

1.)

A.) Comets are small celestial objects orbiting around the earth

- made up of dust and ice.
- while passing close to sun it releases gas which is called outgassing.

B.) Apogee → when the distance between earth and moon is maximum

Perigee → distance between earth and moon minimum

C.) Harmattan is a dusty wind of west Africa from December to February.

- D.)
- 1.) U shaped valley
 - 2.) Hanging valley
 - 3.) Horns.

E.) Layered rocks formed after the erosion and deposition of archaean rocks.
Highly metamorphosed and fossils are not available.

F.) Chilka lake is a large salt water lagoon lake in Odisha.

G.)

H.) New Moore island

I. Express way are the national highways joining 2 cities which shorten the distance and travel time between the cities

J Barak river is a river in North east of India.

K. FSSAI \Rightarrow Food Safety and Security Association of India under Ministry of Health & Family welfare. Founded in 2011

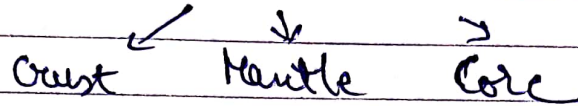
L. Agriculture export is the selling of the agricultural produce to another country.

M. Consolidation is the merger and acquisition of many smaller companies into much larger one

N.) Fertilization.

O.) National Institute of Disaster Management is an institute where people are taught how to handle a disaster situation.

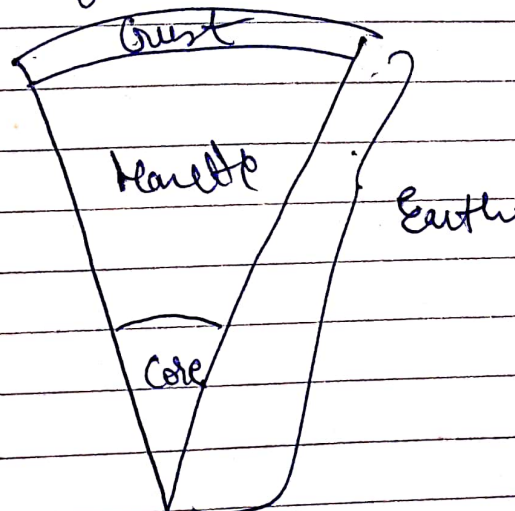
2) A) The earth which is also called the blue planet from the interior it is divided into 3 parts



Crust : is the upper most layer of the earth which is about 35 km. Silica and aluminium are the main constituent element of the crust known as SIAL.

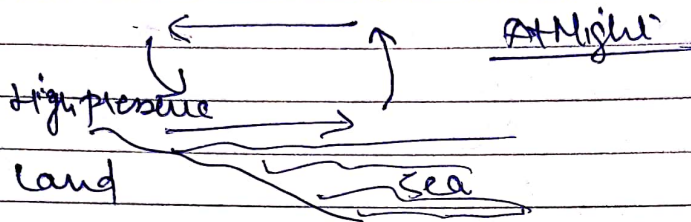
Mantle : The middle portion which is liquid and consists of lava. It is the largest portion and consists of SIMA i.e. Silicate and Magnesium.

Core : A little has been known about the core but with various observations it is believed to be denser than mantle and consists of NIFE i.e. Nickel and Iron.



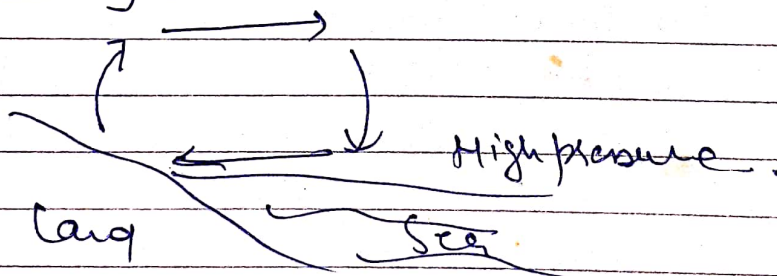
B.) Land is heated more quickly than the sea during day time. And cools down slowly hence it creates breezes near the coastal area.

At Night high pressure is created at the land and hence air travels from land to sea which is called land breeze.



During the day high pressure is created over the sea as it heats slower than land hence the wind blows from high pressure over the sea to low pressure over land creating sea breeze.

At day:



D. There are various factors responsible for the erosion. One of the most prominent factor is wind.

The landforms which are created due to erosional and depositional activities of wind are called as Aeolian landforms.

Landforms created by wind are

⇒ Deflation basin → Removal of loose particles from ground.

when ~~deflation~~ deflation causes a shallow depression by persistent movement of wind

⇒ Ventifacts → rocks that have been etched, ground or polished etc. by wind driven sand crystals.

⇒ Mushroom rocks → Ventifacts in shape of mushroom

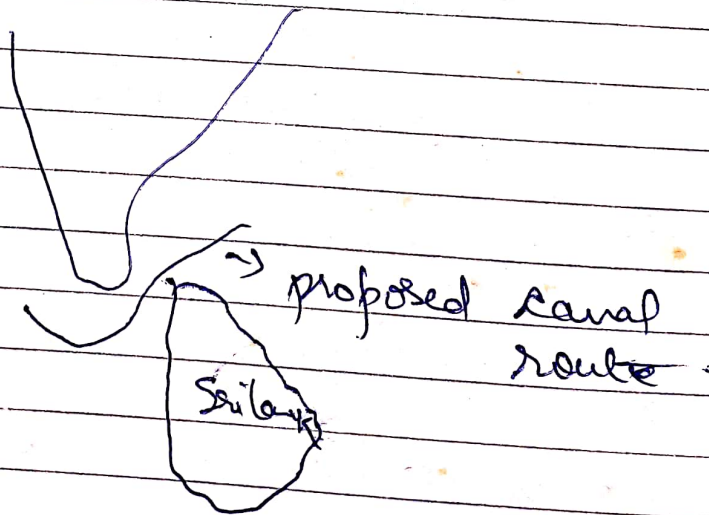
⇒ Peneplain → when high relief structures in deserts are reduced to low featureless plains by the activities of wind.

Other landforms are. Inselbergs, Domoiselles, Zeugus, wind window, stone lattice etc

20)

F.) Setusamudram shipping canal project is a proposed project to create a shipping route in the shallow straits between India and Sri Lanka.

It is said it will be a harbinger of economic growth. But it has certain controversies as the project will come in the path of the mythological Ram Setu. Hence the Supreme court said that it would add to the socio economic conditions of the country and may hurt the sentiments of the people.



6.) Most of the oil reserves in India are associated with anticlines and fault traps.

Petroleum first discovered in Assam during railway construction.

Before 1960 petroleum oil was produced only in Assam.

After this Ankaleshwar area in the state of Gujarat was dug.

In 1975 oil was discovered in Bombay high. Oil is also found in the Godavari Krishna river basin in both onshore and offshore.

State wise distribution is as follows.

- 1.) Maharashtra \rightarrow more than 60%.
- 2.) Gujarat \rightarrow around 20%.
- 3.) Assam \rightarrow around 15%.
- 4.) other states.

Q.1 On 26 April 1986 there occurred a nuclear disaster at the Chernobyl nuclear power station in Soviet Union, considered as the worst disaster in history of nuclear power generation.

Mistakes compounded with each other led to a chain reaction which went out of control and led to a huge explosion which triggered a large fireball and blast of a huge explosion.

A large amount of radioactive material was released in the atmosphere and was carried to great distances by air and wind.

A cover up was made for the incident but later it was admitted by the Soviet government.

It was one of the biggest lessons to be learned from in the history of nuclear disaster.

I Cyclones are atmospheric disasters and are formed around low pressure. Being a natural disaster it cannot be stopped by only preventive measures can be taken.

The coastal areas of Odisha and Andhra Pradesh are most prone to the cyclones.

The disaster preparedness of Odisha has really set benchmark for the world to learn to how to prevent the damage from cyclone and how to reduce its impact.

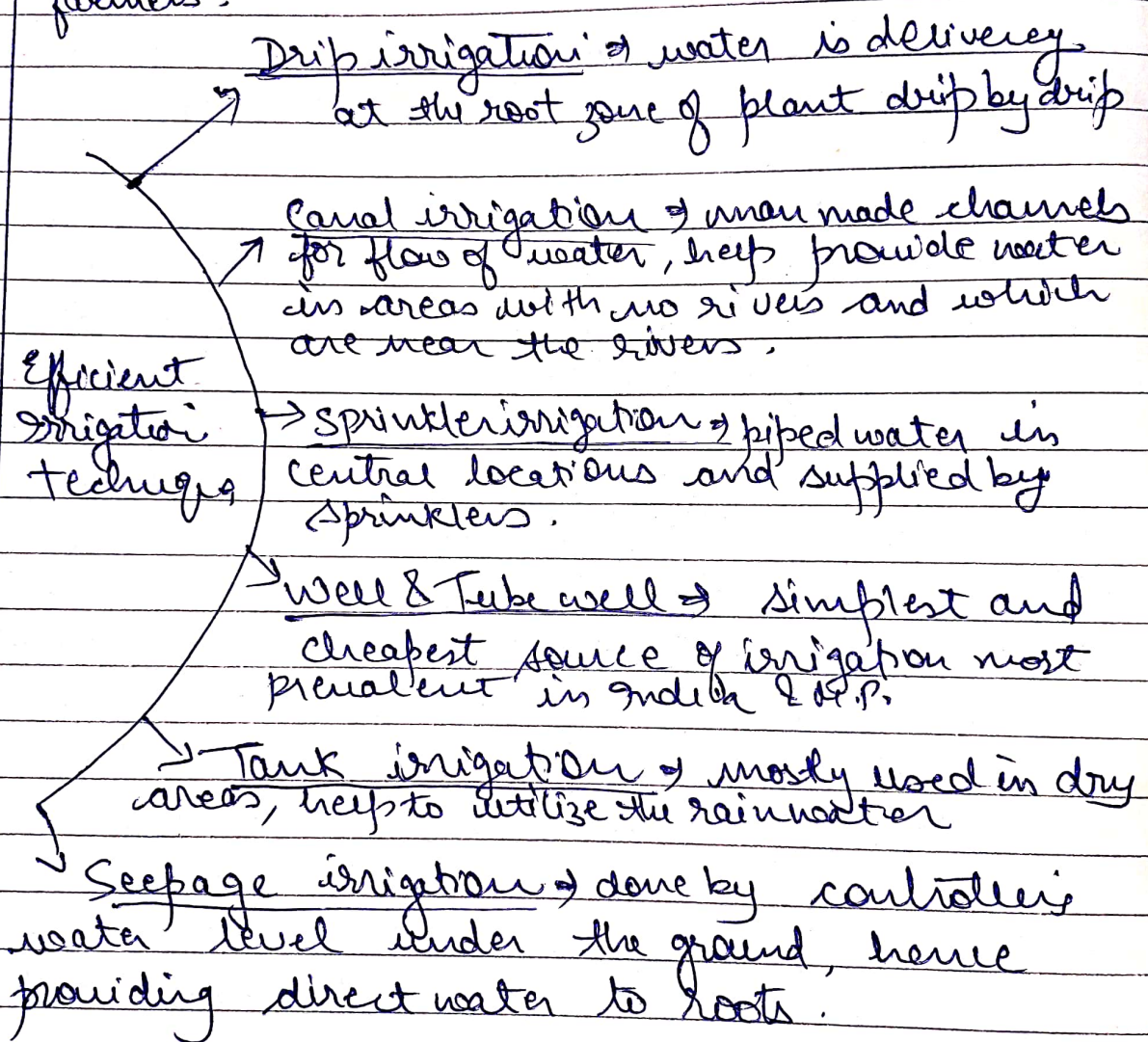
The IMD gives an early warning sign and hence the National Disaster Management Authority sets on work.

The National Disaster Response Force (NDRF) helps to evacuate people from coastal areas and to take them to safer places, which help in reducing the death toll.

The infrastructure in the cyclone prone area should be designed in such way that it gets least affected under it which will help decrease economic loss.

Removable objects like tin sheets, loose bricks etc should be taken care of.

k.) Irrigation is one of the most important part of the Agricultural process.
A better Irrigation system adds to the better yield and more convenience to the farmers.



3.) (c) Lands had been in the hands of few people of India and hence it had always been a means of exploitation of the poor in India. leading to a hindrance of social economic development of the rural and farmer class of our country.

Hence for the betterment of the people equitable land distribution had been a major point in the policies of government.

There had been various land reforms out of which some are mentioned

→ Tenancy reforms → The exploitative tenant was protected via tenancy reforms by transferring them the ownership.

↳ Abolition of intermediaries → The intermediaries like the zamindars had always exploited the people and hence the zamindari was abolished in the independent India.

↳ Ceiling on land holdings → hence the land was redistributed among the landless people of the country.

The objectives of the land holding system were.

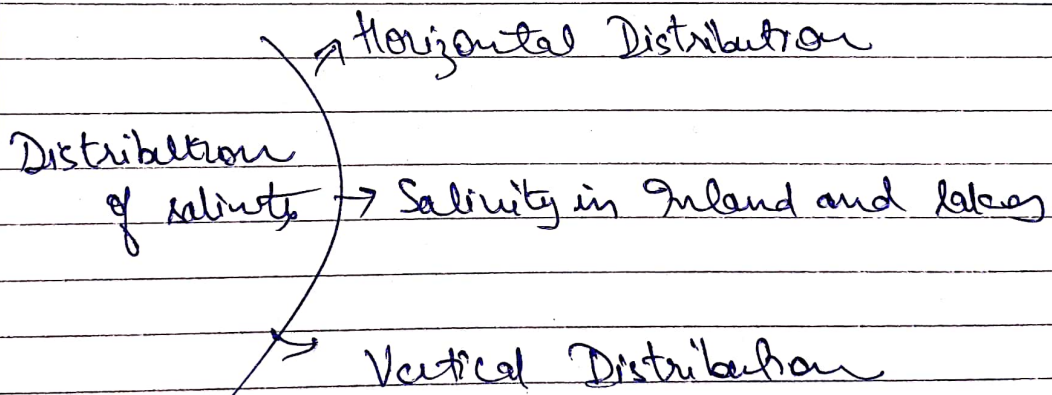
- ↳ Redistribution of land across society so that land is not held in the hands of a few people
- ↳ Land ceiling to distribute the surplus land amongst small and marginal farmers
- ↳ Removal of rural poverty
- ↳ Abolition of intermediaries.
- ↳ Increasing agricultural productivity • by making farmers the owners of the farm
- ↳ Consolidation of land holdings.
- ↳ ensure social equality through economic parity.
- ↳ Tribal protection by ensuring their traditional land.

✶

A. The earth has 70% of oceans and the chief characteristics of the ocean is the salinity of the water which leaves the water unfit for the human consumption.

The salinity is caused due to the mixture of various salts in the water the chief among them is Sodium Chloride which humans obtain by the process of evaporation on the banks and shores.

There are various factors which affect the salinity of the sea water



↳ Horizontal

highest salinity is recorded near the equator and it decreases as we move towards the poles.

The high temperature and high precipitation keeps the salinity balanced in the equator region.

↳ Inland seas & lakes.

On the areas where fresh water is supplied continuously the salinity is less. Like the Caspian sea has low salinity due to various river sources.

↳ Vertical distribution.

Salinity increases with the increase in ~~depth~~ ~~latitude~~. depth in high latitudes. But in deeper parts salinity decreases at the equator...