Environmental Science & Engineering

World heritage sites

There are 5 national parks e.g.) sunder bans-west Bengal

Ramsar wet lands: India has 6 wet lands

Trijunction: India is situated in the trijunction of these realms

- paleo-arctic
- afortropical
- indo-Malayan realms

TWO MARKS

1. Define environment.

Environment is defined as the sum of total of all the living and non-living things around us influencing one another.

2. What are all the categories of environment?

The main categories of environment are biotic and abiotic environments. The abiotic environment can further be classified into atmosphere (air), lithosphere (soil), and hydrosphere (water). The biotic environment is called as biosphere.

3. Write the components of environment?

Air (Atmosphere) Land (Lithosphere) Water (Hydrosphere)

4. Define ecosystem.

A group of organisms interacting among themselves and with environment is known as ecosystem. Thus an ecosystem is a community of different species interacting with one another and with their nonliving environs exchanging energy and matter.

Page 42

Environmental Science & Engineering

5. List any four characteristics of ecosystem.

(i). Ecosystem is the major ecological unit.

- (ii). It contains both biotic and abiotic components.
- (iii). The boundary of the ecosystem is not rigidly defined and it is flexible.
- (iv). Through the biotic and abiotic components nutrient cycle and energy flow occur.

6. What are the different types of ecosystem

- 1. Natural Ecosystem
- 2. Artificial Ecosystem
- 3. Incomplete Ecosystem

7. Write about autotrophic organisms.

The producers are plants and bacteria, capable of producing their own food photosynthatically or by chemical synthesis. These organisms are, thus, self-nourishing as they can produce the as they can produce their own food by using the energy from the physical environment surrounding them .them are also know as autotrophic organism or producer.

8. Write about heterotrophic organisms

These organisms depend on other animals or on the food produced by other organisms for their nourishment, they are also called as heterotrophic organisms or consumers.

9. Define primary succession.

The succession taking place in areas that have not already been occupied by any community is known as primary succession.

10. Define secondary succession.

Development of a new community in an area where the previously existing community was removed and the ecological conditions are favourable is termed as secondary succession.

Page 43

Environmental Science & Engineering

11. Define biodiversity.

Biodiversity is defined as the variety and variability among all group of living organisms and the ecosystem in which they occur.

12. What are the three types of biodiversity?

1. Genetic Level or Genetic diversity

2. Species Level or Species diversity

3. Ecosystem Level or Ecosystem diversity.

13. Define genetic diversity.

Genetic diversity is the variation of genes within species. Genes are the basic units of all life on earth. They are responsible for both the similarities and the differences between organisms.

14. Define species diversity.

Species diversity is the number of different species of living things available in an area. Species is a group of plants or animals that are similar and able to breed and produce viable offspring under natural conditions. This type of diversity is the most common level of diversity.

15. Define ecosystem diversity.

Ecosystem diversity is the variety of ecosystems in a given place. An ecosystem is a community of organisms and their physical environment interacting together. An ecosystem can cover a large area, such as a whole forest, or a small area, such as a pond.

16. What are the two main functions of biodiversity?

a. It is the source of species on which the human compete depends for food, fiber, shelter, fuel and medicine.

b. It depends on the biosphere, which in turn leads to the stability in climate, water, soil, air, and the overall health of biosphere.

Page 44

Environmental Science & Engineering

17. Define biogeography.

The study of the geographical distribution of biological species relating to the geological, evolutionary, climatological, geographical, biological reasons for the distribution is called biogeography Define biogeography. The study of the geographical distribution of biological species relating to the geological, evolutionary, climatological, geographical, biological reasons for the distribution is called biogeography.

18. Biodiversity hotspots are areas:

i. Rich in plant and animal species, particularly many endemic species, and

ii. Under immediate threat from impacts such as land clearing, development pressures, salinity, weeds and feral animals.

19. List some of the major biodiversity threats.

a.Habitat destruction.

b.Extension of agriculture.

c. Filling up of wetlands.

d.Conversion of rich bio-diversity site for human settlement and industrial development.

20. What do you know about conservation of biodiversity?

Conservation is defined as the management of human use of the biosphere so that it may yield the greatest sustainable benefit while maintaining its potential to meet the needs and aspirations of future generations".

21. What are the two types of biodiversity conservation?

- a. In-situ conservation
- b. Ex-situ conservation

22. What is endemic species?

The species, which are found only in particular region are known as endemic species

23. Define in-situ conservation.

In-situ conservation involves protection of fauna and flora within its natural habitat, where the species normally occurs is called in-situ conservation.

Page 45