

A. Multiple choice questions (Attempt all the questions)

1*10=10

1. If The acid chemicals in the air are blown into areas where the weather is wet, the acids can fall to the ground in the form of
1) Sand 2) Rain, snow, Fog 3) Air 4) Soil
2. Fox is an example of
1) Primary Consumer 2) Secondary Consumer 3) Tertiary Consumer 4) Top Carnivore
3. Aquatic Animal die because of
1) Air Pollution (2) Water & thermal Pollution by industrial effluents (3) Noise (4) polluted soil
4. Biogas production is the outcome of
A) Methanogenesis by Bacteria B) Pyrolysis C) Gasification D) None of these
5. Which one of the following is not a biofertilizer ?
A) Aquatic ferns B) Blue-green algae C) Phosphate-Solubilising micro-organisms D) Vermicompost
6. The main objective of UNESCO is to contribute to peace and security in the world by promoting
1) Education & Communication 2) Science 3) Culture (4) All of these
7. Which one of the following is not an In situ conservation for biological resources.
1) Biosphere reserve 2) National Parks 3) Protected areas 4) Breeding under confined areas
8. What is the rate at which solar energy is converted and stored by the producers per unit area over a time period called?
1) Primary Productivity 2) Secondary Productivity 3) Gross Primary Productivity 4) Resources
9. Coniferous Forest are-----
1) Broad leaved forest with Jamun, ficus, Fern, Oak as flora and Tiger, elephant as fauna.
2) Narrow leaved with Pinus, Quercus, barberis as flora and Himalayan goat, black bear, and sheep as fauna
3) Minimum Flora and Fauna 4) None of the above
10. Composition of air includes
1) Oxygen 2) CO₂ 3) Water Vapour & dust 4) All of these

Section B (Conceptual Knowledge- attempt any 4 questions). 4x4

1. List out and discuss the urban problems related to energy. Do you think electric vehicles offer solutions to urban environmental problems?
2. Identify the major environmental problems in your region. Also, specify the role of you as an individual solving the issue.
3. Analyze and identify the Interdisciplinary scientific areas which can offer integrated solutions to the problem in Smart city Management.
4. Draw Food web using interconnection of food chain by arranging all the organism in order of Food Chain

Foxes Yellow Perch Aquatic Plants Grass Grasshopper Zooplankton snake Peacock
Plant flower, Phytoplankton lizard, Grass Dragonfly Larva Tadpole Eagle

5. Draw an Indian Map and locate Indian & its neighboring countries' hotspot on Map.
6. Define Species Biodiversity & Explain role of evolution in Biodiversity.
7. "Describe energy flow in aquatic ecosystems.
8. Write down the key concept & goal of Sustainable development.
9. Consider automobile air pollution as major urban pollution issue. Identify the different pollutants and discuss their effects. Suggest suitable control measures.

Section C (based on Procedural Knowledge- Attempt any 2 questions).

Attempt Any two question

7 x2

1. a) Make Model of Smart cities where you can live with your with Environmental Ethics & move towards Sustainable development? (b) Discuss about role of technological integration in Smart city management using a suitable example. (c)What are new technologies used to implement this model in the current time.
2. What is renewable energy Discuss about wind Energy, Geothermal Energy & Tidal Energy Conversion Methods.
3. Discuss about management of resources (a) renewable resource of energy (b) nonrenewable resource of Energy.
4. What is Ecosystem & Biome. Discuss about the Design, Recreate & Restore in for any Ecosystem.
5. (a) Write down the method of sustainable development? (b) Discuss about problems, Challenges Role of Engineering solutions for sustainable development.
6. (a) What is GPS? (b) Explain How GPS works? (c) Describe the application of GPS.
7. (a) What is GIS? (b) How GIS works with other navigation system? (c) discuss about various application of GIS.
8. (a) What is IUCN? (b) How IUCN categorized different species to signify their conservation status?
9. (a)What is Solar energy? Discuss about Photovoltaic device & its application
10. Discuss about Rehabilitation & Resettlement Policy of India/Government in respect to protect Scheduled Tribes' population, Water, Forest & Land resources.