

Misbah Habib 339

CSS-2017
GSA

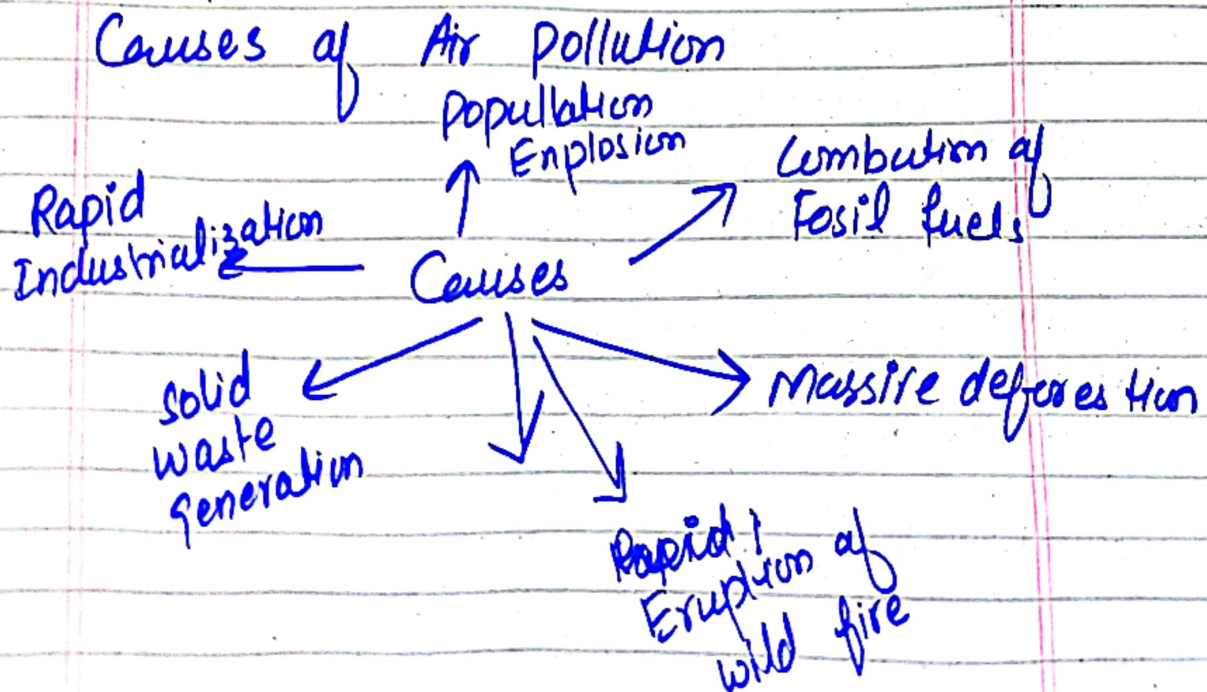
Q#2

(A) What are the factors responsible for environmental pollution?

The surrounding in which living organism survive is called environment. An alteration in the environment is called pollution.

According to world Health organization report environment pollution is the state which impacts the all living organisms (humans, animal, aquatic life and plants)

According to the world Bank report 9 million premature deaths occur due to environment pollution specifically air pollution.

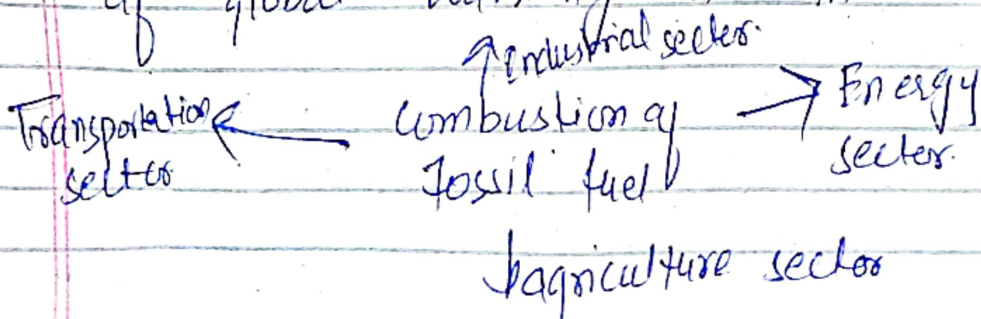


① Population Explosion

According to USA Bureau of Statistics in 1960 the population was 3 billion and in 2000 it reached to 6 billion. Now according to recent reports it reached to 8 billion. However, according to reports in next few years it is going to cross 9 billion. Rapid increase in population increase the consumption of resources and increased population required more space for accommodation which leads to deforestation. Moreover, in order to cater the demands of huge population there is need to enhance industrialization. All these factors collectively contributes towards increase in the ~~po~~ emission of Carbon dioxide.

② Combustion of fossil fuels

The rapid increase in all activities leads to combustion of fossil fuel which increase the ~~po~~ amount of CO_2 in the air which is cause of global warming. According to UN report CO_2 contribute 60% of global warming in the world.



According to IPCC (Inter provincial panel for climate change 5th assessment report. Energy causes 35%, transportation sector 17%, agriculture 25%, and industrial sector contributes 21% in the air pollution or environmental pollution.

③ Massive deforestation

According to Global Forest Watch 10 million hectare land had been deforested. Trees are considered as the carbon sink. These trees are considered as the anti carbon.

However, rapid population growth, massive urbanization and industrialization require land and it can be achieved only through deforestation which is becoming the cause of pollution.

④ Rapid urbanization

The population explosion is the cause of rapid urbanization. Due to industrialization towns are becoming cities and cities to urban centers.

According to UN report between 2014 to 2015 54% population is the urban society.

⑤ Solid Waste Generation

The solid waste emits methane and nitrous oxide. The solid waste

It is generated through domestic, market, agriculture and mining. According to World Bank report the 3.2 tons waste will be generated by 2050 due over consumption.

⑥ Eruption of wild fire

Due to global warming eruption of wild fire have been witnessed between 2018-2023. The example of Amazon fire, Australian fire and Brazilian fire. Due eruption of fire or wild fire emission of CO_2 ash and smoke increased.

⑦ Briefly explain the main reason for water logging in Pakistan

Water logging is the condition where there is the excessive water in plants roots or soil that absorbs the ~~the~~ oxygen and restrict the gaseous exchange into it and results in anaerobic situation.

Causes of water-logging condition

If the soil is porous or permeable there is more chances of water-logging condition.

3

① **Heavy Rainfall** :- Heavy rainfall may result in water logged soil that may last for days due to less porous soil

② **Intensive Irrigation**: The method of irrigation causes the rise of ground water table because water percolates deeply and soil becomes water logged

③ **Water seepage**:
Water seepage from canals due to high porous soil results in water logging

④ **Topography**
The irregular land patch or surface results in excess water accumulation

⑤ **Natural Drainage**
Clay is less permeable than other soil types. This indicates the absence of natural drainage and cause water logging

Solution
~~Effects~~ to water logging

① **lift-irrigation system**

When tube wells are used for irrigation this will help against rising water table

2 Afforestation planting trees in the areas that are prone to water logging can be possible solution to this condition

③ Drainage

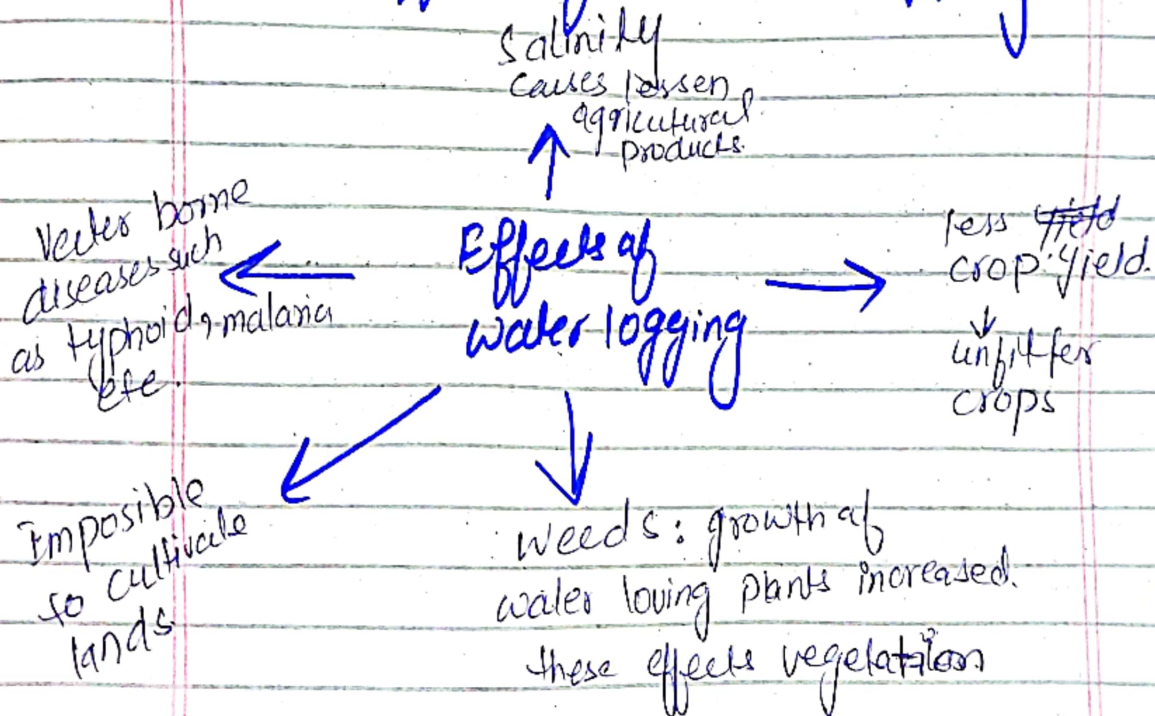
The Effective drainage system along with canals to prevent water logging

④ Prevent Intensive Irrigation

Intensive irrigation system should be avoided in areas where that become water logged

⑤ Bio-Drainage: It involves growing plants species that absorb the high quality of water.

Effects of water logging



Vectors borne diseases such as typhoid, malaria etc.

Salinity causes less agricultural products

Effects of water logging

less crop yield
unfit for crops

Impossible to cultivate lands

weeds: growth of water loving plants increased. these effects vegetation

(C)

What do you mean by ozone depletion and how can we prevent its depletion?

Ozone layer is stratosphere protect the earth from UV light which can cause many harmful diseases to humans. However, with the passage of time scientist have witnessed that ozone layer is depleting (than more) fast than the natural process. It means its ability to protect earth from UV light is decreasing day by day.

Causes of depletion of ozone layer

As atom of bromine and chlorine atoms are not are reason for depletion of ozone layer the one chlorine atoms can destroy 100,000 atoms of ozone layer. The causes of these atoms are chlorofluoro carbon and hydro chlorofluoro carbon. These are emitted at the surface of earth are damaging the ozone layer. The use spray cans, and refrigerator and use of air-conditioners there are some natural process like volcano eruption but these are not as harmful as artificial processes.

Prevention of Ozone depletion

→ less use of transportation

The less use of transportation vehicles, so there are less air pollutants in the air.

→ Disposal of halogenated hydrocarbon product through waste centres

→ less use of CFC products

The less use of CFC chlorofluorocarbons products and disposal of old refrigeration

→ Reduce the combustion of fossil fuel

The reduce of combustion of fossil fuels in industries, energy sectors and agriculture sectors

→ Conservation of Resources

The less effective and efficient use of resources or preservation of resources

→ Shift towards Renewable energy Resources

The shift towards renewable energy resources and ~~less~~ reduces the emission of carbon dioxide in the air

(3)

d) What is Acid Rain how it is produce? Briefly describe the damage of acid rain

Acid Rain is caused by chemical reaction that begin when compound of sulphur dioxide and nitrous oxide are released into the air. These substance can go very high into the air and they mix and react with water, oxygen and other chemicals to form more acidic pollutants known as acid rain.

These compound easily mixed with air and water. These two compound can travel long distances where they can become the part of the rain, snow and fog.

Causes of Acid Rain

Human activities are the main causes behind Acid rain. Over past few years humans are releasing toxic chemicals through different industries. Sulphur dioxide is released in the air through power plants. These sulphur dioxide and nitrous oxide mixed in the air and cause the acid rain.

Damages by the Acid Rain

Cause Health Damages

Sulphur dioxide and nitrous oxide cause the respiratory diseases or can make these diseases worse. Respiratory diseases like asthma, chronic bronchitis make it hard for people to

It Harms the forest

It is harmful for forest. It seeps into the ground and can dissolve the nutrients such as magnesium and calcium that trees need to be healthy.

Damages the lakes and streams

Acid rain reduces the pH level of lakes and streams. In addition, aluminium that is released into the soil ends up into the lakes and streams. Increase in acidity and aluminium is also deadly to aquatic wildlife.

Damages the Buildings and Objects

It also has the damaging impacts on the buildings, statues, monuments and cars. The acid rain can cause paint to peel and stone statues to appear old and worn down which reduces their value and beauty.

Q NO3.

(A) Explain common causes of Heart Attack

(B) Difference b/w Drug addiction and drug abuse

(C) Draw the structure of Human Ear

(D) What is the significance of Vitamins? Discuss sources, uses and deficiency of fat soluble vitamins.

(A)

The heart is also called myocardial infarction, happens when a part of heart muscle does not get the enough blood. The more time that passes without treatment is, the less blood flow, the greater loss or damage to heart muscle.

Symptoms of Heart disease

Chest pain or discomfort

Most heart attacks involve discomfort in the center or left side of the chest that lasts for more than few minutes or that goes away or come back. The discomfort is felt like uncomfortable pressure, squeezing, fullness or pain.

feeling weak, dight head or faint
one can also feel black
out, weak, sweats ~~are~~ in the
body

Pain in the jaw Neck or Back

one can feel discomfort in jaw
back, neck and back

Pain or discomfort in one or both
arms or shoulders

one can also feel the
the discomfort in one or both
arms or shoulders

Shortness of Breath

This comes along with
the chest pain. The shortness of
breath also comes before chest
pain. As it is due to the blockage
of blood.

As Heart pump the
blood in the body. The blockage
of the blood in the muscle
is called heart Attack

(4)

(B) Difference b/w drug addiction and drug abuse

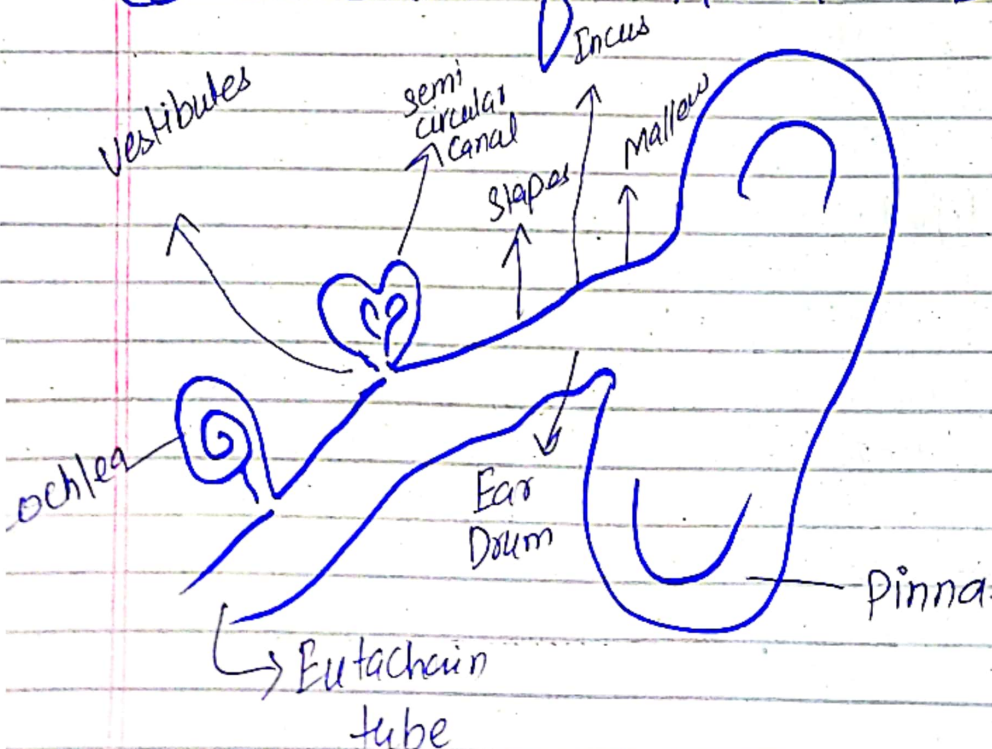
Drug addiction

- ① Drug addiction is when one is unable to get rid of use of illegal substances
- ② It alters the persons behaviour and Brain patterns
- ③ Irregular sleep patterns are cause by it
- ④ Isolation from the social life
- ⑤ It can cause red eyes
- ⑥ It also causes hallucination

Drug Abuse

- ① Drug abuse is the use of illegal drugs or substance
- ② Excessive use increase dependency on the drugs
- ③ It is used to overcome, stress or to seek instant pleasure
- ④ It can cause loss in appetite
- ⑤ It also cause irregular heart beat
- ⑥ It also cause poor physical condition

(C) Structure of Human Ear



Outer Ear:-

outer ear is a sensory organ which helps in hearing. Information in forms of sounds

Pinna It is outer most ear. Sound waves interact first with pinna.

Auditory Canal

It provides passage to enter and pass the sound.

Ear Drum

Sound enters the auditory canal and strike upon the ear drum and it vibrates.

Middle ear:

It consist of three tiny bones malleus incus stapes. Due to sound there will be vibration in these bones

Inner Ear

The semi circular canal and vestibule contain fluid. It helps in maintaining body position. Hearing part of the ear is cochlea. It contains receptors in it. The cochlea contains auditory nerve in it. It convert sound to electrical signal and impulses takes place. Brain will translate it

(D)

Discuss significance of vitamins

vitamins are organic composition compounds essential for growth maintenance functioning and key production.

Fat soluble vitamins

The fat soluble vitamins are dissolved in the water

Vitamin A:-

It is required for growth for good vision and essential for nervous systems.

Sources of vitamin A are

• Fish • Carrot • Milk • yellow colour fruits.

Deficiency of vitamin A

Deficiency of vitamin A causes night blindness. It enhances the toxicity in the body

Vitamin D

It is essential for bones sources of vitamin D are sea food, Mushrooms sunlight and cereals.

Deficiency of vitamin D is Rickets

It also enhances the toxicity.

Vitamin E

It is essential for skin and hair. It slows the process of aging.

Sources: • fruits • milk • vegetables
• seeds • Grains

Deficiency: Unhealthy skin hair.

Excess: Excess of vitamin E enhance toxicity.

Vitamin K

It is essential for blood clotting. It is also useful for the repairing of bones.

Its sources are cabbage and cabblovers

The deficiency of K enhances the toxicity in the body.