

Part IISection 1Question No. 3

(a)

a)

Major hurdles in developing countries to tackle the impacts of Global Warming. COP28

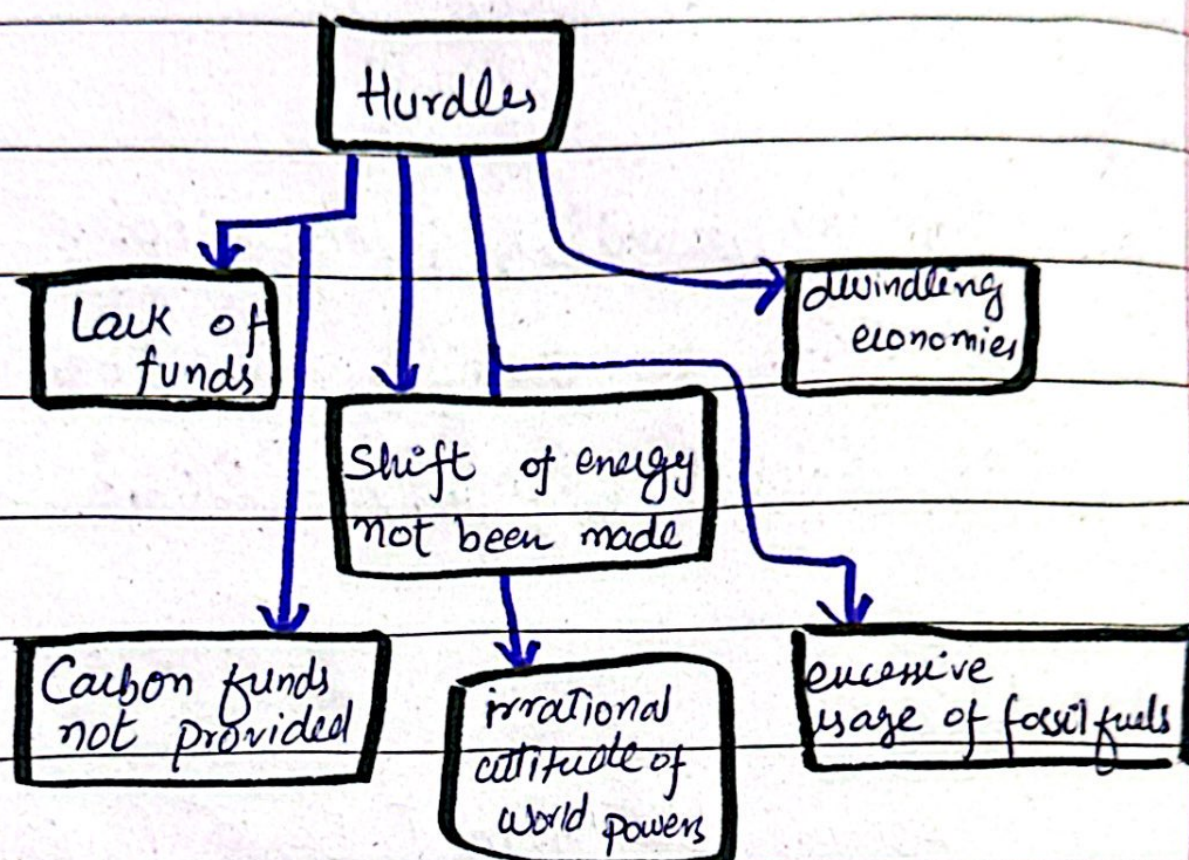
Ans

Asian Development Bank (ADB) declared the 2023 hottest of all due to the increasing impacts of climate change. The excessive use of fossil fuels and dependence of world on poisonous gas like CO_2 has destroyed the world while making it hotter.

“Heat trap of greenhouse gases has given rise

to global warming"
(Al-Gore)

Hurdles in tackling global warming by developing countries



Lack of Funds

Developing world is too much into countering poverty from their world. They have shortage of funds to tackle global warming.

Dwindling Economies

Dwindling economies

find no time to eradicate global warming from their region.

Energy Shift not been made

Due to lack of funds, lack of investments and other issues of priority for developing countries energy shift is not made to renewable resources. Like Germany

Germany produces 82% of its energy from renewable resources?

Sanctions on developing world also playing a major role in not shifting to renewable energy.

Excessive usage of energy/fossil fuels

Excessive usage of fossil fuels and heavy dependence on fossil fuels have challenged the credibility

and commitment of energy shift. When

World emits 300%
energy of heroshima
bombs produced in a
day

Compensation funds not paid

The developed countries did not paid their funds of carbon to the developing world as a compensation for using high level of carbons which have deteriorated the developing world.

Conclusion:

To sum up, irrational approach of powerful countries and a delay in policy shift has also become the reason behind developing world not tackling global warming effectively.

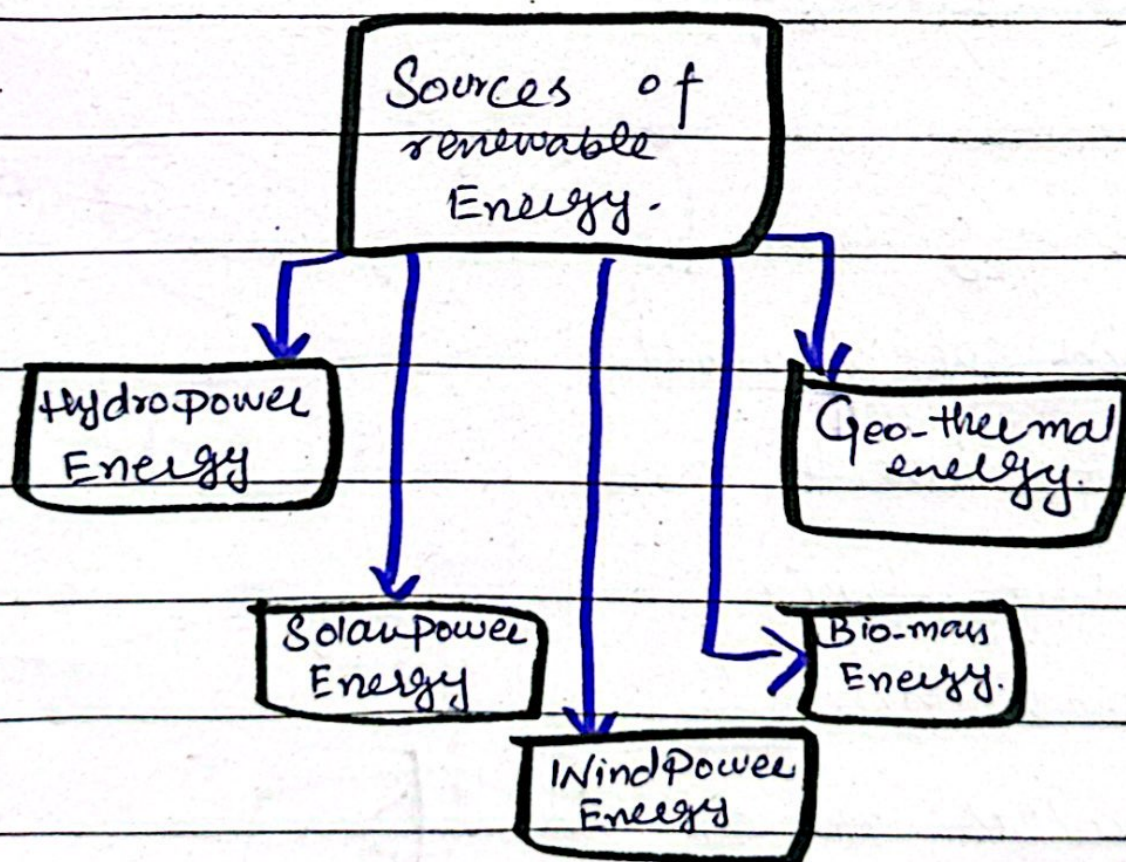
Question No. 2

part C (B)

Five Sources of renewable energy.

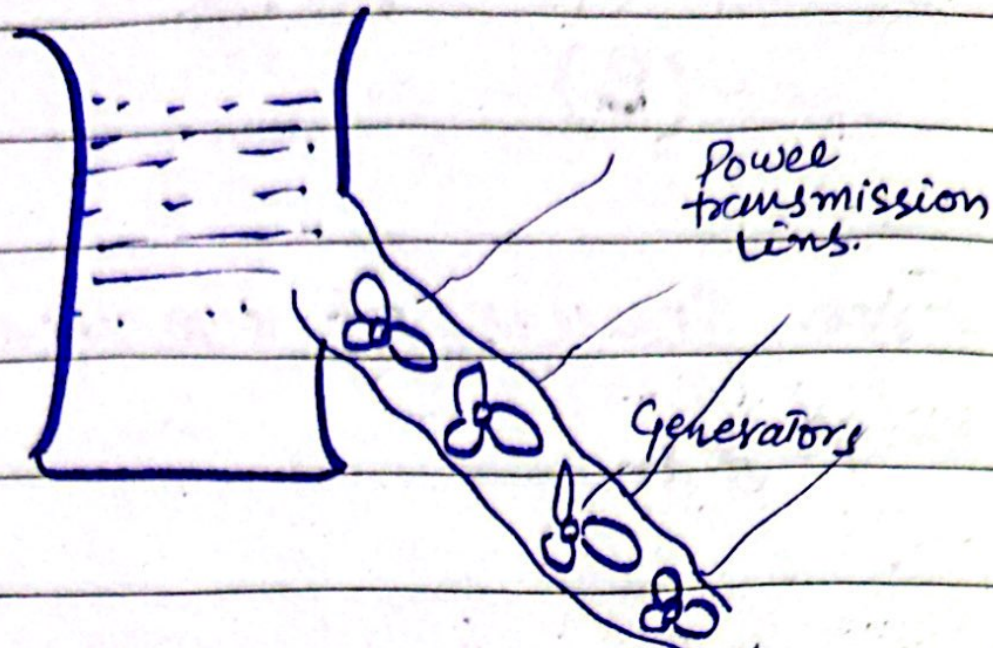
Ans:

Renewable energy is the form of energy which can be renewed and leaves no harmful impacts on the environment.



Hydropower Energy

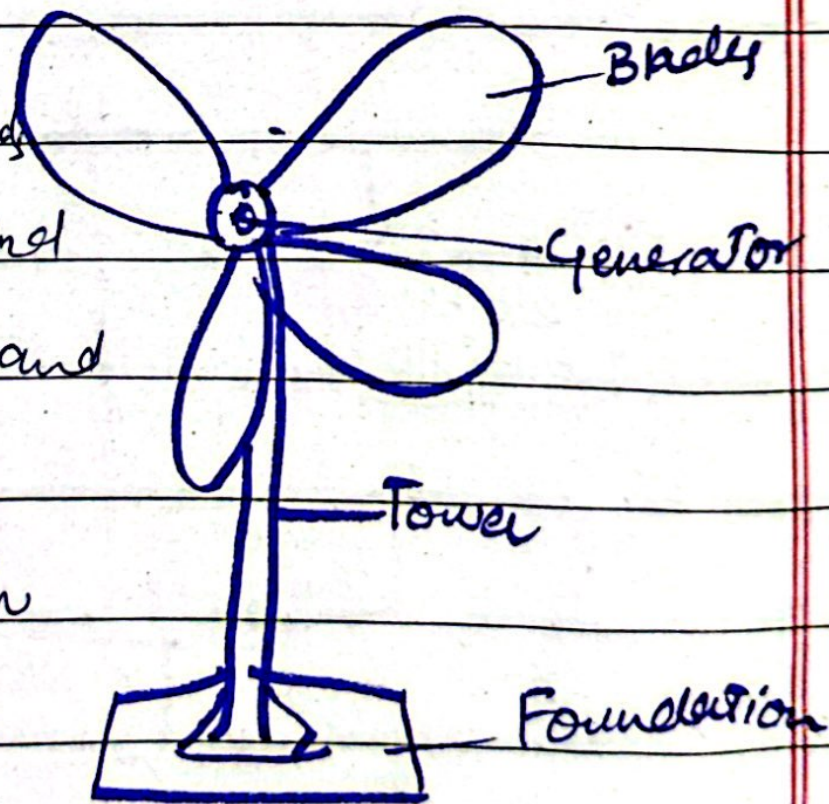
Hydropower energy is produced from water and kinetic,



Potential energy produced with it which makes it or convert the electricity from the water. From dams or water source generators are connected which generates energy.

Wind Energy

Wind energy demands the good speed wind to run the blade and then turn their potential through generators into a renewable energy source. But this method is suitable mostly for the countries with an ocean or sea area, as it derives the winds fairly.

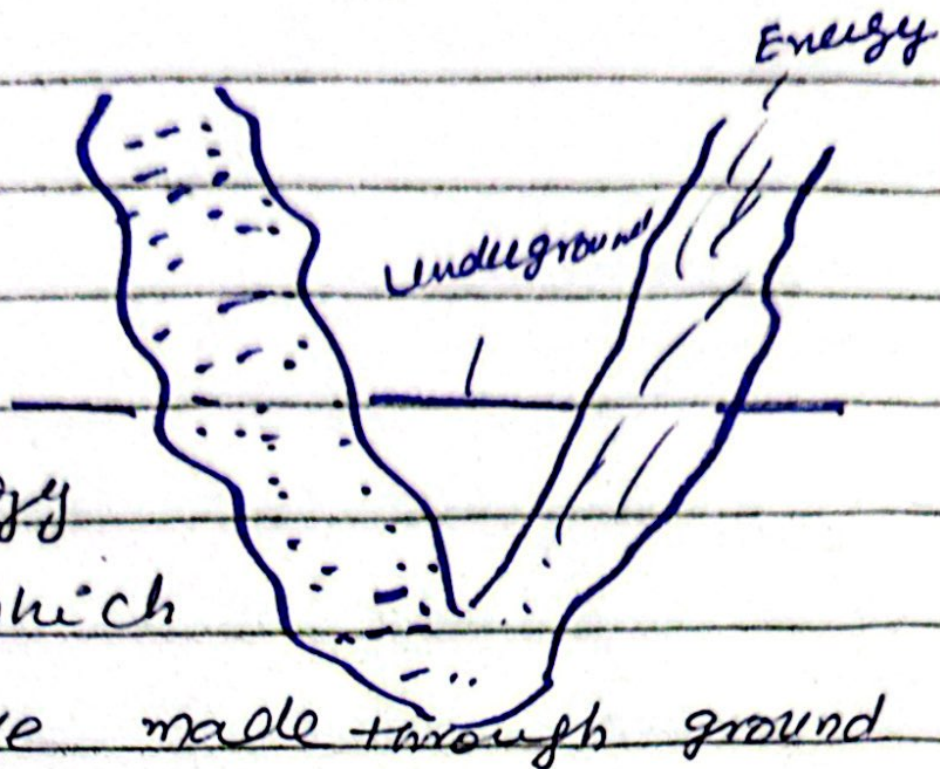


Geo-thermal Energy

Geothermal energy is also an economic

source of energy conversion in which

water sources are made through ground with a level of heat which converts it into energy.

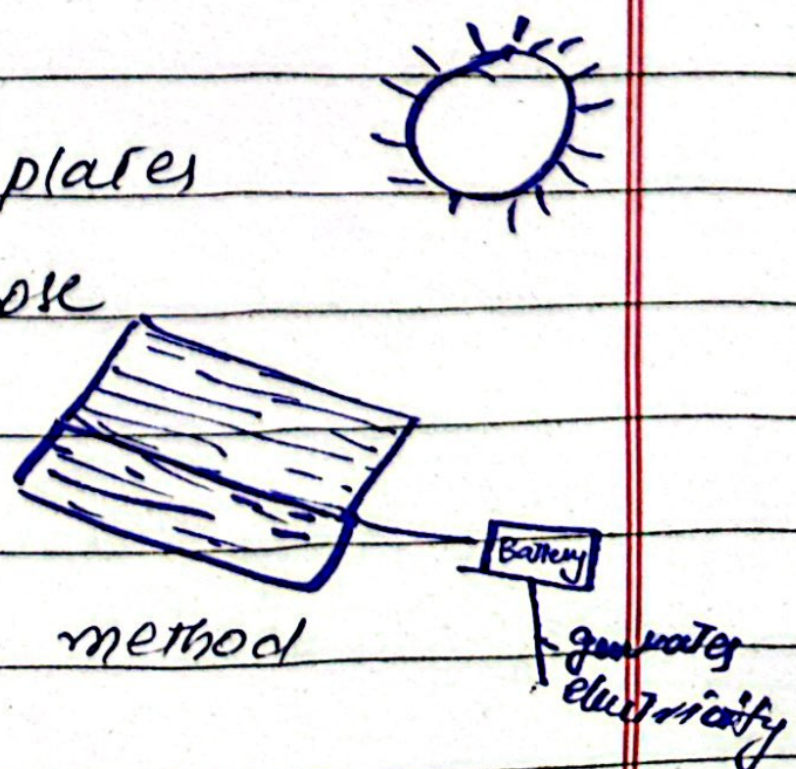


Bio-Mass Energy

Some scholars do not consider it a renewable source because of the air pollution it causes in response. This energy procedure also works a little on geo-thermal but it involves animal waste.

Solar Energy.

Solar panels are used for this purpose of conversion of sun heat into an energy form. This is most used method



of energy conversion like that of hydro power plants.

Conclusion

To sum up, these renewable energy sources can meet the modern needs of man if a proper investment is made according to the potential to eradicate fossil fuels and launch green and clean energy.

Q No. 2 Part (d)

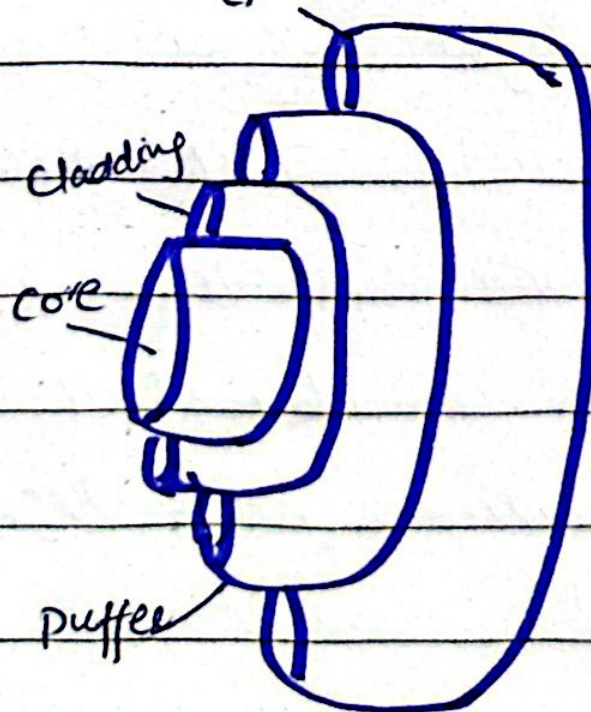
How optical Fibre works

Ans.

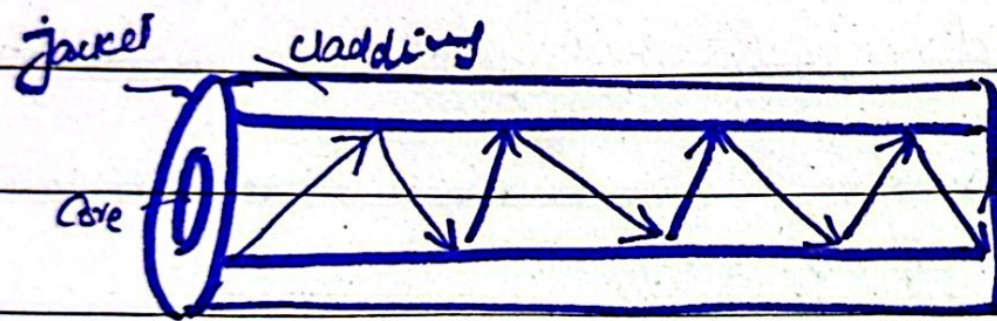
Optical fibre is the modern technique of quick transfer of data through the thin layer of fibre cable. It is quicker than the traditional copper cable and most reliable.

How it works

It got a core in it, in which the whole process of conversion takes place. Jacket.

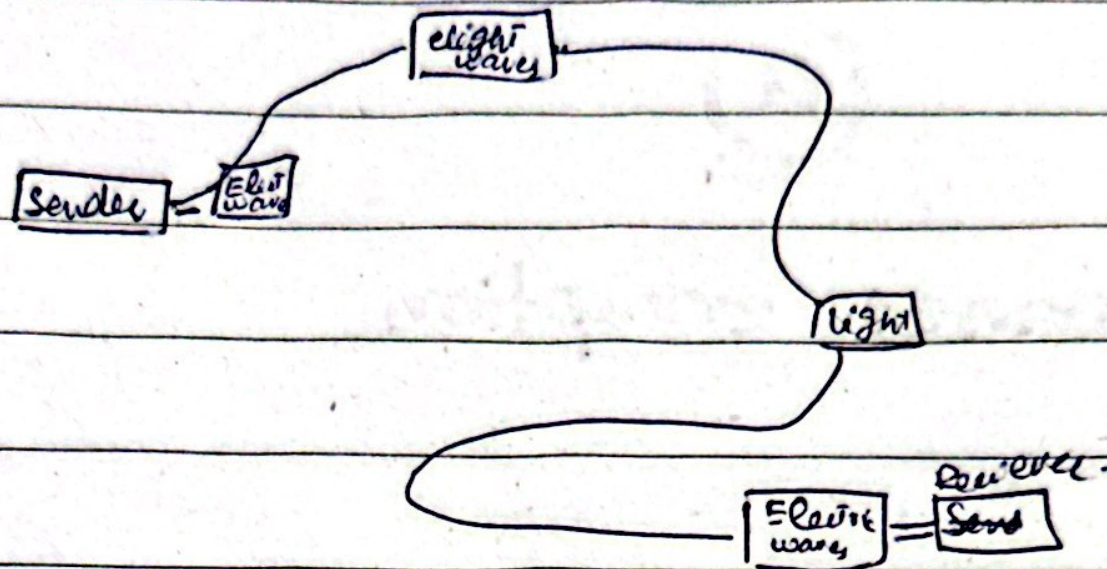


and transfer takes place. The outer layer of core is known as cladding which protects the removal or escape of rays from the core and protects it and cladding is covered with the buffer which also ensures the presence of rays within the core and cladding and then comes the jacket which protects it from outer side and removal of inner side.



It converts the message or electric waves into the light waves which is more faster in nature. That is connected through a wire with the other system and sender inputs or direct it, it converts the direction into light waves and with a sound wavelength it hits the walls of core and keeps on

moving and there it reaches and converts into electric waves again.



So, it works on the basis of light with a good speed and protected manner. It is a little expensive than the copper wire and have got sharp edges so shouldn't be touches with hands.

Conclusion:

To sum up, optical fibre is way of transferring data from one place to another one in the form of light waves which is more quicker and sound in nature.

Question No

2.

(a)

Volcanoes eruption

Ans

Volcano eruption is when a hot molten lava comes out of the earth due to an activity under the ground. Sometimes a little movement becomes the reason of lava eruption like that of a little weight on the area of volcano.

How Volcanoes erupt

Volcanoes eruption

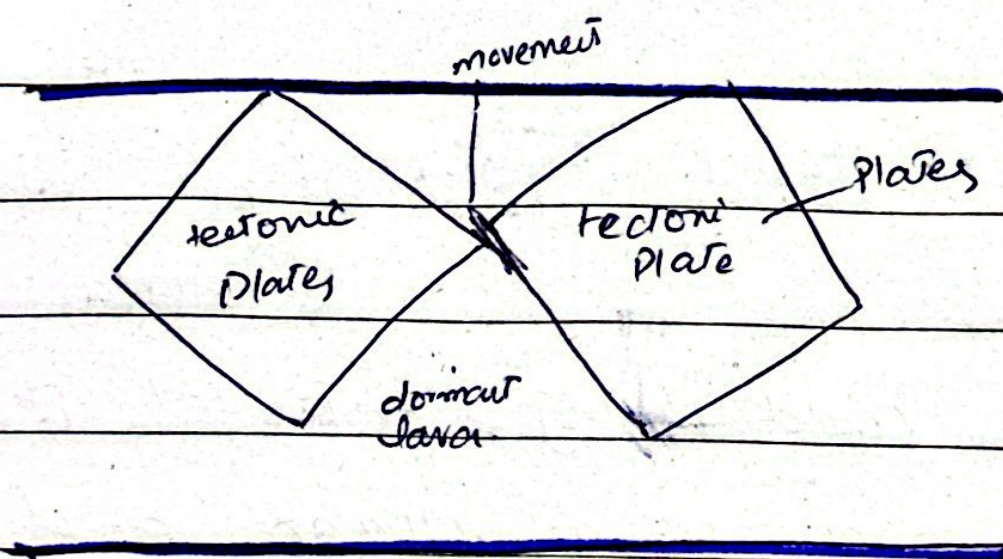
could be due to certain reasons.

- ↳ Earthquake
- ↳ Ground Reactional activity
- ↳ External force
- ↳ Avalanche and Typhoons.

There are live volcanoes, dormant and dead according to their time of eruptions.

Earth-quake:

Sometimes earthquake could be the reason behind the volcanic eruption.



Sometimes when the tectonic plates move a little whether it creates a low scale earthquake or not, but it might give some space to live or dormant lava which will find the way of eruption due to the movement of the plates and this will be volcanic eruption. This near epicenter could bring a lot of

disaster.

External Pressure

Volcanoes erupt due to external pressure as well. Due to the external pressure the gasses and the lava is pressed so hard that it erupts with a blast. To live at such places could be dangerous.

Avalanche and Typhoon

Avalanche and Typhoons could bring external pressure to the area of a volcano and could become the reason of eruption. As, they move so fast and have a pressure on the ground so this could exert external force over the activity area.

Ground Reactional activity

Lava creates energy and gasses within the ground at such a high level that it couldn't

be resisted. When the gases and reactions becomes too high, it creates earthquake and volcano erupts because it finds no way to move its lava underground and as a reaction erupts.

Conclusion

To sum up, there could be other ways of eruption. But mostly it works on the ground activity and external triggering factors which could lead to minor eruption and sometimes major one.

Q. No 3

(C)

Artificial Intelligence

Ans

Machine learning has revolutionized the world with an active replacement of man's job. It has revolutionized the confusing subjects which are no more confusing. As artificial intelligence is

which acts on human thought
which works on human thought

Voice recognition

Machine learning works on the basis of human thought and works accordingly. **Siri** and **Google** works on the basis of the machine learning, as everything is

taught to respond.

Cognitive science

It's like a cognitive science where machine learning is trying to **think and act as humans**, and is very successful in it as well. To drive the algorithms and digital world is no more difficult.

Robot's machine learning

^{Artificial} intelligence has launched robots which has revolutionized the modern world in real sense

'Robots have replaced man's job and are working as employees without pay in factories and restaurant.'

(Foreign Affairs)

Human behaviour is learnt in this matter.

Automatic bot responses

Automatic

bot responses is also a subset of machine learning and artificial intelligence where all possible questions been taught to bots and they respond to queries accordingly.

Revolutionized Health Sector.

It has revolutionized

the health sector and is considered that now robots can perform operations as well. Even machines are used for minor medical issues as well and with proper technology they can take a good hold of this sector.

Other sectors:

Agriculture, film and employment sectors been introduced with the subset of artificial intelligence. People are preferring machines over humans because they won't get tired.

and chances of low error.

Conclusion.

To sum up, artificial intelligence has revolutionized the world. Now robots are performing the duties of new anchor, industrial employ, maids of the house. So what left, It has overpowered all sectors.

Q. No. 3

(b)

Balanced diet

Define

Balanced diet is which has equal number of need ingredients which are necessary for the body growth and fulfill all deficiencies.

Ingredients of Balanced diet

Ingredients of a balanced diet are

- ① Carbs
- ② Protein
- ③ Fat
- ④ Fiber

5 Minerals.

6 Vitamins

7 Water

Carbs

Carbs are the carbohydrates on which half of bodies energy intake depends. It provides about **35% - 45%** energy to man's body therefore carb rich food should be part of diet.

Fats

Fats are saturated and unsaturated and have a role of **10-15%** energy provision role in the body. Many people disregard it but it is essential.

Vitamins

Vitamins are also a main source for body energy. It is mostly found in green vegetables and fulfil need of human body. It's excessive deficiency could lead to diseases.

Minerals

Minerals fulfil the deficiency of energy in the body and cannot be ignored. It is as necessary as any other ingredient.

Water:

Water is also most necessary elements for the growth and to keep body hydrated. Deficiency could lead to dehydration which could result in severe illness or sometimes death.

Conclusion:

To sum up, it is essential to have a balanced diet for a proper healthy life. Without balanced diet man becomes easy target of diseases and it becomes difficult to manage it later.

Q No. 3

(d)

Distinguish RAM & ROM

RAM and ROM are two features of computer memory with different functions.

RAM

- 1) Random Access memory
- 2) Temporary
- 3) If restarted or turned off lose its memory.
- 4) Easy access to required documents
- 5) Fasten the speed of the computer

ROM

- 1) Read Only Memory
- 2) Permanent
- 3) Do not lose its memory so easy.
- 4) do not determine easy access.
- 5) Do not determine the speed.

- 6) Can make changes } 6) It can just read it
not change it
- 7) It is just for access } 7) Gets the memory from
memory not to store } Brain and transfer
it. } through cable when
accessed.

Conclusion:

To sum up, RAM and ROM perform the accessing speedy function in a computer and facilitate the users.

Q. No. 8

(C)

- i) shirt
- ii) Danger
- iv) London
- v) Holiday
- iii)

Q NO. 8

(B)

i)

4, 16, 36, 64, ?, 144

4, 16, 36, 64, 104, 144

ii)

30, 29, 27, ?, 20

30, 29, 27, 24, 20

iii)

1, 7, 15, 25, ?, 51

1, 7, 15, 25, 37, 51

iv) 0

0, 2, 6, 12, 20, 30, ?

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

v)

4, 8, 24, 72, 35, 108, ?

48, 24, 72, 35, 108, 144

Q. No. 8

(a)

**consecutive odd number
273**

$$\text{average} = \frac{273}{3}$$

$$= 91 - \text{average}$$

Three odd = 89, 90, 91 *sum*
numbers.

Q. No. 8

(d)

Let's suppose Sara's age = x

Sara's mother age = $6(x)$

Ali's age = $2(x)$

Sum = 72

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

$$9x = 72$$

$$x = \frac{72}{9}$$

$x = 8$ years Sara's age

$$\begin{aligned} \text{Sara's mother's age} &= 6(x) \\ &= 6(8) \end{aligned}$$

$$\boxed{\text{mother's} = 48 \text{ years}}$$

$$\begin{aligned} \text{Ali's age} &= 2(x) \\ &= 2(8) \end{aligned}$$

$$\boxed{\text{Ali's age} = 16 \text{ years old}}$$

Q. NO. 6

(a)

$$\text{First candidate} = 15000$$

$$\text{Second candidate} = 10000$$

$$\text{Third candidate} = 8000$$

$$\text{total votes} = 15000 + 10000 + 8000$$

$$= 33000$$

$$\text{Percentage of winning candidate} =$$

$$= \frac{\text{obtained votes} \times 100}{\text{total votes}}$$

$$= \frac{500}{15000} \times 100$$

$$= 500 \%$$

$$\text{Winning percentage of candidate} = \boxed{45.5\%} \text{ Ans}$$

Q. NO. 6
(C)

one group include = 4 boys
6 girls

total girls = 102

$$\text{total groups} = \frac{102}{6} \\ = 17 \text{ groups}$$

How many boy needed ^{for 1 group} = 4

boys for 17 groups = 4×17

$$= 68 \text{ boys. } \text{Ans}$$

(d)

ratios of A & B age = 6 : 7

$$= 6x : 7x$$

After 5 years = $(6x+5) : (7x+5)$

After 5 year ratio becom = 7 : 8

$$(6x+5) : (7x+5) = \frac{7}{8}$$

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

$$48x + 40 = 49x + 35$$

$$48x - 49x = 40 - 35$$

$$\boxed{x = 5}$$

Present age of A = $6x$

$$= 6(5)$$

Date: _____

$$\boxed{A = 30 \text{ years}} \text{ ans}$$

$$B = 7x$$

$$= 7(5)$$

$$\boxed{= 35 \text{ years.}} \text{ Ans}$$