

Management:

Earthquake under the sea are monitored by sensors on the floor of sea. The sensors send information of floating buoys on the surface whenever they detect the change in the pressure of the sea.

The information is relied to satellite which passes it to the earth station. All member nations warning system are warned of the approaching danger.

Finally the country make the people alert to make all necessary precautions.

Case study:

Tsunami in India: Tsunami was formed on 26 December 2004 in Bay of Bengal and in the Indian Ocean. The tidal waves occurred due to massive earthquake under the ocean floor of Indonesian coast. The magnitude of earthquake is 8.9 on Richter scale and stroked northern Sumatra and Indonesia at 6.25a.m. Tsunami travels at a speed of jet engine (700-800 km/hr) and hit Tamilnadu and Srilanka coast about 2-3 hrs after the earthquake. Nagapatinam was worst hitted by Tsunami in India. About 6000 people were dead and huge property loss.

TWO MARKS

1. State the declaration about the sustainable development.

The Rio declaration states that, “human beings are at the center or concern for sustainable development. They are entitled to a health and productive life in harmony with the nature. Rvery generation should leave air. Water and soil resources without any pollution as pure as it came to the Earth.”

2. Define sustainable development.

Sustainable development is defined as meeting the needs of the preset without compromising the ability of future generations to meet their own needs.

3. What are the three important components of sustainable development?

The three important components of sustainable development are

- a. Economic development (like industrial development, creating job opportunities, utilization of natural resources for developing the quality of life)
- b. Community development (providing food, shelter, cloth, education, and other essentials for the human beings).
- c. Environmental protection (providing clear air, water and environment for the present and future generations and utilization of resources in a sustainable manner).

4. Define sustainable development indicators

Sustainable development Indicators (SDI) is various statistical values that collectively measure the capacity to meet present and future needs. SDI will provide information crucial to decisions on national policy and to the general public.

5. What are the uses of sustainable development indicators?

The indicators are used by decision makers and the policy makers at all levels in order to monitor the progress towards attaining sustainable development. These are also used to increase focus on the sustainable development.

6. Define sustainability.

Sustainability can be defined as the ability of a society or ecosystem to continue functioning into the indefinite future without being forced into decline through complete loss of its strength or overloading of key resources on which that system depends.

7. Define resistance stability and resilience stability.

Resistance stability is the ability of a system to remain stable in the face of stresses and Resilience stability of the system to recover from the disturbance occurred due to the activities happened.

8. Define urbanization.

Urbanization is defined as „the process movement of human population from rural areas to urban areas in search in search of better economic interests with better education, communication, health, civic facilities and other day to day needs.

9. What are problems or discomforts faced by rural people?

- a. Lack of modernization of agricultural sector.
- b. Lack of job opportunities.
- c. Poor life style.
- d. Poor health facilities Poor education facilities.
- e. Poor transportation facilities.
- f. Poor availability of energy.

10. What are the uses of energy in urban areas?

Energy is used in an urban area for the following.

- a. For industrial activities
- b. For transportation
- c. For water apply
- d. For building & commercial use
- e. For cleaning of pollutants
- f. For essential services.

11. Define water conservation.

The process of saving water for future utilization is known as water conservation.

12. Define rain water harvesting.

Rain water harvesting is a technique of capturing and storing of rainwater for further utilization.

13. Define watershed.

Water shed is defined as the land area from which water drains under the influence of gravity into a steam, lake, reservoir or other body of surface water.

14. What do you know about watershed?

A watershed is defined as the geographic area from which water in a particular stream, lake or estuary originates. It includes entire area of land that drains into the water body. It is separate from other system by high points in the area such as hills or slopes.

15. What is watershed management?

Watershed management is a process aimed at protecting and restoring the habitat and water resources of a watershed, incorporating the needs of multiple stakeholders.

16. What are the impacts of human activities on watershed?

- a. Alteration of water course
- b. Addition of pollution sources
- c. Urbanization
- d. Securing of channels.

17. What are the two important principles of watershed management?

The two important principles of watershed management are:

- a. To preserve the environment, and
- b. To use the most cost-effective means to achieve this goal.

18. Name some of the factors causing relocation of people.

- a. Development activities
- b. Natural and man-made disasters
- c. Conservation initiatives.

19. Define environmental ethics.

Environmental ethics refers to the issues, principals and guidelines reading to human interactions with their environment.

20. Define resettlement.

Resettlement is defined as the process of simple relocation or displacement of human population without considering their individual, community or societal needs.

21. Define rehabilitation.

Rehabilitation is defined as the process of replacing the lost economic assets, rebuilding the community system that have been weakened by displacement, attending to the psychological trauma of forced separation from livelihood.

22. What are the factors that influence climate change on the earth?

Climate change on the earth is influenced by the following factors.

- a. Variations in the Earth's orbital characteristics.
- b. Atmospheric carbon dioxide variations.
- c. Volcanic eruptions
- d. Variations in solar output.

23. List out any four effects of climate change.

Mean sea level is increased on an average of around 1.8mm per year. Many ecosystems of the world have to adapt to the rapid change in global temperature. The rate of species extinction will be increased. Human agriculture, forestry, water resources and health will be affected.

24. Define green house effect.

The green house effects may be defined as the progressive warming up of the earth's surface due to blanketing effect of manmade co₂ in atmosphere.

25. Define global warming.

The increased the inputs of co₂ and other green house gases into the atmosphere from human activities will enhance the earth's natural green house effects of raising the average global temperature of the atmosphere near the surface. This enhanced the green house effect is called warming.

26. How can global warming are controlled.

- a. Reduction in consumption of fossil fuel such as coal and petroleum.
- b. Use of biogas plants.
- c. Use of nuclear power plants.
- d. Increasing forest cover.
- e. Use of unleaded petrol in automobiles.
- f. Installation of pollution controlling devices in automobiles and industries.

27. Define acid rain.

Normally rain water is always slightly acidic because of the fact that CO₂ present in the atmosphere gets dissolved on it. Because of the presence the of SO₂ and NO₂ gases as pollutants in the atmosphere, the pH of the rain water is further lowered. This type precipitation of water called acid rain or acid deposition.

28. List any four impacts of acid rain.

- a. Both dry and wet deposition of sulphur dioxide significantly increases the rate of corrosion of lime stone, sand and marble.
- b. Forest tree population is effected by acid rain.
- c. Acid rain in combination with ozone may damage the wxy coating on leaves and needles. This may weaken or damage them and provide opportunities for disease to enter the tree.
- d. Acid rain may change the characteristics of soil and eventually pollute the streams and lakes.

29. Define wet deposition and dry deposition. Is there any difference in damage due to these two types of deposition?

Wet deposition refers to acidic rain, fog, and snow. As this acidic water flowers over and through the ground, it afferts plants and animals in many ways. Dry deposition refers to acidic gases and particles. About half of the acidity in the atmosphere falls back to earth through dry deposition. Both wet and dry deposition can cause the same damage.

30. How can we minimize the formation of acid rain?

- a. By reducing pollution from industries,
- b. By using other sources of energy,
- c. By using cleaner automobiles.

PART B:

1. Explain about unsustainable to sustainable development.
2. Explain briefly global warming.
3. Write about enforcement machinery involved in environmental legislation.
4. Write about environmental protection act India.