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CLASS SECTION: A-MLT-

I.D: 17651

Assignment: Physiology

<=> - STARTS - <=>

Definition: - -

Level of organization
in level of organization

① CHEMICAL Level: - -

BASIC Level -

ATOMS: - -

The smallest units of matter - for includes Carbon (C), Hydrogen (H), Oxygen (O), Nitrogen (N).



Phosphorus (P), Calcium (Ca),
and sulfur-

molecules: - - -

Two or more atoms
joined together.

Deoxyribonucleic acid (DNA)
Glucose.

② Cellular Level: - - -

Molecules combine to form
cells. Cells are the basic
structural and functional units
of an organism.

many kinds cells in the body -
muscle cells, nerve cells,
epithelial cells -

③ Tissue level: - - -

Tissues are groups of cells and
materials surrounding them

Four basic types of tissues -

Epithelial -

Muscle -

Nerve -



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④ organ level :-

Tissues are joined together to form organs -

organs are structures that are composed of two or more different types of tissues - specific functions and recognizable shapes -

For Example :-

Heart, lungs, kidney, stomach is made of several tissues -

serous membrane, smooth muscle and epithelial layers of digestion -

⑤ SYSTEM LEVEL :-

A system consists of related organs with a common function - organ system level.

Digestive system breaks down and absorb foods - It includes organs such as small and large intestines, liver, gall bladder, and pancreas.

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⑥ Organ system: - Level: -

All parts and systems of the body function together.

(HOMEOSTASIS).

A conditions of equilibrium (balanced) in the body. Internal environments, maintaining an almost constant internal environments. Narrow range is compatible with maintaining life.

- Example -

Blood glucose level's range between 70 and 120 mg of glucose / dl of blood.

whole body contributes to maintaining the internal environment with a normal limits -



LUNGS volumes:--

Refer to THE volumes of air associated with different phases of the respiratory cycles.

Lungs volumes are directly measured: -- Lungs Capacities are Interests are Lungs volumes -

Instrument is Spirometry -

Lungs volumes are Four ⁴ Types: --

- ① Tidal volumes -
- ② Inspiratory reserve volume -
- ③ Expiratory reserve volumes -
- ④ Residual volumes -

① Tidal volume: --

Normal volume of air inspired or expired during's quiet's breathing.

The amount of air inspired or expired with each normal breath.

TV = 500ml -



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② Inspiratory reserve volume:-
maximum amounts of additional
air that can be inspired from
the ends of a normal inspiration-

300 ml in adult male-

③ Expiratory Reserve volume:-
The maximum amounts of
additional air that can be expired
from the ends of a normal
expiration-

1100 ml in adult
male-

④ Residual volume :-
The volumes of air remaining
in the lungs after a normal
forceful expiration-

1200 ml-

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URINARY SYSTEM

- Kidneys
- ureters
- urinary bladder
- urethra

KIDNEY: - -

Human body contains 2 kidneys and bean shaped, consist of medulla. Linnear parts, kidney having major calan small branches.

size 11 cm long, ^{Thick-} 3 cm wide, 256 gm weight.

GLAND Adrenal GLANDS -
Nephrons -

NEPHRON: - -

The structure's and functional units of kidney's consist of layers number of nephron. (2-2) million.



nephrons consist of proximal convoluted tubules, loops, and collecting ducts.

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Functions :-

- Filtration -
- Formation of urine -
- tubular secretions -
- water balance and urine output -
- Electrolysis balance -

PH - BALANCE -

Glomerular Filtration RATE :-

At The volumes of ultra-filtrate filters from the glomerulus in to Bowman's capsule by the two kidney's 1.5 person GFR will average excreted 180/day - 1-5 litres are remaining filtrates from kidney tubules -

Factor affecting GFR :-

- Renal arterial pressure -
- Intrabulbar pressure -
- Glomerular surface area -

TOTAL renal plasma -



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THE URETERS :-

Definition :-

The ureters are a pair of narrow, thick walled muscular tubes which convey

urine from the kidney to urinary bladder.

- Each ureter is about 25 cm (10) inch long.
- The upper half lies in the abdomen and the lower half in the pelvis.
- In measure 3mm diameters

Urinary Bladder :-

The urinary bladder is a hollow muscular organ which functions as the reservoir for the urine received from the kidney.

Capacity :-

The mean capacity of the bladder is 220 ml filling, beyond 230ml causes a desire to 500 ml may be.

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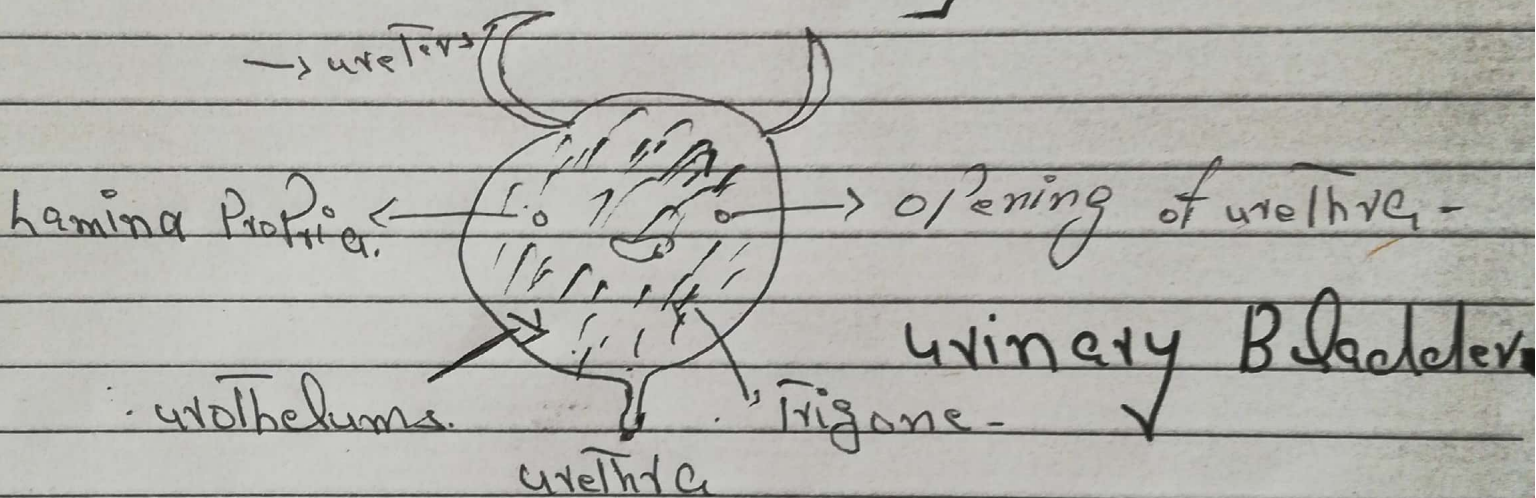
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Tolerated, but it comes painfully -

Structure of urinary bladder: -



THE URETHRA: - -

The urethra is a canal extended from the neck of the bladder to the exterior, at the external urethral orifice.

male: about 20 cm long -

Female: 3-4 cm long -

Short length is why female have more urinary tract infections than males. ascending bacteria stools

Continuations - (Physiology!

(THE END)