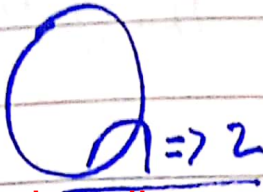


Date: ⁰ General Science / Ability

General Instructions



1. Give numbering to headings
2. Do not write lengthy paragraphs. Write medium sized paragraphs with headings.

3. Do not use table for comparison and contrast questions. Give small paragraphs with headings instead.

4. Draw figures, diagram, flow chart, map in every question.

5. Start new question from fresh page.

6. Explain the steps in your mathematical calculations.

7. Do not forget to write the unit of your answer while attempting mathematics questions.

8. Do not use lead pencil. Only blue and black colours are allowed.

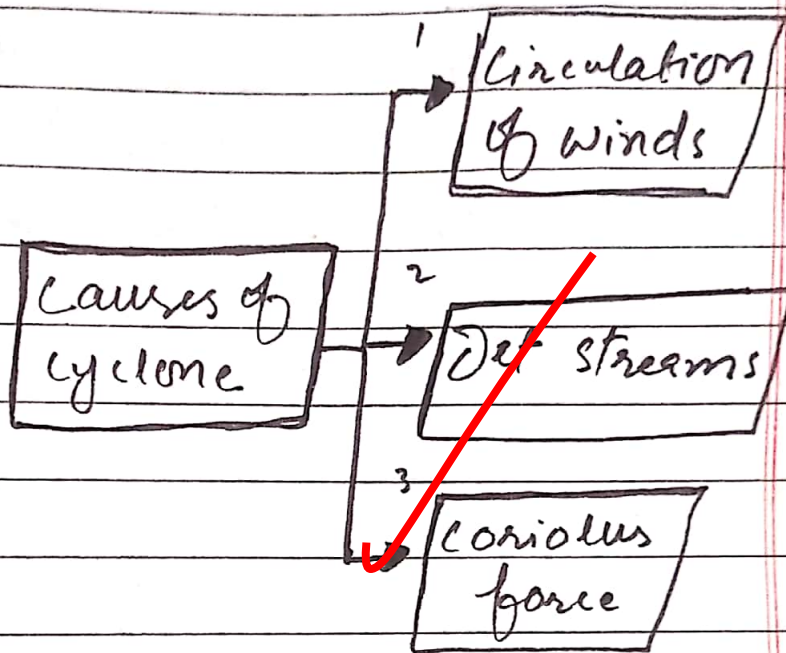
Definition of cyclone

There are the movement of different winds which are combine to develop cyclone. Thus it is simply called cyclone.

Date: _____ 2

(A) Causes of cyclone

Causes of cyclone are given below.



(1) Circulation of winds

The movement of different winds from higher pressure to lower pressure is give rise to cyclone. These winds may be westerlies and easterlies.

(2) Jet streams

There are air parcels which generally located on the

Date: _____ 3

above 30 degree of north and South Hemispheres. There are very fast winds. These winds are also give rise to cyclones.

(a) Coriolis force

It is force of earth and it is produced by the movement of earth. It also contribute to the formation of cyclone.

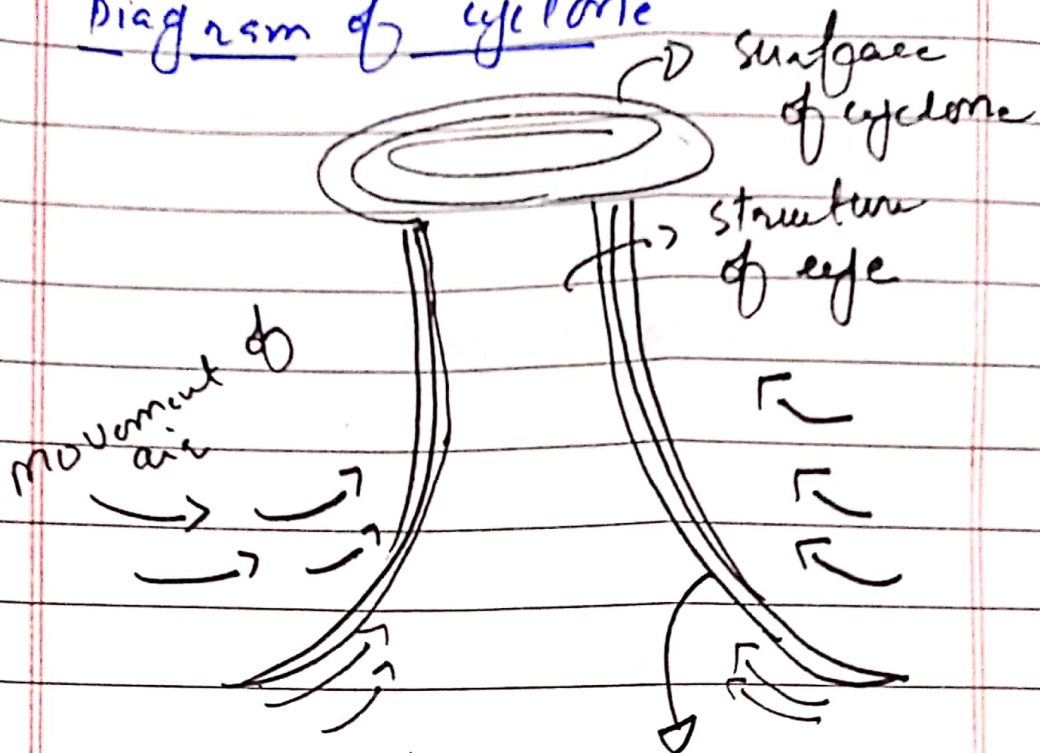
(b) Which part of cyclones winds are strong and destructive

In Summer 2012,
In North America
-rican lands 1600
people were dies
due to storms
BBC

Indeed, column of cyclone and surrounding winds of cyclones are very destructive and strongest.

Date: 4

Diagram of cyclone



- Structure of column on surrounding High pressure zone

Conclusion

Thus, cyclones are formed by the combination of different winds. They are more destructive and strong in some regions of the world.

Date: _____

(Part-B)

① Introduction:

Robert Calone

Says, It is a hole in space
However, it is a part of
our universe. It is located in
our galaxies. It has strong gravity
It has great electronic charges,
which attract everything in space
It is formed by the combination
of different charges and
different other small and
large particles of space.

② Definition of Black hole

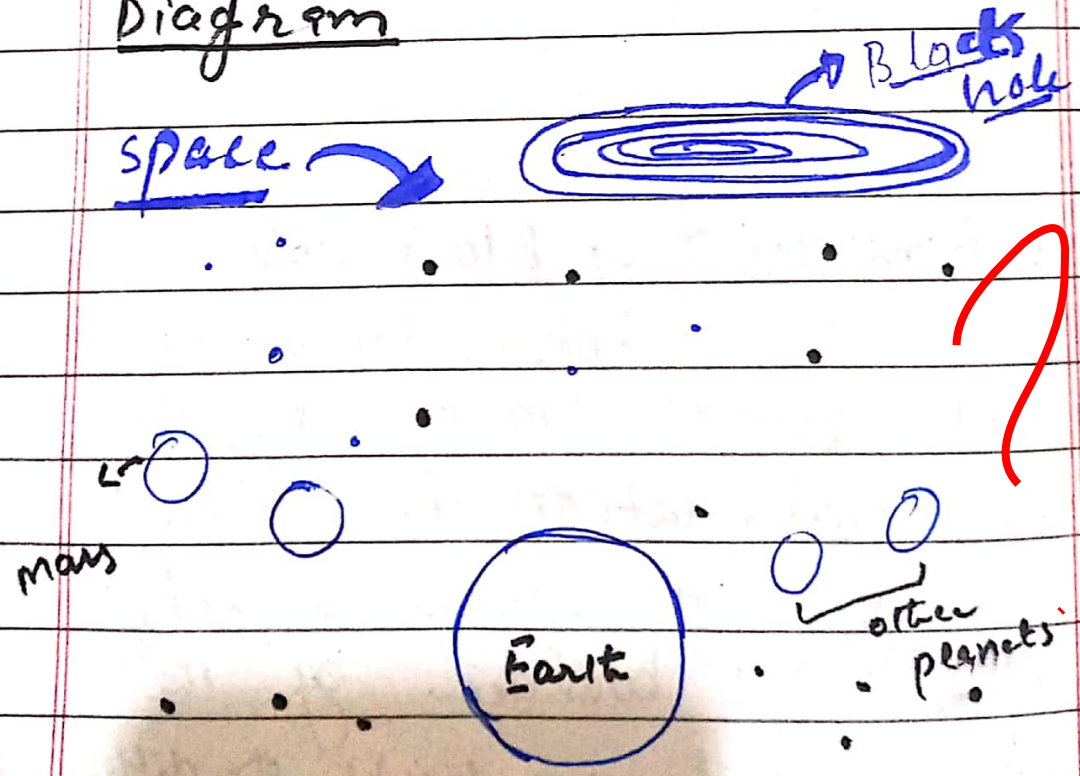
Stephen Hawking
Says about Black hole. It
is combination of different
charges in space which
is tightly bounded by the
strong electronegativity of different
charges.

Date: _____ 6

Q How black hole is formed.

Indeed, it is formed by death of several stars. They come to close and make big hole. Some of them go inside and make hole in space and some of them remain on surface. It makes strong gravitational force in space.

Diagram



Date: 7

According to Scientists
there are many black holes
in space (NASA)

conclusion

Thus, black hole is
part of our universe. It is
formed by the combination
of different dying stars.
In fact, it is hole in space
due to the strong gravitational
force.

(Part-2)

Introduction:

According to NASA
earth rotate and revolve
on its axis. owing to it
years and seasons change.
Rotation is where earth complete
its day (24 hours). It is a hole

Date: _____

time of day. on the other hand, revolution means earth's circle around the celestial body like sun in a year (365 days). However, there are many parts of earth like crust, mantle and core.

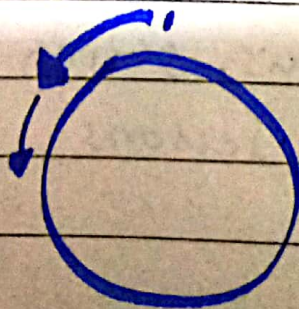
(5) Discussion of Rotation

Definition

Earth rotate on its axis in a day, it is called rotation.

How rotate earth on its axis

owing to Coriolis force earth rotate on its axis. Earth move from left to right direction.



Rotation of Earth

Date: 9

① Discussion of revolution

Definition

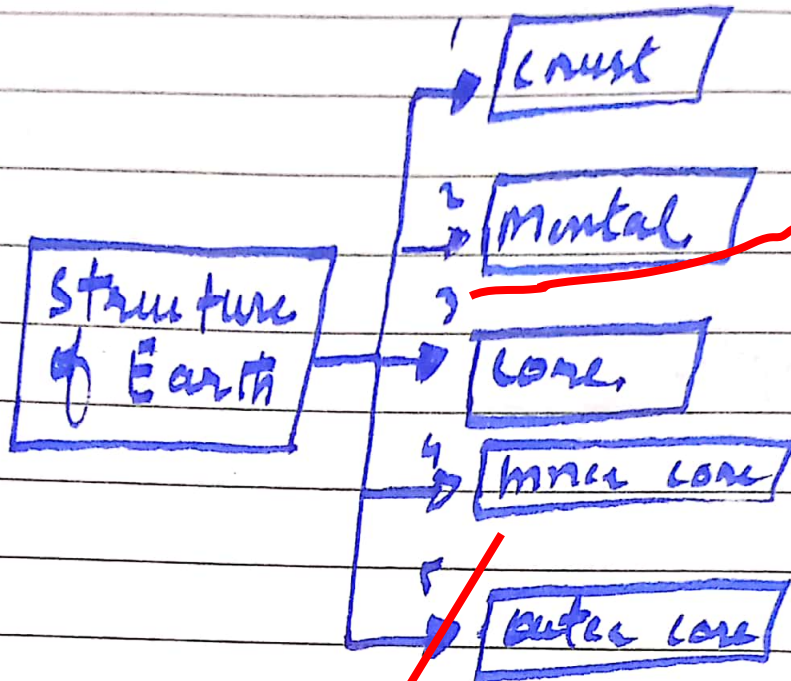
Earth revolution means. It is the movement of earth in a year (365 day)

How earth revolves

Earth revolve around the celestial bodies like sun and other stars. Indeed, revolution period is a one year. In one year Earth completes its circle around the sun and stars.

Structure of earth

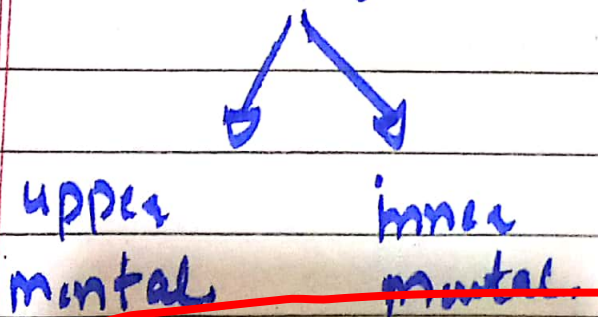
Structure of earth is discussed below.



① Crust part of earth

It is outer part of earth. It is located on the surface of the. It can be said that it forms surface part of the earth.

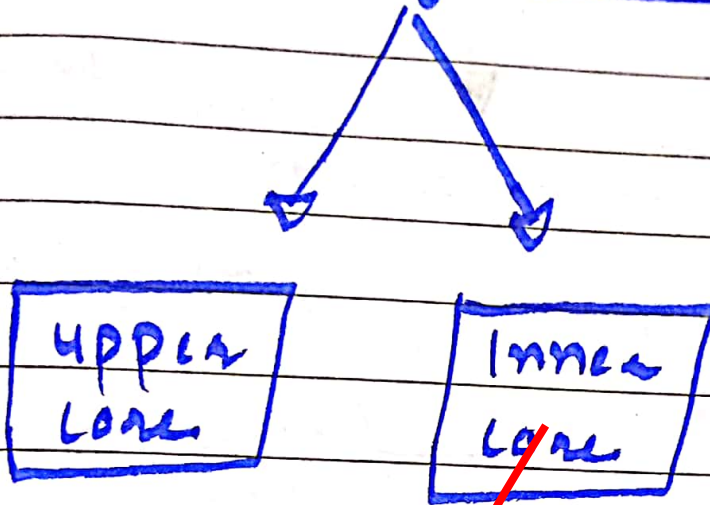
② Mantal of Earth



Date: 11

It is lower part of the earth. It is molting region of the earth. It has high temperature.

Lower Part of The Earth



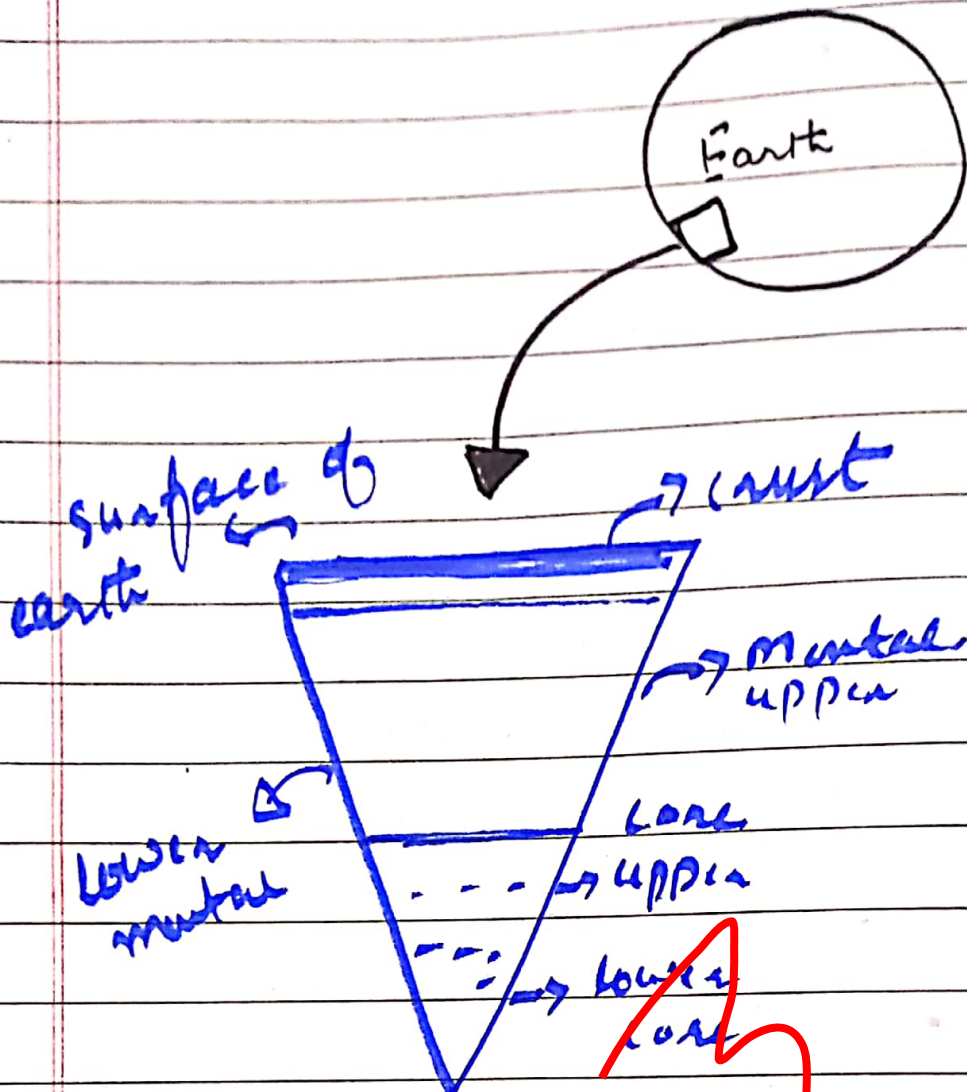
It has further two parts. ✓ upper part and lower part. These both parts are very volcanic. They have very temperature. They have different minerals.

Diagram



Date: _____

12



conclusion

Thus, earth rotate and revolve on its axis. Earth has different type of structure like crust, core and mantle.

Date: _____

13

(Part-D)

Introduction

Ionic bond is formed by giving complete electron and covalent bond is formed by sharing of electron pairs. However, there are formed due to the difference of electronegativity. Because, there is different electronegativity of different atoms.

Difference between ionic and covalent bonds

There are mentioned differences of ionic and covalent bonds below.

Ionic bond

It is formed by gaining complete electrons from atom. It is formed

Date: _____

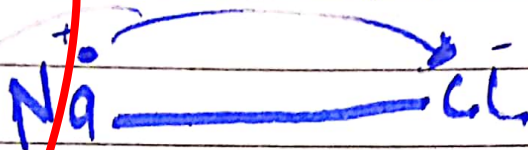
14

between metal and non metal elements.

Other differences

Example

NaCl → Sodium chloride



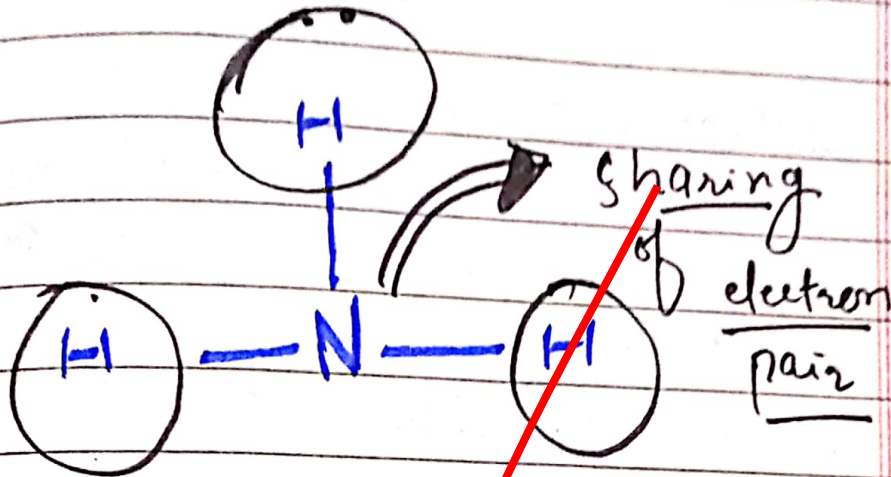
Difference of electronegativity
complete transfer
of electrons

covalent bond

It is formed by sharing of electrons. In which electron does not complete transfer to another atom. Here both elements share electron pair mutually.

Example

Date: _____

 $H_2O \rightarrow$ waterAmmonia $\rightarrow NH_3$ Conclusion

Ionic bond
is formed by the
combination of metal
and non-metal elements
on the other hand, covalent
bonds formed between
both metal element.

Date: _____

16

(Q ⇒ NO ⇒ 3)

Introduction

Miller and Harley discussed in their book "Principles of Zoology" about ~~Structure of Ear~~ structure of ear is consisted on many parts. External ear and internal ear parts.

It has pinna. It has middle tube structure. Thus, there are mentioned different parts of ear below.

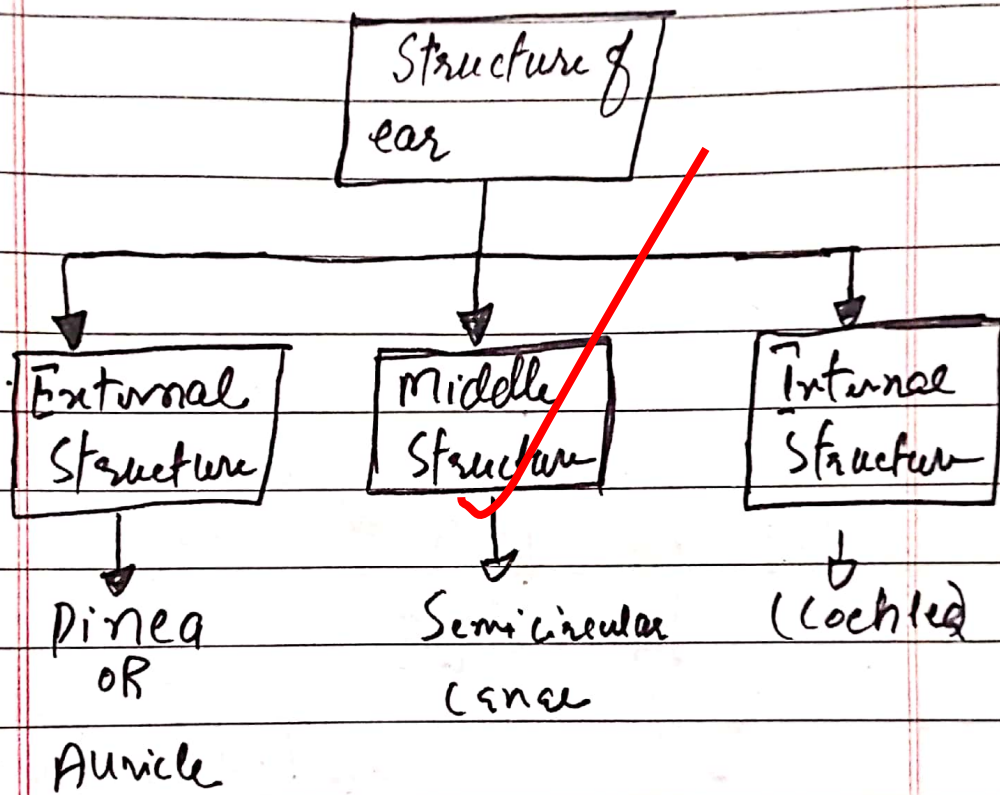
Definition of "ear"

It is a very important part of an organism. Through this organ an organism hear differences voice and respond accordingly.

Date: 17

Explanation of ear Structure

The explanation of ear structure is given below.



(i) External Structure

It is external structure. It consists of pineal or Auricle. It helps in collecting ~~from~~ ^{from} surrounding.

Date: _____ 18

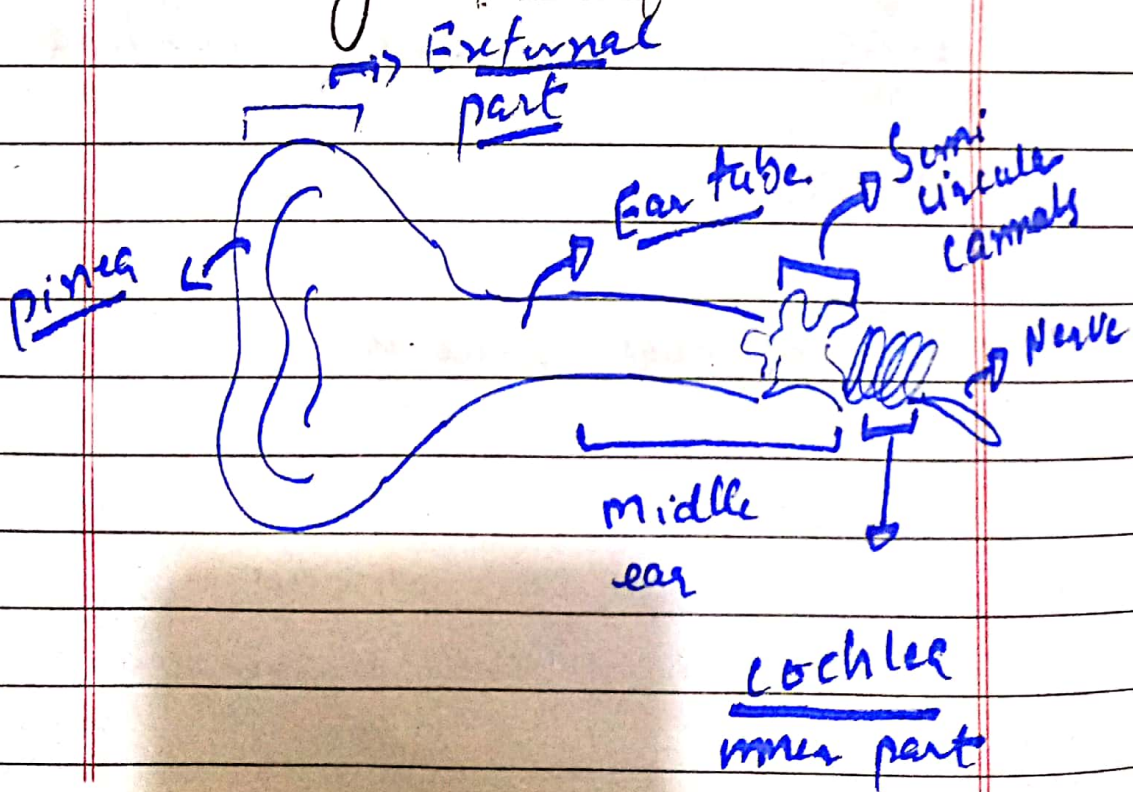
② Middle ear

It is consisted on Semicircular canals like mucus, stapes and ossicles. These canals help in producing sound.

③ Internal ear

It is consisted on nerve and cochlea. It help in generating sense of voices.

Labeling parts of ear



Date: 19

Conclusion

Thus, there are different structures of ear. It is consisted of external, middle and internal parts.

(Part-B)

Introduction:

Fats are very necessary for different functions of the body. Indeed, essential fats require for better growth and performing function of different hormones and minerals.

There are generally two types of fats, saturated and unsaturated fats.

Definition

Fats mean lipid and they are not soluble in water. They are insoluble in

Date: 20

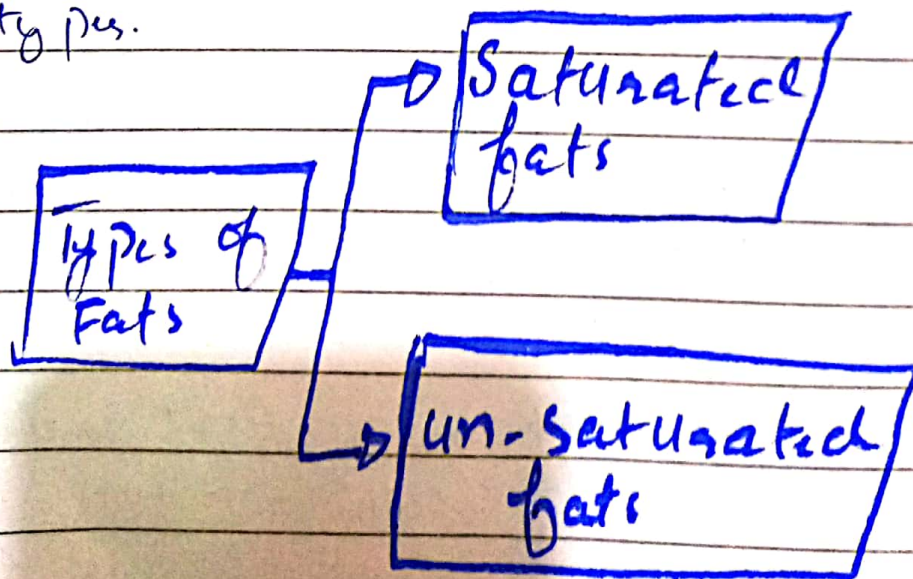
water.

What is essential of fats

Essential fats mean those fats which are essential for body's different functions. These fats are taken by external sources like food. "Essential of Biology" Book name.

Different types of fats

Below different types of fats. Generally they have two types.



Date: _____

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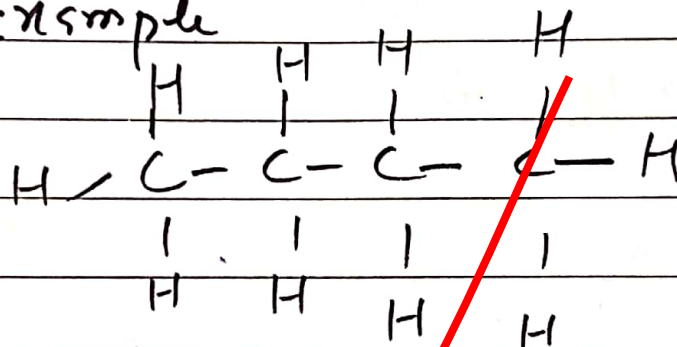
① Saturated fats

There are those fats where further cannot be added to them.

Importance

There are very dangerous for health.
ex: Heart attack

Example



fully saturated.

⇒ steroid hormones

② unsaturated fats

There are those fats where other things can be added. They are not fully saturated.

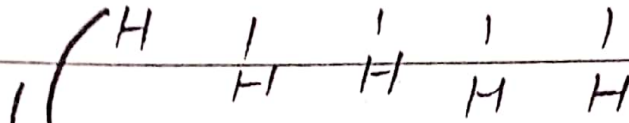
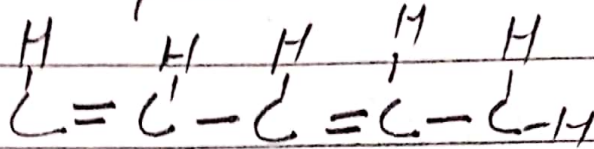
Importance

It is good for heart

Date: _____ 22

They are required in some temperature.

Example



un saturated fats.
Double bonds

Conclusion

Fats are required for different functions of body. Fats have different type like saturated and un-saturated fats.

(Part - 2)

Introduction

Mitochondria is called power house of the cell. Indeed, it synthesise ATP (energy). It provides

Date: _____

23

energy to the cell. Aerobic and Anaerobic respiration take place in mitochondria.

Why mitochondria called power house of the cell

Reasons discussed

below.

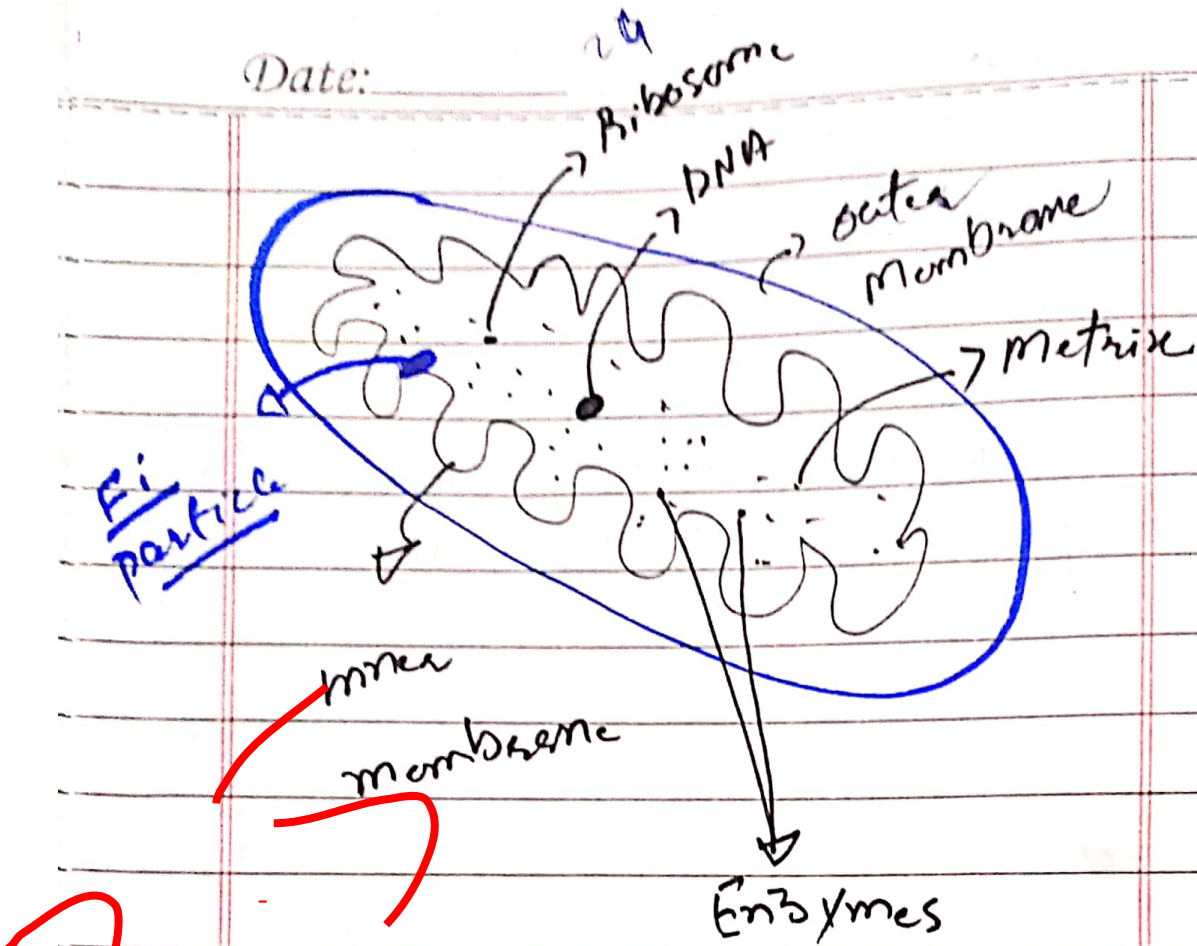
→ It helps in the formation of energy in the form of ATP

→ It also helps in formation of yolk in different cells of organisms.

Diagram of mitochondria



Date: _____



Conclusion

Thus, mitochondria helps in formation of energy in the form of (ATP)

(Part-D)

(A) Introduction

According to World Health Organization, 60% people in population

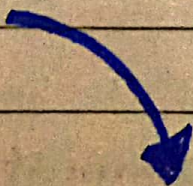
Date: _____

25

does not have healthy food and clean water there is no denying fact that deterioration of adulterated food can cause harmful impacts on human life. There is need of the Govt. of Pakistan to take strong measures against deterioration of adulterated food.

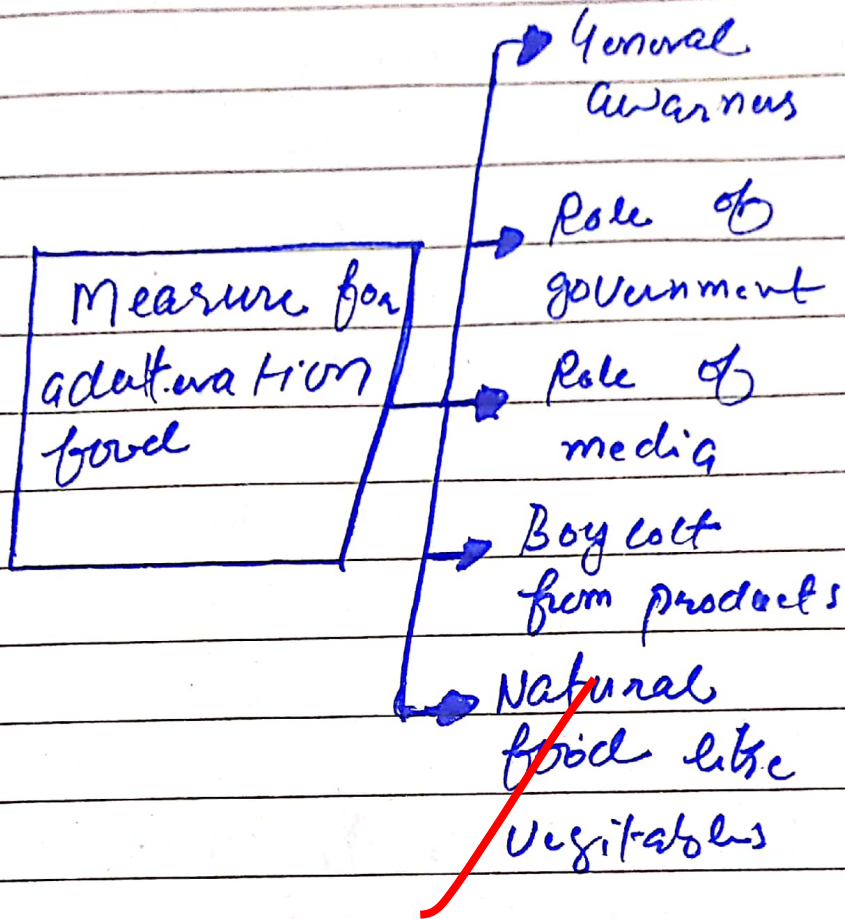
(B) What types of measures are required to curb this menace in Pakistan

There are discussed measures by which Pakistani government can be able to curb this illicit practice.



Date: _____

26



① General awareness among masses

It is very necessary to impart general awareness to masses regarding ^{deteriorated} adulteration of adulterated food. People should avoid this sort of food.

② Role of government

Government should.

Date: _____

27

play role in this regard.
government should take strong
measures for the protection of
food like milk and bakery
items.

- ⇒ improvement
- ⇒ High charges

③ Role of media

Media should
play its vital role for
the preservation of adulterated
food. It should highlight
the deterioration of adulterated
food. It should keep check
and balance on market.

④ Boycott from products

People should
boycott from those products
which are ~~contaminated~~ contaminated
by artificial means -

⑤ Natural food like
Vegetable

Date: _____

people buy natural vegetables
they should eat green
vegetables. Indeed, they can
grow in their house.

USA has banned
all types of
adulterated food

(Washington Post)

Conclusion

Thus, adulterated
food is dangerous for
health. Pakistanis should take
robust step for curbing
this menace.

Date:

29

(Section II)

Q-6

part - C

Solution:

Sister ~~D~~ will be
coded as: Reasons?

QDSRH
R

RHRSDQ

part - D

Solution

National officers jogging ²⁰⁰⁰ 200 meter
each aspirant cover 251.

how much track is still left behind &
covered ?

Date: _____ 30

$$\begin{array}{r} 240 \\ \hline 250 \end{array}$$

$$\begin{array}{r} 209 \\ \hline 25 \end{array}$$

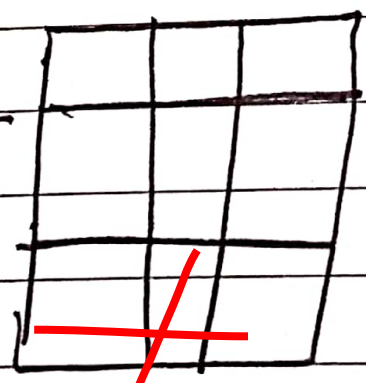
~~$$\begin{array}{r} 48 \text{ } 25 \\ \hline 150 \end{array} \times 200$$~~

45 Answer

track left behind

Q = No of
(part - A)

Solution:



14

total 13 squares in
this given figure