

IASbaba's Daily Prelims Test [Day 51]

TOPIC: Geography – Atmosphere (Wind System, Clouds and Precipitation etc), India Year Book and Current Affairs

1. The atmosphere is a gaseous envelope which surrounds Earth's surface.

Consider the following statements regarding the Earth's atmosphere.

- 1) Rotation of Earth helps in binding of atmosphere to Earth's surface.
- 2) It sustains life on the Earth by not allowing Earth to become too hot or too cold.
- 3) Content of water vapour increases from the equator towards the poles.

Choose the correct statement/s from the following code.

- 1) 1, 2 only.
- 2) 2 only.
- 3) 2, 3 only.
- 4) All the above.

Answer: 2

Rotation of earth induces centrifugal force which pushes any object away from the Earth's surface. Thus rotation doesn't help atmosphere to bind to Earth's surface.

Atmosphere filters the harmful rays from the Sun and also helps in controlling the temperature so that life can be sustained.

Content of water vapour is highest near to surface of the Earth ie upto some 5 kms from the surface, beyond that it reduces drastically.

2. Troposphere being the weather layer is the most important layer.

Consider the statements regarding this weather layer.

- 1) The height of the troposphere increases from Equator to the Poles.
- 2) The height of the troposphere is comparatively more during the summer season than in the winter season.
- 3) The height of the troposphere doesn't get affected by the change in seasons.

Choose the correct statement/s from the following code.

- 1) 2 only.
- 2) 1, 3 only.
- 3) 2, 3 only.
- 4) 3 only.

Answer: 1

Because of the strong convection in the Equatorial region, the tropopause is pushed upward there by increasing the height of troposphere in the Equators while it is not the case in the Poles.

During summer season, the air gets heated up and creates low pressure on the ground thus increasing the pressure gradient which propels the air movements upwards and in turn pushing the tropopause upwards.

3. Consider the following

1. These clouds are one of the highest clouds in the atmosphere
2. They are also called thunderheads and produce rains, thunder and lightning

Select the correct answer based on above statements

1. Stratocumulus
2. Cumulonimbus
3. Nimbostratus
4. Cirrocumulus

Answer- 2

4. Consider the statements regarding insolation which is nothing but the radiant energy received from the Sun in the form of heat and light.

- 1) Insolation received on the surface of the Earth decreases from Equator to the Poles.
- 2) During Summer Solstice, maximum insolation received at the ground surface is between the 30 to 40 degree South latitudes.
- 3) Insolation received is comparatively higher in the outer limit of the atmosphere than that is on the surface of the Earth.

Choose the correct statement/s from the following codes.

- 1) 1, 2 only.
- 2) 2, 3 only.
- 3) 1, 3 only.
- 4) All the above.

Answer: 3

Solar rays will have to travel longer distance to reach the polar region than the Equatorial regions thus large amount of energy is lost due to scattering, diffraction, reflection etc. thus higher insolation is experienced in the equatorial region.

Similarly the insolation is higher in the outer limits of the atmosphere.

In the second statement, the latitudes should have been North rather than South.

5. Generally the incoming Solar radiations are absorbed, scattered and reflected in the atmosphere. Based on the above statement which of the following is/are correctly matched?

- 1) Clouds --- reflection.
- 2) Atmospheric gases --- scattering.
- 3) Dust particles, haze --- absorption.

Choose the correct code from the codes below.

- 1) 1 only.
- 2) 1, 2 only.
- 3) 1, 3 only.
- 4) All the above.

Answer: 1

Atmospheric gases especially green house gases absorb radiations and heat up the atmosphere. Dust particles and haze are largely involved in the scattering of the light.

6. Consider the statements regarding the cyclones.

- 1) In a cyclone, the air circulation is anti-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
- 2) Tropical cyclones being embedded in the Trade winds, in general move from East to West.
- 3) Temperate cyclones being embedded in the Westerlies, in general move from West to East.

Choose the correct statement/s from the following codes.

- 1) 1, 2 only.
- 2) 2, 3 only.
- 3) 1, 3 only.
- 4) All the above.

Answer: 4

7. The atmospheric temperature significantly varies in its distribution pattern. The factors that are the reason for this variability include

- 1) Sign of latitude.
- 2) Land and water distribution.
- 3) Oceanic currents.

Choose the correct reason from the following codes.

- 1) 1, 2 only.
- 2) 2, 3 only.
- 3) 1, 3 only.
- 4) All the above.

Answer: 4

Apart from the three mentioned, the variability is also the effect of prevailing winds, cloud cover and altitude.

8. Temperature anomaly is the deviation of temperature either more or less than the average of the surrounding region.

Consider the statements regarding the same.

- 1) Positive anomaly is the record of higher temperature than the normal which is identified over the land in lower latitudes during day time.
- 2) Negative anomaly is the record of lower temperature than the normal which is identified over the sea in higher latitudes during night time.

Choose the correct statement/s from the following.

- 1) 1 only.
- 2) 2 only.
- 3) Both the above.
- 4) None of the above.

Answer: 1

Negative anomaly cannot be seen in higher latitudes over the waters during day time rather than night time.

9. The extreme cold winters in the Central low lands of U.S.A is due to a particular polar wind.

Which is that wind?

- 1) Loo.
- 2) Blizzard.
- 3) Harmattan.
- 4) Chinook.

Answer: 2.

Loo is a local seasonal wind that blows in summers in the Northern India.

Harmattan wind blows in Saharan region. It blows from the Northeast and from East to West in the Saharan region.

Chinook blows down the slope from the Rocky mountain in the U.S.A. The winds descending from the mountains get heated up adiabatically and reduce the severity of the winters in the foot hill region.

10. Temperature in the Stratosphere increases because of the presence of Ozone.

This Ozone _____ the sunlight

- 1) Absorbs.
- 2) Scatters.
- 3) Reflects.
- 4) None of the above.

Answer: 1

11. Consider the statements

1. Uniform Civil Code is mentioned under Article 46, Directive Principle of States Policy.
2. Indian States are still to come to its adoption

Chose the correct statement/s

1. Only 1
2. Only 2
3. Both
4. None

Answer- 4

UCC is mentioned under Article 44 not 46. GOA is the only state to have UCC, so statement 2 is also incorrect

12. Consider the following

1. Parliament
2. States Legislatures
3. Supreme Court
4. Union Territory Legislature

'STATUTES' are enacted by

1. 1, 2 and 3
2. 1, 3 and 4
3. 1, 2 and 4
4. 1, 2, 3 and 4

Answer- 3

Statutes are enacted by Parliament, State Legislatures and Union Territory Legislatures.

13. Consider the following statements regarding Jurisdiction of Supreme Court

1. The appellate jurisdiction of the Supreme Court can be invoked by a certificate granted by the President of India concerned under Article 134 of the Constitution in both civil and criminal cases.
2. The Supreme Court has special advisory jurisdiction in matters which may specifically be referred to it by the President of India under Article 143 of the Indian Constitution.
3. The dispute Indian and Bangladesh on Water Treaty comes under Original Jurisdiction of Supreme Court of India

Select the WRONG statement/s

1. 1 and 2
2. 2 and 3
3. 1 and 3
4. 1, 2 and 3

Answer- 3

Statement 1- Under Article 134 of the Constitution of India in criminal cases, an appeal shall lie to the Supreme Court from the decision of a High Court, if the High Court. So statement should be-

‘The appellate jurisdiction of the Supreme Court can be invoked by a certificate granted by the High Court concerned under Article 134 of the Constitution in both civil and criminal cases’.

Statement 3 is wrong

14. Consider the following

1. Fire Service
2. Home Guards
3. CISF
4. Police
5. Civil Defence

Which of the above comes under Law Enforcement Agencies of India?

1. 1, 2, 3 and 5
2. 2, 4 and 5
3. 2, 3, 4 and 5
4. 1, 2, 3, 4 and 5

Answer- 4

15. Consider the following countries

1. Algeria
2. Mexico
3. Libya
4. Egypt
5. Mali

Arrange the countries (West to East) through which Tropic of cancer passes.

1. 2-5-1-3-4
2. 5-1-2-4-3
3. 3-1-4-2-5
4. 2-1-5-4-3

Answer- 1