

TD°03 : Climate Factors**1. Latitude is defined as:**

- a) The distance east or west of the Prime Meridian
- b) The distance north or south of the Equator
- c) The distance from the poles
- d) The angular distance north or south of the earth middle, expressed in degrees

2. At what latitude is the Tropic of Cancer located?

- a) 0°
- b) 23°S
- c) 23°N
- d) Where the Sun is overhead on the June solstice.

3. When is the Earth closest to the Sun?

- a) July 4 (Aphelion)
- b) January 3 (Perihelion)
- c) March 21 (Equinox)
- d) December 21 (Solstice)

4- Which region receives the greatest insolation on average?

- a) The poles
- b) The tropics
- c) The subtropical deserts
- d) The equator

5- The obliquity corresponds to:

- a) The inclined angle of 23°27' of the Earth orbit
- b) The angle between the Earth's axis of rotation and a plane perpendicular to the plane of its orbit
- c) It takes 23 hours and 56 minutes.
- d) The earth orbit situation that leads to seasonal changes and hemispheric differences.

6. At the Equator, the day and night durations are :

- a) Day and night are roughly equal (12 hours each) all year
- b) Equal only at solstices
- c) Unequal all year
- d) Shorter than 12 hours

- True or False

-In a sub-equatorial climate, rainfall is evenly distributed throughout the year.

-Deserts are typical of tropical climates.

-Higher altitudes receive less insolation than lower altitudes.

-Urbanization can reduce local temperatures due to shade and vegetation.

• Fill the blank

- receive the maximum.....due to low cloud cover.
- The Earth is closest to the Sun at and farthest at
- The polar climate is dominated by throughout the year.
- The is located at 0° latitude.
- The is the southern latitude where the Sun is overhead on the

• Complete the table :

	Equatorial Climate	Sub-Equatorial Climate
Temperature		
Rainfall		
Seasons		
Example region		

1. Define insolation.
2. Explain why the tropics receive more insolation than the poles.
3. How does cloud cover influence temperature?
4. Explain why tropical regions have deserts.
5. What are the main characteristics of an equatorial climate?
6. What causes temperature variations in sub-tropical climates during winter?