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Subject : Geography

class : IX

Humidity

(1) Humidity

It refers to the amount of water vapour present in the air at a particular time and place.

(2) Absolute Humidity

- It is the actual amount of water vapour present in a given volume of air, regardless of temperature.
- It is expressed in (g/m^3)

Relative Humidity

- It is defined as a ratio between the actual amount of water vapour present in the air and maximum amount of water vapour the air can hold at that temp.
- It is expressed in percentage.

(3) Evaporation

- Evaporation is change of liquid state of water into water vapour.
- It depends on amount of Temperature.

Condensation

- When water vapour changes into liquid, it is known as condensation.
- Condensation depends on two factors, Relative Humidity of Air and rate of cooling.

Forms of Condensation

(i) Clouds:

clouds are aggregation of water droplets in the air above the ground level.

Types of clouds

- Low clouds - stratocumulus, nimbostratus, cumulus, cumulonimbus, stratus and nimbus.
- Medium clouds - alto cumulus and alto stratus
- High clouds - cirrus, cirrostratus and cirrocumulus.

Importance of clouds

- All precipitation occurs from clouds.
- They help us to know various meteorological processes.
- Clouds play important role in heat budget by absorbing incoming solar radiation.
- Clouds helps to maintain temperature. without clouds days would have been hotter and nights would have been colder.

(ii) Dew:

- During winter when the objects such as flowers, leaves, grass etc comes in contact with cool air holding moisture, it condenses and forms tiny droplets of water known as dew.

(iii) Frost:

- when in winter, the temperature falls below the freezing point, then the water droplets on any object freeze and becomes crystal of ice, known as frost.

(iv) Fog:

- when the water vapor present in air condenses in air near the surface of the earth. This causes fog.
- Fog is also formed when warm and moist air moves along the surface of colder region and its temp. goes down to dew point.

(v) Mist

- when fog is less dense or intense and it has visibility of 2kms, it is known mist.