Part-II
Section-I

Q: 04

(a)

Methods employed in Solid Waste Management

1. Introduction

Waste management and waste disposal includes the process and actions required to manage waste from its inception to final disposal.

2. Methods employed in Solid waste Management

2.1 Identification and waste generation

In this step waste sites where waste is generated are identified. The type of waste is also identified.

2.2 Waste handling and storage

Wastes are catagorized on the basic of their nature and are separated.

2.3 Waste Collection

Waste is collected by waste

management companies.

2.4 Transfer and Transport

Waste is transported to specific disposal sites.

2.5 Waste disposal

i) Landfills

Land fill is made underground where waste is deposited and after that it is covered with clay.

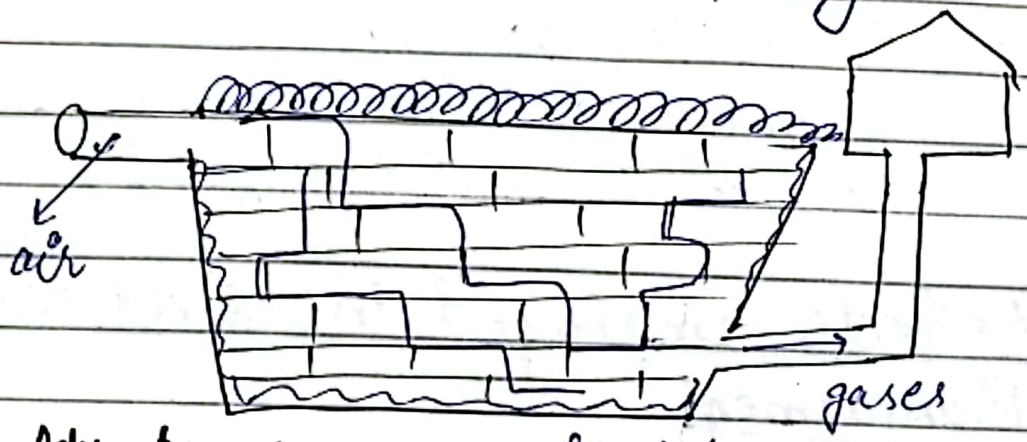


fig 1.1

a) Advantages

- It is efficient and large amount of waste is deposited.
- cost effective., CH_4 released can be used for useful purposes.

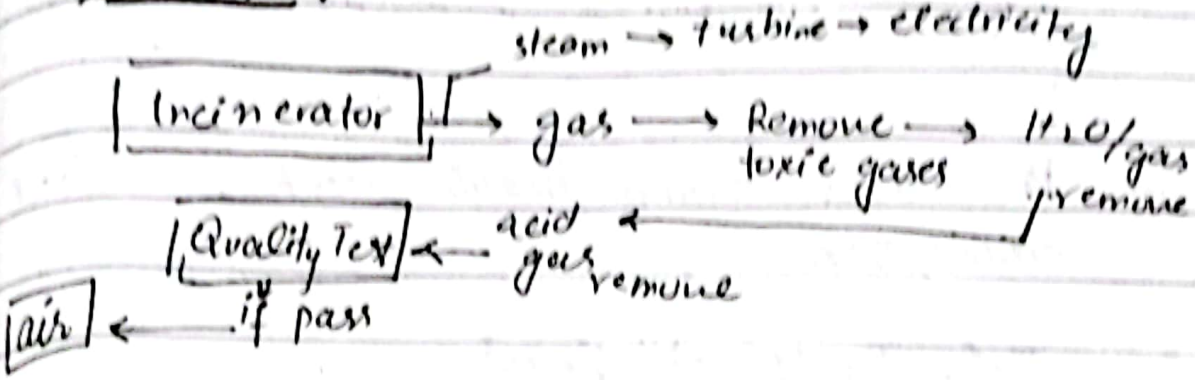
b) disadvantages

- Smell odour
- Fire hazard.

Incineration

Thermal treatment of solid waste in an incinerator.

a) Process.



b) Advantages

- Low space
- A community can manage its waste
- Efficient

c) Disadvantages

- Only biological degradation
- Limited scope.

Q#04 (b)

How does human heart work in blood circulation

1. Introduction

Heart is a pump, usually beating about 60 to 100 times per minute with each heartbeat, the heart sends blood throughout our bodies, carrying oxygen to every cell. The heart then sends the

blood to lungs to pick up more oxygen.

2. How does human heart work in blood circulation

2.1. Parts of heart

2.1.1 Right and Left ventricle

The bottom chambers are the right and left ventricle. They pump blood out of heart.

2.1.2 Right and Left atrium

They receive blood entering the heart. A wall called interventricular septum

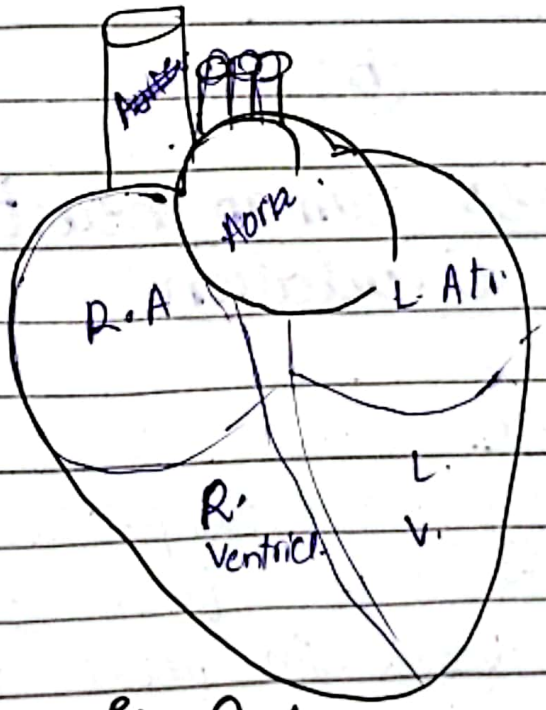


Fig 2.1

2.2 Circulation of blood

2.2.1 Pulmonary Circulation

In this circulation, pulmonary artery comes to heart it splits into two branches that brings blood from heart to lungs. At lungs the blood picks up oxygen and drops off carbon dioxide. Blood returns to heart through pulmonary vein.

2.2.2 Systemic circulation

Blood that returns to heart has picked up lots of oxygen from lungs. So it can now go out to the body. Aorta leaves heart carrying oxygenated blood.

Q:04

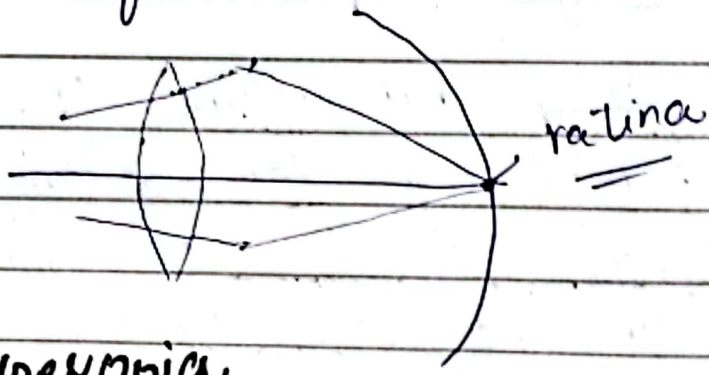
(c) Myopia

1. Definition

Myopia is the disease of eye it is also termed as nearsightedness. In this deficiency the far away things can not be seen properly. Image is formed before behind retina.

2. Treatment

Myopia is treated with the aid of convax lense



Hyperopia

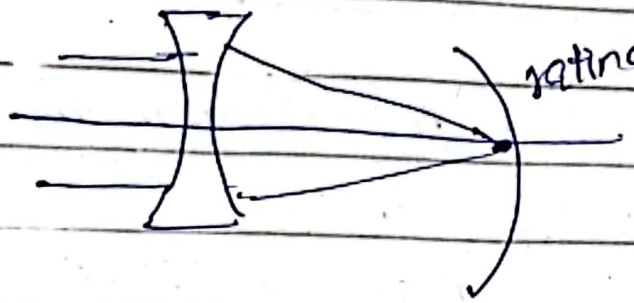
1. Definition

It is a vision condition in which near objects cannot be seen clearly. Far objects can be seen clearly. Image is formed behind ratia.

2. Treatment

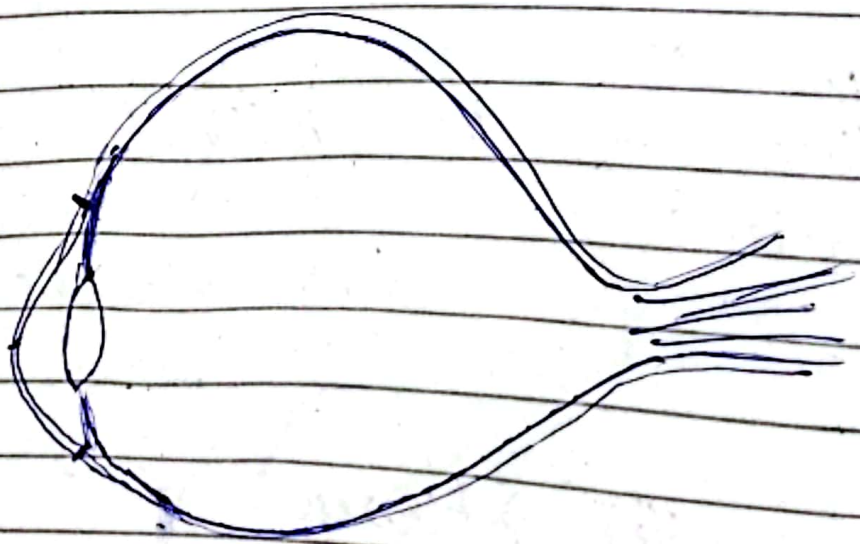
- This condition can be treated

with the aid of concave lense.



(b) Major parts of eye

- Corneca
- Pupil
- Iris
- Convax lense
- Ratina
- Acqueous Humor
- Vilerous humor
- Nerve endings



Q:04 (d)

Uses of

(i) Microwave

- It is a type of electromagnetic radiation
- It is used in
- It has huge applications in communication, radar
- It is used for cooking

ii) UV Rays

- UV rays are used in industrial processes
- UV rays are used in dental practices
- Used for the killing of bacteria
- Use for creating flourescent effects

iii) X-rays

For the detection of ~~x-rays~~ bone fractures and breaks.

for the detection of lung problems such as lung cancer.

- Non cancerous and carcinous bone tumors.
- heart problems and heart failure.
- For detection of breast cancer.

Q# 03

(b)

Balanced Diet

1. Introduction

Balanced diet is defined as the diet that consists of all the essential nutrients that are required for the normal growth and functioning of body

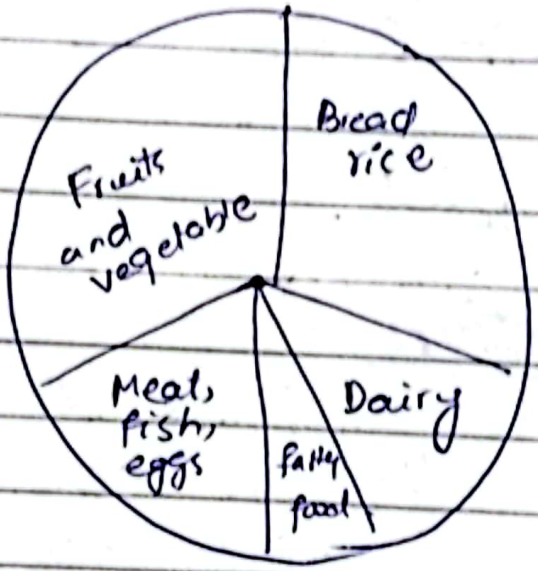
2. Components of Balanced diet

Balanced diet contains

- Carbohydrate
- Protein
- Fats
- Vitamins
- Minerals

3. Calorie count

Acwrding to age and body weight the calories required by a person cise counted. Of excess calories are taken the workout should be done to manage them.



4. Importance of Balanced diet

- Good physical and mental health.
- Helps in proper growth of body.
- It increases the bodies ability to fight diseases.
- Increases capacity to do work.

Section - II

Q:08 (c)

i) THRSĪ

SHIRT

ii) GNDREA

GARDEN

(iii) SCHAMOT̄

STOMACH

iv) L

LONDON

v)

HOLIDAY

Q:08 (a)

Let consecutive odd numbers are

x , $x+1$, $x+2$.

$x + x+1 + x+2 = 273$

$3x = 273 - 3$

$3x = 270$

$x = \frac{270}{3}$

$x = 90$

$x + 1 = 91$

$x + 2 = 92$

The odd numbers are 90, 91, 92

Q:08 (b)

i) $\overset{2^2}{4}, \overset{4^2}{16}, \overset{6^2}{36}, \overset{8^2}{64}, x, \overset{12^2}{144}$

4, 16, 36, 64, 100, 144

ii) $30, 29, 27, x, 20, 15$

$30, \overset{-1}{29}, \overset{-2}{27}, \overset{-3}{24}, \overset{-4}{20}, \overset{-5}{15}$

iii) $1, \overset{+6}{7}, \overset{+8}{15}, \overset{+10}{25}, \overset{+12}{x}, \overset{+14}{51}$

1, 7, 15, 25, 37, 51

iv) $0, \overset{+2}{2}, \overset{+4}{6}, \overset{+6}{12}, \overset{+8}{20}, \overset{+10}{30}, \overset{+12}{x}$

0, 2, 6, 12, 20, 30, 42

v) 48, 24, 72, 35, 108, x

48, 24, 72, 35, 108, 46

Q:08 (d)

		After 3 years
Sara	x	x+3
Mother	6x	6x+3
Ali	2x	2x+3

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

$9x+9=72$

$9x=72-9$

$x=63$

$x=7$

Sara = 7y

Mother = $6(7)=42$

Ali = $2(7)=14$

Q#06 (a)

Votes received = 15000, 10000, 8000

Total votes = 15000 + 10000 + 8000

= 33000

%age of wining candidate

$= \frac{15000}{\cancel{100}} \times \frac{\cancel{33000}}{}$

$\frac{15000}{\cancel{33000}} \times 100 = \frac{1500}{33}$

= 45.4 %

Percentage of wining candidate is 45.4 %.

Q#06 (b)

Ratio of angles of triangle = 3:4:5

let angles be 3x, 4x, 5x

3x + 4x + 5x = 180

12x = 180

x = 180/12

x = 15

hence the angles are $45°, 60°, 75°$

Q#06 (C)

Boys Girls :: Boys : Girls

$4 : 6 = x : 102$

$4 \times 6 = x \times 102$

$102 \times 4 = 6x$

$\frac{408}{6} = \frac{6x}{6}$

$x = 68$

no. of Boys = 68.

Q:06 (d)

Present ages = A : B

$6x : 7x$

After 5 years

A : B

$6x+5 : 7x+5 :: 7 : 8$

$(6x+5) \times 8 = (7x+5) \times 7$

$48+40 = 49x+35$

$x = 5$

$A = 6x = 6(5) = 30y$

$B = 7(x) = 7(5) = 35y$
