

ROY'S INSTITUTE OF COMPETITIVE EXAMINATION
RRB NTPC GRADUATE & UNDER GRADUATE CBT-1

ENVIRONMENTAL SCIENCE

HANDOUT - 1

1. The term 'Ecology' was coined by –
a) E. Haeckel b) E. P. Odum c) A. G. Tansley d) Charles Elton
2. Which one of the following is an example of an artificial ecosystem?
a) Forest b) Pond c) Aquarium d) Lake
3. The flow of energy in an ecosystem is always –
a) Bidirectional b) Cyclical c) Unidirectional d) Random
4. In a food chain, the primary consumers are generally –
a) Carnivores b) Herbivores c) Decomposers d) Producers
5. The final stable community in an ecological succession is called the –
a) Pioneer community b) Sere c) Climax community d) Primary community
6. Which ecological pyramid is always upright?
a) Pyramid of Number b) Pyramid of Biomass c) Pyramid of Energy d) All of these
7. Decomposers in an ecosystem include –
a) Only Fungi b) Only Bacteria c) Fungi and Bacteria d) Plants and Animals
8. An association between two organisms in which both are benefited is called –
a) Parasitism b) Competition c) Predation d) Mutualism
9. The zone where fresh water meets salt water is called –
a) Coastal area b) Delta c) Estuary d) Lagoon
10. The concept of '10 percent law' related to the transfer of energy in a food chain was given by –
a) R. Misra b) Lindeman c) Elton d) Tansley
11. The process of conversion of ammonia into nitrites and then nitrates is called –
a) Ammonification b) Nitrogen fixation c) Denitrification d) Nitrification
12. Which of the following is not a sedimentary type of biogeochemical cycle?
a) Phosphorus cycle b) Sulphur cycle c) Carbon cycle d) Calcium cycle

13. The main reservoir for the Sulphur cycle is –
a) Atmosphere b) Ocean c) Earth's crust (rocks) d) Living organisms
14. The primary reason for the increased concentration of CO_2 in the atmosphere is –
a) Photosynthesis b) Volcanic activity c) Burning of fossil fuels d) Respiration
15. The largest reservoir of Nitrogen on Earth is the –
a) Oceans b) Atmosphere c) Soil d) Biomass
16. The process by which water vapour in the atmosphere is converted into liquid water is called –
a) Evaporation b) Transpiration c) Condensation d) Precipitation
17. The conversion of nitrate back to gaseous nitrogen (N_2) by bacteria is known as –
a) Denitrification b) Nitrification c) Nitrogen fixation d) Ammonification
18. What is the role of 'Rhizobium' bacteria in the nitrogen cycle?
a) Denitrification b) Nitrogen fixation c) Nitrification d) Ammonification
19. Which biogeochemical cycle does not have an atmospheric phase?
a) Carbon b) Nitrogen c) Sulphur d) Phosphorus
20. The return of nutrient elements to the soil from dead organic matter is called –
a) Leaching b) Mineralization c) Humification d) Catabolism
21. Acid rain is mainly caused by the emissions of –
a) Carbon dioxide and Carbon monoxide b) Ozone and Particulate matter
c) Sulphur dioxide and Nitrogen oxides d) Methane and CFCs
22. Which of the following is a secondary air pollutant?
a) Carbon Monoxide (CO) b) Sulphur Dioxide (SO_2) c) Ozone (O_3) d) Lead (Pb)
23. The term 'BOD' (Biochemical Oxygen Demand) is a measure of –
a) Industrial pollution in air b) Oxygen required by aquatic plants
c) Amount of biodegradable organic matter in water d) Oxygen released by photosynthesis
24. The phenomenon of eutrophication is caused by –
a) Increase in dissolved oxygen
b) Decrease in fish population
c) Excess nutrients (Nitrates and Phosphates) in a water body
d) Thermal pollution
25. The maximum permissible noise level (in decibels) for a residential area during the daytime, as per CPCB (Central Pollution Control Board) standards, is –
a) 45 dB b) 55 dB c) 65 dB d) 75 dB

26. Minamata disease in humans is caused by the consumption of fish contaminated with –
a) Lead b) Arsenic c) Mercury d) Cadmium
27. The most common cause of soil pollution is –
a) Acid rain b) Industrial waste and pesticides/fertilizers
c) Ozone depletion d) Overgrazing
28. The accumulation of non-biodegradable pollutants in the food chain in increasing concentration at higher trophic levels is known as –
a) Bioaccumulation b) Eutrophication c) Biomagnification d) Bioremediation
29. Which of the following is a control measure for Noise Pollution?
a) Using catalytic converters b) Planting trees (Green Muffler)
c) Electrostatic precipitators d) Composting
30. 'Blue Baby Syndrome' (Methemoglobinemia) in infants is caused by excess of –
a) Sulphates b) Nitrates c) Chlorides d) Fluorides
31. Which of the following is the major greenhouse gas contributing to global warming?
a) Methane (CH_4) b) Chlorofluorocarbons (CFCs)
c) Carbon Dioxide (CO_2) d) Nitrous Oxide (N_2O)
32. The phenomenon of Global Warming is primarily due to the increase in –
a) Stratospheric Ozone b) Greenhouse Gases c) Acid Rain d) Atmospheric Pressure
33. The ozone layer is primarily found in which layer of the atmosphere?
a) Troposphere b) Stratosphere c) Mesosphere d) Thermosphere
34. Ozone layer depletion is mainly caused by which class of chemical compounds?
a) Carbon Monoxide b) Particulate Matter
c) Hydrocarbons d) Chlorofluorocarbons (CFCs)
35. The international treaty aimed at protecting the ozone layer by phasing out the production of numerous substances responsible for ozone depletion is the –
a) Kyoto Protocol b) Paris Agreement c) Montreal Protocol d) Rio Summit
36. An increase in UV-B radiation due to ozone depletion leads to an increased risk of –
a) Cholera b) Skin cancer c) Polio d) Malaria
37. The term 'Greenhouse Effect' means –
a) The cooling of the atmosphere due to deforestation b) The ability of certain atmospheric gases to trap heat
c) The process of turning deserts into green lands d) Increased O_2 concentration in the atmosphere
38. The day observed annually to raise awareness about the importance of the ozone layer is –
a) (World Environment Day) June 5th b) (Earth Day) April 22nd
c) (World Ozone Day) September 16th d) (World Animal Day) October 4th

39. Methane (CH_4) is a potent greenhouse gas released primarily from –
- a) Cement production
 - b) Paddy fields and cattle enteric fermentation
 - c) Industrial cooling
 - d) Traffic exhaust
40. One major consequence of global warming is –
- a) Decrease in sea level
 - b) Increase in forest cover
 - c) Sea level rise due to melting glaciers
 - d) Increased precipitation in deserts
41. Biodiversity refers to the diversity of –
- a) Only plant species
 - b) Only animal species
 - c) Genes, species, and ecosystems
 - d) Abiotic components
42. The term for a species whose population has been reduced to a critical level and is in immediate danger of extinction is –
- a) Extinct species
 - b) Rare species
 - c) Vulnerable species
 - d) Endangered species
43. An area designated for the protection of wildlife, flora, and fauna, where limited human activities like research and tourism are permitted, is a –
- a) National Park
 - b) Zoo
 - c) Botanical Garden
 - d) Sanctuary
44. 'Red Data Book' is published by IUCN and contains information on –
- a) Species endemic to India
 - b) Threatened species of plants and animals
 - c) All medicinal plants
 - d) All marine species
45. Ex-situ conservation includes –
- a) National Parks
 - b) Wildlife Sanctuaries
 - c) Sacred Groves
 - d) Botanical Gardens and Gene Banks
46. Which region in India is known as one of the major Biodiversity Hotspots?
- a) Thar Desert
 - b) Deccan Plateau
 - c) Indo-Gangetic Plain
 - d) Western Ghats
47. The primary reason for the loss of biodiversity is –
- a) Pollution
 - b) Climate change
 - c) Habitat destruction and fragmentation
 - d) Over-exploitation
48. The Wildlife Protection Act in India was enacted in the year –
- a) 1970
 - b) 1972
 - c) 1986
 - d) 2002
49. Project Tiger was launched in India in –
- a) 1973
 - b) 1980
 - c) 1992
 - d) 2005
50. The term 'Endemic Species' refers to species found –
- a) Only in a particular geographical area
 - b) All over the world
 - c) Only in zoos
 - d) Only in the mountains

51. The Chipko Movement is related to the conservation of –
a) Water b) Wetlands c) Forests d) Crops
52. World Environment Day is celebrated annually on –
a) 22nd April b) 5th June c) 16th September d) 28th July
53. The 'Green Muffler' is a strategy to control –
a) Air Pollution b) Water Pollution c) Noise Pollution d) Soil Pollution
54. The maximum number of individuals of a species that an environment can support indefinitely is called –
a) Population Density b) Growth Rate c) Carrying Capacity d) Biotic Potential
55. 'Bioremediation' is a technique that uses –
a) High temperature to destroy pollutants b) Organisms to remove or neutralize pollutants
c) Chemical agents to precipitate pollutants d) Physical barriers to contain pollutants
56. The Yellowing and decay of the Taj Mahal is attributed to –
a) Global Warming b) Ozone Depletion c) Acid Rain d) Dust Pollution
57. The main source of Carbon Monoxide (CO) in the atmosphere is –
a) Industrial emissions b) Incomplete combustion of fossil fuels (vehicles)
c) Forest fires d) Volcanic activity
58. The first international summit on Earth's environment and development, the 'Earth Summit', was held in Rio de Janeiro in –
a) 1972 b) 1982 c) 1992 d) 2002
59. Which of the following is a key characteristic of sustainable development?
a) Maximizing current economic output
b) Exploiting natural resources rapidly
c) Meeting present needs without compromising future needs
d) Focusing only on environmental protection
60. The process by which chemicals are leached from the soil into groundwater is called –
a) Evaporation b) Infiltration c) Leaching d) Decomposition