

Q: a

Describe the structure of universe according to big bang theory?

Big-Bang theory:

Around million of years ago universe was in the form of smallest bubble. it suddenly exploded and the universe known to human being was born.

Structure of universe and Big-Bang theory:

Big Bang Theory is one of the leading explanation about the origin of universe. The theory views universe ^{originating} from tiny bubble to giant universe encompassing million of stars and galaxies with planets.

Transformation from tiny bubble to giant universe

According to Big bang theory universe was tiny bubble the "size of needle". it exploded and released various particles and gases with temperature million of degrees. As the particles cooled down they form neutron, proton and electron these joint and form atoms which led to matters the further cooling transformed them into hydrogen and helium gases which than formed stars and galaxies

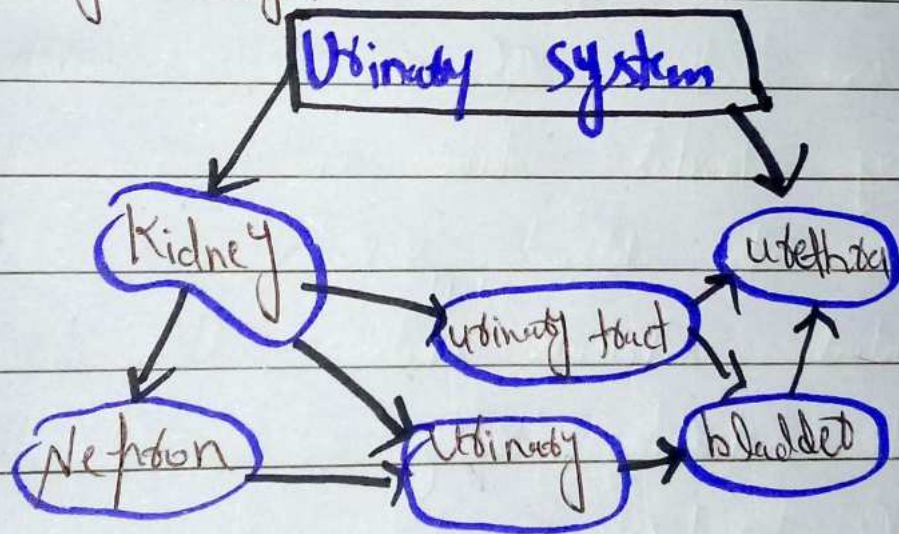


In this way, universe began and life came into existence.

Define urinary system? and explain working of Nephron..?

Urinary System

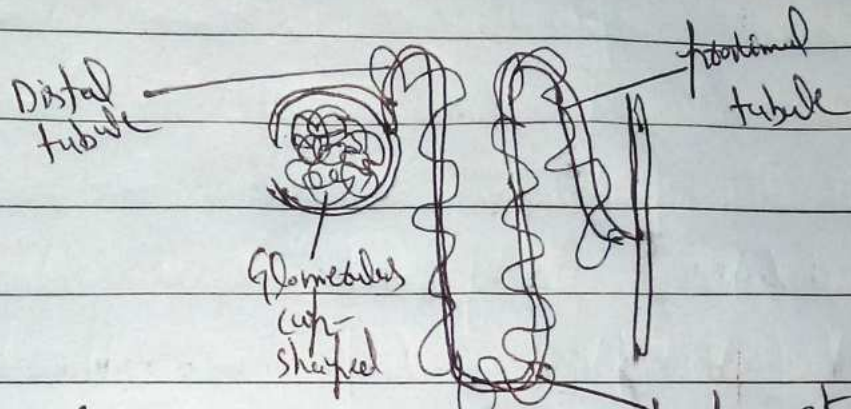
It is system of body which is primarily involved in the excretion of body waste content after the completion of digestion out of the body. once the digestion and absorption completed the waste content material is excreted through urinary system.



Working of Nephron:

Nephron is the structural and functional unit of kidney.

Nephron is connected with distal tube, proximal tubule and loop of Henle. It enclose glomerulus structure supplied with blood vessels.



Functioning of Nephron:

The digested food material enters into glomerulus part through distal tube and loop of Henle. its blood vessels absorb essential nutrients ^{and vitamins} and all the waste material through its distal tubule enters into urinary tract. From here it enters into urinary bladder and excreted out of the body.

C-

What is un-balanced diet?
How it affects healthy living?

Answer

Un-Balanced Diet

The Diet which does not contain essential nutrients including Protein, carbohydrates and Lipids in proper proportion is called un-balanced diet. Moreover, unbalanced diet also lack vitamins needed for proper function of body.

Criteria of balanced diet

Carbohydrates 46.2%

Protein 20%

Lipids 27.8%

Vitamin and minerals 10.05%

Effects of un-balanced diet:

The balanced proportion of nutrients is required for

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proper functioning of body as each nutrient performs specialized functions in the body.

While unbalanced diet results in number of problems range from minor to complex issues.

Effects of un-balanced Protein

Protein are essential for metabolic reactions and production of enzymes. These functions cannot be performed with lack of protein.
- low-protein also effect skin, nails, vision and functioning of cells.

Effects of lack of carbohydrate

Improper level of carbohydrates leads to low activity and decrease of energy. It really impact brain functioning which use only glucose as source of energy.

Effects of lack of lipids on living being:

Lack of sufficient supply of lipids to living beings leads to failure of cells to acquire cell membrane and other key structures. It also effect digestion process of body and impair the transmission of neural impulse through axons.

d-

Describe Structure and Functioning of cell wall-----?

cell wall:

Structure:

cell wall is present around the cell. It is present only in plants.

It consist of protein and lipids.

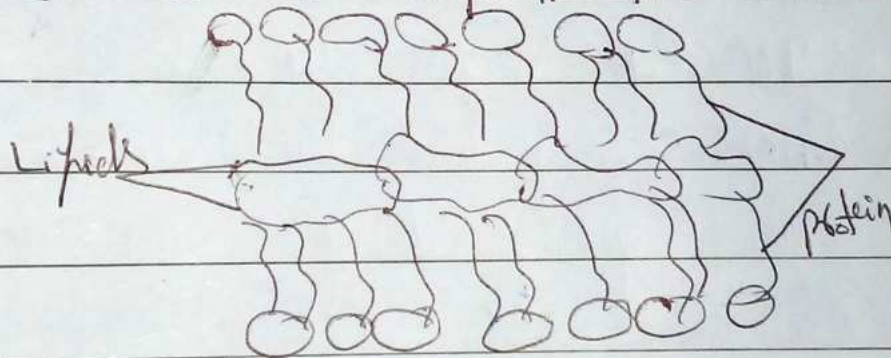
Functions:

cell wall allows the exchange of nutrients inside the cell and help in metabolic process of the cell.

Cell membrane:

Structure

cell membrane is the outermost boundary of cell. It consist of protein and lipids in different proportion. Fluid Mosaic model is used to explain this structure.



lipids are present between the proteins in a mosaic manner.

Function:

cell membrane surrounds internal structure of cell.

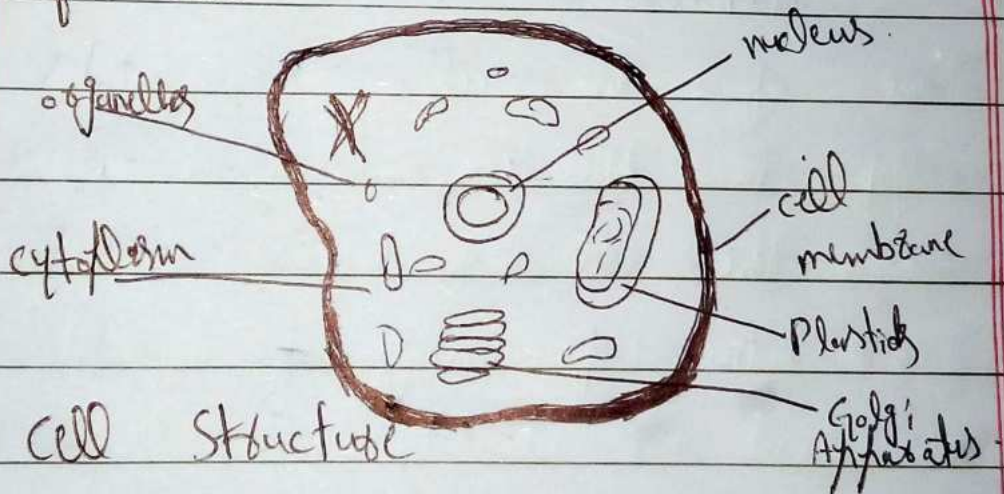
It allows the movement of

substances in and outside the cell. It also provide insulation to the internal functioning of cell. It is involved in Phagocytosis.

Cytoplasm:

Structure:

Cytoplasm is a jelly like fluid inside the cell. it ~~includes~~ nucleus and all the organelles of cell.



Function:

cytoplasm provide protection to the nucleus.

It consist of various organelles like RER, SER, Golgi vacuoles and

mitochondria which perform various functions inside the cells.

Mitochondria:

Structure:

It is cell organelle present inside the cell cytoplasm. It consists of various vesicles that form its structure.

Functions:

Mitochondria is the powerhouse of the cell. It provides energy in the form of ATP to the cell which is crucial for the functioning of cell.

Q-5

What is DRM? Give the importance of Risk ---?

Definition of DRM

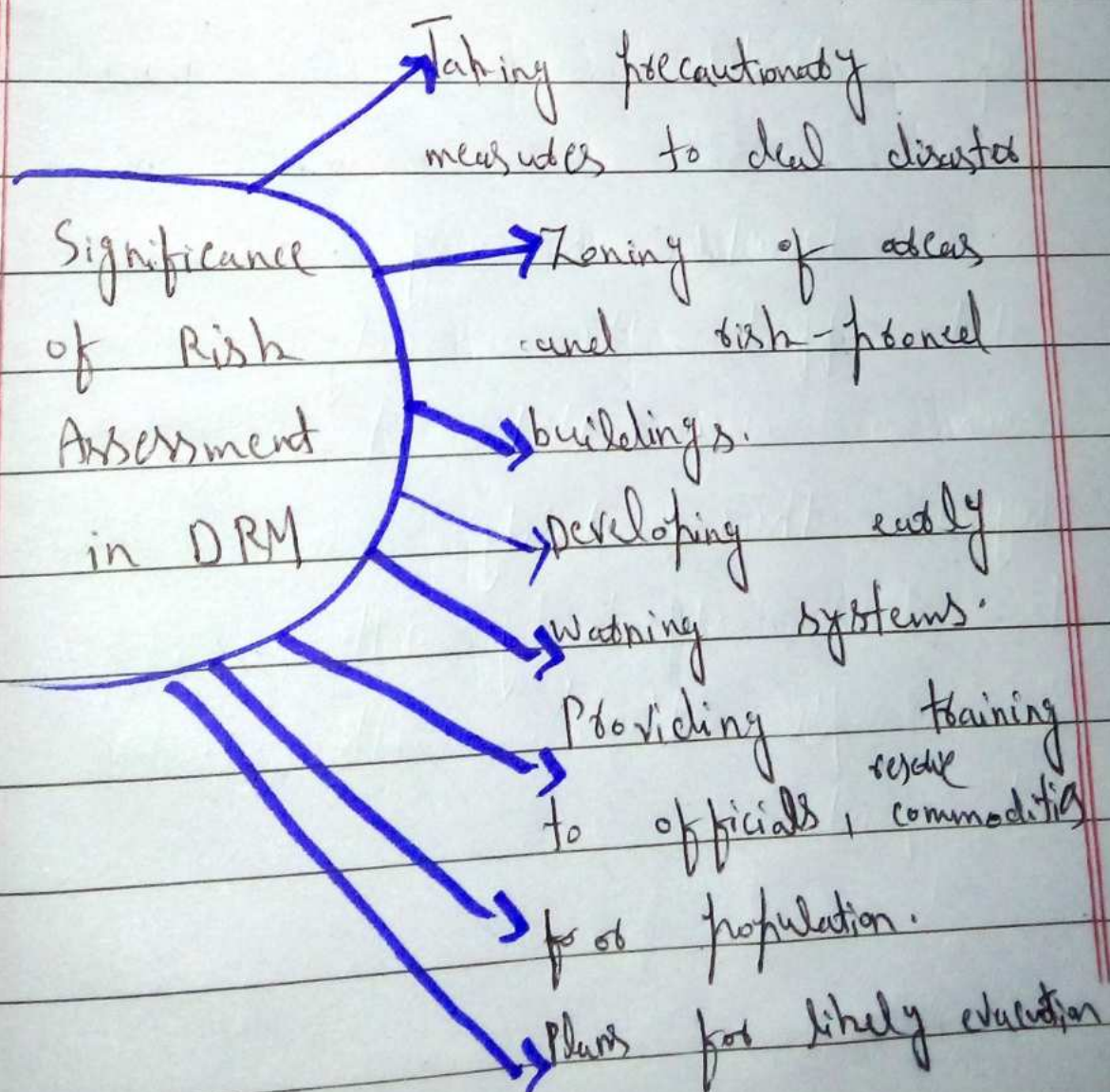
DRM is the Disaster Risk Management. It encompasses the management, evaluation of risk and impacts associated with Disasters, in order to reduce the likely socioeconomic and human impacts of disaster.

Disaster:

Disaster is any event that affects the society in such a way that it goes beyond their ability and resources to deal effectively with it. For example Flood, earth quake and pandemics.

Importance of Risk assessment in DRM:

In order to prevent the event or reduce the risk linked with disaster. It is imperative to assess and evaluate the risk. This assessment provide more timely information to the officials and population about the disaster and likely effects.



b

Define biofuels? Explain
the production of biodiesel
and bio gas?

Biofuels:

Biofuels are fuels that are prepared through the treatment of biological content including decomposed^{os} organisms and their waste material. It involves the activity of anaerobic bacteria in enclosed vessel and the decomposed material is changed into biofuels.

Production of BioDiesel:

Biodiesel is prepared through action of Anaerobic bacteria when plant or other organisms die their decomposed material is covered by silt and sand. With

passage of time pressure built on them and with the functioning of bacteria the change into crude biodiesel.

Production of Bio gas

Bio gas is produced through enclosed contained waste material is placed into the contained and covered with iron lead it is stirred constantly to prevent the production of gases. This container include bacteria to convert the material into gas. The gas is collected through outlet with help of pipe. Hence in this way Bio gas is produced.

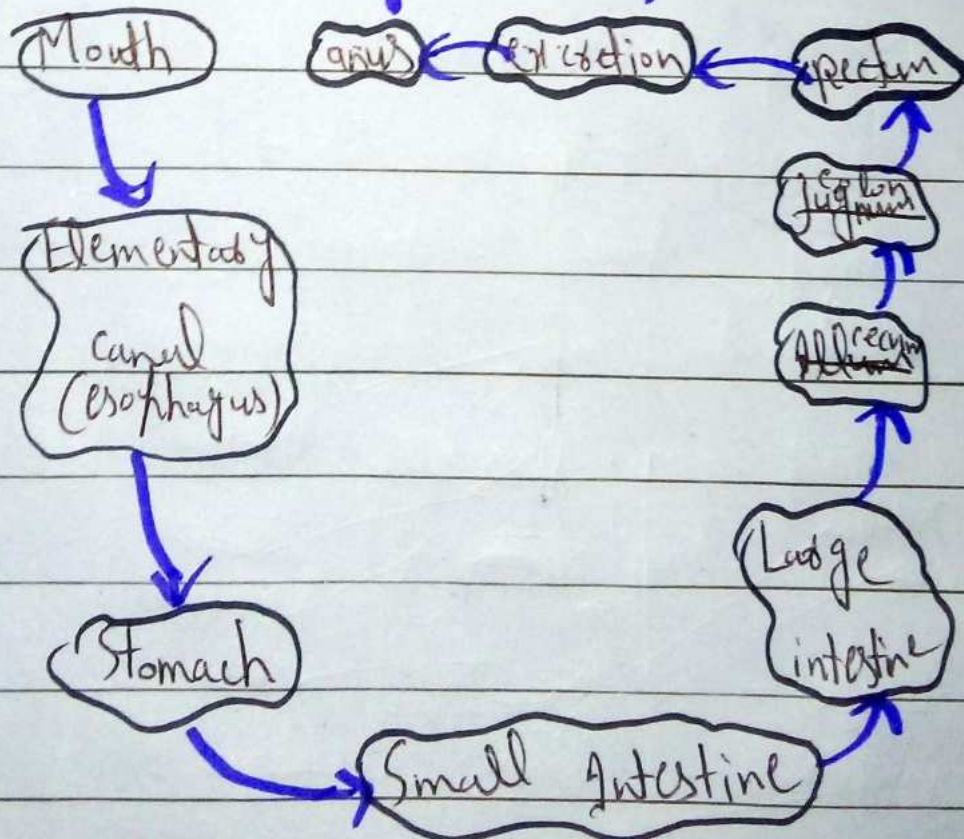
C-

What is digestive system?
 Explain the role of stomach
?

Digestive System.

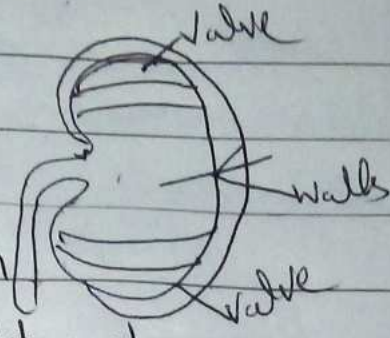
It is involved in the digestion and absorption of food. Food enters the digestive tracts and after complete absorption it is excreted out of the body.

Digestive System



Role of Stomach:

Stomach is bag-like structure food enters in stomach through Esophagus. In stomach:

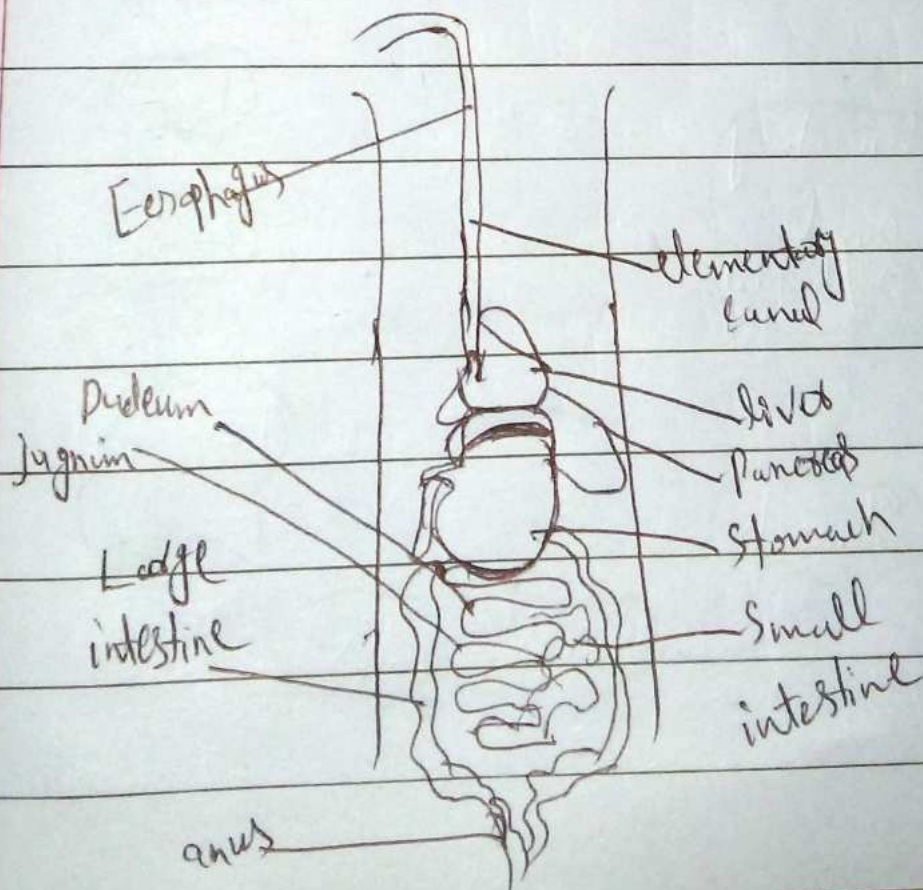


HCL: is secreted breakdown through **Pepsin** produced from Pepsinogen.

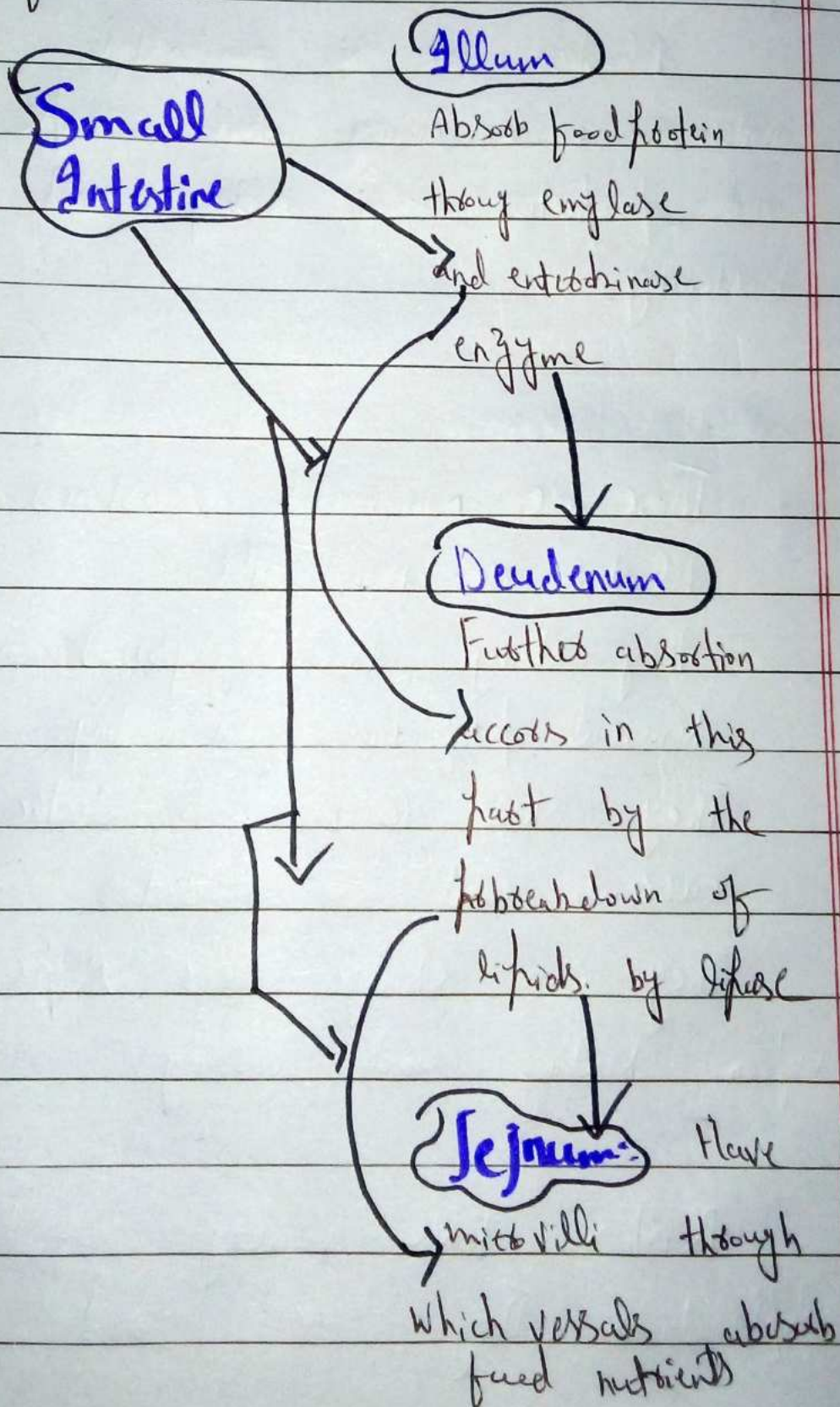
Pancreatic juice: produced from Pancreas convert glucose into fructose

Bile: produced and released by liver it breakdowns cholesterol.

Small Intestine



Small intestine starts after stomach it involves in the absorption of food. it consist of three parts that completely absorb food.



d-

Define Plastics, give their properties, application and use ---?

Plastics

Plastics are the non-metal materials which change their shape and properties upon heating and hardening.

Properties:

These are non-metal substances.

Plastics are non-brittle.

They change their physical and chemical properties upon heating.

They show resistance to electric current, and are insulators.

They can change their shape upon heating and cooling.

Applications:

Plastics have variety of household applications. They are used

in appliances, clothing, gadgets and toys.

They are also used in the engines, building of ships, spacecraft material and planes.

These are used in various chemical industries.

Environmental risk with plastic

Plastics pose major environmental damage. They interfere with chemical properties of soil if these are dumped in soil.

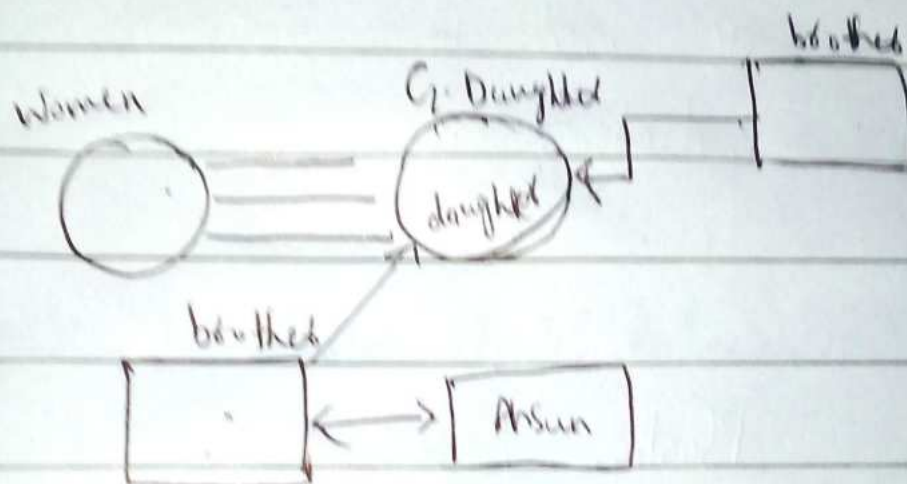
These also cause water pollution and major threat to aquatic organisms.

During their production, harmful substances are released in air and cause air pollution.

Various states are taking initiatives to ban the plastics to protect environment.

Q.6

Pointing to a woman, Ahson said her granddaughter is the only daughter of my brother. How is the woman related to Ahson?



~~Mother~~ woman is the mother of Ahson