

QUESTION 2017

Group - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any ten of the following.

- i) Carrying capacity of the environment is concerned with the growth of
 - ✓ a) Population
 - b) Species
 - c) Community
 - d) Forests
- ii) The main components of environment is
 - a) Atmosphere
 - b) Hydrosphere
 - c) Lithosphere
 - ✓ d) all of these
- iii) Biotic factor of ecosystem is
 - a) Sunlight
 - b) Soil
 - c) Wind
 - ✓ d) Producer
- iv) The lowest layer of the atmosphere is
 - ✓ a) Troposphere
 - b) Stratosphere
 - c) Mesosphere
 - d) Thermosphere
- v) The main component of photochemical smog is
 - a) Water vapour
 - b) Sulphur dioxide
 - ✓ c) Oxides of nitrogen
 - d) Stratospheric Ozone
- vi) Blue baby syndrome is related to
 - ✓ a) Nitrate
 - b) Sulphate
 - c) Phosphate
 - d) Carbonate
- vii) Transpiration is
 - a) Water evaporation from soil
 - b) Water evaporation from ocean
 - ✓ c) Water evaporation from leaves of plants
 - d) Water evaporation from glaciers
- viii) A sequence of transfer of food energy from organism in one trophic level to those in another is called
 - a) Nutrient cycle
 - b) Food cycle
 - ✓ c) Food chain
 - d) None of these
- ix) Minamata disease was caused due to
 - a) intake of arsenic
 - b) intake of lead
 - ✓ c) intake of mercury
 - d) intake of cadmium
- x) Incineration is disposal method of
 - ✓ a) solid waste
 - b) air pollutants
 - c) water pollutants
 - d) none of these

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- x) Lakes rich in nutrient status is known as.
- a) Oligotrophic lake
 - ✓ c) Eutrophic lake
 - b) Mesotrophic lake
 - d) none of these
- x) The main cause of management of natural resources is because of
- ✓ a) a large increase in population
 - b) the conservation of land for food crops
 - c) a great demand for petroleum
 - d) none of these

Group – B

(Short Answer Type Questions)

2. What is population growth? Describe S-shaped growth curve of population growth.
See Topic: FUNDAMENTALS OF ENVIRONMENT, Short Answer Type Question No. 5.
3. Write a note on Environmental Ethics.
See Topic: FUNDAMENTALS OF ENVIRONMENT, Short Answer Type Question No.7.
4. Define Global warming. State how the greenhouse gases cause global warming.
See Topic: AIR POLLUTION & CONTROL, Short Answer Type Question No. 4.
5. What is Biological Oxygen Demand (BOD)? What are the steps involved in BOD 5 day test? Why dilution of raw waste water is required in BOD 5 day test?
See Topic: WATER POLLUTION & CONTROL, Short Answer Type Question No. 7.
6. What is Acid Rain? How acids are formed in the nature? Mention three detrimental effects of Acid Rain.
See Topic: FUNDAMENTALS OF ENVIRONMENT, Short Answer Type Question No.10.

Group – C

(Long Answer Type Questions)

7. a) Name four air pollutants emitted from IC engine.
b) Why CO is taken as major air pollutant? What is its source? Write its effect on living being. How can its emission be controlled?
c) Compare Photochemical smog and London smog
- a) See Topic: AIR POLLUTION & CONTROL, Short Answer Type Question No. 8.
 - b) See Topic: WATER POLLUTION & CONTROL, Long Answer Type Question No. 9.
 - c) See Topic: AIR POLLUTION & CONTROL, Short Answer Type Question No. 1(a).
8. a) Define 'Energy Flow' in ecosystems. In an ecosystem, although the inorganic nutrients are recycled, the flow of energy is not. Justify
b) State the composition of lithosphere. Mention the different types of solid wastes.
c) Write down the disadvantages of Land-filling
d) Define the terms Habitat, Population, Bio-community, Ecological Niche and Species.
- a) See Topic: ECOLOGY, Short Answer Type Question No. 8.
 - b) 1st part: See Topic: LAND POLLUTION, Short Answer Type Question No. 3(1st part)
 - 2nd part: See Topic: LAND POLLUTION, Long Answer Type Question No. 1(a).

- c) See Topic: LAND POLLUTION, Short Answer Type Question No. 3(2nd part).
d) See Topic: ECOLOGY, Long Answer Type Question No. 6.

9. a) What is noise pollution? Discuss the adverse effects of noise on human health.
b) Define noise threshold limit value.
c) In a work area the noise levels are read as 95 dBA for 2 hrs a day, 90 dBA for 4 hrs a day, 80 dBA for remaining 2 hrs a day and permissible duration of each noise level is 95 dBA for 2 hrs, 90 dBA for 4 hrs and 80 dBA for 16 hrs. Find out the noise threshold limit value and predict whether the noise level is within permissible limit or not.
d) Briefly explain control measures at receiver's end to reduce noise pollution.

See Topic: NOISE POLLUTION, Long Answer Type Question No. 2.

10. a) Explain what is called critical dissolved oxygen. State the effects of low DO on aquatic life. State the factors of influencing DO.
b) What is called biodegradation rate constant?
c) Nitric oxide accelerates depletion of ozone layer but nitrogen dioxide retards it. Explain.
a) & b) See Topic: LAND POLLUTION, Long Answer Type Question No. 4.
c) See Topic: AIR POLLUTION & CONTROL, Short Answer Type Question No. 9.

11. a) Mention primary and secondary treatment methods for waste water.
b) State the names of ions responsible for hardness of water and write whether hard water can be used in boilers and laundries.
c) Give the flow sheet diagram for municipal sludge treatment process.
d) What is alkalinity of water?

See Topic: WATER POLLUTION & CONTROL, Long Answer Type Question No. 10.