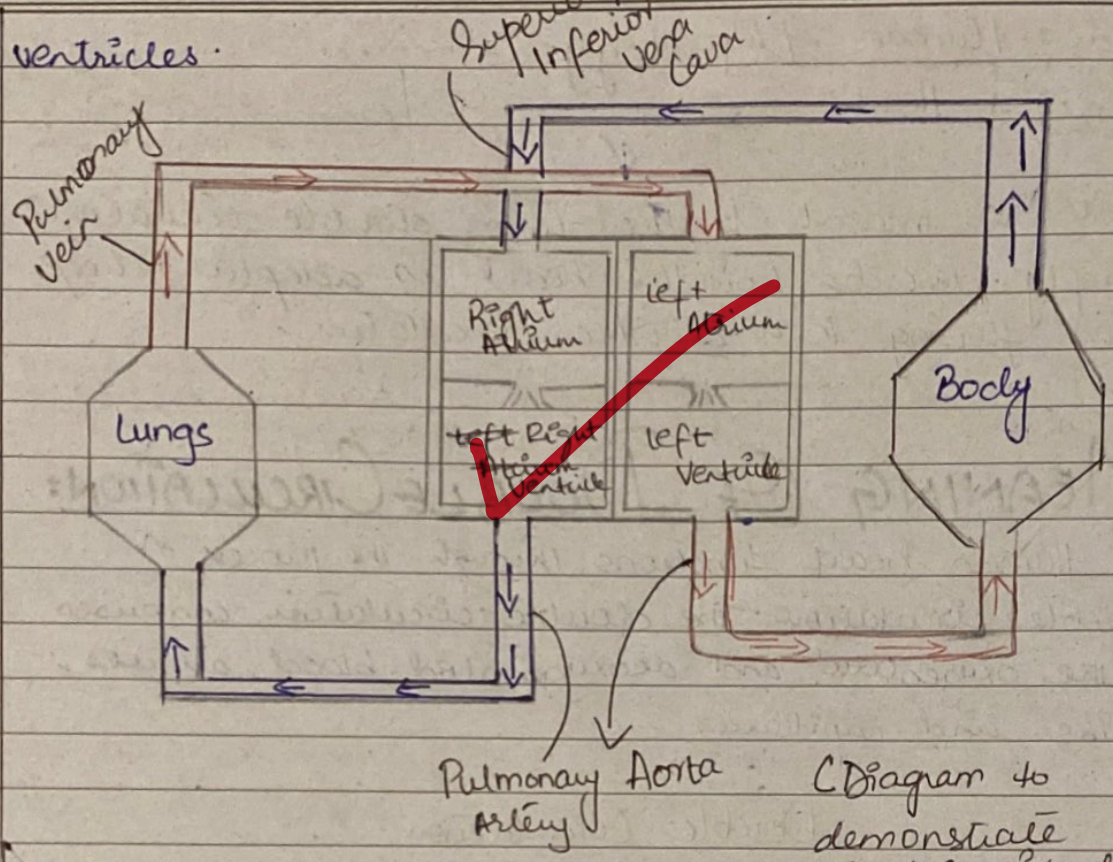


Diagram to demonstrate double circulation

Systemic Circulation:- The oxygenated blood in the left side of the heart goes/flows into the aorta. Then distributing into smaller arteries and cappillaries lose all the blood there into the cells, muscles, organs. The blood disposes off oxygen to parts and intakes carbon dioxide. The deoxygenated blood is flown into the right atrium.

Pulmonary Circulation:- The deoxygenated blood is pumped from the right atrium into the right ventricle causing a systolic pressure and symbolized by a lub sound caused by the closing of atrio-ventricular values and the deoxygenated blood from the right ventricle is pumped into the pulmonary artery (the only artery that carries deoxygenated blood).

M.M

Date:

It carries it to the lungs for oxygen and the oxygenated blood goes to the pulmonary vein (only vein carrying oxygenated blood). This is flown into the left atrium. The circulation continues.

What makes it possible for the heart?

The separate system of veins, arteries, capillaries make it possible for the heart also the chambers and the co-ordination and functionality of different orgns. The whole double circulation takes place simultaneously. (systemic and pulmonary system). The septum being the mid-wall separates the chambers, the right and the left atrium or sides of the heart to prevent the mixture of oxygenated and deoxygenated blood.

04

good asnwers!! keep practicing for improvement.

structure of the answers, paper presentation, diagrams, arguments quality is good

M.M