lung tissue. Tropospheric ozone exposure is responsible for an estimated 150,000 premature deaths every year. Children, older adults and people with lung or cardiovascular diseases are particularly at risk of adverse health effects.

- **Statement 2 is incorrect:** Carbon dioxide has no direct effect on ozone, unlike CFCs and HFCs. Higher levels of carbon dioxide, however, do have an indirect effect on the ozone layer in the stratosphere. In the lower stratosphere -- closest to the surface and close to the equator -- increased CO^2 is slowing the production of new ozone, especially in the spring. But near the poles and in the upper stratosphere, CO^2 is increasing the amount of ozone by preventing nitrogen oxide from breaking it down.

7. Correct option: (c)

Explanation:

Treatment Methods for Waste Management

- **Landfill:** This method involves burying off the waste. These landfills are quite often conventional with deserted and vacant locations around the cities. In case, landfills or borrow pits are designed carefully they can serve as economical and quite sanitized method for waste dumping. However, not much effectively designed and older landfills can cost a big amount to the government not just in terms of money but also in the environmental and health issues. Apart from the poorly designed landfills, wind-blown debris and generation of liquid can also cause production of gas, which is extremely hazardous. This gas can be a reason for production of odour, killing surface vegetation and greenhouse effects.
- **Biological reprocessing:** Waste materials, which come in organic nature, are treated through biological reprocessing. The waste materials with organic nature are plant, food and paper products. This reprocessing or recycling of this organic matter is put to biological decomposition which later if recycled in form of mulch or compost for landscaping and agricultural purposes. Additionally, the waste gas, which is collected from the process, is used for the production of electricity. The goal behind biological reprocessing is to control and speed up the natural decomposition for organic matter. A numerous sort of composting techniques and methods for digestion are employed depending upon the requirement as if digestion is required for household heaps or industrial materials. There are diverse methods for biological reprocessing like anaerobic and aerobic techniques.
- **Recovery of Energy:** Waste materials can directly be combusted for the generation of energy as fuel or other method, indirect combustion can also be adopted for energy generation.
  - Thermal treatment for recycling purpose included burning of waste for the generation of energy used for household purpose i.e. cooking and heating while the energy from recycling can also be produced at industrial level from boilers.
  - Among thermal treatments you have two related kinds i.e. Pyrolysis and gasification. In these sorts of methods, materials are heated with little supply of oxygen at high temperature. This process is conducted in sealed vessels with high pressure.
  - **Statement 1 is incorrect:** In Pyrolysis, the solid is converted in to liquid state and liquid is converted in to gas. These products of treatment can then be used for the production of energy. The residue that is left behind is generally known as "char", which is further treated for the production of more useable products. Pyrolysis is a process of combustion in absence of oxygen or the material burnt in controlled atmosphere of oxygen. It is better than incineration. Gas and liquid thus produced can be used as fuels.
  - In Gasification however, the material to be treated is directly converted in to SynGas (synthetic gas) which has hydrogen and carbon dioxide as its components.
- **Waste to Energy (Recover Energy):** Waste to energy (WtE) process involves converting of non-recyclable waste items into useable heat, electricity, or fuel through a variety of processes. This type of source of energy is a renewable energy source as non-recyclable waste