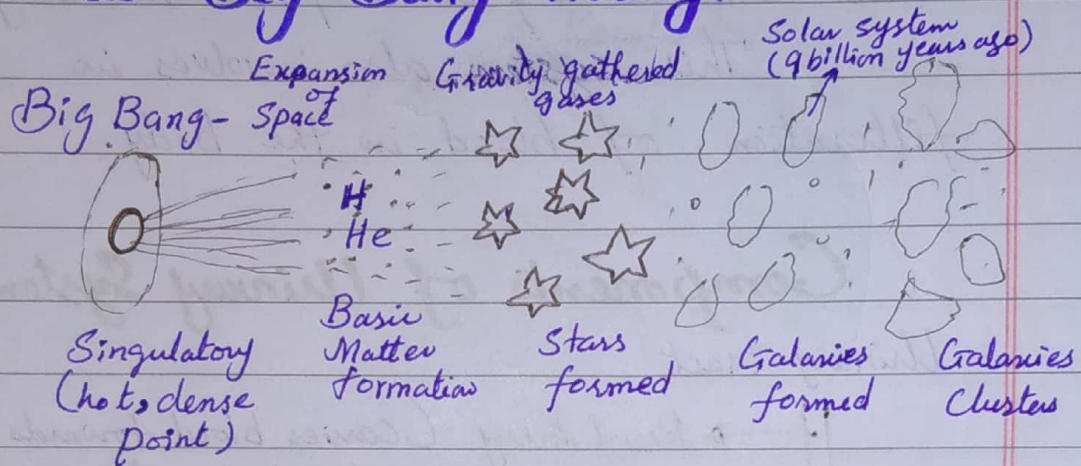


General Science & Ability

SECTION-A

Q.No.2 (a)

Structure of Universe according to big bang theory.



Big bang theory

According to big bang theory Universe began 13.8 billion years ago from a "singulartory" (hot, dense point) which rapidly expanded into space, time, matter, and energy. As it expanded hydrogen and helium atoms formed. Gravity gathered these atoms which leads to stars, galaxies, and cluster of galaxies formed. Universe is still expanding and cooling.

(b)

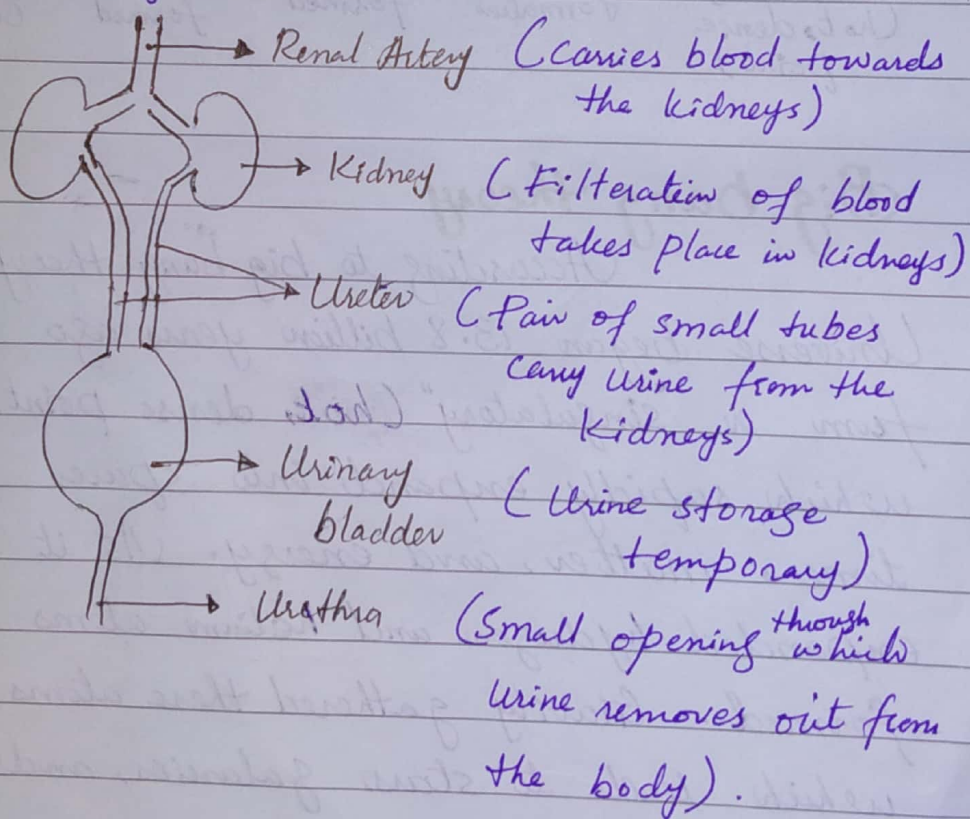
Urinary System

Urinary system is the system in the body which is responsible for the formation and removal of urine from the body.

This system also involves in filtration of blood in the body.

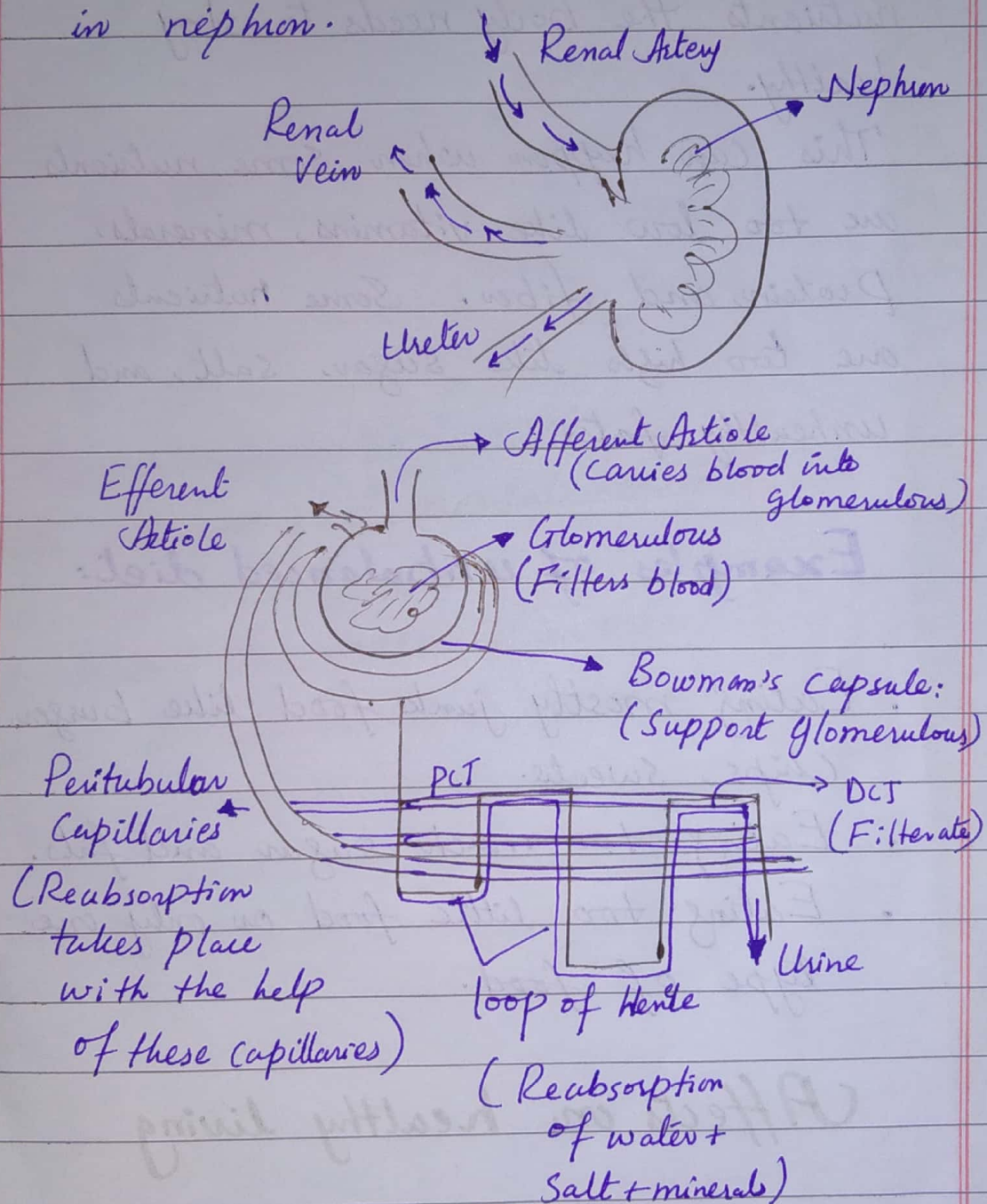
Components of Urinary System

Urinary tract



Working of Nephron

Nephron is basic fundamental unit of kidney. Filtration of blood takes place in nephron.



(C)

Un-balanced diet

An unbalanced diet is a diet that does not provide the right amounts of nutrients the body needs to stay healthy.

This can happen when some nutrients are too low like vitamins, minerals, protein, and fiber. Some nutrients are too high like sugar, salt, and unhealthy fats.

Examples of unbalanced diet:

- Eating mostly junk food like burgers, chips, sweets.
- Eating too much sugar and fats.
- Eating too little food or only one type of food.

Affects on healthy living

1. **Less energy:-** Makes daily activities difficult.
2. **Illness:-** Weakens the immune system.

3. Poor growth and development:

Poor growth and development of children

4. Weight Problems:- Causes overweight or obesity.

5. Weak bones and muscles:-

Due to lack of nutrients weak bones and muscles.

6. Poor Concentration and mood:-

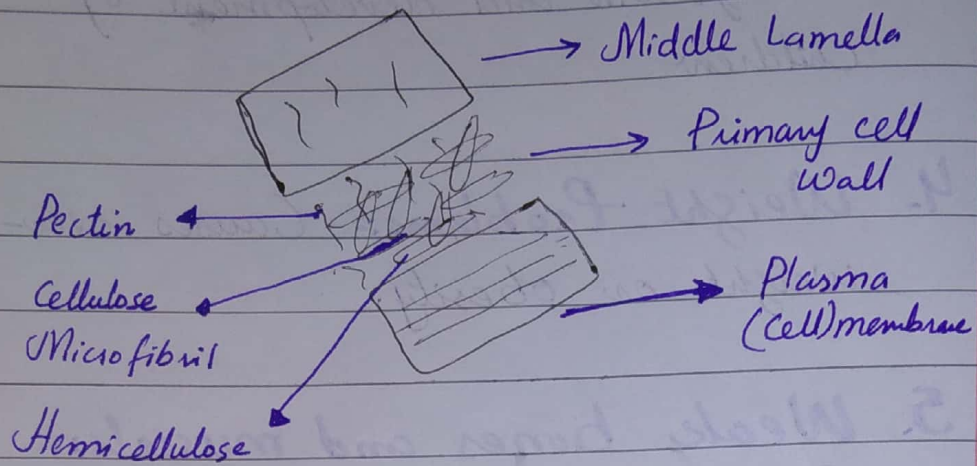
Affects learning and mental health.

7. Long term diseases:- Diseases

such as diabetes, heart disease, and high blood pressure.

(d)

Cell Wall (Structure)



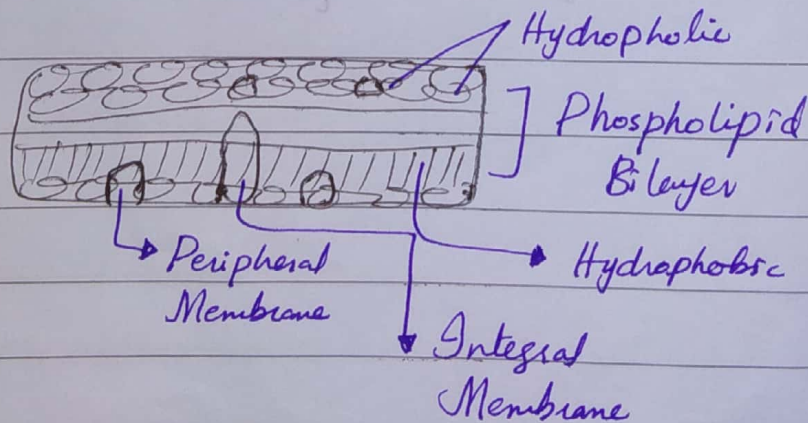
Function:- Cell wall is present in plants and absent in animal cell.

It gives a definite shape to the cell.

It protects and supports the cell.

It is porous in nature, it helps cell intaking and out of materials.

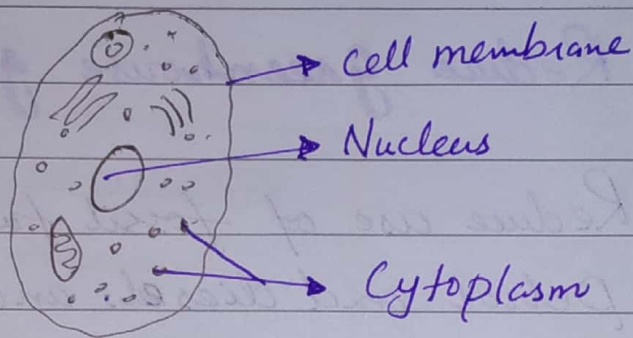
Cell Membrane Structure



Function:- It is semi-permeable membrane, only allows selective materials inside the cell. It protects, supports

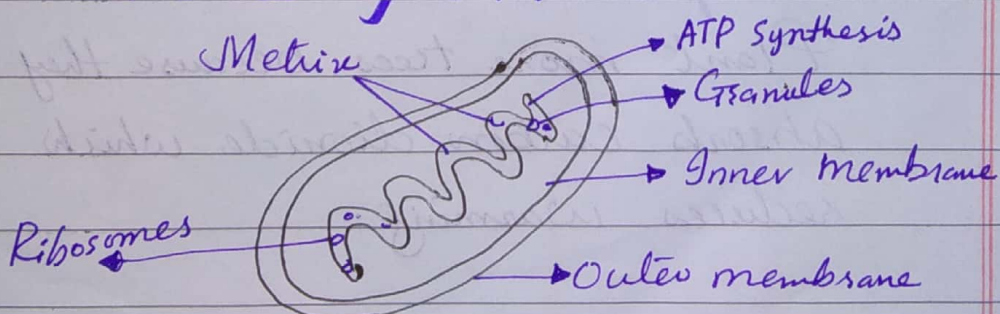
the cell. It works like enter and exit passage of the cell. It also gives shape to the cell. It is present in both plant and animal cell.

Structure of Cytoplasm



Function :- It provides sites and protection to other cellular organelles. It is a centre stage for cellular activities. It is a store house of cell.

Structure of Mitochondria



Function :- Process of cellular respiration takes place in mitochondria. It synthesises ATP energy of cell. It is called power house of cell.

Q.No. 2 (A)

Global warming cannot be quickly reversed but it can be slowed down by changing human activities that cause it.

1. Reduce greenhouse gas emissions

Reduce use of fossil fuels like coal, petrol and diesel, and use renewable energy like solar, wind and water power.

2. Save energy

Turn off lights and appliances when not in use.

3. Reforestation

Plant more trees because they absorb carbon dioxide which reduces warming.

4. Use environment-friendly transport

Walk, cycle, and use public transport.

Use fuel-efficient vehicles

5. Reduce, reuse, recycle

Reduce waste by recycle paper, plastic, and metal

6. Protect nature

Save forests, oceans, and wild life.

Support environmental laws and awareness.

Global warming can be controlled by reducing pollution, saving energy, planting trees, and protecting environment. These actions can help create a safer and healthier Planet for future generation.

(d)

- Food Additives

Food additives are the substances which are added in food to make food more tasty, attractive, and edible.

Examples:- Preservatives (salt, sugar), colouring agents (food colour like tartrazine), flavor enhancers (monosodium glutamate (MSG), sweeteners and emulsifiers.

- Food Preservatives

Food preservatives are substances which are added to food to prevent spoilage and increase shelf life.

Examples: Salt, sugar, vinegar, sodium benzoate, and sulphur dioxide.

Salt → Used in fish and meat

Sugar → Used in jams

Vinegar → Used in sauces

Sodium benzoate → Used in soft drinks

Sulphur dioxide → Used in dried fruits.

- Food Adulteration

Food adulteration means "adding harmful or cheap substances to food to increase profit, which lower food quality and safety."

Examples:- Milk mixed with water, turmeric powder mixed with chalk powder, Honey mixed with sugar syrup, tea leaves mixed with coloured leaves.

- Food Contamination

Food contamination happens when food becomes unsafe to eat because of harmful substances or germs.

Examples:- Bacteria in undercooked chicken.

Dirty water used to wash vegetables.

Insects sitting on uncovered food.

Chemicals from unclean containers mixing with food.

Hands not washed properly while cooking.

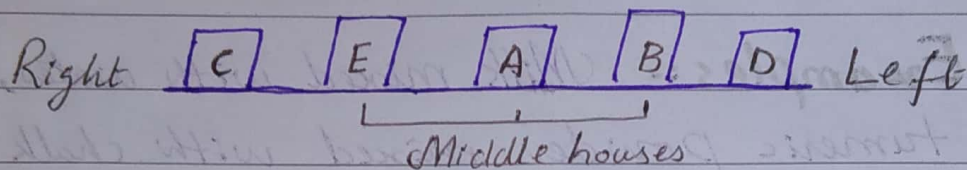
6

SECTION-B

Q.No.6 (A)

Ans: Woman is the mother of Ahsan.

Q.No.8 (A)



Ans:- E, A, and B houses are in middle.

(C)

Ans: SKIRT

(D)

Ans: 30 Triangles

