

Q 3

Proteins :-

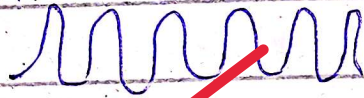
Proteins are building block of living organism.

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

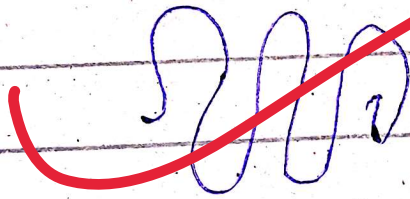
1g of protein provides 3.1 calories of energy.

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 :-

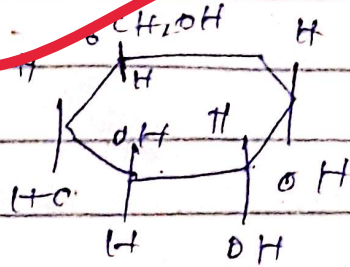
Carbohydrates are instant source of energy. It ~~has~~ provides

1g 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

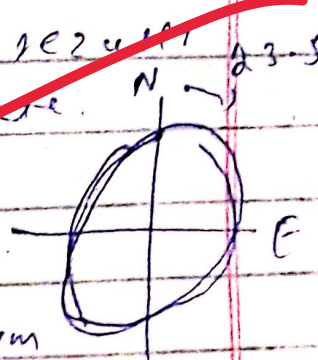
Atmospheric Pressure/temperature

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:-

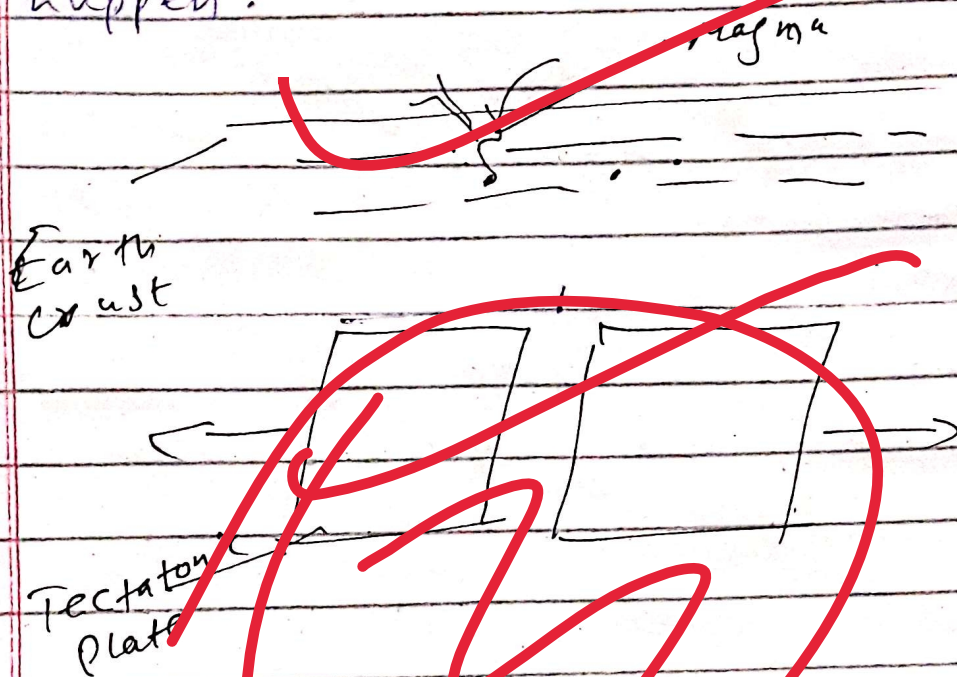
when magma exit from the earth crust then earth quake is happen.

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 ~~sent~~ <sup>sent</sup> with it and then these rays come back to receiver. Where ~~translate~~ <sup>translate</sup> 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 rise.

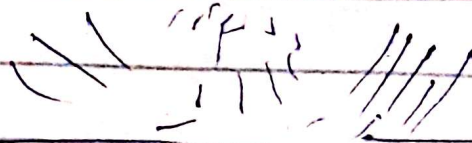
Affect the formation of tropical cyclone :-

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

Tropical cyclones ~~are~~ made

when sea temperature raise  $23^{\circ}\text{C}$ . then continually water vapour raised upward atmosphere

Sea





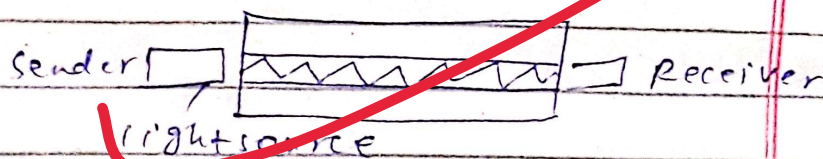
The left space is felt by cool air. <sup>when</sup> this process is speed up then cyclones are formed.

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.

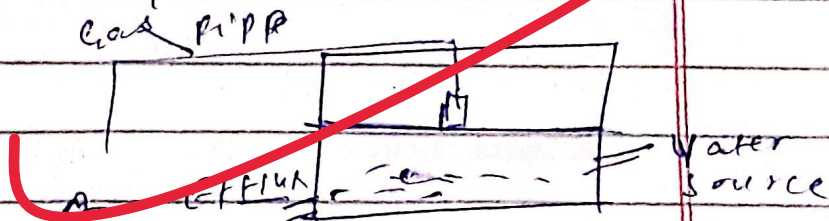
At receiver, this light energy again convert into electric signals.

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. They will produce gas which can be used for cooking purpose.



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

Cost of machine as 100.

First year depreciation <sup>10%</sup> = 90

second year depreciation 90 - 10% = 81

Third year depreciation 81 - 10% = 72.9

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

value of machine = 12000

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  $r = 6$

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

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



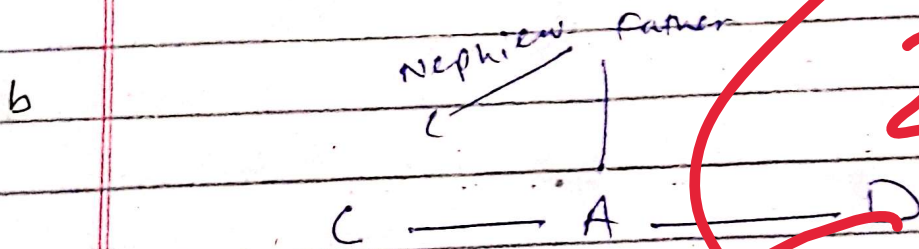
$$V = \frac{4}{3} \times \frac{22}{7} \times 216$$

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

Q7

A 7 consecutive numbers is 20  
20 40 60 80 100 120

140 the largest number



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

$$2 - 1 = 1$$

$$10 - 2 = 8$$

$$37 - 10 = 27$$

$$101 - 37 = 64$$

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

Improve content

Make headings

Keep length of all questions equal

Draw flow charts and diagrams and properly label it.

Use scientific terminologies

Use scientific examples

The answers are insufficient to fulfill the required criteria of the question and marks.

Follow appropriate structure for answer according to the question

Follow proper pattern for problems solving

Work hard.