

Qno 22

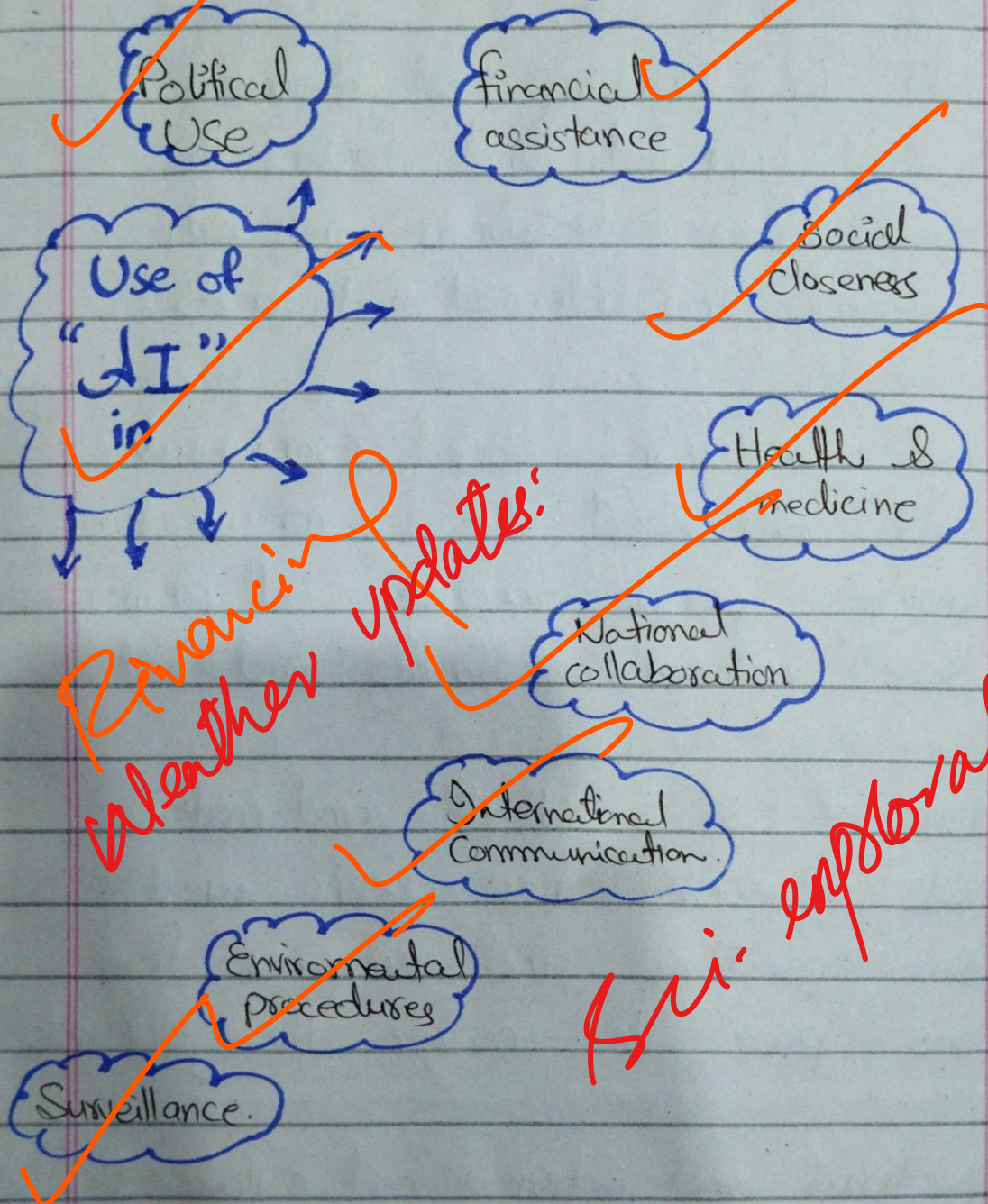
32

Introduction:

Artificial Intelligence (AI) is the new electricity means that as the electricity was made and it brought into existence, it literally spread like electricity around the globe. The world was introduced to a great and marvellous invention which changed the world entirely. People got used to electricity, industrial revolution speedily evolved and a new world dynamics were observed, from domestic use to factories to international collaboration. Similarly, with the advent of AI, the world has changed in its entirety. The lens of seeing world has magnified and perspective has changed to a great extent. AI has become

a new electricity for this world.

## How AI has become New Electricity ?



## 1 Political Use and IT

IT has been integrated in Politics in electoral process and declaration process.

## 2 IT in Banking and Finance

IT improved and faster the transactions between regional, national and international banks.

## 3 IT increasing Social Communication

IT enhanced the communication among people through cell-phones, social network platforms and net.

## 4 Use of IT in Health and medicine

IT precision has been used in operations and surgeries from one place to another through robots.

## 5 National and international collaboration due to IT

IT played a role in national and international collaboration.

through satellites and Networking system.

6 AI assistance in Environmental Projects

AI also assisted in identifying the frequency, intensity and time of environmental disasters.

7 AI helping in Surveillance

AI played a role in the surveillance through GPS and GIS type systems.

## CONCLUSION

Cutting it short, AI has become the new ~~to~~ electricity because of its use in every field of life from domestic assistance to international collaboration and health.

W

## b

### Introduction:

CPU also known as central Processing unit, is the brain of Computer. It means CPU is the main part through which all the functions of Computer are performed from starting, processing, analyzing, storing & executing the task. It acts similarly like human brain. Human brain thinks, process, analyze, stores, memorize and executes daily tasks properly. Similarly, CPU, the brain of the computer works.

### How Brain Of Computer Resembles Brain of HUMAN.

CPU resembles with human brain working in following way

## Step I

Human brain see an object and build an image  
CPU gets the input and build and act according to the command.

## Step II

Human brain than analyzes the picture it saw. & CPU analyze the command it got from user.

## Step III

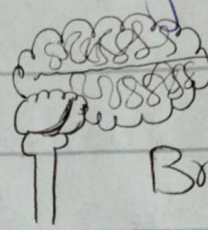
Human Brain fetch data from the image like viewing the image with the presence of trees mountains and snow. The CPU fetch data in binary digits "0" and "1".

## Step IV

Human Brain memorizes the image for future use. CPU stores the data for future use.

### STEP V

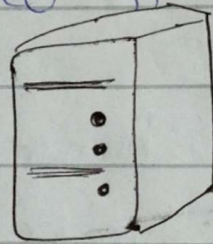
Human brain can recall the data upon reminded or asked for specifications. CPU, commanded the respective code retrieves the data through binary digit code.



Brain.

### STEP VI

Human brain can forget the image if not useful. In CPU, the data can be deleted if not required anymore.



CPU.

### STEP VII

The image might be present in human's subconscious brain and <sup>can be</sup> recalled on remembering by someone or something. CPU can get the image from the "recycle Bin" folder if not permanently deleted.

## CONCLUSION

In short, CPU works in accordance with human brain if the proper command is given.

||—————||—————||

C

## BALANCED DIET:

“A diet that contains all the micro-nutrients (vitamins and minerals) and all the macronutrients (carbohydrate, Protein and lipid etc) in the balanced amount required for the specific needs of the age, body and gender for a whole life is called Balanced diet.”

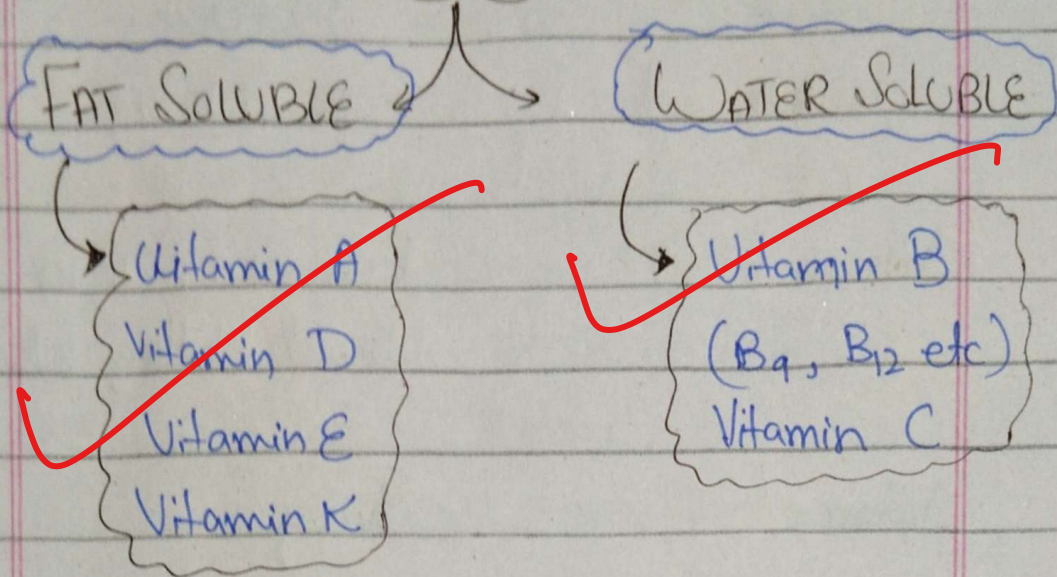


Balance diet means a diet that has all essential nutrients which is required for the daily tasks and maintaining the physical, mental, psychological and emotional balance of a body.

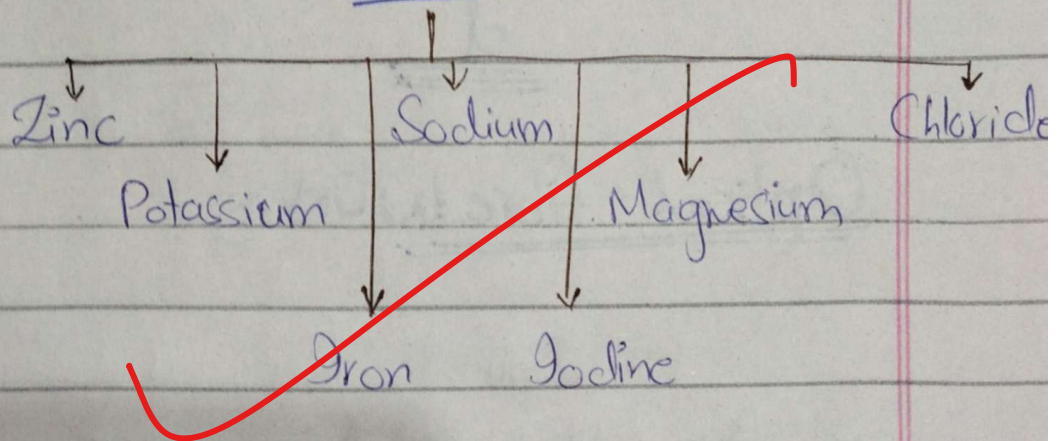
### Essentials of Balanced diet

The amount of nutrients varies from age to age, gender and also countries. Balanced diet for athletes would be different from common man, similarly it would be different for teenage girl to lactating mother and old age grandmother. There is no universal diet chart but there is the essentials of a balanced diet. It also varies among healthy and diseased person and so on.

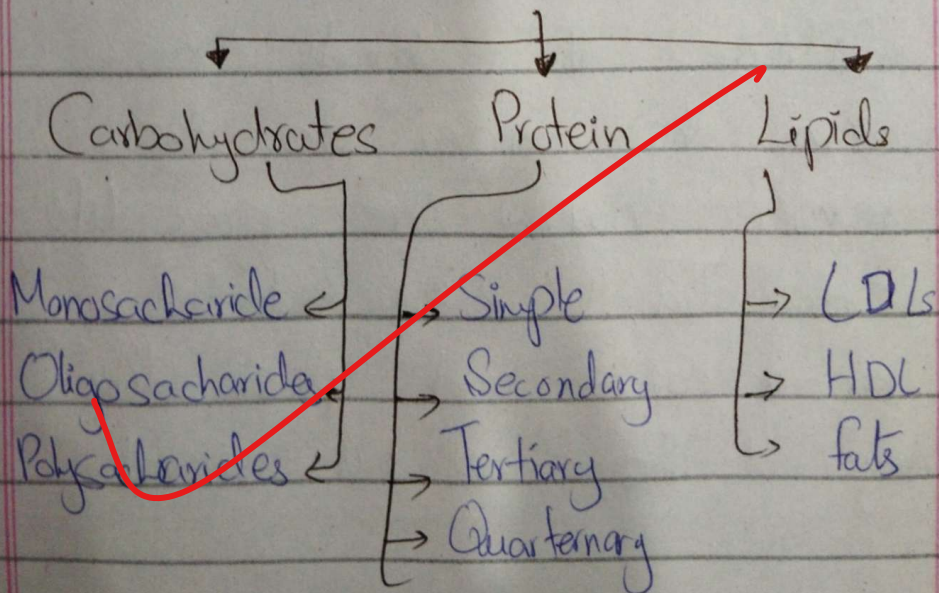
# Vitamins



# MINERALS



# MACRONUTRIENTS



# Deficiency of Vitamins

Vitamins A

Deficiency

Eye Problems

Vitamin B

Beri-Beri, anemia  
blood clotting etc

Vitamin C

Scurvy.

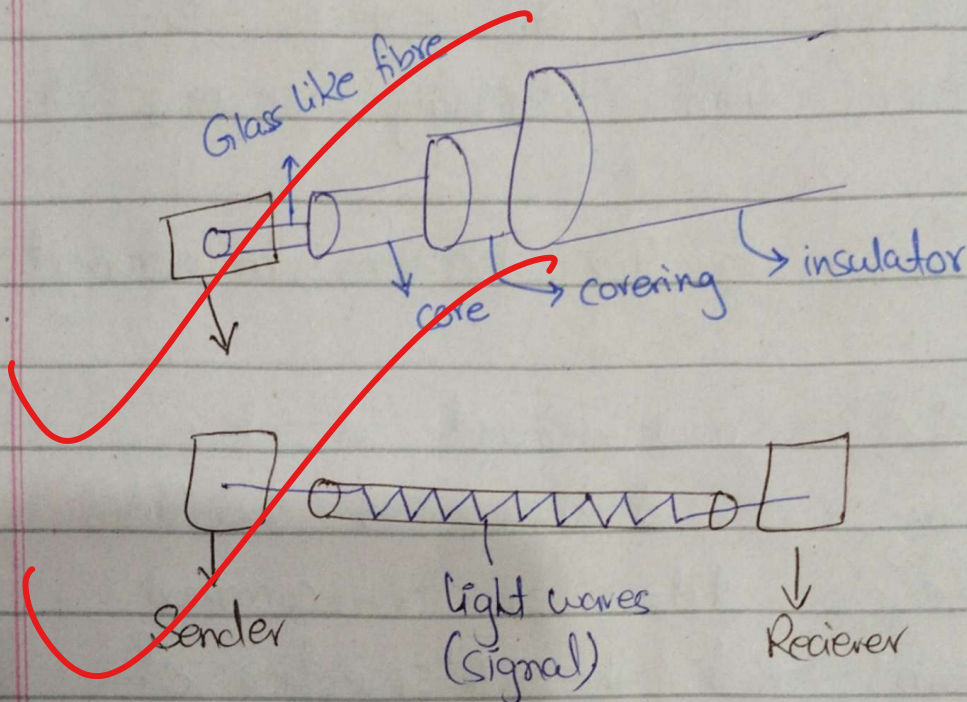
h.s

d

## Optical fibre working

Optical fibre is a fibre that contains glass as transmitting medium of electricity. The signals pass from the sender to the receiver through the glass like core. This core is protected by a covering of plastic like layer. The core has several

diverting parts that diverts the signals in a zigzag manner without interrupting even if the cable has a bent. The signals then enters in a receiver which convert it into the respected command from signals and user gets the message.



GPS:

GPS is an abbreviation of Global Positioning system. This system is used for surveillance, collecting earth's data

and assessing the happenings on Earth and for the positioning. It is used to assess natural disasters like Earth-quakes effects in a region, effects of cyclones etc and for surveillance like air trafficking etc. It also guides for the maps to users <sup>for</sup> ~~from~~ travelling purposes etc.

2D & 3D locations measurements

2D measurement is done by 3 satellites. 3 satellites sends data to a common hub and the intersection of their data generates 2D measurements.

Similarly, 3D measurements is obtained by the intersection of 4 satellites.

Q4

a

## BILE

Bile is a liver juice used in digestive process. It is greenish-yellow fluid due to the bilirubin present in it, a by-product produce after breakdown of red blood cells and hemoglobin.

STRUCTURE <sup>where</sup> Bile is Present.

Bile duct:

Bile is produced when a food that contains fats enters in body. Bile is secreted to Duodenum through Bile duct.

Gall bladder:

Gall bladder is a small pouch-like structure attached to liver where bile is produced.

# COMPOSITION OF BILE

## Bile Pigment:

Bile is pigmented due to the presence of bilirubin in it, giving it greenish yellow color.

## Bile Salt:

Bile salt is essential for the emulsification of fat making easier for enzymes to attack on it.

## FUNCTION OF BILE:

### Fat Emulsification

Bile emulsifies the fat when it enters to duodenum from stomach.

### Neutralization of food acid.

Bile neutralizes stomach acid to keep pH

normal for its process the fats

## DISEASES RELATED TO BILE

### Jaundice:

The presence of increased bile in body causes the skin and eyes to turn yellow.

### Gall Stones:

Presence of gall stones in gall bladder disrupts the secretion of bile causing pain and swelling and difficulty in food emulsification.

### Conclusion

Bile is an important juice-like fluid in body to consume fat degradation and digestion process. It is released in defecation

~~A~~ Add diagrams as well.



b

## ROLE OF Kidney in Excretion:

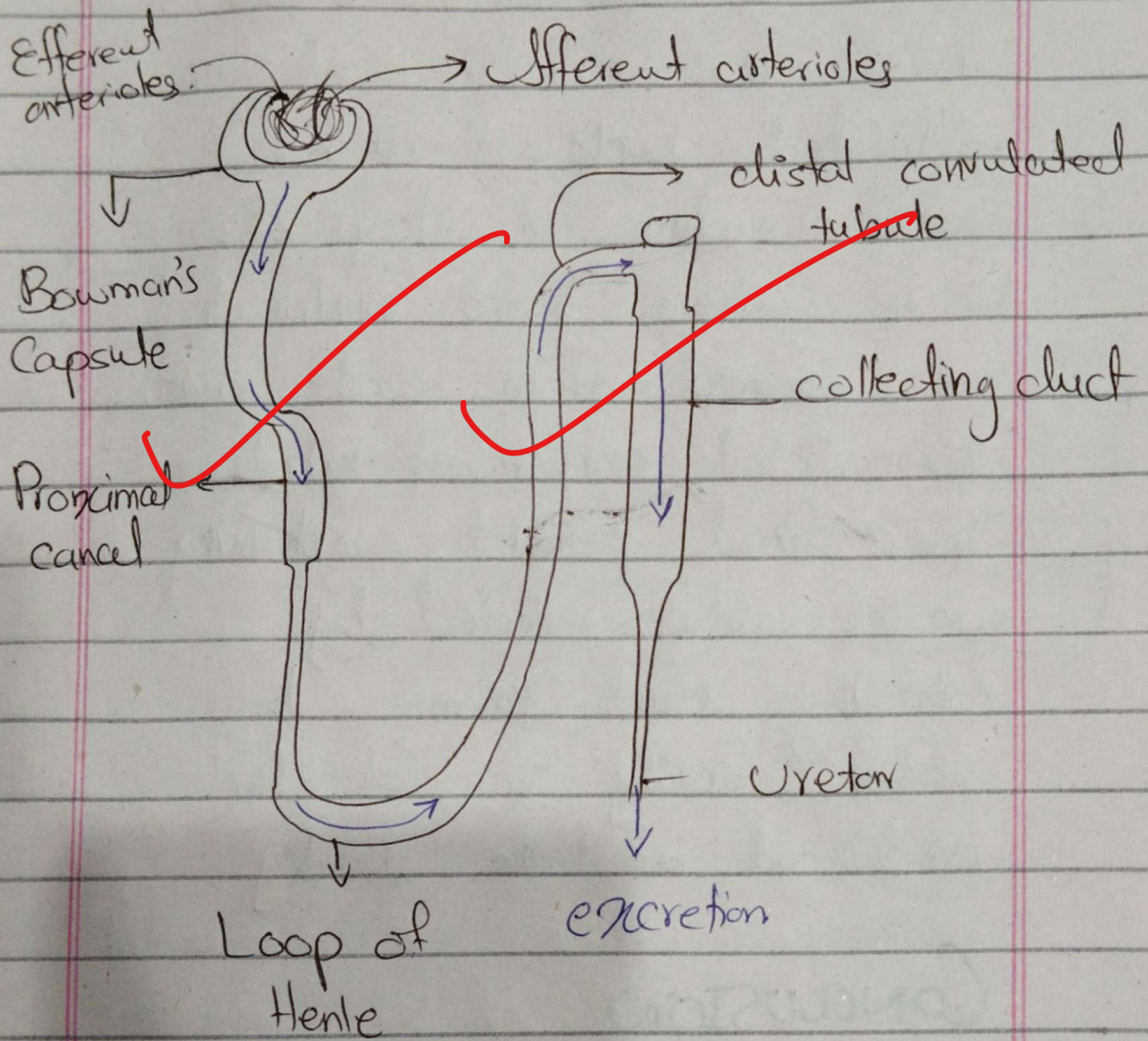
### Introduction

Kidney is a bean-like organ in human body which performs its main function in excretion of waste products through urination while maintaining and retaining the essential nutrients and blood back into the body.

### Structure of Kidney Involved In Excretion.

Kidney is a pair present at right and left sides of abdomen in right and left hyperchondral region. Kidney has medullary canals and cortex.

The structure which is involved in excretion is nephron, the most important part of kidney and human body.



## Role of Nephron in Excretion

The fluid collected by afferent and efferent arterioles

enters in Bowman's capsule, also known as glomerular filtrate, where blood is returned to the body, passing the fluid to proximal tubule where iron, iodine etc are extracted back. Further fluid enters in loop of Henle where more nutrients are removed from waste passing to distal convoluted tubule. The final product containing wastes is collected by collecting duct passing to ureter, finally to bladder and out of the body.

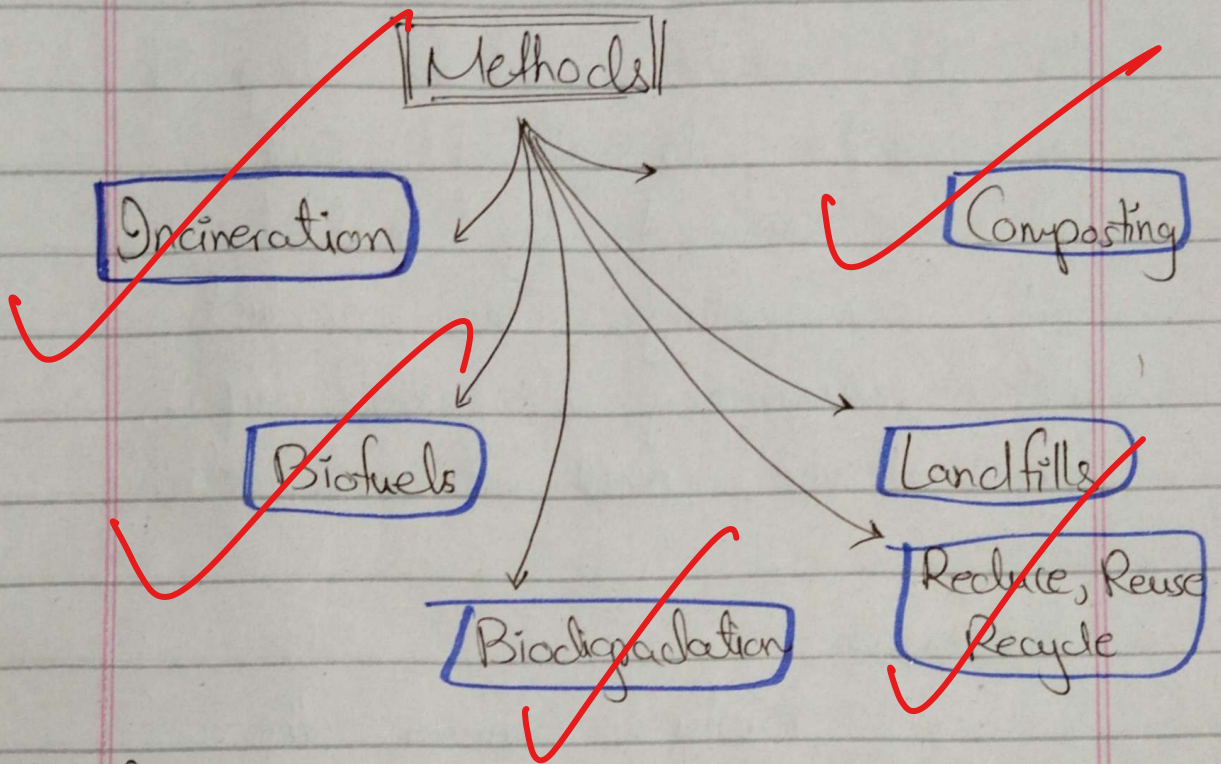
## CONCLUSION

Nephron, the structure of kidney plays essential role in excretion of waste from the body to keep body healthy.

4.5

C

# METHOD OF SOLID WASTE METHOD MANAGEM.



## Incineration

Incineration is a method of carefully compressing the waste in a huge container burning the waste and removing the moisture from. The ashes and small particles are exhausted carefully and the gas produced due to combustion is compressed.

and clean properly before releasing into air.

## Composting

Bioreactors are added to the waste, which degrades the waste to almost 50% of the original by method of composting. The product after composting is called compost, one of the most efficient method.

## Biofuels

Biofuels means the products that are available naturally such as plants, algae and fungi. These are renewable energy sources which reacts with wastes, decomposing the waste.

## Biodegradation

Biodegradation is

done by the organic compounds/  
materials which reduce the  
waste to 20%-30% of its  
original volume. Out of multiple  
organisms, Termites are one  
which are used. Termites generate 2 kg  
of  $H_2$  from 1 paper, making  
it ecofriendly waste management  
process

## Landfills

A huge dumping ground  
is used to dump wastes either  
on the surface or digging  
a huge area. The bottom  
of the landfills is properly  
insulated and covered to  
avoid interaction of waste  
liquid with groundwater. The  
liquid of waste is stored  
and collected through specially  
designed inclined path in a  
container and fumes are

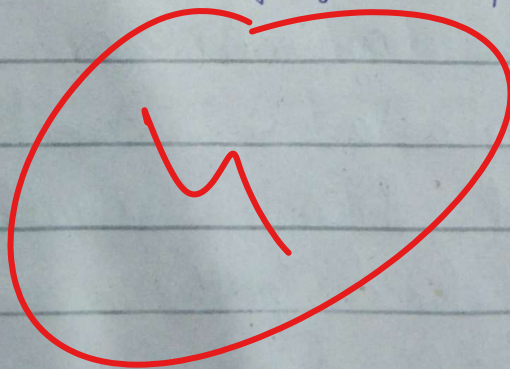
collected separately

### 3 R's

Reduce  $\Rightarrow$  Waste is managed by reducing the over use of products like incomplete use of tissue papers, and wasting paper in copying and printing on one side.

Reuse  $\Rightarrow$  It is advised to reuse the materials instead of purchasing new like clothes etc

Recycle  $\Rightarrow$  The waste plastic and hard material is gathered to recycle for further use like newspaper, plastic bottles etc.



d

## DEFINITIONS:

Anemia:

Red Anemia is the deficiency of blood in human body. It is diagnosed by Complete blood Count (CBC) test, on which the volume and size of microcytic Cell volume is checked, alongwith MCHC.

Appendicitis

Appendicitis is the inflammation of appendix. The pain is sudden, sharp and strong and felt in lower right hypochondrial region just above the inguinal line. If left untreated it bursts and the poison spreads in the right ~~thigh~~ thigh to body which is a life and death matter.



## Spleen

Spleen is the production of sight of RBCs red blood cells and also stores it. It is a small organ present just beneath the diaphragm at left chondral area.

## Myopia:-

It is a far sighted vision problem where person feels difficulty in seeing near objects without appropriate lenses.

## Isotones:

Isotones are the atoms that contain same number of neutrons but different number of protons and thus exhibit different atomic number. Like  $C_{12}$  and Carbon 13 has 6 neutrons each but has 6 and 7 protons respectively.

130 Nov - 12

5