Chapter 14

NATURAL RESOURCES

Multiple Choice Questions

1. The atmosphere of the earth is heated by radiations which are mainly
(a) radiated by the sun
(b) re-radiated by land
(c) re-radiated by water
(d) re-radiated by land and water

2. If there were no atmosphere around the earth, the temperature of the earth will
(a) increase
(b) go on decreasing
(c) increase during day and decrease during night
(d) be unaffected

3. What would happen, if all the oxygen present in the environment is converted to ozone?
(a) We will be protected more
(b) It will become poisonous and kill living forms
(c) Ozone is not stable, hence it will be toxic
(d) It will help harmful sun radiations to reach earth and damage many life forms.

4. One of the following factors does not lead to soil formation in nature
(a) the sun
(b) water
(c) wind
(d) polythene bags

5. The two forms of oxygen found in the atmosphere are
(a) water and ozone
(b) water and oxygen
(c) ozone and oxygen
(d) water and carbon-dioxide

6. The process of nitrogen-fixation by bacteria does not take place in the presence of
   (a) molecular form of hydrogen
   (b) elemental form of oxygen
   (c) water
   (d) elemental form of nitrogen

7. Rainfall patterns depend on
   (a) the underground water table
   (b) the number of water bodies in an area
   (c) the density pattern of human population in an area
   (d) the prevailing season in an area

8. Among the given options, which one is not correct for the use of large amount of fertilisers and pesticides?
   (a) They are eco-friendly
   (b) They turn the fields barren after some time
   (c) They adversally affect the useful component from the soil
   (d) They destroy the soil fertility

9. The nitrogen molecules present in air can be converted into nitrates and nitrites by
   (a) a biological process of nitrogen fixing bacteria present in soil
   (b) a biological process of carbon fixing factor present in soil
   (c) any of the industries manufacturing nitrogenous compounds
   (d) the plants used as cereal crops in field

10. One of the following processes is not a step involved in the water-cycle operating in nature
   (a) evaporation
   (b) transpiration
   (c) precipitation
   (d) photosynthesis

11. The term "water-pollution" can be defined in several ways. Which of the following statements does not give the correct definition?
   (a) The addition of undesirable substances to water-bodies
   (b) The removal of desirable substances from water-bodies
   (c) A change in pressure of the water bodies
   (d) A change in temperature of the water bodies

12. Which of the following is not a green house gas?
   (a) Methane
   (b) Carbon dioxide
   (c) Carbon monoxide
   (d) Ammonia

13. Which step is not involved in the carbon-cycle?
(a) Photosynthesis
(b) Transpiration
(c) Respiration
(d) Burning of fossil fuels

14. 'Ozone-hole' means
(a) a large sized hole in the ozone layer
(b) thinning of the ozone layer
(c) small holes scattered in the ozone layer
(d) thickening of ozone in the ozone layer

15. Ozone-layer is getting depleted because of
(a) excessive use of automobiles
(b) excessive formation of industrial units
(c) excessive use of man-made compounds containing both fluorine and chlorine
(d) excessive deforestation.

16. Which of the following is a recently originated problem of environment?
(a) Ozone layer depletion
(b) Green house effect
(c) Global warming
(d) All of the above

17. When we breathe in air, nitrogen also goes inside along with oxygen. What is the fate of this nitrogen?
(a) It moves along with oxygen into the cells
(b) It comes out with the CO_2 during exhalation
(c) It is absorbed only by the nasal cells
(d) Nitrogen concentration is already more in the cells so it is not at all absorbed.

18. Top-soil contains the following
(a) Humus and living organisms only
(b) Humus and soil particles only
(c) Humus, living organisms and plants
(d) Humus, living organisms and soil particles.

19. Choose the correct sequences
(a) CO_2 in atmosphere → decomposers → organic carbon in animals → organic carbon in plants
(b) CO_2 in atmosphere → organic carbon in plants → organic carbon in animals → inorganic carbon in soil
(c) Inorganic carbonates in water → organic carbon in plants → organic carbon in animals → scavengers
(d) Organic carbon in animals → decomposers → CO_2 in atmosphere → organic carbon in plants

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20. Major source of mineral in soil is the
(a) parent rock from which soil is formed
(b) plants
(c) animals
(d) bacteria

21. Total earth's surface covered by water is
(a) 75%
(b) 60%
(c) 85%
(d) 50%

22. Biotic component of biosphere is not constituted by
(a) producers
(b) consumers
(c) decomposer
(d) air

23. An increase in carbondioxide content in the atmosphere would not cause
(a) more heat to be retained by the environment
(b) increase in photosynthesis in plants
(c) global warming
(d) abundance of desert plants

24. Oxygen is returned to the atmosphere mainly by
(a) burning of fossil fuel
(b) respiration
(c) photosynthesis
(d) fungi

25. Low visibility during cold weather is due to
(a) formation of fossil fuel
(b) unburnt carbon particles or hydrocarbons suspended in air
(c) lack of adequate power supply
(d) none of these

26. Growth of Lichens on barren rocks is followed by the growth of
(a) moss
(b) ferns
(c) gymnosperms
(d) algae

27. Marked temperature changes in aquatic environment can affect
(a) breeding of animals
(b) more growth of aquatic plants
(c) process of digestion in animals
(d) availability of nutrients.

28. Soil erosion can be prevented by
(a) raising forests
(b) deforestation
(c) excessive use of fertilizer
(d) overgrazing by animals

29. What happens when rain falls on soil without vegetational cover?
(a) Rain water percolates in soil efficiently
(b) Rain water causes loss of surface soil
(c) Rain water leads to fertility of the soil
(d) Rain water does not cause any change in soil

30. Oxygen is harmful for
(a) ferns
(b) nitrogen fixing bacteria
(c) chara
(d) mango tree

Short Answer Questions

31. Rivers from land, add minerals to sea water. Discuss how?

32. How can we prevent the loss of top soil?

33. How is the life of organisms living in water affected when water gets polluted?

34. During summer, if you go near the lake, you feel relief from the heat, why?

35. In coastal area, wind current moves from the sea towards the land during day; but during night it moves from land to the sea. Discuss the reason.

36. Following are a few organisms
(a) lichen (b) mosses (c) mango tree *(d)* cactus
Which among the above can grow on stones; and also help in formation of soil? Write the mode of their action for making soil.

37. Soil formation is done by both abiotic and biotic factors. List the names of these factors by classifying them as abiotic and biotic?

38. All the living organisms are basically made up of C, N, S, P, H and O. How do they enter the living forms? Discuss.

39. Why does the percentage of gases like oxygen, nitrogen and carbon dioxide remain almost the same in the atmosphere?

40. Why does moon have very cold and very hot temperature variations eg, from -190°C to 110°C even though it is at the same distance from the sun as the earth is?

16-04-2018

41. Why do people love to fly kites near the seashore ?

42. Why does Mathura refinery pose problems to the Taj Mahal?

43. Why do not lichens occur in Delhi whereas they commonly grow in Manali or Darjeeling?

44. Why does water need conservation even though large oceans surround the land masses?

45. There is mass mortality of fishes in a pond. What may be the reasons ?

46. Lichens are called pioneer colonisers of bare rock. How can they help in formation of soil?

47. "Soil is formed by water." If you agree to this statement then give reasons

48. Fertile soil has lots of humus. Why?

49. Why step farming is common in hills?

50. Why are root nodules useful for the plants?

Long Answer Questions

51. How do fossil fuels cause air pollution?

52. What are the causes of water pollution? Discuss how you can contribute in reducing water pollution.

53. A motor car, with its glass totally closed, is parked directly under the sun. The inside temperature of the car rises very high. Explain why?

54. Justify "Dust is a pollutant" ?

55. Explain the role of the Sun in the formation of soil.

56. Carbon dioxide is necessary for plants. Why do we consider it as a pollutant?