



2025 Prelims Environment Report Card

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**Total Questions = 11
Hits = 4
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PrepMate IAS

Q1. Consider the following statements:

Statement I:

Circular economy reduces the emissions of greenhouse gases.

Statement II:

Circular economy reduces the use of raw materials as inputs.

Statement III:

Circular economy reduces wastage in the production process.

Which one of the following is correct in respect of the above statements?

- a. Both Statement II and Statement III are correct and both of them explain Statement I
- b. Both Statement I and Statement II are correct and Statement I explains Statement II
- c. Only one of the Statements II and III is correct and that explains Statement I
- d. Neither Statement II nor Statement III is correct

Correct Option: (a) Both Statement II and Statement III are correct and both of them explain Statement I

Environment Notes, Chapter 8 Sustainable Development, Page 241

Circular economy approach is based on sharing, leasing, reducing, reusing, repairing, refurbishing and recycling of resources. It is called 'circular' as the resources are used in a near closed loop with minimal leakage. When the same resource is used in a circular manner, the demand for new resources is minimised. The circular economy approach treats waste as a resource and focuses on a restorative industrial system. In other words, at the end of the lifecycle of the product, efforts are made to keep the materials within the production loop, instead of discarding the product.

Q2. Consider the following statements:

Statements I:

Activated carbon is a good and an attractive tool to remove pollutants from effluent streams and to remediate contaminants from various industries.

Statements II:

Activated carbon exhibits a large surface area and a strong potential for adsorbing heavy metals.

Statements III:

Activated carbon can be easily synthesized from environmental wastes with high carbon content.

Which one of the following is correct in respect of the above statements?

- a. Both Statements II and Statement III are correct and both of them explain Statement I
- b. Both Statement II and Statement III are correct but only one of them explains Statement I
- c. Only one of the Statements II and III is correct and that explains Statement I
- d. Neither Statement II nor Statement III is correct

Correct Option: (a)

Q3. Consider the following statements:

Statements I:

Studies indicate that carbon dioxide emissions from cement industry account for more than 5% of global carbon emissions.

Statements II:

Silica-bearing clay is mixed with limestone while manufacturing cement.

Statement III:

Limestone is converted into lime during clinker production for cement manufacturing.

Which one of the following is correct in respect of the above statements?

- a. Both Statements II and Statement III are correct and both of them explain Statement I
- b. Both Statement II and Statement III are correct but only one of them explains Statement I
- c. Only one of the Statements II and III is correct and that explains Statement I
- d. Neither Statement II nor Statement III is correct

Correct Option: (b)

Q4. Consider the following statements:

Statement I:

At the 28th United Nations Climate Change Conference (COP28), India refrained from signing the 'Declaration on Climate and Health'.

Statement II:

The COP28 Declaration on Climate and Health is a binding declaration; and if signed, it becomes mandatory to decarbonize health sector.

Statement III:

If India's health sector is decarbonized, the resilience of its health-care system may be compromised.

Which one of the following is correct in respect of the above statements?

- Both Statements II and Statement III are correct and both of them explain Statement I
- Both Statement II and Statement III are correct but only one of them explains Statement I
- Only one of the Statements II and III is correct and that explains Statement I
- Neither Statement II nor Statement III is correct

Correct Option: (d)

Source: Monthly Current Affairs January 2024 Edition, Page 117

How did India fare at COP-28?

The UAE declaration on climate and health came into being at COP-28 through a partnership of the COP-28 Presidency with the World Health Organization. It recognises the growing health impacts of climate change and acknowledges the benefits of climate action, including a reduction in air pollution and lowering the cost of healthcare. The declaration, signed by 123 countries, has collectively committed \$1 billion to address the growing climate-health crisis. However, India didn't sign this declaration because reducing greenhouse gas (GHG) emissions in the health sector would mean reduction in emissions from gases used for cooling. As India's healthcare

infrastructure is still growing, such a commitment could compromise the healthcare requirements of a growing population, particularly rural.

Q5. Consider the following statements:

Statement I:

Article 6 of the Paris Agreement on climate change is frequently discussed in the global discussions on sustainable development and climate change.

Statement II:

Article 6 of the Paris Agreement on climate change sets out the principles of carbon markets.

Statement III:

Article 6 of the Paris Agreement on climate change intends to promote inter-country non-market strategies to reach their climate targets.

Which one of the following is correct in respect of the above statements?

- a. Both Statements II and Statement III are correct and both of them explain Statement I
- b. Both Statement II and Statement III are correct but only one of them explains Statement I
- c. Only one of the Statements II and III is correct and that explains Statement I
- d. Neither Statement II nor Statement III is correct

Correct Option: (a)

Q6. Regarding Peacock tarantula (Gooty tarantula), consider the following statements:

- I. It is an omnivorous crustacean.
- II. Its natural habitat in India is only limited to some forest area.
- III. In its natural habitat, it is an arboreal species.

Which of the statements give above is/are correct?

- a. I only
- b. I and III
- c. II only
- d. II and III

Correct Option: (d)

Q7. Consider the following statements:

- I. Carbon dioxide (CO₂) emissions in India are less than 0.5 t CO₂/capita.
- II. In terms of CO₂ emissions from fuel combustion, India ranks second in Asia-Pacific region.
- III. Electricity and heat producers are the largest sources of CO₂ emissions in India.

Which of the statements given above is/are correct?

- I. I and III only
- II. II only
- III. II and III only
- IV. I, II and III

Correct Option: (c)

Q8. Consider the following pairs:

Plant	Description
1. Cassava :	Woody shrub
2. Ginger :	Herb with pseudostem
3. Malabar spinach:	Herbaceous climber
4. Mint :	Annual shrub
5. Papaya :	Woody shrub

How many of the above pairs are correctly matched?

a. Only two

b. Only three

c. Only four

d. All the five

Correct Option: (b)

Q9. With reference to the planet Earth, consider the following statements:

- I. Rain forests produce more oxygen than that produced by oceans.
- II. Marine phytoplankton and photosynthetic bacteria produce about 50% of world's oxygen.
- III. Well-oxygenated surface water contains several folds higher oxygen than that in atmospheric air.

Which of the statements given above is/are correct?

- a. I and II
- b. II only
- c. I and III
- d. None of the above statements is correct

Correct Option: (b)

Q10. Artificial way of causing rainfall to reduce air pollution makes use of

- a. Silver iodide and potassium iodide
- b. Silver nitrate and potassium iodide
- c. Silver iodide and potassium nitrate
- d. Silver nitrated and potassium chloride

Correct Option: (a)

Environment, Page 47

What Is Cloud Seeding?

Seeding involves spraying chemicals into clouds. Cloud seeding is a form of weather modification. It is a way of changing the amount or type of precipitation that falls from clouds, by dispersing substances into the air that serve as cloud condensation or ice nuclei, which alter the microphysical processes within the cloud. The usual intent is to increase precipitation (rain or snow), but hail and fog suppression are also widely practiced in airports.

How Does It Work?

The most common chemicals used for cloud seeding include silver iodide, potassium iodide and dry ice (solid carbon dioxide). Liquid propane, which expands into a gas, has also been used. This can produce ice crystals at higher temperatures than silver iodide. After promising research, the use of hygroscopic materials such as table salt, is becoming more popular.

Introduction of a substance such as silver iodide, which has a crystalline structure similar to that of ice, induces freezing nucleation (molecules gathering in clusters). In mid-latitude clouds, the usual seeding strategy has been based on the fact that the equilibrium vapour pressure is lower over ice than over water. The formation of ice particles in super-cooled clouds allows those particles to grow at the expense of liquid droplets. If sufficient growth takes place, the particles become heavy enough to fall as precipitation from clouds that otherwise would produce no precipitation. This process is known as 'static' seeding.

Beginning of Cloud Seeding

China used this technique during the 2008 Olympics to steer rain away from the inaugural venue and now it has a full-fledged department that blasts rockets into clouds to induce rain and control pollution.

Prelims 2025 Questions**PrepMate IAS Notes - Hits**

Q11. The World Bank warned that India could become one of the first places where wet-bulb temperatures routinely exceed 35°C. Which of the following statements best reflects(s) the implication of the above-said report?

- I. Peninsular India will most likely suffer from flooding, tropical cyclones and droughts.
- II. The survival of animals including humans will be affected as shedding of their body heat through perspiration becomes difficult.

Select the correct answer using the code given below.

- a. I only
- b. II only
- c. Both I and II
- d. Neither I nor II

Correct Option: (c)

Usual effects of climate change