



- **Statement 1 is correct:** Rainmaking, also known as artificial precipitation, artificial rainfall and pluvioculture, is the act of attempting to artificially induce or increase precipitation, usually to stave off drought or the wider global warming. According to the clouds' different physical properties, this can be done using airplanes or rockets to sow to the clouds with catalysts such as dry ice, silver iodide and salt powder, to make clouds rain or increase precipitation, to remove or mitigate farmland drought, to increase reservoir irrigation water or to solve the global warming problem.
- **Statement 2 is incorrect:** Cloud seeding and Artificial Rain can only be done if the meteorological conditions for the are suitable, and if the moisture content in the local atmosphere meets the requisite criteria. However, it can only provide immediate symptomatic relief in terms of suppressing the pollutants present in the air. Ultimately, if the sources of the pollutants, i.e. vehicles, industry and construction are allowed to emit unabated, artificial rains through cloud seeding will have only a limited and temporary impact.

**Q.31) Ans: C**

**Exp:**

- **Statement 1 is incorrect:** Kigali Amendment has divided the signatory parties into three groups-
  - Group I - rich and developed economies like the USA, UK and EU countries who will start to phase down HFCs by 2019 and reduce it to 15% of 2012 levels by 2036.
  - Group II -emerging economies like China, Brazil as well as some African countries who will phase down by 2024 and reduce it to 20% of 2021 levels by 2045.
  - Group III - developing economies and some of the hottest climate countries like India, Pakistan, Iran, Saudi Arabia who will start phasing down HFCs by 2028 and reduce it to 15% of 2024-2026 levels till 2047.
- **Statement 2 is correct:** HFCs are refrigerants used in air conditioning and refrigeration systems. They are **potent greenhouse gases with global warming potential (GWP) thousand times more than carbon dioxide (CO<sub>2</sub>).** The Montreal Protocol was signed to eliminate the use of chemicals that caused the ozone hole. However, the replacement for the

ozone-depleting chemicals was HFCs, which caused global warming. At the Kigali meeting, the world agreed to reduce the use of HFCs and move to refrigerants that neither cause global warming nor create an ozone hole.

- **Statement 3 is correct:** Kigali Amendment strengthens the Paris Agreement which sets an ambitious target of restricting the rise in global temperature below 20 Celsius, as compared to pre-industrial level. Unlike the Paris agreement, Kigali Amendment to the Montreal Protocol is legally binding with mandatory HFC reduction targets for countries. It gives clear, concrete and mandatory targets with fixed timelines to the signatory parties to achieve their targets.

**Q.32) Ans: C**

**Exp:**

- **Statement 1 is correct:** The term carbon negative takes the concept of carbon neutrality a step further. Where carbon neutral is an equal balance between the carbon dioxide you emit into the atmosphere and how much you remove from it, **carbon negative means you remove more carbon dioxide from the atmosphere than you emit.** The government of **Bhutan is the only country** in the world to make such a switch and the first country to become carbon negative.
- **Statement 2 is incorrect:** Carbon neutrality, or having a net zero carbon footprint, refers to achieving net zero carbon emissions by balancing a measured amount of carbon released with an equivalent amount sequestered or offset, or buying enough carbon credits to make up the difference.
- **Statement 3 is incorrect:** **Greenwashing is the process of conveying a false impression or providing misleading information about how a company's products are more environmentally friendly.** Companies apply greenwashing techniques to the promotion of their products in order to appeal to the environmentally-conscious consumer so that they can gain market share and a competitive advantage over their rivals. It is a deceitful advertising gimmick.

**Q.33) Ans: B**

**Exp:**

- **Statement 1 is correct:** The **Paris Agreement** is an agreement within the United Nations Framework Convention on Climate Change (**UNFCCC**), on climate change mitigation, adaptation, and