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Question num 2:-

(A) Importance of Renewable energy with respect of environment:

Defining and explaining Renewable energy:

The sources of energy that dinot replenished over a short period of time and could be used again and again.

Examples:

(A) Solar Energy
(B) Bio-energy
(C) Wind Energy.
(D) Hydro-Energy.

Importance for Environment.:-

(A) Reduces Green House Gases emissions::

Unlike the non-renewable sources such as fossils (oil, coal, etc) emit large amount of GHGs, that are harmful for the environment. However, in renewable sources, there is no combusting that means no emissions are generated that could be harmful.

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(B) **Explaining Solar Energy.:-**

A renewable source of energy, generated due to excitement of ~~photons~~ electrons in a photo-voltaic cell in a solar panel.

Formation of Solar energy.:-

In Solar panels, there are series of photo-voltaic cells, made up of silicon. A silicon cell uses two different ~~too~~ layers of silicon; N-type and P-type which are connected thus forming P-N junction. When photons released from sun strike to the P-N silicon cells, electrons and holes are formed. Electron (excited) fill the hole of the nearby atom and simultaneously, the hole of one atom get fills by the electron of a nearby. Thereby current is generated.

Advantages of Solar energy:

(A) Promotes the energy security of a nation.
(B) Reduces green house gas emission.

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(B)

Rocks:

Any organic and inorganic materials that are formed inside the earth or on to the crust.

e.g: Limestone, Granite.

Types of Rocks:

Based on formation, there are three types:

(A) **Igneous Rocks:**

Rocks that are formed inside the earth surface due to the solidification of magma. e.g Granite is a igneous rock

B) **Sedimentary Rocks:**

Weathering of igneous or metamorphic may led to the sedimentation. When these small fragments pile ups they get compact, thereby forming a different type of rock formed by the fragments of weathered rocks.

e.g

Coal: Organic materials ~~get~~ after getting compact may transformed into coal.

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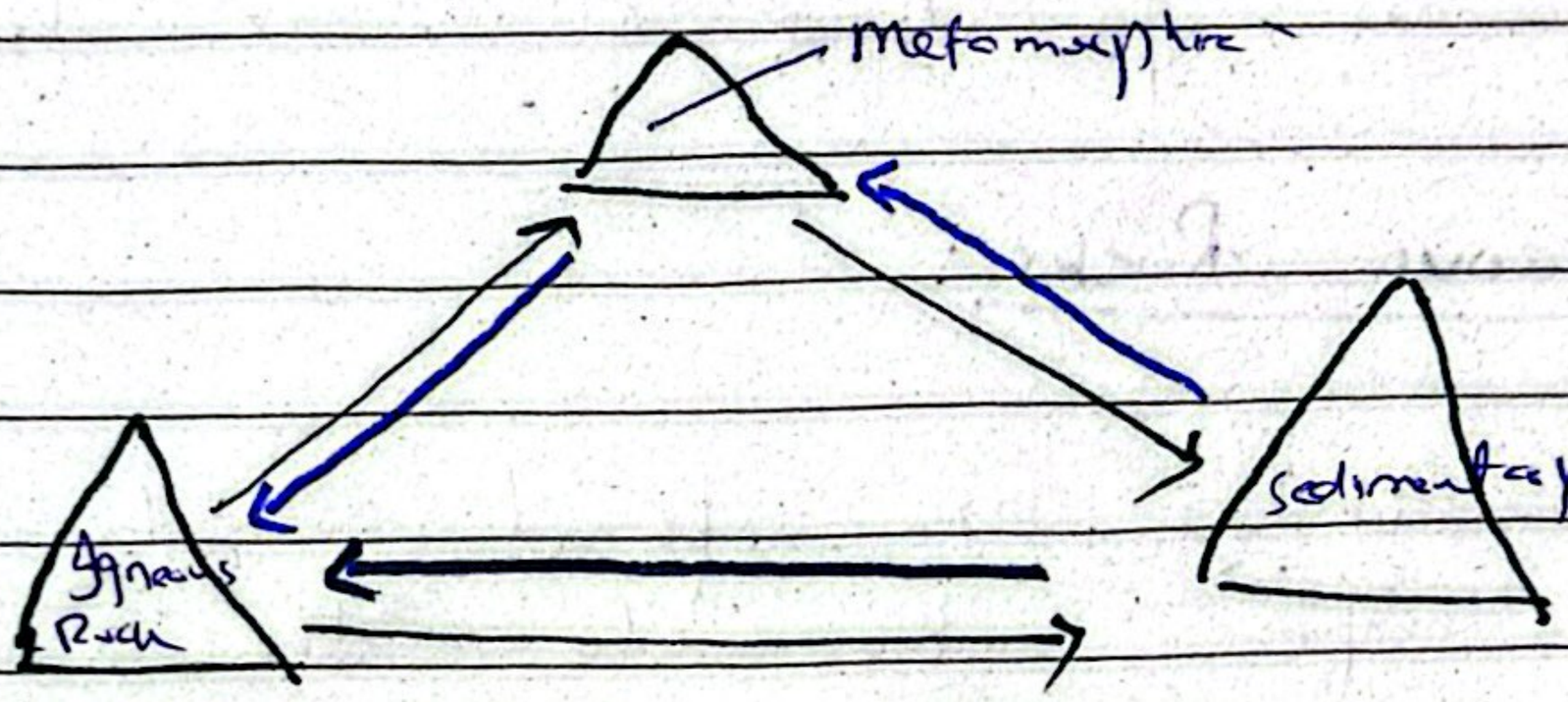
(c) **Metamorphic Rock:**

A type of rock that is formed due to change in temperature and pressure of igneous or sedimentary rock.

Example: Limestone changes into Lignite.

The Rock Cycle:



According to the rock cycle,

(1) Rocks melt into magma due to extreme heat, forming igneous rocks.

(2) **(Weathering & Erosion):**

Rocks break down into smaller particles and cement to form sedimentary rocks.

(3) **Heat & Pressure:**

Existing rocks undergo changes to become metamorphic rocks.

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(ج)

.....

(D)

Brief a brief of under Soluble vitamins.

Defination:

Water Soluble vitamins consists of vit B and vit. C. They dissolved ltr name because they are soluble in water and donot store into the body.

Vit B complex:

types: Vit B_1, Vit B_2, Vit B_3, Vit B_6, Vit B_{12}.

Sources:

fish, meat, whole grain, vegetables, poultry

Function:

- Crucial for nerve functuning and energy products.
- Vital for DNA synthesis
- Important for the health, skin and nails

Deficiencies:

Beri-Beri, Pellagra, fatigue.

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Vit- C:

Chemical name: Ascorbic acid.

Sources: Citrus fruits (oranges), vegetables

Function:

- Function as anti-oxidant thereby an anti-aging
- Collagen synthesis & protein vital for skin and blood vessels
- Fx. of immune support.

Def:

- T-critique & weakness
- Skin issues (dry skin)
- Anemia in severe cases

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Q.no-1:

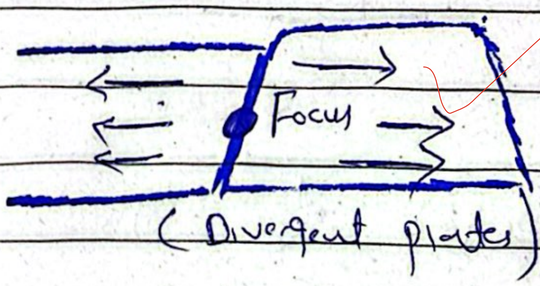
(D)

Phenomenon of Earthquakes

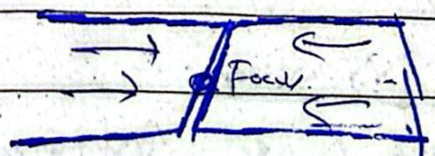
Defination:

A series of shocks that occurs due to disturbances in tectonic plates in the lithosphere.

Exploring the Phenomenon through Plate Tectonics Theory:



(Divergent plates)



(converging plates)

According to the plate tectonics theory, our earth crust is divided into plates, that moves towards eachother, away from each other or slide past each other. When plates moves ~~towards~~ towards/ each other, stress is ~~exerted~~ among the line. When the stress exceeds

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the deformation shape, it ruptures along the line, thereby pressure is released which produces series of waves that produces shocks. There type of waves (S)(P) and love waves are created that disrupts the earth surface.

(C)

Explaining the weather Variable:

(1) Temperature:

(i) Defination:

Degree of hotness or coldness of the weather.

(ii) Impact on Weather

(ii) What factors Could influence temperature

(a) Altitude:

The higher the altitude of a region the lower the temperature

(b) Latitude:

Moving upward towards the poles the ray of sunlight get slanted, therefore the cooler the area. Equators are warmer due to direct sunlight

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(c) Oceanic Current and Prevailing Winds

Warm currents and cold winds may influence the temperature of an area.

(2) Explaining the variable Pressure

Atmospheric Pressure:

The pressure exerted by the earth on the earth surface.

Its influence on Weather:

Local winds:

The local the atmospheric pressure of an area the more will be the winds coming from the surrounding area.

Cyclones:

Cyclones are generated due to low atmospheric pressure

(3) Humidity:

Definition:

Amount of water vapour present in the air, called humidity.

Its Influence on Women: 2

Hehe humidity is an indicator of freezing rain When vapour could no longer hold humidity it is followed by precipitation

(B)

Five food preservation Methods with example.

① Freezing:

Freezing slows down the growth of micro-organism thereby preserving fod for long time

Example:

freezing meats vegetables

② Canning:

It involves heating fod and killing all micro-organism. Thereafter, the fod is placed into cans/bottles in an airtight environment.

e.g. Canned Vegetables

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3) **Drying:**

Removes moisture from food, inhibiting the growth of bacteria, molds and yeasts.

e.g. Dry fruits

2) **Salting:**

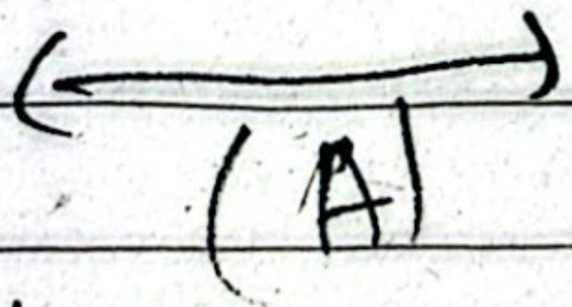
Involves adding salt to draw out moisture & inhibit microbial growth

e.g. Salted fish

Pasteurization:

Heating milk for ~~15 min at 7~~ a set time to kill all bacteria.

e.g. Pasteurized milk



Food Adulteration:

- Deliberation addition of food additives to food to increase the quality or enhance its appearance.
- Example: → Color to the food
  → Addition of water in milk
- Purpose: ~~Intentional~~ Intentionally added.

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Food Contamination

- Presence of harmful substances (e microorganism / chemicals) in a food
- Examples:
  - Physical contaminants e.g hair, glass
  - Pesticide residues
- Purpose:
  Unintentional, due to poor hygiene conditions

Controlling Measure:

(1) Strict Enforcement of Food Laws
(2) Consumer Awareness
(3) Penalizing.