



## Daily Subject wise Quiz Day 38 Geography VII (Online Prelims Test)

1) Which of the following statements are correct about Temperature?

1. Interaction of insolation and earth's surface creates heat, molecular movement of particle which is measured as temperature
2. Latitude and Altitude of a place are only factors that influence temperature of the place
3. Normally temperature decreases with increase in elevation called normal Lapse rate

Select the correct answers using the codes given below

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. All of the above

Answer : b

### Temperature



It is influenced by the following

1. Latitude of place - Temp depends of insolation
2. Altitude of place - Near sea level have higher temperature, rate of decrease is 6.5 % per 1000m
3. Distance from sea and mass circulation - Sea gets heated slowly and land gets heated quickly causing land and sea breeze
4. Air mass and presence of warm and cold current - Affects temperature places closes to warm current record higher temperature

2) Which of the following statements are correctly correct about Humidity

1. Absolute humidity represents the actual amount of moisture present in the air
2. Relative humidity increases with increase in temperature while it decreases with decrease in temperature

Select the correct answers using the codes given below

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

### Humidity

- Absolute humidity represents the actual amount of moisture present in the air.
- Absolute humidity is ratio between the weights of vapour per unit volume of air expressed as gram per cubic metre of air.
- Absolute humidity remains constant with change in temperature.
- Relative humidity is the ratio between the amount of moisture, which the air can hold at a given temperature, and the amount it actually holds.
- Relative humidity increases with increase in temperature, while it decreases with decrease in temperature

3) Consider the following statements with respect to heating and cooling of the atmosphere

1. Advection is the vertical movement of air which expands and rises after being heated by radiation or conduction at lower layers of atmosphere.
2. Convection is the transfer of heat through horizontal movement of air (wind).

Which of the above statements is/are incorrect?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

## Heating and cooling of Atmosphere

- The different ways of heating and cooling of the atmosphere are as follows
- **Terrestrial Radiation:** The earth's surface after being heated up by the insolation, starts to radiate energy to the atmosphere in the form of long waves.
- The long-wave radiation is absorbed by the atmospheric gases particularly by carbon dioxide and other greenhouse gases.
- **Conduction:** It is the transfer of heat at the zone of contact between earth's surface and atmosphere.
- **Convection:** It is the vertical movement of air which expands and rises after being heated by radiation or conduction at lower layers of atmosphere.
- **Advection:** It is the transfer of heat through horizontal movement of air (wind).

4) Which of the following statements are correct with respect to the Heat budget of Earth

1. The surplus heat energy from the tropics is redistributed towards the pole
2. Roughly 55% of insolation are reflected back to space even before reaching the earth's surface

Select the correct answers using the codes given below

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

## Heat Budget of Earth

- 65 units are absorbed by earth, in which 14 within atmosphere and 51 by earth's surface.
- Roughly around 35 units are reflected back to space even before reaching the earth's surface,

Reflected amount of radiation is known as albedo

- Some latitude have surplus heat budget, while others have deficit heat budget
- The surplus heat energy from the tropics is redistributed towards the pole, so tropics are not heated by surplus heat accumulation.

5) Consider the following statements with respect to Isotherms

1. The isotherms are lines joining places having equal temperature
2. In January the isotherms deviate to the south over the ocean and to the north over the continent in the northern hemisphere

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

## **Isotherm**

1. It is the line joining places of equal temperature
2. Isotherms are parallel to latitude deviation, it is more in jan than july mainly in northern hemisphere.
3. Deviation is northward over ocean and southward over continent in North Atlantic Ocean
4. Presence of warm ocean currents, Gulf stream and North Atlantic drift makes north atlantic ocean warmer and the isotherms bend towards the north

