

Q.38) Consider the following statements

1. A cyclone dissipates after reaching landmass because of friction and the lack of moisture over land.
2. Jet streams are the strongest in both the northern and southern hemispheres in winters.
3. Clouds form when the temperatures fall below the dew point.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 only
- d) 1, 2 and 3

Q.39) Which of the following statements with reference to tides is correct?

- a) Tides are generated due to the difference between the gravitational attraction of the moon and the centrifugal force.
- b) Diurnal tidal cycle is when one high and one low tide occurs every day in a month.
- c) Neap tides occur when the sun, the moon and the earth are in a straight line.
- d) During Spring tides, the gravitational forces of the sun and moon tend to counteract one another.

Q.40) Consider the following:

1. Electromagnetic radiation
2. Geothermal energy
3. Gravitational force
4. Plate movements
5. Rotation of the earth
6. Revolution of the earth

Which of the above are responsible for bringing dynamic changes on the surface of the earth?

- a) 1, 2, 3 and 4 only
- b) 1, 3, 5 and 6 only
- c) 2, 4, 5 and 6 only
- d) 1, 2, 3, 4, 5 and 6

Q.41) Consider the following statements with reference to the albedo of the Earth:

1. Sea ice has a higher albedo compared to other Earth surfaces, such as the surrounding ocean.

2. If the average albedo is lower than the previous year's albedo, it specifies that the amount of solar radiation absorbed is higher.

3. An increase in global temperature largely increases Earth's albedo.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.42) Which of the following is/are the favourable conditions for the inversion of temperature to occur in the atmosphere?

1. Long winter nights
2. Cloudless and clear sky
3. Dry air near the ground surface
4. Snow covered ground surface

Select the correct answer using the codes given below:

- a) 3 only
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Q.43) With reference to Ocean waves, which of the following statements is/are correct?

1. Wind causes waves to travel in the ocean and the energy is released on shorelines.
2. Steep waves are young waves mostly formed by local wind.
3. The maximum wave height is determined by the strength of the wind.

Select the correct answer from the options given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3