

**PRESTORMINGTM 2022**  
**TEST – 18 ENVIRONMENT II (SOLUTION)**

<b>HFC Emissions</b>	According to the United Nations Environment Programme (UNEP), overall HFC emissions are growing at a rate of 8 percent per year, and the annual emissions are projected to rise to 7-19 percent of global CO <sub>2</sub> emissions by 2050.
<b>Effect of HFC</b>	HFCs don't deplete the ozone layer, but they have a high global warming potential (GWP) of 12 to 14,000. Global warming potential is a value assigned to represent the amount of heat trapped by it, relative to the amount of heat trapped by a similar mass of carbon dioxide. The GWP of carbon dioxide, the primary greenhouse gas due to human emissions, is 1.
<b>Vienna Convention</b>	The Convention was the first international agreement dedicated to protecting the ozone layer. But the agreement made no enforceable rules, neither did it enact any control measures.
<b>Montreal Protocol</b>	Unlike the Vienna Convention, the Montreal Protocol lays down legally binding and measurable agreements with specific timelines for high-income and low-income countries to follow. It mandated the complete phase-out of CFCs and HCFCs, for example, and made provisions for control measures, monitoring of trade, and annual reporting of data on ozone-depleting substances.
<b>Kigali Amendment</b>	The Montreal Protocol was never meant to be a tool to combat climate change, but it has become one with the Kigali Amendment. The phase-down of HFCs under the amendment is expected to prevent the emission of up to 105 million tonnes of carbon dioxide by 2100, which in turn will help avoid an up to 0.5-degree rise in global temperatures above pre-industrial levels. Like the Montreal Protocol, targets in the Kigali Agreement have been staggered for high- and low-income countries.

**12. Correct Answer D**

**EXPLANATION:**

The India Cooling Action plan (ICAP) was launched in March 2019 by the Ministry of Environment, Forests, and Climate Change. The ICAP provides a 20-year perspective and outlines actions needed to provide access to sustainable cooling that protects the ozone layer. <b>So, Statement 1 is correct.</b>
The India Cooling Action seeks to (i) reduce cooling demand across sectors by 20% to 25% by 2037-38, (ii) reduce refrigerant demand by 25% to 30% by 2037-38, (iii) Reduce cooling energy requirements by 25% to 40% by 2037-38, (iv) recognize "cooling and related areas" as a thrust area of research under national S&T Programme, (v) training and certification of 100,000 servicing sector technicians by 2022-23, synergizing with Skill India Mission. These actions will have significant climate benefits. <b>So, Statements 2 and 3 are correct.</b>

**ADDITIONAL INFORMATION:**

**India Cooling Action Plan (ICAP)**

<b>Cooling Requirement</b>	The cooling requirement is cross-sectoral and an essential part of economic growth and is required across different sectors of the economy such as residential and commercial buildings, cold-chain, refrigeration, transport, and industries
<b>India's Action</b>	India is one of the first countries in the world to develop a comprehensive Cooling Action plan which has a long-term vision to address the cooling requirement across sectors and lists out actions that can help reduce the cooling demand.
<b>Objectives of ICAP</b>	The overarching goal of ICAP is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for society. This will also help in reducing both direct and indirect emissions.