

logistics, handling and storage, as well as opening up a wide range of potential uses.

**Q.32) Ans: a**

Exp:

- **Statement 1 is correct:** Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. It is an **international treaty that aims to reduce the movement of hazardous waste between countries.**
- **Statement 2 is incorrect: Basel agreement is not legally binding.** It particularly focuses on preventing transfer of hazardous waste from developed to less developed countries.
- Recently, the 14th meeting of the Basel Convention, which lays down guidelines on the movement of hazardous waste, concluded in Geneva on the 10th May, 2019 after two weeks of negotiations involving 187 countries.
- **The Geneva meeting amended the 1989 Basel Convention on the control of hazardous wastes to include plastic waste in a legally-binding framework.** The new amendment would empower developing countries to refuse “dumping plastic waste” by others.
- The meeting also undertook to eliminate two toxic chemical groups — **Dicofol and Perfluorooctanoic Acid**, plus related compounds. The latter has been used in a wide variety of industrial and domestic applications including non-stick cookware and food processing equipment, as well as carpets, paper and paints.

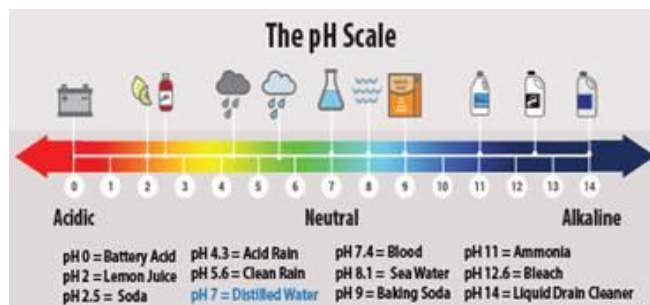
**Q.33) Ans: d**

Exp:

## About Acid Rain

- Acid rain results when **sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>)** are emitted into the atmosphere and transported by wind and air currents. The **SO<sub>2</sub> and NO<sub>x</sub> react with water**, oxygen and other chemicals to **form sulfuric and nitric acids**. These then mix with water and other materials before falling to the ground.
- Winds can blow SO<sub>2</sub> and NO<sub>x</sub> over long distances and across borders making acid rain a problem for everyone and not just those who live close to these sources.

- While a small portion of the SO<sub>2</sub> and NO<sub>x</sub> that cause acid rain is from natural sources such as volcanoes, most of it comes from the burning of fossil fuels. The major sources of SO<sub>2</sub> and NO<sub>x</sub> in the atmosphere are:



- Burning of fossil fuels to generate electricity.
- Two thirds of SO<sub>2</sub> and one fourth of NO<sub>x</sub> in the atmosphere come from electric power generators.
- Vehicles and heavy equipment.
- Manufacturing, oil refineries and other industries.
- Acidity and alkalinity are measured using a pH scale for which 7.0 is neutral. The lower a substance's pH (less than 7), the more acidic it is; the higher a substance's pH (greater than 7), the more alkaline it is. Normal rain has a pH of about 5.6; it is slightly acidic because carbon dioxide (CO<sub>2</sub>) dissolves into it forming weak carbonic acid. Acid rain usually has a pH between 4.2 and 4.4.

**Q.34) Ans: c**

Exp:

- **Eutrophication**, the gradual increase in the concentration of phosphorus, nitrogen, and other plant nutrients in an aging aquatic ecosystem such as a lake. The productivity or fertility of such an ecosystem naturally increases as the amount of organic material that can be broken down into nutrients increases.
- The most common nutrients causing eutrophication are nitrogen N and phosphorus P. The main source of nitrogen pollutants is run-off from agricultural land, whereas most phosphorus pollution comes from households and industry, including phosphorus-based detergents.
- **Option A relates to the process of Bioaccumulation**, which is the gradual accumulation of substances, such as pesticides or other chemicals, in an organism. Bioaccumulation occurs when an organism absorbs a substance at a