

**Thiruvananthapuram Educational District**

AK-2-SS102(E)

**Social Science (STD-10)****Answer Key -2****1****Seasons and Time****2****In Search of the Source of Wind**

1

- (a) International Date Line
- (b) winter
- (c) Cyclones
- (d) Loo

2

a) The parallelism is maintained same throughout the revolution the position of the sun in relation to the Earth varies apparently between Tropic of Cancer and Tropic of Capricorn. This is known as the apparent movement of the Sun

b)

June 21

The sun is vertically over the Tropic of Cancer  
Longest day and shortest night in the northern hemisphere  
Shortest day and longest night in the southern hemisphere

September 23

Sun is vertically over the equator



Equal amount of Sunlight is received in the northern hemisphere as well as in the southern hemisphere

The length of day and night will be equal both the hemisphere

December 22

The sun is vertically over the tropic of Capricorn

Longest night and shortest day in the northern hemisphere

Shortest night and longest day in the southern hemisphere

c)

A Equinoxes

B June 21

C Equator

D December 22

3

The Earth rotates from west to east

It takes 24 hours to complete one rotation

As the Earth rotates from west to east, the Sun rises in the east

4 Greenwich time

This line passes through the Royal British Observatory in Greenwich

Time is calculated worldwide is based on the Greenwich line. Hence this line is also known as the prime meridian.

The local time at the prime meridian is known as the Greenwich Mean Time.

Based on the Greenwich line, the world is divided into 24 time zones.

Standard Time



The time difference between the Indian Standard Time and the Greenwich Mean Time is 5 hours 30 minutes

The longitudinal extent of India is from 68°E to 97°E.

The 82 1/2° E longitude is considered as the standard meridian of India.

The local time along this longitude is known as the Indian Standard Time.

5

- The atmospheric pressure decreases as the temperature increases
- The atmospheric pressure increases as the temperature decreases
- The temperature and the atmospheric pressure are inversely proportional
- Humidity is the quantity of water present in the atmosphere
- If the quantity of water vapour is more, the atmospheric pressure will be less.
- The humidity and atmospheric pressure are inversely proportional.

6

The Rockie Mountain	-Chinook
The Alps Mountain	-Foehn
The Sahara desert	-Harmattan
South India	-Mango showers

7

Cyclones

→ Cyclones are caused by the formation of low atmospheric pressure at the centre surrounded by high pressure regions.

→ Strong whirl winds blow towards such low pressure centres from the surrounding high pressure areas.



→ Due to Coriolis effect winds flow in the anti-clockwise direction in the Northern Hemisphere and in the southern Hemisphere.

### Anti cyclones

→ Anti cyclones are phenomenon where strong whirl winds blow from the high pressure centres to the surrounding low pressure areas.

→ Due to Coriolis effect the pattern of winds in anti cyclones is clockwise in the Northern Hemisphere and anticlockwise in the Southern Hemisphere.

- 8A Pressure gradient force
- B Coriolis force
- C Friction

- 9
- Sub tropical high pressure belt
  - Sub polar low pressure belt
  - Polar high pressure belt

- 10
- A) Land and sea breeze
  - Mountain and valley breeze
  - B) monsoon.
  - C)
    - Coriolis force
    - Differences in heating