# CUET UG 2024 Environmental Studies Question Paper (SET C) with Solutions

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**Q1. The ability of the environment to absorb and render removal of harmless waste and pollution is referred to as:**

- **(1) Source function of ecosystem**
- **(2) Sink function of ecosystem**
- **(3) Carrying capacity of ecosystem**
- **(4) Optimal capacity of ecosystem**

**Answer: (2) Sink function of ecosystem**

**Solution.** To increase the environment's sink function, enterprises might use cleaner manufacturing methods that generate less waste.

**Q2. Which of the following "water storage" types are commonly used in Bihar?**

- **(A) Bhundhis**
- **(B) Ahar**
- **(C) Kulhs**
- **(D) Pynes**

**Choose the correct answer:**

- **(1) (A) and (C) only**
- **(2) (B) and (D) only**
- **(3) (A) and (B) only**
- **(4) (C) and (D) only**

**Answer: (2) (B) and (D) only**

**Solution.** Reviving old technologies such as Ahars and Pynes can help with water management in drought-prone areas.

**Q3. The diversity of organisms that share the same community/habitat is called:**

- **(1) Beta diversity**
- **(2) Gamma diversity**
- **(3) Alpha diversity**
- **(4) Genetic diversity**

**Answer: (3) Alpha diversity**

**Solution.** Protecting local ecosystems helps to retain alpha diversity while also guaranteeing habitat health and stability.

**Q4. Which of the following is not a basic pillar of sustainable development?**

- **(1) Environmental preservation**
- **(2) Social equity**
- **(3) Economic growth**
- **(4) Urbanisation**

**Answer: (4) Urbanisation**

**Solution.** To avoid resource depletion, urbanisation should be balanced with sustainable behaviors.

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**Q5. Which of the following is a Kharif crop?**

- **(1) Wheat**
- **(2) Rice**
- **(3) Cucumber**
- **(4) Mustard**

**Answer: (2) Rice**

**Solution.**Encouraging good irrigation and rain-fed practices can boost rice yields throughout the Kharif season.

**Q6. The concept of Joint Forest Management does not include:**

- **(1) Government works closer with local people to manage forests.**
- **(2) Locals use forest resources in response to protecting forest ecosystem.**
- **(3) The infrastructure development at the cost of forest resources.**
- **(4) Sustainable conservation of forests.**

**Answer: (3) The infrastructure development at the cost of forest resources.**

**Solution.** Joint Forest Management should prioritize empowering local communities while preserving forest resources.

**Q7. Which of the following is the main characteristic of perpetual resources?**

- **(1) Consumption at a very fast rate**
- **(2) Continuous availability at a limited rate**
- **(3) Unconditional availability**
- **(4) Not formed naturally**

**Answer: (3) Unconditional availability**

**Solution.**Perpetual resources, such as solar and wind energy, can be used to generate energy indefinitely.

**Q8. Arrange the following radiation in increasing order of their wavelength:**
**(A) UV-C, (B) UV-B, (C) UV-A, (D) Infra-red, (E) Microwave**

**Choose the correct answer:**

- **(1) (C), (B), (A), (D), (E)**

- **(2) (A), (B), (C), (E), (D)**
- **(3) (A), (B), (C), (D), (E)**
- **(4) (E), (D), (C), (B), (A)**

**Answer: (3) (A), (B), (C), (D), (E)**

**Solution.** Understanding the wavelength range is useful in deploying radiation technologies such as UV sterilization.

**Q9. A bee-keeper in an orchard enables pollination and fertilisation of the orchards' shrubs and trees. This is an example of:**

- **(1) Negative production externalities**
- **(2) Negative consumption externalities**
- **(3) Positive production externalities**
- **(4) Positive consumption externalities**

**Answer: (3) Positive production externalities**

**Solution.** Beekeeping can increase crop yields and productivity by pollinating them naturally.

**Q10. Arrange the atmospheric layers starting from the Earth's surface upwards:**
**(A) Mesosphere, (B) Stratosphere, (C) Stratopause, (D) Mesopause, (E) Troposphere**

**Choose the correct answer:**

- **(1) (E), (C), (B), (D), (A)**
- **(2) (E), (C), (B), (A), (D)**
- **(3) (E), (B), (C), (A), (D)**
- **(4) (E), (B), (C), (D), (A)**

**Answer: (3) (E), (B), (C), (A), (D)**

**Solution:** Understanding atmospheric layers aids in understanding weather patterns and how pollutants spread.

**Q11. Which of the following is associated with Ozone destruction in the Stratosphere?**
**(A) CFCs, (B) Polar stratospheric clouds, (C) UV-B, (D) UV-A, (E) Cl radicals**

**Choose the correct answer:**

- **(1) (A) and (E) only**
- **(2) (A), (B) and (E) only**
- **(3) (A), (C) and (D) only**
- **(4) (A), (B), (C) and (E) only**

**Answer: (2) (A), (B) and (E) only**

**Solution.**Reducing CFCs can assist to repair the ozone layer, as these chemicals contribute to its depletion.

**Q12. Which of the following are examples of resources?**
**(A) Materials, (B) Energy, (C) Knowledge, (D) Services**

**Choose the correct answer:**

- **(1) (A) and (D) only**
- **(2) (A), (B) and (D) only**
- **(3) (A), (B) and (C) only**
- **(4) (A), (B), (C) and (D)**

**Answer: (4) (A), (B), (C) and (D)**

**Solution.** Managing these resources well can boost economic growth and societal progress.

**Q13. Which of the following treaty prohibits the import of any hazardous waste (including radioactive waste) into African nations only?**

- **(1) The Basel Convention**
- **(2) The Capetown Convention**
- **(3) The Bamako Convention**

- **(4) The Madagascar Convention**

**Answer: (3) The Bamako Convention**

**Solution.** The Bamako Convention protects African countries from hazardous waste while improving environmental safety.

**Q14. Continuous increase of productivity of lakes eventually causes:**

- **(1) Biomagnification in lakes**
- **(2) Bioaccumulation in lakes**
- **(3) Eutrophication in lakes**
- **(4) Bioconcentration in lakes**

**Answer: (3) Eutrophication in lakes**

**Solution.**Managing nutrient runoff from agriculture reduces eutrophication and protects aquatic environments.

**Q15. Dissolved oxygen in water:**

- **(1) remains constant in winter and summer**
- **(2) remains low in winter and high in summer**
- **(3) remains high in winter and low in summer**
- **(4) doesn't depend on temperature of water**

**Answer: (3) remains high in winter and low in summer**

**Solution.** Temperature regulation in bodies of water, either by shade or aeration, can help to stabilize oxygen levels for aquatic life.

**Q16. Excess suspended particles in lake water due to agricultural runoff result in:**

- **(1) high salinity**
- **(2) high turbidity**
- **(3) high dissolved oxygen**
- **(4) high BOD**

**Answer: (2) high turbidity**

**Solution:**Limiting the use of fertilizers and pesticides can help to reduce suspended particles and lower turbidity levels in water bodies.

**Q17. Water in lakes having very high algal and phytoplankton growth is expected to have:**

- **(1) high dissolved oxygen**
- **(2) high dissolved oxygen and high BOD**
- **(3) low dissolved oxygen and high BOD**
- **(4) low dissolved oxygen and low BOD**

**Answer: (3) low dissolved oxygen and high BOD**

**Solution.**Limiting the use of fertilizers and pesticides can help to reduce suspended particles and lower turbidity levels in water bodies.

**Q18. Which of the following is a limiting nutrient in lakes and ponds?**

- **(1) Iron**
- **(2) Phosphorus**
- **(3) Magnesium**
- **(4) Sulphur**

**Answer: (2) Phosphorus**

**Solution :**Limiting phosphorus runoff from fertilizers can help to minimize eutrophication and enhance water quality.

**Q19. The available biomass for consumption by herbivores and decomposers is often referred to as:**

- **(1) Primary production**
- **(2) Gross primary productivity**
- **(3) Net primary productivity**
- **(4) Secondary productivity**

**Answer: (3) Net primary productivity**

**Solution:** Managing ecosystems to increase net primary productivity provides enough biomass for herbivores and decomposers.

**Q20. The rate of production of organic matter during photosynthesis is referred to as:**

- **(1) Primary production**
- **(2) Gross primary productivity**
- **(3) Net primary productivity**
- **(4) Standing crop**

**Answer: (2) Gross primary productivity**

**Solution.** Better agricultural methods can improve photosynthetic efficiency and thus increase gross primary productivity.

**Q21. Which of the following is correct for the interaction between sea anemone that has stinging tentacles and clownfish?**

- **(1) Both species are benefitted**
- **(2) Both are harmed**
- **(3) One is harmed and the other is benefitted**
- **(4) One is benefitted and the other remains unaffected**

**Answer: (1) Both species are benefitted**

**Solution.** Mutualistic connections allow species to survive together, increasing biodiversity and ecosystem resilience.

**Q22. The species interaction in which both interacting species are harmed is referred to as:**

- **(1) Predation**
- **(2) Parasitism**
- **(3) Competition**
- **(4) Mutualism**

**Answer: (3) Competition**

**Solution.** By reducing resource competition through ecosystem management, multiple species can coexist safely.

**Q 23. Mycorrhizal association between fungi and the roots of higher plants is best referred to as:**

- **(1) Commensalism**
- **(2) Amensalism**
- **(3) Mutualism**
- **(4) Competition**

**Answer: (3) Mutualism**

**Solution.** The mycorrhizal connection promotes plant development and nutrient uptake while feeding the fungus carbohydrates.

**Q24. Match List-I with List-II:**
**List-I (Author)**
**(A) Gary Snyder**
**(B) Wendell Berry**
**(C) Rachel Carson**
**(D) Barry Commoner**

**List-II (Book/Poem)**
**(I) Mountains and Rivers Without End**
**(II) The Closing Circle**
**(III) Silent Spring**
**(IV) A Place on Earth**

**Choose the correct answer:**

- **(1) (A) - (IV), (B) - (I), (C) - (III), (D) - (II)**
- **(2) (A) - (I), (B) - (IV), (C) - (III), (D) - (II)**
- **(3) (A) - (II), (B) - (IV), (C) - (III), (D) - (I)**
- **(4) (A) - (IV), (B) - (II), (C) - (III), (D) - (I)**

**Answer: (2) (A) - (I), (B) - (IV), (C) - (III), (D) - (II)**

**Solution.**Recognizing the authors and their contributions aids in comprehending the environmental literature's impact on consciousness.

**Q 25. Match List-I with List-II:**
**List-I (Concept)**
**(A) Ecology**
**(B) Ecosystem**
**(C) Human population growth**
**(D) Hot spots**

**List-II (Proposed by)**
**(I) Norman Myers**
**(II) Ernst Haeckel**
**(III) Sir Arthur Tansley**
**(IV) T R Malthus**

**Choose the correct answer:**

- **(1) (A) - (I), (B) - (IV), (C) - (II), (D) - (III)**
- **(2) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)**
- **(3) (A) - (II), (B) - (III), (C) - (IV), (D) - (I)**
- **(4) (A) - (IV), (B) - (I), (C) - (III), (D) - (II)**

**Answer: (3) (A) - (II), (B) - (III), (C) - (IV), (D) - (I)**

**Solution:** Understanding the origins of ecological principles is useful for applying them to present conservation initiatives.

**Q26. The ecological thought that believes in saving forests as trees give oxygen, better rainfall, and air quality, not saving the environment for its true innate values, dominantly belongs to:**

- **(1) Deep ecology**
- **(2) Social ecology**
- **(3) Eco-feminism**
- **(4) Shallow ecology**

**Answer: (4) Shallow ecology**

**Solution.** Shallow ecology emphasizes the utilitarian advantages of nature, whereas deep ecology promotes respect for nature's intrinsic value.

**Q27. Which of the following is not a major goal of WWF?**

- **(1) To conserve world biological diversity**
- **(2) Sustainable use of renewable natural resources**
- **(3) Reduction of pollution and wasteful consumption**
- **(4) Creating worldwide fund for education**

**Answer: (4) Creating worldwide fund for education**

**Solution.** The WWF focuses on conservation and sustainable usage rather than directly sponsoring education.

**Q28. The first Earth Day was celebrated on:**

- **(1) 20 April, 1970**
- **(2) 22 April, 1970**
- **(3) 05 June, 1970**
- **(4) 20 April, 1972**

**Answer: (2) 22 April, 1970**

**Solution.** Earth Day promotes global environmental awareness and support for the protection of the earth.

**Q29. The plants and animals that cannot maintain a constant internal environment are called:**

- **(1) Regulators**
- **(2) Migrators**
- **(3) Conformers**
- **(4) Suspenders**

**Answer: (3) Conformers**

**Solution.**Conformers adjust their internal circumstances to match the external environment, making them sensitive to drastic alterations.

**Q30. The number of individuals of the same species that have come into a habitat from elsewhere during the time period under consideration is referred to as:**

- **(1) Emigration**
- **(2) Immigration**
- **(3) Natality**
- **(4) Mortality**

**Answer: (2) Immigration**

**Solution.**Immigration increases the population of a habitat, which may enhance biodiversity if handled properly.

**Q31. Which of the following statements are correct?**
**(A) Species that invade a bare area are called pioneer species.**
**(B) In primary succession on rocks, the pioneers are usually lichens.**
**(C) In primary succession in water, the pioneers are reed swamps.**
**(D) In secondary succession, species that invade depend on the condition of soil, water, and environment.**

**Choose the correct answer:**

- **(1) (A), (B) and (D) only**
- **(2) (A), (B) and (C) only**
- **(3) (A), (B), (C) and (D)**
- **(4) (B), (C) and (D) only**

**Answer: (3) (A), (B), (C) and (D)**

**Solution.** Understanding succession aids ecosystem restoration by identifying essential species required to regenerate degraded regions.

**Q32. Match List-I with List-II:**
**List-I (State)**
**(A) Madhya Pradesh**
**(B) Arunachal Pradesh**

**(C) Meghalaya**
**(D) Tamil Nadu**

**List-II (National Park)**
**(I) Namdapha National Park**
**(II) Guindy National Park**
**(III) Nokrek National Park**
**(IV) Kuno National Park**

**Choose the correct answer:**

- **(1) (A) - (IV), (B) - (I), (C) - (III), (D) - (II)**
- **(2) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)**
- **(3) (A) - (IV), (B) - (I), (C) - (II), (D) - (III)**
- **(4) (A) - (I), (B) - (IV), (C) - (II), (D) - (III)**

**Answer: (1) (A) - (IV), (B) - (I), (C) - (III), (D) - (II)**

**Solution:** Understanding the location of national parks aids biodiversity conservation planning and encourages eco-tourism.

**Q33. Which of the following soil has high water retention capacity?**

- **(1) Sandy soil**
- **(2) Loamy soil**
- **(3) Sandy silt soil**
- **(4) Clayey soil**

**Answer: (4) Clayey soil**

**Solution.**Clayey soil's ability to hold water makes it ideal for crops that require consistent moisture supply.

**Q34. Which of the following factors can affect the soil respiration process?**
**(A) Temperature**
**(B) Soil moisture**
**(C) Aeration**

**(D) Number of soil microbes**
**(E) Quality of organic matter in the soil**

**Choose the correct answer:**

- **(1) (A), (C) and (E) only**
- **(2) (A), (B), (C) and (D) only**
- **(3) (B), (C) and (D) only**
- **(4) (A), (B), (C), (D) and (E)**

**Answer: (4) (A), (B), (C), (D) and (E)**

**Solution.**Increasing soil respiration through organic matter enrichment boosts soil fertility and agricultural productivity.

**Q35. Which of the following is not a criteria air pollutant under the National Ambient Air Quality Standards (NAAQS)?**

- **(1) $CO_2$**
- **(2) CO**
- **(3) $O_3$**
- **(4) Pb**

**Answer: (1) $CO_2$**

**Solution.** Monitoring air pollutants like CO, $O_3$, and Pb is essential for maintaining air quality and public health.

**Q36. The disease "Itai-Itai" is caused by contamination of drinking water with which of the following?**

- **(1) Mercury**
- **(2) Cadmium**
- **(3) Arsenic**
- **(4) Chromium**

**Answer: (2) Cadmium**

**Solution.** Reducing industrial cadmium emission into water sources helps to prevent diseases such as Itai-Itai.

**Q37. Which of the following are essentially required for photochemical smog formation in ambient atmosphere?**

- **(1) Smoke, water vapour and low temperature (< 25°C)**
- **(2) NOx, SO2 and high temperature (> 25°C)**
- **(3) NOx, VOCs and high temperature (> 25°C)**
- **(4) Smoke, NOx and low temperature (< 25°C)**

**Answer: (3) NOx, VOCs and high temperature (> 25°C)**

**Solution.** Reducing car emissions and industrial pollutants can help control photochemical smog development in cities.

**Q38. Arrange the following stages of primary succession of plants from last stage to first stage:**
**(A) Reed-swamp stage**
**(B) Submerged plant stage**
**(C) Marsh Meadow stage**
**(D) Phytoplankton**

**Choose the correct answer:**

- **(1) (A), (B), (C), (D)**
- **(2) (C), (A), (B), (D)**
- **(3) (D), (B), (A), (C)**
- **(4) (A), (C), (B), (D)**

**Answer: (3) (D), (B), (A), (C)**

**Solution.** Managing primary succession stages is critical for rebuilding ecosystems following disturbances such as floods or volcanic eruptions.

**Q39. Match List-I with List-II:**
**List-I (Forest Act/Policy)**
**(A) Forest Act**

**(B) National Forest Policy**
**(C) Forest Conservation Act**
**(D) Wildlife Protection Act**

**List-II (Year)**
**(I) 1927**
**(II) 1988**
**(III) 1980**
**(IV) 1972**

**Choose the correct answer:**

- **(1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)**
- **(2) (A) - (II), (B) - (III), (C) - (I), (D) - (IV)**
- **(3) (A) - (IV), (B) - (II), (C) - (III), (D) - (I)**
- **(4) (A) - (III), (B) - (I), (C) - (II), (D) - (IV)**

**Answer: (1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)**

**Solution.**Understanding these policies helps to safeguard forests and wildlife from overexploitation and habitat loss.

**Q40. Arrange the following from lowest to highest dry weight in a biomass pyramid of a grassland ecosystem:**
**(A) Primary Producer**
**(B) Primary Consumer**
**(C) Secondary Consumer**
**(D) Tertiary Consumer**

**Choose the correct answer:**

- **(1) (A), (B), (C), (D)**
- **(2) (A), (C), (B), (D)**
- **(3) (D), (C), (B), (A)**
- **(4) (D), (C), (A), (B)**

**Answer: (1) (A), (B), (C), (D)**

**Solution.**Primary producer forms the base of the biomass pyramid, supporting consumers at higher trophic levels.

**Q41. "Curitiba," a city in Brazil, is famously known for its:**

- **(1) Organic farming practices**
- **(2) Water network projects implementation**
- **(3) Integrated transport network system**
- **(4) Solid waste disposal system**

**Answer: (3) Integrated transport network system**

**Solution.**Curitiba's unique transportation system decreases traffic congestion while minimizing environmental effect, serving as an example for sustainable urban development.

**Q42. Which of the following gases give the lowest percentage contribution to total global warming?**

- **(1) N2O**
- **(2) NO2**
- **(3) CFCs**
- **(4) CH4**

**Answer: (2) NO2**

**Solution :** Reducing emissions of powerful greenhouse gases such as CFCs and CH4 is critical to mitigating global warming.

**Q43. Nomadic movements are not considered as migrations because people move from one place to another:**

- **(1) for economic reasons**
- **(2) for social factors**
- **(3) without any intention**
- **(4) for physical reasons**

**Answer: (3) without any intention**

**Solution 1:** Nomadic migrations are cyclical and do not include permanent settlement, as opposed to migration, which is a deliberate movement.

**Q 44. Which of the following does not explain the relationship between human development and economic development?**

- **(1) Capability expansion through economic growth**
- **(2) Capability expansion through poverty reduction**
- **(3) Capability expansion through social services**
- **(4) Capability expansion through environmental degradation**

**Answer: (4) Capability expansion through environmental degradation**

**Solution.** Human and economic growth should prioritize environmental sustainability above destruction.

**Q 45. The Gandhian economy model does not contain elements of:**

- **(1) Multiplication of needs**
- **(2) Rejection of class-war**
- **(3) Protectionism**
- **(4) Nationalism**

**Answer: (1) Multiplication of needs**

**Solution.** Gandhian economics promotes simplicity, self-reliance, and non-materialistic lifestyle while rejecting the proliferation of wants.

**Q 46. Which of the following methods is most suitable for safe disposal of hospital solid waste?**

- **(1) Dumping**
- **(2) Incineration**
- **(3) Pyrolysis**
- **(4) Composting**

**Answer: (2) Incineration**

**Solution.**Incineration effectively minimizes the volume of infectious hospital waste, making it safer to dispose.

**Q47. Arrange the following processes from start to end in a food distribution system:**
**(A) Packaging of food**
**(B) Processing of food**
**(C) Storage of food**
**(D) Marketing of food**

**Choose the correct answer:**

- **(1) (A), (B), (C), (D)**
- **(2) (C), (B), (A), (D)**
- **(3) (A), (B), (D), (C)**
- **(4) (C), (B), (D), (A)**

**Answer: (2) (C), (B), (A), (D)**

**Solution.** A well-organized food distribution system ensures that food is stored, processed, and marketed efficiently, hence reducing waste.

**Q48. Which one of the following is an incorrect statement in the context of Gross Domestic Product (GDP)?**

- **(1) GDP does not measure the sustainability of growth.**
- **(2) GDP helps to understand whether economy is growing or contracting.**
- **(3) GDP reflects annual trends of inflation and prices of commodities.**
- **(4) GDP helps to understand shifts in the annual changes in the country's economy.**

**Answer: (3) GDP reflects annual trends of inflation and prices of commodities.**

**Solution.** GDP measures overall economic activity but does not explicitly account for inflation or price movements.