

Disorders

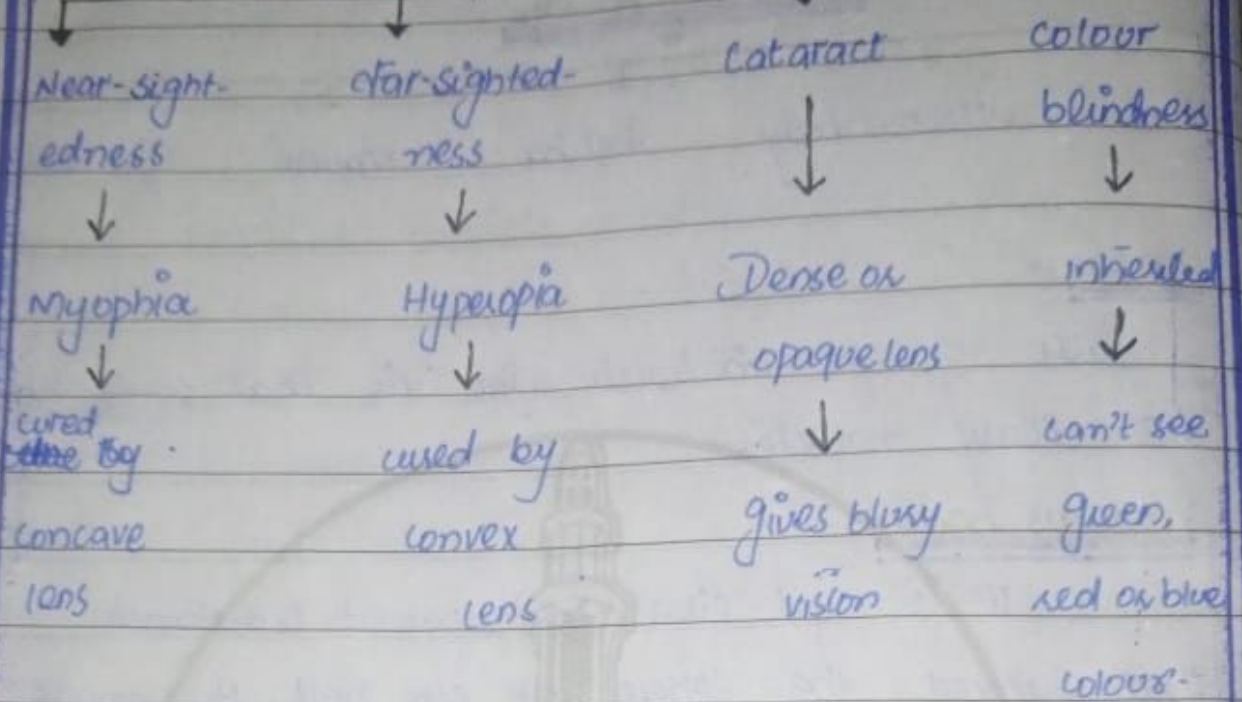
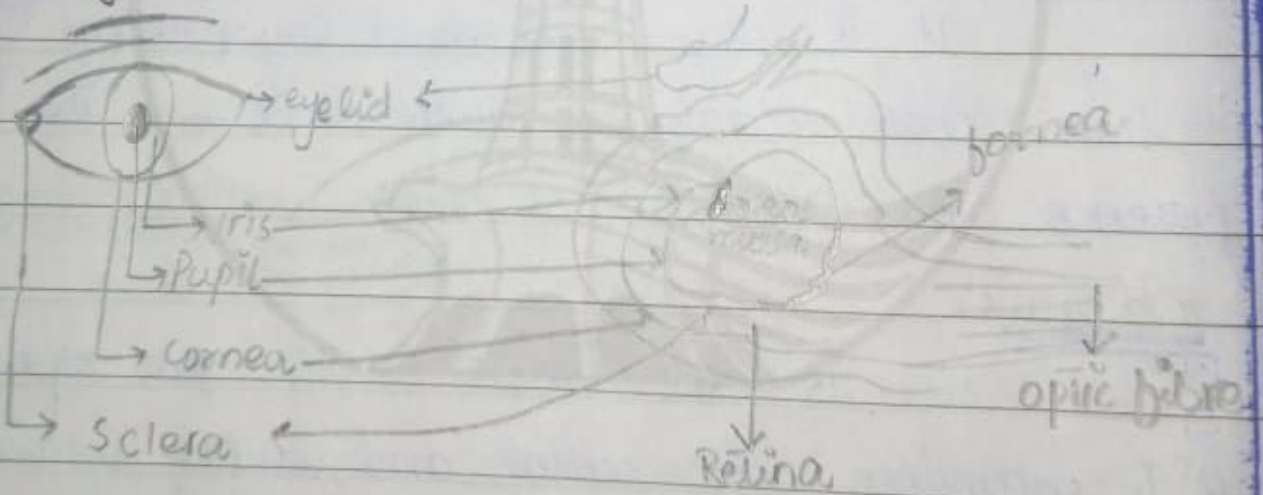
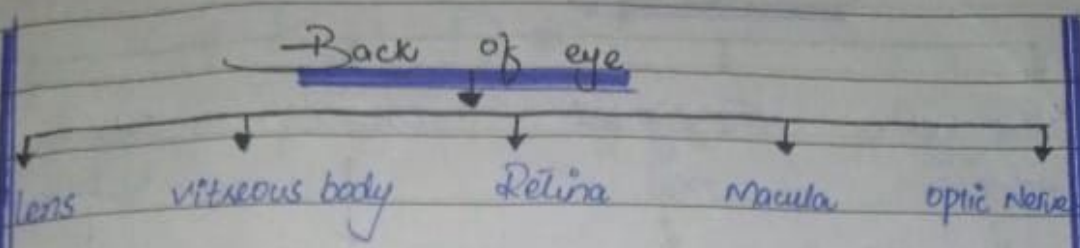


Diagram :-





lens:-

Part of eye immediately after iris that controlled by the ciliary muscles.

vitreous body:-

It is gel like transparent substance that support the sphere of eye ball. It shows intravascular metabolism.

Retina:-

It is the inner most layer of eye. It have photo receptors which react on the presence and intensity of light.

Macula:-

It is the most sensitive part of eye. It is responsible for central and reading vision.

optic nerve:-

It contain nerve fibre which takes information from retina and transfer to brain.

Rods → It helps in perceiving colours and details

Cones → ^{Helps in} Night vision, Peripheral or Side vision

The dark hole is altered in shape by iris affected by the amount of light that let into eye.

If light is:

- 1- Low or dark outside → Large
- 2- High or day outside → Tiny

Sclera:-

white part of eye. which is visible when we see in mirror.

The part of eye which serves as protective outer layer.

It is made up of Elastic and collagen

Eye lid:-

It helps hold eye in its place.

It is the first protective layer of eye.

Conjunctiva:-

Inner layer of eye lid

It covers the sclera and provide mucus, tears for eye lubrication and bacterial infection prevention

It does not cover cornea.

Back of the eye:-

If we divide parts of eye on the basis of location we also get five parts which are not visible but serves important function

Part C:

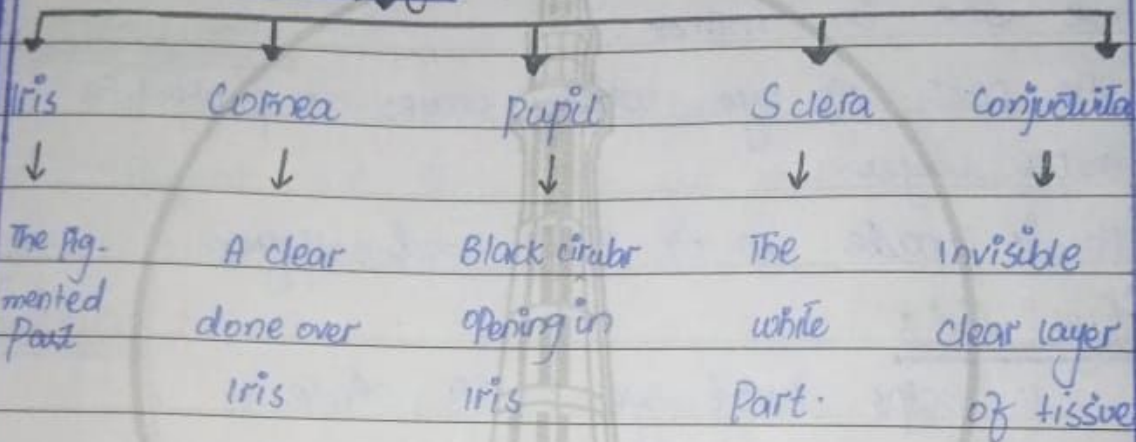
Explain the structure of eye.

ANSWER:

Human Eye:-

1 inch (2.5 cm) in diameter.

Parts of Eye



Iris:-

It is coloured part of eye. It is important because it control size of pupil.

Cornea:-

Clear covering over iris and pupil (66% optic power)

This is the reason that contacts are dome shaped because they sit over iris.

Pupil:-

Pupil is the dark circle inside the center of the eye.

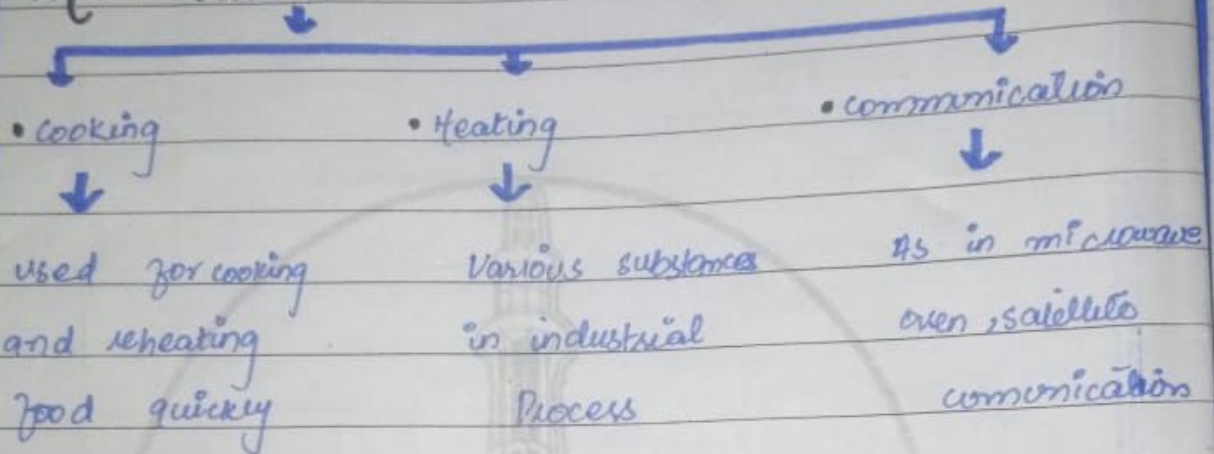


PART D:-

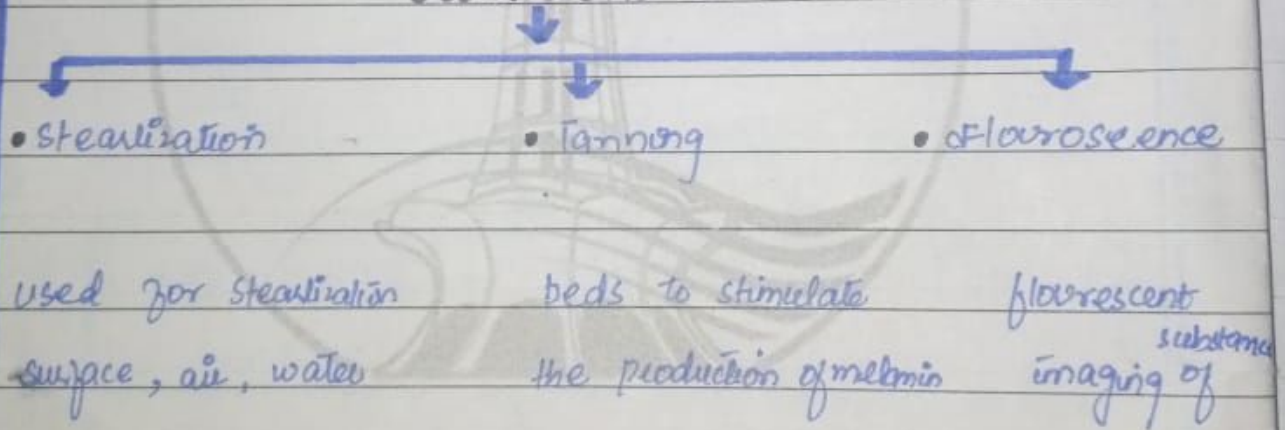
USES of:-

ANSWERS:-

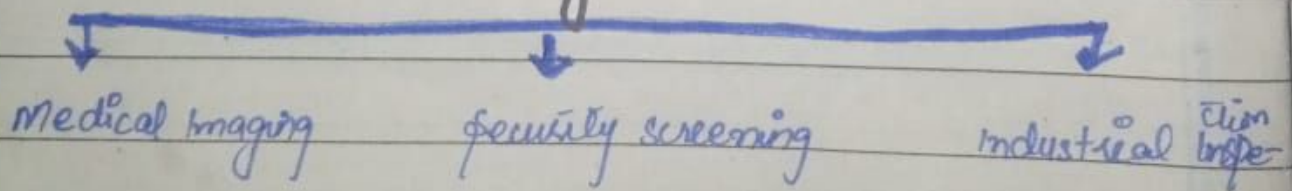
Microwave:-



Ultraviolet (UV)

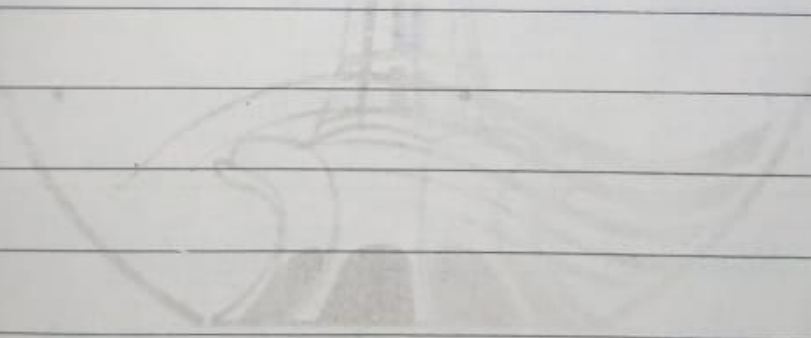
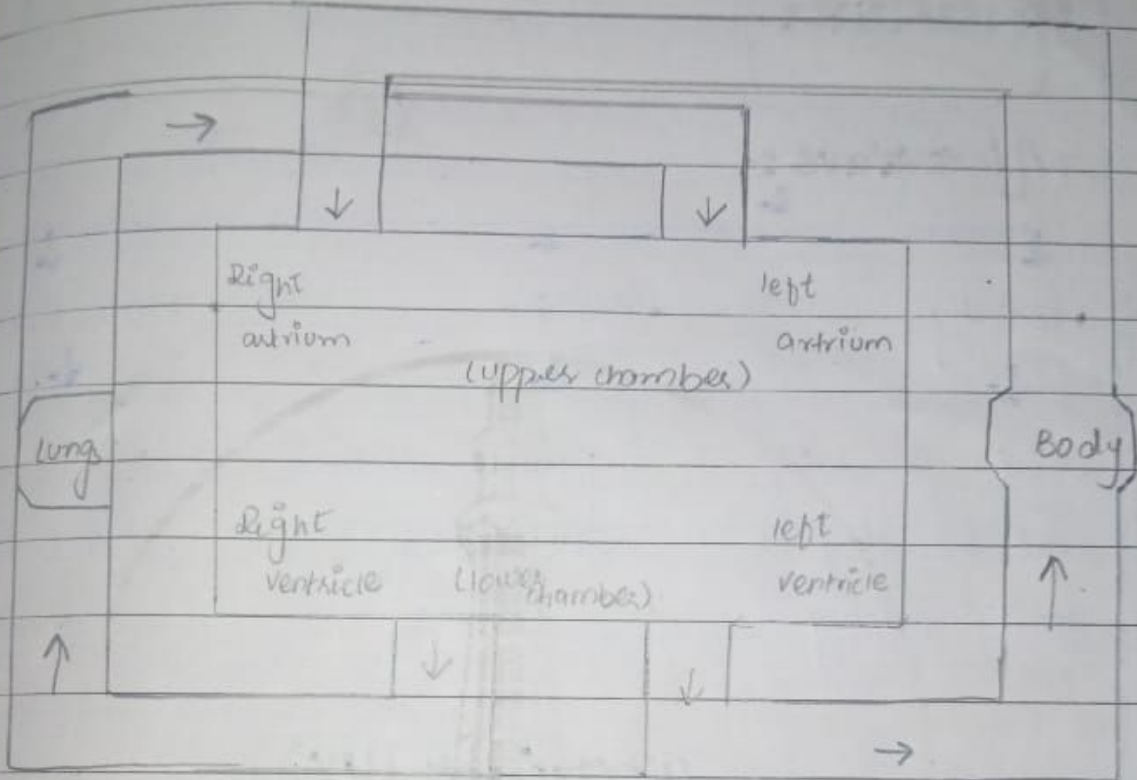


• X-Rays •



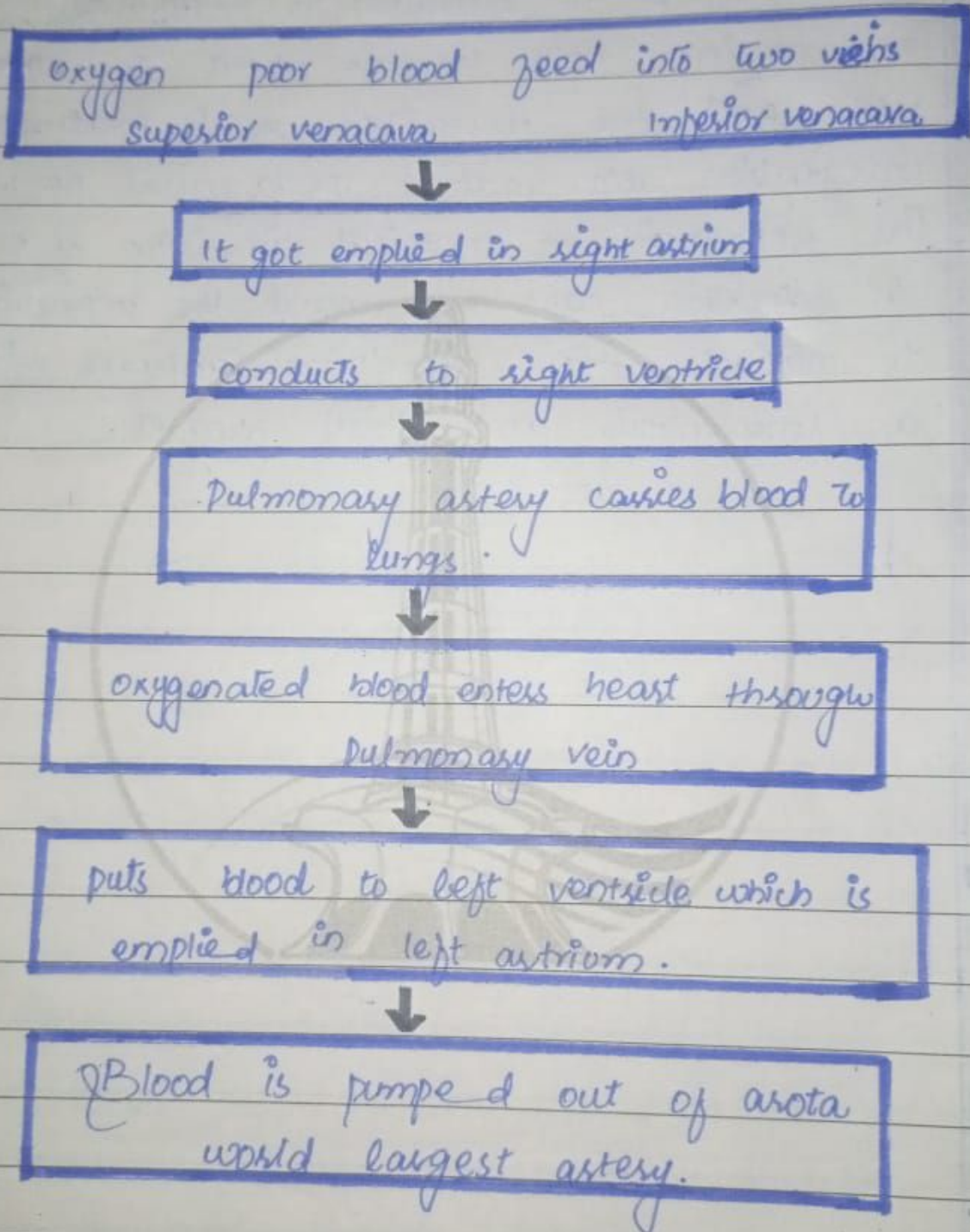


Normal blood circulation:-





Flow Chart of steps:-



Human heart follows the pattern and connects the



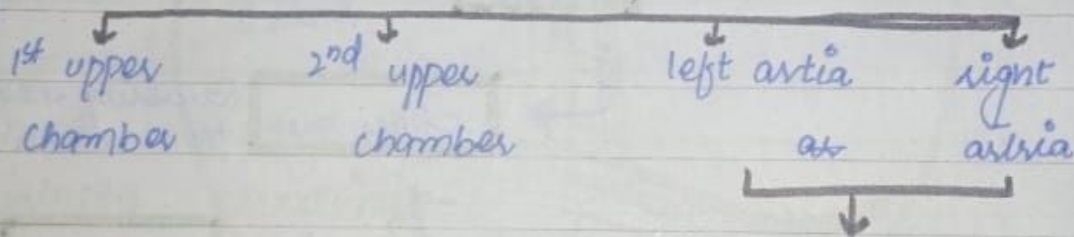
PART b:- HUMAN HEART

ANSWER:-

- Introduction -

- Human heart is a fist size, muscular organ
- It pumps upto 2000 gallons (7600 liters) of blood
- It beats about 100,000 times.

- Parts of heart :-



- Receiving chambers sometime also called Atria
- They collect blood.

→ How does blood circulate in body:-

The blood returning from a trip around the body gives up its most of oxygen and collected carbon-di-oxide.

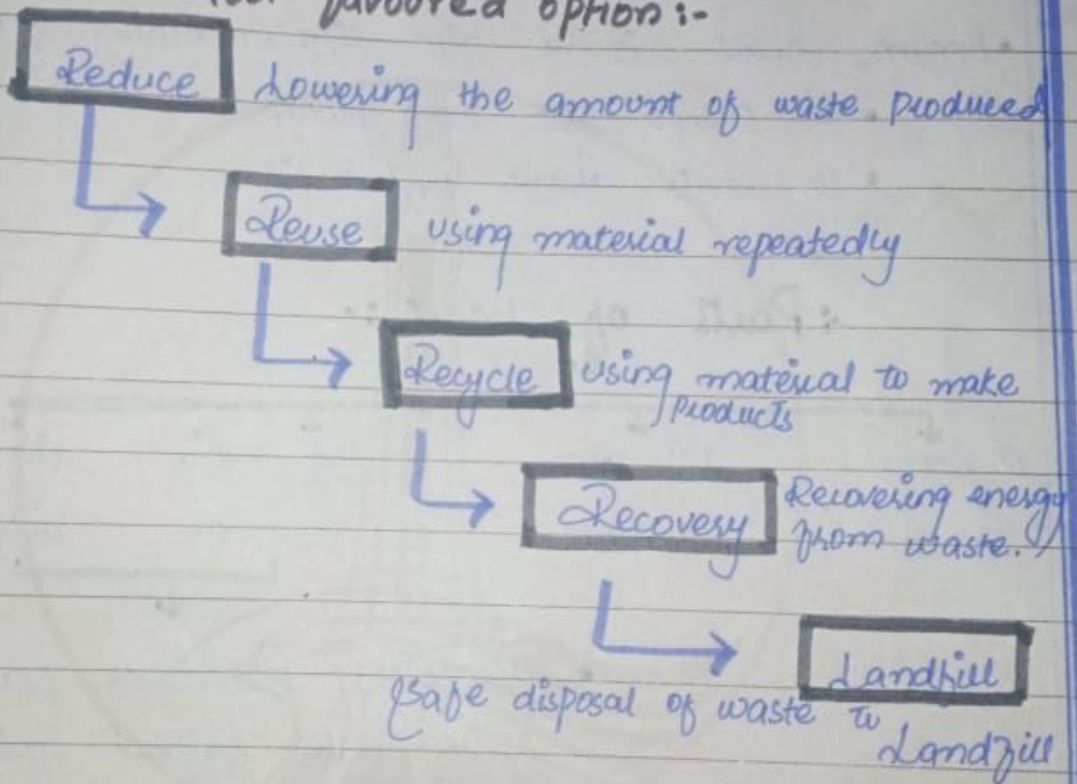


Waste disposal:-

Waste disposal is final stage of solid waste management.

It can be defined as the discharge, deposit, injection, dumping or placing waste into or on land and water.

Most favoured option:-

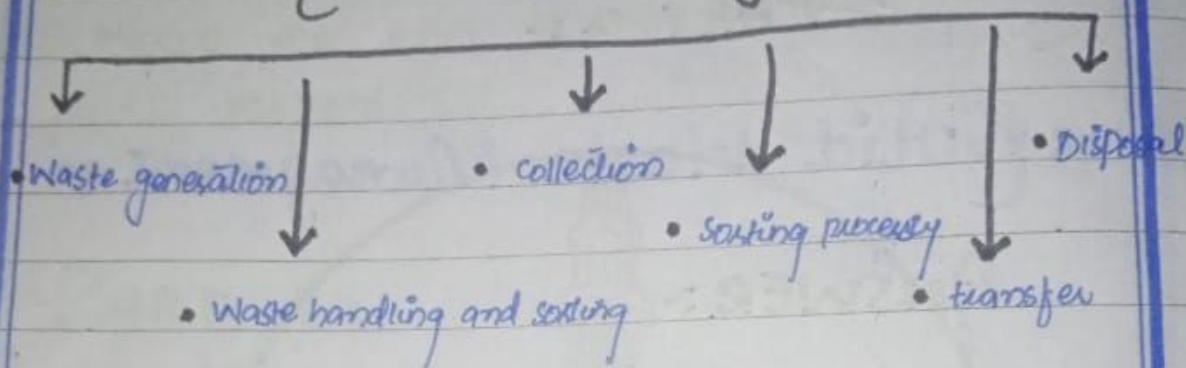


Least favoured option

Solid waste management involve a series of processes and by which waste got disposed off or is made ready to reuse.

The activities associated with the management of municipal solid waste can be grouped into

• Solid waste management:-



Waste generation:-

It encompasses of activities in which material is no longer considered important and thrown away.

Waste handling:-

It consist of process of collecting wastes seperating the type of waste.

Transfer and transport:-

It involves two steps

- 1- Transfer waste from secondary collection point to larger equipment or transfer point.
- 2- subsequent transfer of waste usually long distance.

SECTION - 1

QUESTION 48

PART a

SOLID Waste Management

ANSWER:-

Introduction:-

Solid waste is any refuse or waste material including semi solid sludge, produced from domestic, commercial or industrial premises or processes including mining and agricultural operations and water treatment plants.

Solid waste management

It refers to systematic management of the generation, collection, transfer, treatment, recycling, recovery and disposal of solid waste. Solid waste management involves a series of steps which can be considered if transferring waste into useful or reusable material.

$$z = \frac{315}{15}$$

$$z = 21$$

Hence the ages of boys are 9, 15, 21 respectively.

PART A:-

Distance between Q and R

ANSWER:-

The distance between

$$QR = \frac{QP}{2}$$

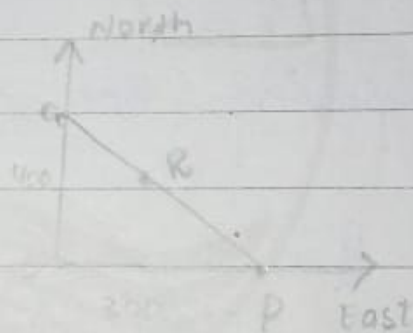
$$QP = \sqrt{(QO)^2 + (OP)^2}$$

$$= \sqrt{(400)^2 + (300)^2}$$

$$QP = 500 \text{ km}$$

$$QR = \frac{500}{2} = 250 \text{ km.}$$

Distance between $QR = 250 \text{ km}$



The sum of numbers of ages is 45
solving for x

$$x = \frac{3}{3+5+7} \times (x+y+2)$$

$$x = \frac{3}{15} \times 45$$

$$x = \frac{3}{15} \times 45$$

$$x = \frac{135}{15}$$

$$\boxed{x = 9}$$

solving for y

$$y = \frac{5}{3+5+7} \times 45$$

$$= \frac{5}{15} \times 45$$

$$= \frac{225}{15}$$

$$\boxed{y = 15}$$

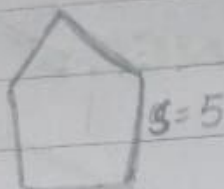
solving for z

$$z = \frac{7}{3+5+7} \times 45$$

PART B:-
Perimeter of Pentagon:-

ANSWER:-

$$\begin{aligned} \text{perimeter} &= 5 \times 5 \\ &= 5 \times 5 \\ &= 25 \end{aligned}$$



Perimeter of Pentagon is 5.

PART D:-

ANSWER:-

let their ages be x, y, z

Their average = 15

$$\frac{x+y+z}{3} = 15$$

~~Now~~ Solving equation we get

$$x+y+z = 45$$

QUESTION NO 78

PART C

Determine IQ

ANSWER:

Formula for determination of IQ = $\frac{\text{Mental age} \times 100}{\text{Chronical age}}$

In given scenario:-

$$= \frac{11}{9} \times 100$$

$$= 1.222 \times 100$$

$$\boxed{\text{IQ} = 122.22}$$

PART D
AGES of SARA, ALI & Mother.

ANSWER:-

$$\text{let Sara age} = x$$

$$\text{Mother age} = 6x$$

$$\text{Ali's age} = 2x$$

In three year :-

$$\rightarrow \text{Sara} = x + 3$$

$$\text{Mother} = 6x + 3$$

$$\text{Ali} = 2x + 3$$

As given

$$x + 3 + 6x + 3 + 2x + 3 = 72$$

$$9x + 9 = 72$$

$$9x = 72 - 9$$

$$9x = 63$$

$$x = 63/9$$

$$x = 7 \rightarrow \text{age of Sara}$$

$$\text{Mother's age} = 7 \times 6 \rightarrow 42$$

$$\text{Ali's age} = 2 \times 7 \rightarrow 14$$

$$\text{Sara's age} = 7$$

$$\text{Mother's age} = 42$$

$$\text{Ali's age} = 14$$

PART a

Sum of 3 consecutive odd number 273
ANSWER

let numbers be $x, x+2, x+4$.

$$x + x + 2 + x + 4 = 273$$

$$3x + 6 = 273$$

$$3x = 273 - 6$$

$$3x = 267$$

$$x = \frac{267}{3}$$

$$x = 89 \rightarrow \text{ii}$$

$$x + 2 = 89 + 2 \Rightarrow 91 \rightarrow \text{ii}$$

$$x + 4 = 89 + 4 \Rightarrow 93 \rightarrow \text{iii}$$

So the three consecutive odd numbers are

89, 91, 93.

iv) 0, 2, 6, 12, 20, 30 — .

if we observe the series it is evident that numbers are increasing by adding even numbers to series.

$$0 + 2 = 2$$

$$2 + 4 = 6$$

$$6 + 6 = 12$$

$$12 + 8 = 20$$

$$20 + 10 = 30$$

$$30 + 12 = 42$$

∴ missing number in the series is 42.

v) 48, 24, 72, 35, 108 — .

if we look at the series numbers are given we divide first term by 2 and multiply next by 3 we get next term.

$$48 \div 2 = 24$$

$$24 \times 3 = 72$$

$$72 \div 2 = 36$$

$$36 \times 3 = 108$$

$$108 \div 2 = 54$$

Missing number in series is 54

* I was unable to solve q's with 35 I solved it considering it a technical error if solution is wrong please provide right one

Thank you.

ii) 30, 29, 27, —, 20, 15

If we observe the pattern numbers are decreasing by subtracting 1, 2, 3, 4, 5 from each number respectively.

$$30 - 1 = 29$$

$$29 - 2 = 27$$

$$27 - 3 = 24$$

$$24 - 4 = 20$$

$$20 - 5 = 15$$

∴ the missing number is $\boxed{24}$

iii) 1, 7, 15, 25, —, 51.

By observing the numbers we know that numbers are increasing by multiples of two as

$$1 + 6 = 7$$

$$7 + 8 = 15$$

$$15 + 10 = 25$$

$$25 + 12 = 37$$

$$37 + 14 = 51$$

∴ the missing number is $\boxed{51}$

4- ONLND0 :-

LONDON

5- HIODALYS-

Holiday.

PART b:-

Complete the given series :-

ANSWER:-

i) 4, 16, 36, 64, _____, 144.

if we observe the series it is observed that:-

4 is complete square of 2 numbers are increasing by square of next even number

$$2^2 = 4$$

$$4^2 = 16$$

$$6^2 = 36$$

$$8^2 = 64$$

$$10^2 = 100$$

$$12^2 = 144$$

So the missing number here is 100.

GENERAL SCIENCE AND

ABILITY &

SECTION - II

QUESTION 8:-

PART C:-

UNSCRAMBLE WORDS:-

ANSWER:-

1- THRSI:-

• SHIRT.

2- QNDREA:-

• GARDEN

3- SCHAMOT:-

• MACHOS