

Q 3

Proteins :-

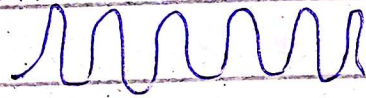
Proteins are building block of living organism.

Proteins provide energy to the cell. ~~1 gm~~ (3.1 calories)

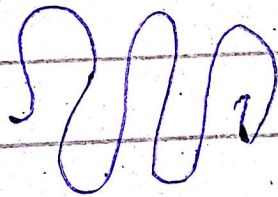
1 gram protein provides 3.1 calories of energy.

Proteins are mainly used in cell membrane and enzymes are formed of protein.

Secondary structure of protein are tri structure



Tertiary structure of protein :-



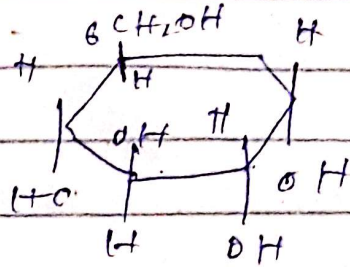
Carbohydrates :-

Carbohydrates are instant source of energy. It ~~has~~ provides 1 gm of carbohydrate provides

2.9 Calories of energy.

Carbohydrate are structural role in cell.

Carbohydrates are formed from monosaccharides.



Glucose

~~When~~ carbohydrates are broken down into glucose.

b

Atmospheric Pressure/temperature

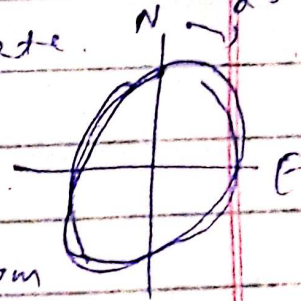
Atmospheric Pressure

creates due to Coriolis effect

Earth is tilted that results atmospheric pressure create

Atmospheric pressure is a pressure of air

Every time air move from higher position to lower position.



~~Atmospheric temperature~~ :-

In tropical, there Sun rays directly hit. It results this location are warm up and atmospheric pressure slowdown. Air move up ward.

Humidity :-

when temperature is raised then water quickly evaporate and water content is high in air.

C Explain the ephemeron of Earthquake with diagrams.

Earthquake:-

Earthquake vibration in its location this is called Earth.

Causes of earth quake:-

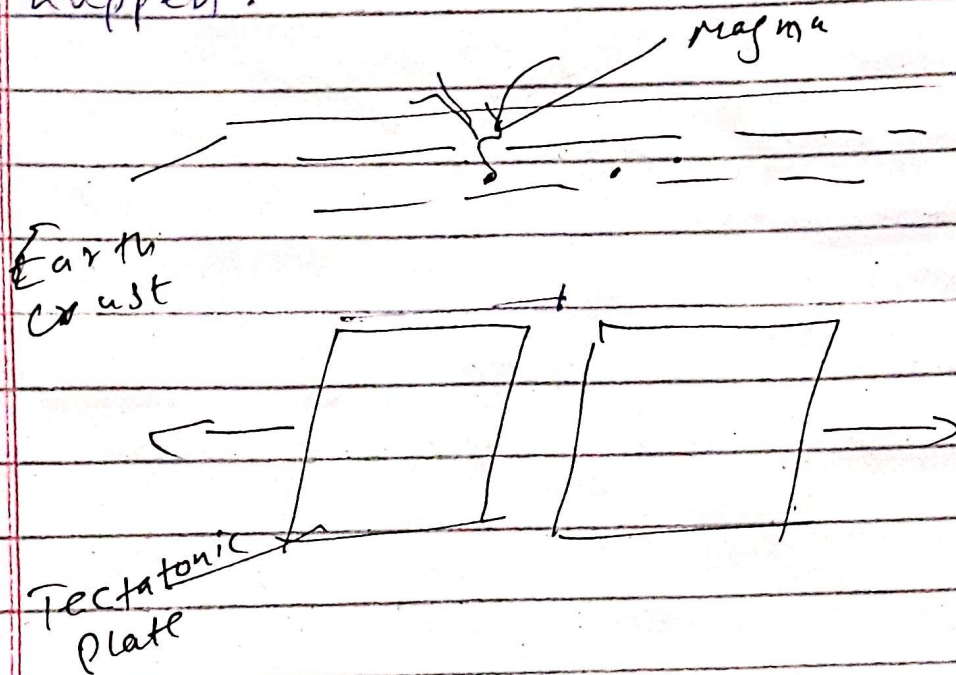
Magma exit:-

when magma exit from the earth crust then earth quake is happen.

Tectatonic Plate:-

Earth is made from tectatonic plate. when plates away or

Slide then earthquake is happen.



Effects:-

when earthquake happens then large level destruction in the land.

Residential area destroyed.

Commercial and infrastructure destroyed

Human loss.

Detection:-

A seismograph is used for detection of Earthquake intensity.

0 - 10 number

6-10 - dangerous.

Q:
Radar:-

Radar is an equipment which is used for detection of object in the atmosphere.

Usage of radar:-

Radar is used by military ~~Purpose~~ and Aviation department.

How Radar works:-

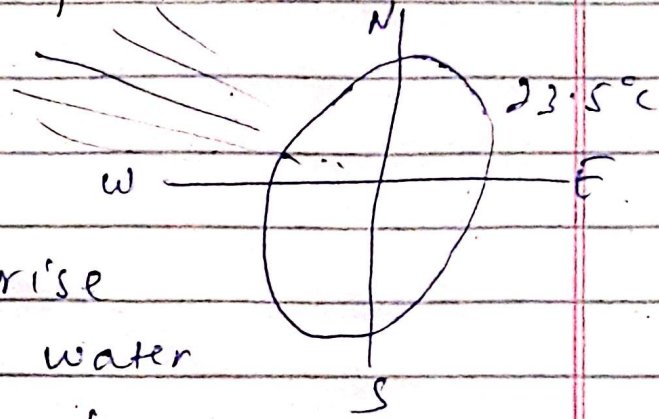
Radar sends his ~~rays~~ signal in air. when an object such as airplane, drones are present in air these rays are ~~touch~~ touch with it and then these rays come back to receiver. where translate this message into computer. then user uses it.

Q5

Sun

Sea surface temperature rise :-

when ~~sea~~
heat rays
Sea surface
temperature rise
by the sun rays. water
has capacity to



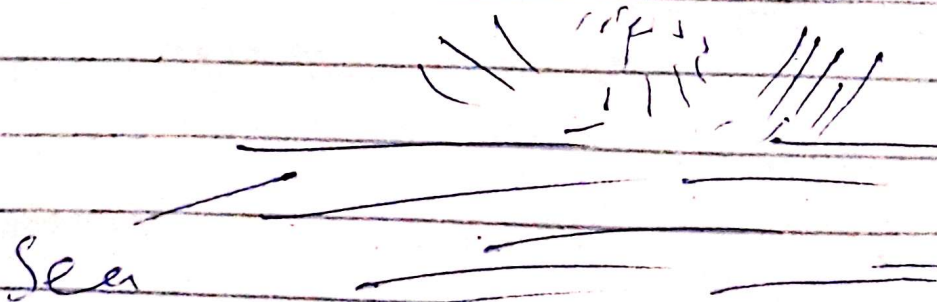
absorb heat radiation that
result sea surface temperature
raise.

Affect the formation of tropical
cyclone :-

when ~~heat~~ water vapour
go upward atmosphere
due to heating of sea.

Tropical cyclones are made

when sea temperature raise
23°C. then continually water
vapour raised upward atmosphere



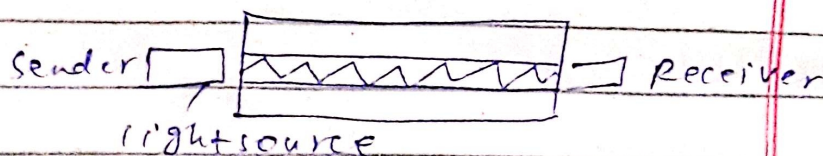
The left space is felt by cool air. ^{when} this process is speed up then cyclones are formed.

b

Optical fibre ~~work~~:-

Optical fibre refers to the medium of the technology associated with the transformation of information as light pulses along a hollow glass tube.

How optical fibre works:-



Fibre optics converts electric signals into light energy.

At receiver, this light energy again convert into electric signals.

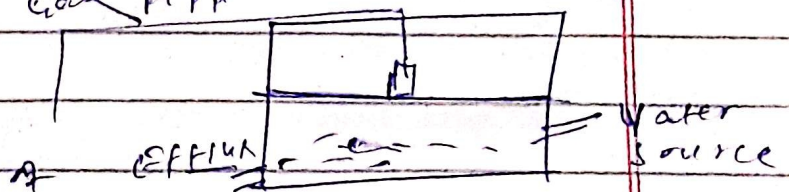
C

Usage of microorganism for the help in meeting the current fuel of shortage.

Many Microorganism are beneficial for human. They also used for energy purpose.

When microorganism ~~are~~ put in the closed container which already filled by organic waste. There will produce gas which can be used for cooking purpose.

Gas Pipe



d

Food additives :-

Food additives are substance which intentionally add in food for preservation, taste, texture and so on.

~~Food~~

Food Preservation :-

Food Preservation is a process where manufacturer want food quality does not decrease or food spoil.

There are different method used in food preservation.

Freeze :-

Food is frozen while bacteria do not grow.

Antioxydant :-

Antioxydant is used in food (oily and potato chips) while food does not spoil.

Q.6

a

Cost of machine as 100.

First year depreciation ^{10%} = 90

Second year depreciation 90 - 10% = 81

Third year depreciation 81 - 10% = 72.9

$$= \frac{8748}{72.9} \times 100$$

value of = 12000

machine

b

Daughter age is = x

Father age is = $4x$

After 5 years

$$x + 5$$

$$4x + 5$$

Father will be three times of his daughter.

$$4x + 5 = 3(x + 5)$$

$$4x + 5 = 3x + 15$$

$$4x - 3x = 15 - 5$$

$$1x = 10$$

Daughter age = 10.

Father age = $4 \times 10 = 40$

After an additional 5 years.

Daughter = $10 + 10 = 20$ years

Father = $40 + 10 = 50$

$$= \frac{50}{20}$$

= 2.5 times.

c

Football diameter is = 12cm $r = 6$

$$\text{Volume } V = \frac{4}{3} \pi r^3$$

$$V = \frac{4}{3} \pi 6^3$$

$$V = \frac{4}{3} \times \frac{22}{7} \times 216$$

$$V = 905 \text{ cm}^3$$

Q7

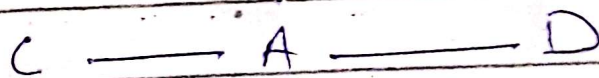
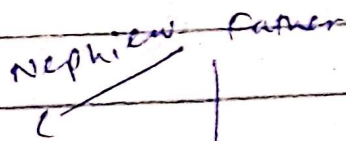
A 7 consecutive numbers is 20

20 40 60 80 100 120

140

140 the largest number

b



The relationship between C and D are cousin.

C

a

4, 18, 100, 180, 294, 448.

$$2^3 - 2, 8 - 2 =$$

b

Sequence : 1, 2, 10, 37, 101, —

$$2 - 1 = 1$$

$$10 - 2 = 8$$

$$37 - 10 = 27$$

$$101 - 37 = 64$$

$1^3, 2^3, 3^3, 4^3, 5^3$

1, 2, 10, 37, 101, 225