

Pollution and various micro organisms assignment



The major component of the biosphere is air without which no life can survive (except some lower forms of Bacteria). Without air of good quality there cannot be a healthy life. Yet clean air is a rare commodity today. Air pollution is as old as industrialization. Discharges from industrial premises to the atmosphere are often more or less continuous during working hours.

Polluted air contains solid and liquid particles such as dust carbon, hydrocarbons etc. It may also contain gases which are poisonous or obnoxious in nature-sulfur dioxide, carbon monoxide, oxides of nitrogen, hydrocarbon vapors and other substances. The most harmful element is Benzene. Sources of Air Pollution: Firstly, air pollution may arise due to basic needs of individuals which includes domestic fire and domestic incineration which is required for cooking and heating. It is a weak and inevitable source of air pollution.

Secondly, air pollution is caused by vehicles such as road vehicles, air craft's, ships, railways and other combustion engines. With constantly increase in transportation in towns and cities with hot climate; the problem of air pollution is assuming greater importance. No doubt the number of motor vehicles in Indian cities is far less than in cities in the West, the pollution level is almost the same. This is mainly due to lack of maintenance of Indian cars and the absence of any effective deterrent to plying such cars on city roads.

Thirdly, industry is the ironical source of air pollution and it covers all types of units which consume energy in any form. It includes coal, oil, natural gas, electricity or nuclear fission. Dark smoke emitted by industries pollutes the

air in large scale. Thermal power plants pollute the air substantially. Thermal power plants in India are entirely coal fired and although the coal used in these plants is low in sulfur, it has a high ash content-often up to 40 per cent. So pollution from these plants comes mainly as fly ash although sulfur dioxide emission is also substantial. 2.

Water Pollution: Fresh water is necessary for life, but now it has become a scarce-commodity and it is getting scarcer everyday as communities, industries and agriculturists discharge their filth, muck and harmful wastes into the nearest sink. **Sources of Water Pollution:** In India, there are many sources of water pollution. Firstly community wastes for human settlements give rise to water pollution. Contrary to common belief, it has been estimated that the community wastes “ account for four times as much waste water as industrial effluents”. Most of these wastes are discharged into the water sources.

Secondly industrial effluent directly entering into a stream or through a municipal sewer or through discharge on land meant for irrigation causes water pollution. Thirdly anything stored on earth, such as, any raw material, solid refuse of a mine or quarry on any land may cause pollution by rain washing it into stream. Fourthly the use of fertilizers also causes water pollution when unused nitrogenous fertilizer is drained out of soil into lakes and rivers. Fifthly, water pollution may also be caused by air pollutants. Even groundwater is not free from pollution.

It is being pollution due to pump trade or sewage effluent into underground tract. But ground water may be polluted due to seepage or percolation from

the surface. Human wastes may cause pollution by seepage from improperly constructed or improperly placed septic tanks, Or leaking sewer lines.

Industrial wastes, including highly poisonous chemicals, may be introduced to the groundwater either by intention or accident. 3. Chemical Pollution:

When any material whether it is green, edible or dispersed, is left exposed on place, then due to reaction with light, it will start emitting gases which mix with air to pollute the air.

Similarly whether a particular material is organic or inorganic, after being chemically reacted, it gets mixed with the air and as a result it takes the shape of chemical pollution. This pollution not only affects the living being like man and animals but also cause a great damage to the ecology itself. 4.

Land Ozone Pollution: Due to various chemicals and smokes etc. Emitted in the process of industrialization, the land ozone pollution has occurred. 5.

Land and Soil Pollution: Land is the natural resource in which we get all our food. The upper surfaces of the land are full of fertility where various plants are grown.

The richness of he soil depends on various microorganisms. Among these micro-organisms various fungus etc. Are harmful for plants weeds are also harmful for crops. In order to destroy them various insecticides are used. These insecticides cause a lot of soil pollution. Various dams and canals made for irrigation purposes cause lot soil erosion. This apart increasing population, animals and dusts also contribute to the pollution of soil. 6. Food Contaminants: Due to various chemicals, bacteria etc. There occurs food contamination which is caused by period of time, temperature, moisture, radioactive fallout, sinuous plants etc. . Noise Pollution: Noise is an unwanted

sound without agreeable musical quality. Noise as pollutant produces contaminated environment which becomes a nuisance affects the health of a person, his activities and mental abilities. Sources of Noise Pollution: Sources of noise pollution may broadly be classified as (a) Industrial and (b) Non-industrial. The industrial pollution may include noises from various industries operating in cities, like transportation, vehicular movements such as car, motor, truck, train, tempo, motor cycle, aircraft, rockets, defense equipments, explosions etc.

Among the non-industrial sources, important ones are the street noise due to hawkers use of loudspeakers, thunder, demonstration etc. However, the list is not exhaustive as the number is on the increase with the industrial and technological advancement. 8. Modern Pollutions: It is an age of atoms. Various radioactive substances including computers, televisions and videos, tube lights and ionic effects are causing pollutions. Immense heat, noise etc. Are caused by these. The various types of pollutions that we have discussed so far have caused a threat to the existence of human race, plants and animals.