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ECE – A

Environmental
Science – 18CYM101T

Assignment - I

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1. What is Air Pollution?

Air pollution refers to the release of pollutants into the air - pollutants which are detrimental to human health and the planet as a whole.

Air pollution is broken down into ambient (outdoor) air pollution and indoor air pollution.

2. This pollution comes from many sources, the majority of them a result of human activity.

- a) The burning of fossil fuels, such as coal to generate electricity for homes and businesses, or petrol and diesel to power our cars, buses, ships and planes.
- b) Industrial processes, particularly from the chemical and mining industries.
- c) Agriculture, which is a major source of methane and ammonia.
- d) Waste Treatment and management, particularly landfills.
- e) Dirty indoor cooking and heating systems.
- f) Volcanic eruptions, dust storms and other natural processes.

3. What pollutants are released from the sources?

These sources spew out a range of substances including Carbon Monoxide (CO), Carbon Dioxide (CO_2), Nitrogen dioxide (NO_2), Nitrogen oxide (N_2O), ground level ozone (O_3), particulate matter, Sulphur oxide (SO_2), hydrocarbons and lead - all of which are harmful to human health.

4. What is the effect of air pollution on us?

Air pollution has been called a major global health epidemic, causing one in nine of all deaths. It also has massive negative impacts (1)

on Climate change and economies

In terms of health, air pollution causes lung cancer, acute lower respiratory infection, stroke, ischaemic heart disease, chronic obstructive pulmonary disease.

Air pollution doesn't just impact human health and economic growth. It also causes global warming. Take black carbon, which is produced by diesel engines, burning trash and dirty cookstoves. It is deadly, but it is also a short-lived climate pollutant. If we were to reduce its emission, we could slow global warming by up to 0.5°C over the next few decades.

5. What Control measures can we take?

We are all part of the problem. But we are part of the solution too! By making small changes to our lives, we can play our part in clearing the air.

- a) Manage waste; Compost food and garden items. Reuse grocery bags. Never burn trash, as this contributes directly to air pollution.
- b) Cook and heat clean. Check efficiency ratings for home heating systems and cookstoves to use models that save money and protect health.
- c) Move Mindfully Use public transportation, cycle or walk. Consider switching to hybrid or electric vehicles.
- d) Rethink your energy use. Turn off lights and electronics not in use. Use Energy efficient equipment. Switch to solar energy.