1) Silver, Chromium, Tin, Nickel,Copper, Iron, Lead, Aluminum, Gold, and Zinc. .

2) A biome is a specific environment that's home to living things suited for that place and climate.

3) Pollution is the introduction of contaminants into the natural **environment** that cause adverse change

4) Air pollutants like ozone, particulate matter, carbon monoxide, nitrogen oxide, sulfur dioxide, lead cause atmospheric pollution which regards to ozone depletion

5) A hazard is an agent which has the potential to cause harm to a vulnerable target.

II 1) a) Soil Erosion
b) Species Extinction
c) Spread of Disease
d) Sedimentation:
e) Siltation:
f) Water logging
g) Salinisation

II 2) Non-renewable resources are the natural resources that cannot be replaced at all or within a reasonable period of time. Eg- fossil fuels such as oil, gas and coal.Renewable resources are those resources which can easily be replenished or that will never be exhausted by human consumption. Nonrenewable energy resources, like coal, nuclear, oil, and natural gas, are available in limited supplies. This is usually due to the long time it takes for them to be replenished. Renewable resources are replenished naturally and over relatively short periods of time.

II) 3) a) Temperate Forest Ecosystem:
b)The Tropical Rain Forest Ecosystem

i) Insects of the Tropical Rain Forest:

(ii) Tropical Rain Forest Birds:

(iii) Tropical Rain Forest Mammals:

(iv) Tropical Rain Forest Reptiles:

(v) Tropical Rain Forest Primates:

(c) Boreal or Taiga Forests:

Structure of Forest Ecosystems: Different organisms exist within the forest layers. These organisms interact with each other and their surroundings. Each organism has a role or niche in sustaining the ecosystem

II) 4) Over the last few decades, surplus human activities have severely affected the marine life on the Earth's oceans. Ocean pollution, also known as marine pollution, is the spreading of harmful substances such as oil, plastic, industrial and agricultural waste and chemical particles intothe ocean.Human impacts on marine ecosystems. Human activities affect marineecosystems as a result of pollution, overfishing, the introduction of invasive species, and acidification, which all impact on the marine food web and may lead to largely unknown consequences for the biodiversity and survival of marine life forms.

II) 5) a) Physical – Slippery floors, objects in walkways, unsafe or misused machinery, excessive noise, poor lighting, fire.

b) Chemical – Gases, dusts, fumes, vapours and liquids.

c) Ergonomic – poor design of equipment, workstation design, (postural) or workflow, manual handling, repetitive movement.

d) Radiation – Microwaves, infra-red, ultraviolet, lasers, X-rays and gamma rays.

e) Psychological – Shiftwork, workload, dealing with the public, harassment, discrimination, threat of danger, constant low-level noise, stress.

f) Biological – Infection by bacteria, virus, fungi or parasites through a cut, insect bite, or contact with infected persons or contaminated object.

II) 6) Nations increase their capacities and decrease their vulnerabilities through development. Development planning is used by governments to draft plans to guide economic and social development. The concept of sustainable development is widely recognized by international agencies and by governments, although its definition is not universally agreed upon. Sustainable development is the outcome of comprehensive planning that incorporates considerations of disaster risk (reducing hazards and vulnerability) as well as strategies designed to protect the environment and to improve economic growth, levels of education, and living conditions of the entire population.

II) 7) One major advantage with the use of renewable energy is that as it is renewable it is therefore sustainable and so will never run out. Renewable energy facilities generally require less maintenance than traditional generators. Their fuel being derived from natural and available resources reduces the costs of operation.

Part C
Unit-1

a) Overuse and Depletion. Groundwater is the largest source of usable, fresh water in the world. In many parts of the world, especially where surface water supplies are not available, domestic, agricultural, and industrial water needs can only be met by using the water beneath the ground. This is most often caused by human activities, mainly from the overuse ofgroundwater, when the soil collapses, compacts, and drops. Excessive pumping in coastal areas can cause saltwater to move inland and upward, resulting in saltwater contamination of the water supply. Our water resources face a host of serious threats, all of which are caused primarily by human activity. They include sedimentation, pollution, climate change, deforestation, landscape changes, and urban growth.

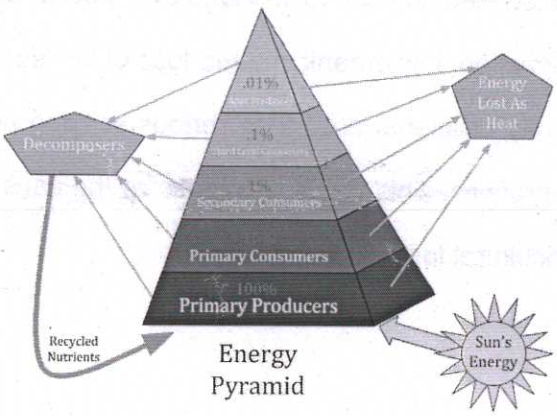
b) Energy conservation plays a very important role because utilization of non-renewable resources also impacts our environment. Specially, usage of fossil fuels supplies to air and water pollution such as carbon dioxide is produced when oil, coal and gas combust in power stations, heating systems, and engines of car. Here are the biggest reasons why it is important to be energy-conscious and make every effort to conserve our electricity: Conservation can save you money. Fossil fuels are not a clean source of energy either. Conservation of electricalenergy can help to lessen pollution and reduce greenhouse gas emissions. If we didn't have energy efficiency, we'd have to produce or import energy sources like oil, natural gas, and coal. So, energy efficiency helps us keep more resources on the earth longer. Avoiding pollution: From power plants to cars, consumingenergy can produce emissions that harm our environment.

IV) a) Four human activities represent the most immediate causes: over-cultivation exhausts the soil, overgrazing removes the vegetation cover that protects it fromerosion, deforestation destroys the trees that bind the soil to the land and poorly drained irrigation systems turn croplands salty. Soil compaction, low organic matter, loss of soil structure, poor internal drainage, salinisation and soil acidity problems are other serious soil degradation conditions that can accelerate the soil erosion process. This Factsheet looks at the causesand effects of water, wind and tillage erosion on agricultural land.

IV) b) Biotic natural resources also include fossil fuels such as coal and petroleum which are formed from organic matter that has decayed. Abiotic: these resources come from non-living and non-organic material. Examples of these resources include land, fresh water, air, and heavy metals (gold, iron, copper, silver, etc.). Land resources (natural resources) (economically referred to as land or raw materials) occur naturally within environments that exist relatively undisturbed by mankind, in a natural form. A natural resource is often characterized by amounts ofbiodiversity existent in various ecosystems.

V a) Abiotic characteristics. An ecosystem is composed of biotic communities that are structured by biological interactions and abiotic environmental factors. Some of the important abiotic environmental factors of aquatic ecosystems include substrate type, waterdepth, nutrient levels, temperature, salinity, and flow The physical characteristics of aquatic habitats affect the types of organisms found there. Living organisms in a particular environment are directly affected by environmental characteristics such as nutrient concentrations, temperature, waterflow, and shelter. Here are a few: Gills or ability to hold breath underwater for long periods. Fins or limbs adapted for swimming, including webbed feet, for animals that don't spend all their time in the water, like otters and beavers; Tails that act as paddles.

V) b) Ecological Pyramid. It is a graphic representation of the relationship between organisms at various trophic levels in a food chain. The basis of an ecological pyramid is the biomass, energy, and number. Just as the name suggestsecological pyramids are in the shape of a **pyramid**



Energy Pyramid

VI) a) Precipitation deficiency is the main feature of deserts. The arid-zone is characterized not only by meagerness of precipitation but also by uncertainty as to when and in what amounts rain will fall. The desert rainfall tends to be seasonal, most erratic unreliable and localized i.e. limited both in space and duration Deserts are dry. In particular, their soils are dry. Just how dry depends upon the air temperature, winds, soil type, and the amount of precipitation. A desert climate is one in which more water evaporates from the ground than the ground receives in rain or snow. Temperature. A third common characteristic of dry climates are wide variances in seasonal and daily temperatures. Deserts are usually found in the rain shadows of mountain ranges and have hot summers, cool nights and moderate winters. However, in cold deserts, winters can be extremely frigid.

VI) b) Biomagnification stands for Biological Magnification, which means the increase of contaminated substances or toxic chemicals that take place in the food chains. These substances often arise from intoxicated or contaminated environments. The contaminants include heavy metals namely mercury, arsenic, pesticides such as DDT, and polychlorinated biphenyls (PCBs) compounds which are then taken up by organisms because of the food they consume or the intoxication of their environment.

These materials are highly present in a variety of household and industrial chemicals. The harmful substances then build up inside the organism's cells. When organisms in the higher food chain consume the organisms containing the toxins below their trophic levels, the toxins gradually become concentrated in the higher food chain. Because this is a repetitive process in the ecosystem and throughout the entire food chain, the higher organisms are the ones that will accumulate most of the toxins.

1. Impact on human health
2. Effects on reproduction and development of marine creatures
3. Destruction of the coral reefs
4. Disruption of the food chain.

6

VII) a) Reduce the number of trips you take in your car.

1) Reduce or eliminate fireplace and wood stove use.
2) Avoid burning leaves, trash, and other materials.
3) Avoid using gas-powered lawn and garden equipment.
4)Top smoking or at least follow the "No Smoking" sign.
5) Use unleaded gasoline in your cars.
6) Keep your car properly maintained to keep it in good running
7) Condition to avoid smoke emissions.
8) Share a ride or engage in car pooling.

VII) b) Wastewater and Sewage. The wastewater and sewage that is produced by every home is treated with chemicals and then released into the sea.

Industrial Waste.

Fossil Fuels.

Sewer Line Leaks.

Fertilizers and Pesticides.

VIII) a) Noise pollution affects both health and behavior. Unwanted sound (noise) can damage physiological health. Noise pollution can cause hypertension, high stresslevels, tinnitus, hearing loss, sleep disturbances, and other harmful effects. Exposure to high noise levels causes hearing loss. Noise is any disturbing or unwanted sound and noise pollution affects people's health and quality of life.Prolonged high levels of noise can cause hearing loss and stress relate illnesses. Noise often affects children more than adults,and noise pollution also affects general well-being

VIII) b) Turn off Appliances at Home and offices. ...

Shut the Door when using noisy Machines. ...

Use Earplugs. ...

Lower the volume. ...

Stay away from Noisy area. ...

Follow the Limits of Noise level. ...

Control Noise level near sensitive areas. ...

Go Green by planning trees.

IX) a) Disaster Risk Reduction (DRR) aims to reduce the damage caused by naturalhazards like earthquakes, floods, droughts and cyclones, through an ethic ofprevention. ... Each decision and action makes us more vulnerable to disasters - or more resilient to them. from physical, social, economic, and environmental factors or processes, which increases the susceptibility. of a

community to the impact of a hazard. " Exposure" is another component of disaster risk, and refers to. that which is affected by naturaldisasters, such as people and property.

IX) b) Prepare To Be Prepared.

Disaster prevention is first and foremost about preparation.

Be Informed.

After preparation, the next most important disaster prevention measure is knowledge.

Get Supplies Ready.

PPE (Personel Protective equipment)

Communication.

(IX) b) Earthquakes, tsunamis, hurricanes, tornados, floods, droughts, wildfires, volcanic eruptions, landslides and avalanches are considered (among others) natural disasters. Earthquakes can be caused by the shifting of tectonic plates. Those caused by movements of the Earth. Weather related disasters Floods, mudslides, landslides and famine.Someone living in an area that is prone to one or other of these natural disasters will be well aware of the fact, so the most important factor is to be prepared.

X) a) Political administrative aspect

Economic aspect

Environmental aspect

Post-disaster recovery planning is defined as developing a set of strategies to assist a community in rebuilding after a disaster occurs. Recovery planning can also be thought of as building the blueprint for reconstruction of the community after a disaster. The four phases of disaster: 1) mitigation; 2) preparedness; 3) response; and 4)recovery.The issues addressed below relate to the resiliency and recovery of the local economy and business community before and after a major disaster.

X) b) Disaster Management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters. Emergency management is the organization and management of the resources and responsibilities for dealing with all humanitarian aspects of emergencies. The aim is to reduce the harmful effects of all hazards, including disasters. From the stand point of public health, a disaster is defined on the basis of its consequences on health and health services. Natural and man-made disasterscan occur without warning preventing them from resulting in major public health emergencies requires careful planning.