

## **QUESTION BANK**

### **ENVIRONMENTAL STUDIES (EVS-101)**

#### **Unit 1- Natural Resources: Renewable and Non-renewable resources**

1. Differentiate renewable and non-renewable resources with examples.
2. Write a short note on forest resources.
3. What is deforestation? Analyse its cause and consequences.
4. Write a short note on food resources.
5. Discuss the major environmental impacts of mineral extraction.
6. What are major causes for conflicts over water? Discuss one inter - state water conflict.
7. Discuss the consequences over exploitation of water resources and explain hydrological cycle.
8. Write a note on effect of mining on forest and tribal people.
9. How does soil erosion occur? Give various methods of conservation of soil.
10. Write the changes caused by agriculture and overgrazing on food resources.
11. Explain the role of an individual in the conservation of natural resources.
12. Write a short note on desertification.
13. Write down the different causes of landslide.
14. Should we build dam? Give arguments in favour of your answer.

#### **Unit 2- Ecosystems**

1. Define ecosystem. Explain the concept of ecosystem
2. Explain the energy flow in an ecosystem.
3. Describe the structure and functions of an ecosystem.
4. What are ecological pyramids? Explain different types of ecological pyramids with neat sketch.
5. What is the nature of grassland ecosystem? Explain its structure and function.
6. Discuss the models of energy flow in an ecosystem.
7. What are biogeochemical cycles? Explain with the help of a diagram the nitrogen cycle.
8. Explain the different aquatic ecosystems.
9. Write the characteristic feature and functions of the desert ecosystem
10. Describe the trophic structure, food chain and food web in an ecosystem.
11. Explain various processes involved in ecological succession.
12. Explain the structural components of desert and lake ecosystem.
13. Explain the structure and functional components of forest ecosystem.
14. How does energy flow occur in an ecosystem? Explain it with an example
15. How does a biome differ from an ecosystem?
16. Should we build dam? Give arguments in favour of your answer.
17. What is ecological succession? Explain the different types of ecological succession.
18. Why is energy flow called as one way street?
19. Why are the pyramids of energy always upright?
20. Write a note on the biotic and abiotic components of an ecosystem explaining the functions of each with examples.

### **Unit 3- Biodiversity and its conservation**

1. Differentiate between genetic and species diversity.
2. Discuss the values of biodiversity.
3. Explain Ecosystem diversity.
4. Give an account on Indian diversity with special reference as a mega diversity nation.
5. Explain the bio-geographical classification of India.
6. Define hotspot of biodiversity. Which are the hotspots found in India? Discuss their salient features.
7. Explain in detail the major threats to biodiversity?
8. Give a brief account on
  - a) Endangered species
  - b) Endemic species
9. Explain in-situ conservation and ex-situ conservation.
10. Mention some important bio-reserve, national park and sanctuaries of our country.
11. Differentiate between endangered and endemic species with examples.
12. List out different hotspots of biodiversity centres in India.
13. How habitat loss affects biodiversity? Give example.
14. List out the social and ethical values of biodiversity.

### **Unit 4- Social Issues and the Environment**

1. Explain the various types of pollutants.
2. Define air pollution. Explain its causes, effects and control measures of air pollution.
3. Write short notes on water pollution and land pollution.
4. What is earthquake? Enumerate its effects. What measures should be taken to mitigate their disaster?
5. Explain the causes and effects of soil pollution.
6. Discuss the sources, effects and control of ozone layer depletion
7. What are the major causes for the marine pollution?
8. Define noise pollution. Explain its causes, effects and control measures of noise pollution.
9. What are problems related to the rehabilitation of people in droughts and floods?
10. What is watershed management? Discuss practices of watershed management.
11. Write a short note on role of individual in prevention of pollution.
12. Differentiate between BOD and COD.
13. What is solid waste management? Explain its causes and effects.
14. Write a short note on control measures of solid waste management. Explain how to control environmental noise pollution.
15. Write down the different causes of landslide.
16. What is biomagnification? What the effects?
17. What are the health effects of noise pollution?
18. What are nuclear hazards? How can you control nuclear pollution?
19. Write briefly on solid waste disposal.
20. Discuss following methods adopted for waste management in sanitary landfills and incineration.

## Multiple Choice Questions

1. Biosphere consists of
  - a) Lithosphere
  - b) Atmosphere
  - c) Hydrosphere
  - d) All the above
2. Component of biosphere related with soil is
  - a) Lithosphere
  - b) Hydrosphere
  - c) Atmosphere
  - d) None of the above
3. Source of energy in the biosphere is
  - a) Producer
  - b) Decomposer
  - c) Sunlight
  - d) Heat of earth
4. Green House gases are
  - a) Absorbers of long-wave radiations from earth
  - b) Transparent to both solar radiations and long-wave radiations from earth
  - c) Absorbers of solar radiations for warming the atmosphere of earth
  - d) Transparent to emissions from earth for passage into outer space
5. Ozone layer occurs in
  - a) Ionosphere
  - b) Stratosphere
  - c) Thermosphere
  - d) Troposphere
6. Which of the following is a non-renewable energy resource?
  - a) solar
  - b) methane
  - c) hydroelectric
  - d) coal
7. A coal deposit that is not economical to mine today would be considered part of our
  - a) coal reserves
  - b) coal resources
  - c) coal reservoirs
  - d) none of these
8. This is an example of non-polluting renewable type of energy
  - a) tidal
  - b) wind
  - c) solar
  - d) all of these

9. This group consists of non-renewable organic resources

- a) Water, air and minerals
- b) natural gas, oil and coal
- c) wood, water and natural pastures
- d) sand, air and clay

10. Most of the energy used on earth today originally came from which of these sources?

- a) The sun
- b) The Moon
- c) Oceans
- d) Soil

11. Which among the following is not a renewable source of energy?

- a) Solar energy
- b) Biomass energy
- c) Hydropower
- d) Geothermal energy

12. Pick the odd one out.

- a) Diesel
- b) Gasoline
- c) Petrol
- d) Coal

13. Which of the following source of energy can be replenished after a short period of time?

- a) Solar energy
- b) Hydro energy
- c) Coal
- d) Both (a) and (b)

14. A non-renewable resource is a finite resource.

- a) True
- b) False

15. The major non-renewable energy usage in India is \_\_\_\_\_

- a) Coal
- b) Petroleum and other liquids
- c) Natural gas
- d) Nuclear

16. A natural resource that can be replaced in the same rate at which it is consumed or used is known as

- a) Artificial Resources
- b) Natural Resources
- c) Renewable Resources
- d) Non-renewable Resources

17. What are the three R's that are used to save the environment which includes forest?

- a) Reduce, Reuse, Recycle
- b) Reserve, Reduce, Recycle
- c) Reuse, Reserve, Reduce
- d) Reserve, Reuse, Reduce

18. Which one of the following movement was carried out for the conservation of forests and the environment?

- a) Forest movement
- b) Ganaga Action Plan
- c) Tehri Andolan
- d) Chipko Andolan

19. Which one of the following is not the best way to stop deforestation?

- a) Planting trees
- b) Not encouraging for recycling the used products
- c) Go paperless
- d) Eat vegetarian meals as often as possible

20. The forest which are regarded as the most valuable as far as the conservation of forest and wildlife resources are concerned are called:

- a) Protected forests
- b) Unclassed forests
- c) Reserved forests
- d) Private forests

21. The species which are in danger of extinction are called:

- a) Endangered species
- b) Normal species
- c) Vulnerable species
- d) Rare species

22. Mining is an important factor behind deforestation

- a) True
- b) False

23. The type of forests grown in the Himalayan mountain region is called:

- a) Broad-leaved forests
- b) Coniferous forests
- c) Deciduous forests
- d) None of the above

24. Which one of the following is not direct use of forest products?

- a) Bamboo for baskets
- b) Medicine
- c) Gums and resins
- d) Grass for grazing

25. Which of the following is not a reason for the forest loss?

- a) Increasing use of wood
- b) Extinction of species
- c) Extensive use of fuel woods
- d) Mining and building dams

26. Which is not a source of fresh water?

- a) Glaciers and ice sheets
- b) Groundwater
- c) Surface run off
- d) Oceans

27. According to Falken Mark, water stress occurs when:

- a) water availability is less than 1000 cubic metre per person per day.
- b) there is no water scarcity.
- c) there is flood.
- d) water availability is more than 1000 cubic metre per person per day.

28. Rainwater is referred as

- a) Palar pani
- b) Potable water
- c) Underground water
- d) None of these

29. The major source of fresh water in India is

- a) rainfall
- b) ground water
- c) atmospheric water
- d) ocean water

30. Rooftop rainwater harvesting is a technique to recharge

- a) ground water
- b) river water
- c) lake water
- d) sea water

31. Which of the following activity can lower the water table?

- a) Soil erosion
- b) Growth of human population
- c) Over extraction of groundwater
- d) Over grazing

32. Which of the following element is responsible for groundwater pollution in various states?

- a) Chlorine
- b) Fluoride
- c) Chemicals
- d) None of the above

33. Which of the following is not a fossil fuel?

- a) Coal.
- b) Natural gas
- c) Petroleum
- d) Uranium

34. What form of energy is radiated by the earth and trapped by greenhouse gasses to cause global warming?

- a) Radio waves.
- b) Infrared light.
- c) Ultraviolet light.
- d) Visible light

35. Afforestation is necessary for

- a) Soil conservation
- b) Soil erosion
- c) Well control
- d) Low humidity

36. Pyramid of energy in a pond ecosystem is always

- a. Inverted
- b. Upright
- c. Linear
- d. Irregular

37. If in a population, natality is balanced by mortality, then there will be

- a. Decrease in population growth
- b. Increase in population growth
- c. Zero population growth
- d. Over population

38. In a pyramid of numbers in grassland ecosystems, the largest population is that of

- a. Herbivores
- b. Primary consumers
- c. Secondary consumer
- d. Producers

39. Which of these belong to the category of primary consumers in grazing food chain

- a. snakes and frogs
- b. Insects and cattle
- c. Eagle and snakes
- d. Cow and rabbit

40. The pyramid of energy is always upright for any ecosystem, this situation indicates that

- a. Herbivores have better energy conversion efficiency than carnivores
- b. Producers have the lowest energy conversion efficiency
- c. Carnivores have a better energy conversion efficacy than herbivores
- d. Energy conversion efficiency is same at all trophic levels

41. Which of the ecological pyramid is always upright

- a. Pyramid of numbers
- b. Pyramid of biomass
- c. Pyramid of energy
- d. All of the above

42. Which one of the following is not a gaseous biogeochemical cycle

- a. Nitrogen cycle
- b. Carbon cycle
- c. Sulphur cycle
- d. Phosphorus cycle

43. Deserts, grasslands, forests and tundra regions are the examples of

- a. Biomes

- b. Biogeographically regions
- c. Ecosystems
- d. Biospheres

44. The upright pyramid of numbers is absent in

- a. Lake
- b. Pond
- c. Grasslands
- d. Forests

45. The final stable community in ecological succession is

- a. Climax
- b. Pioneer
- c. Sere
- d. Carnivores

46. Mass of living matter at a trophic level in an area at any given time is called

- a. Standing state
- b. Standing crop
- c. Humus
- d. Detritus

47. A herbivore is also known as a

- a. Producer
- b. First order consumer
- c. Second order consumer.
- d. Third order consumer

48. A product of photosynthesis is

- a. Carbon dioxide
- b. Water
- c. Oxygen
- d. Chlorophyll

49. Primary source of energy in a food web is/are

- a. Green plants
- b. Sun
- c. Inorganic nutrients
- d. Animals

50. A group of living organisms of the same kind living in the same place and at the same time refers to a

- a. Community
- b. Species
- c. Population
- d. Consumers