

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-V CIVIL : WINTER: 2025
SUBJECT: ENVIRONMENTAL STUDIES

AIML

Day : Monday
Date : 22/12/2025

W-30716-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 40

N.B.

- 1) All questions are **COMPULSORY**.
- 2) You have to make such kind of mark in the box of the appropriate answers.

Seat No. : _____

M.C.Q's

- 1 The Preservationist philosophy in early American conservation, exemplified by figures like John Muir, advocated for
 - a) The efficient, sustained management of natural resources for commercial use
 - b) Protecting natural lands and wilderness from all forms of development or permanent human presence
 - c) Integrating conservation with economic development to satisfy basic human needs.
 - d) Utilizing a short-term time perspective focused on economic efficiency
- 2 Gifford Pinchot, a key figure in the Conservation Movement, emphasized the philosophy of Utilitarian Conservation, which focuses on:
 - a) Cultivating character traits like reciprocity and responsibility toward nature.
 - b) The militarized protection of settler assets from Indigenous Peoples.
 - c) The careful management and sustainable use of resources for commercial use and human advantage
 - d) Defining conservation as the healing and restoring of Indigenous relationships to lands and waters
- 3 The 2015 Paris Agreement, which resulted from the Fifth Assessment Report of the IPCC, sets a long-term goal for countries to limit global warming to less than
 - a) 1.5°C above preindustrial levels
 - b) 3 °C above preindustrial levels
 - c) 2 °C above preindustrial levels.
 - d) 45% reduction in emissions over the next decade.
- 4 The fundamental principle of International Environmental Law (IEL) that dictates the present generation must hold the planet Earth in trust for future generations is known as the:
 - a) Precautionary Principle.
 - b) Polluter Pays Principle (PPP).
 - c) Principle of Intergenerational Equity.
 - d) Common but Differentiated Responsibilities (CBDR)
- 5 The international agreement known as CITES (1973) is aimed at
 - a) Regulating the transboundary movement and disposal of hazardous waste
 - b) Promoting the sustainable management of living natural resources
 - c) Protecting wildlife species from over-exploitation due to international trade
 - d) Developing methodologies for estimating national greenhouse gas inventories
- 6 What interactive global challenge does the current unsustainable use of resources drive, often referred to as the "triple planetary crisis"?
 - a) Trade imbalances, geopolitical conflict, and population decline
 - b) Climate change, nature/biodiversity loss, and pollution/waste
 - c) Resource nationalism, economic recession, and political instability
 - d) Urbanization, industrialization, and food insecurity

P. T. O.

- 7 A fundamental operational principle of sustainable development concerning renewable resources states that:
- a) They should be fully exploited before developing non-renewable substitutes
 - b) The rate of harvest should exceed the rate of regeneration to maximize utility
 - c) The rate of harvest should not exceed the rate of regeneration (sustainable yield)
 - d) They should only be used in developing countries to reduce global inequality
- 8 What concept considers well-being metrics instead of merely economic activity (GDP) when evaluating the separation of environmental impacts from human needs?
- a) Material flow analysis
 - b) Production perspective
 - c) Provisioning system
 - d) Well-being decoupling
- 9 What strategy involves minimizing reliance on non-renewable energy sources and emphasizing the use of renewable energy sources, along with eliminating energy waste?
- a) Environmental Impact Assessment (EIA)
 - b) Energy Conservation
 - c) Production Perspective
 - d) Agro-forestry
- 10 To ensure sustainable management of natural resources, the integration of which three critical factors is required in decision-making processes?
- a) Political, Technical, and Geographical factors
 - b) Environmental, Economic, and Social factors
 - c) Physical, Biological, and Chemical factors
 - d) Urban, Rural, and Industrial sectors
- 11 According to the United Nations framework mentioned in the sources, which set of issues is collectively identified as the "triple planetary crises"?
- a) Desertification, Water Scarcity, and Waste Disposal
 - b) Climate Change, Pollution, and Biodiversity Loss
 - c) Global Warming, Ocean Acidification, and Ozone Depletion
 - d) Resource Depletion, Land Degradation, and Habitat Destruction
- 12 Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming. What was the approximate global surface temperature reached above the 1850–1900 level during the 2011–2020 decade?
- a) 0.8°C
 - b) 1.1°C
 - c) 1.5°C
 - d) 2.0°C
- 13 Which population groups in developing countries are identified in the sources as most vulnerable to the negative effects of newly emerging environmental chemical contaminants (EECCs)?
- a) High-income urban residents involved in technology manufacturing.
 - b) Communities residing near mining or industrial areas and cultivating crops on contaminated soils.
 - c) Scientists and researchers specializing in remediation technology.
 - d) People with limited knowledge of conventional pollution types.
- 14 To maintain the resilience of biodiversity and ecosystem services at a global scale, effective and equitable conservation is needed for approximately what percentage range of Earth's land, freshwater, and ocean areas?
- a) 5–10%
 - b) 10–20%
 - c) 30–50%
 - d) 70–80%

- 15 The United Nations International Strategy for Disaster Reduction defines environmental degradation as:
- The natural depletion of fossil fuel resources.
 - The reduction of global surface temperature due to aerosol masking.
 - The reduction of the capacity of the environment to meet social and ecological objectives and needs.
 - Direct contamination of air, water, or soil in a confined area.
- 16 Which conservation method involves the protection, conservation, and management of biodiversity within the natural habitat of the animals and plants, often through creating protected areas such as national parks and wildlife sanctuaries?
- Ex-situ* conservation
 - In-situ conservation
 - Cryopreservation
 - Restoration ecology
- 17 What specialized management evaluation process has India institutionalized for objectively evaluating its National Parks, Wildlife Sanctuaries, Tiger Reserves, and Elephant Reserves?
- The International Union for Conservation of Nature (IUCN) Red List process
 - Management Effectiveness Evaluation (MEE) process
 - Population Viability Analysis (PVA)
 - Systematic Conservation Planning (SCP)
- 18 The Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) was launched by the Government of India on which key observance date?
- World Wildlife Day 2024
 - International Day for Biological Diversity
 - World Environment Day 2024
 - World Elephant Day 2022.
- 19 What specific conservation tool did the Ministry launch, alongside the Next Generation DNA Sequencing facility in Dehradun, to enhance coordination in wildlife health management (as announced on World Wildlife Day 2025)?
- Gaj Soochna App
 - National Great Indian Bustard Conservation Action Plan
 - National Referral Centre for Wildlife at Junagadh
 - Tiger Conservation Scheme outside traditional reserves
- 20 The legal framework in India that recognizes and grants rights to Scheduled Tribes and other communities to own, collect, use, and dispose of minor forest produce, and to manage community forest resources, is known as the:
- Integrated Development of Wildlife Habitats (IDWH) Scheme
 - Biological Diversity Act, 2002
 - Wetlands (Conservation and Management) Rules, 2017
 - Forest Rights Act
- 21 Pollution is generally defined as the introduction of contaminants into the natural environment that result in harm. Which of the following is explicitly mentioned as a form of contaminant/pollutant energy?
- Chemical agents
 - Solid waste
 - Heat
 - Industrial effluents
- 22 Thermal pollution primarily results in the degradation of the quality of which environmental medium?
- Air
 - Soil
 - Water
 - Land
- 23 According to the sources, which type of contamination involves the accumulation of microplastics and negatively affects wildlife and human health?
- Radioactive contamination
 - Noise pollution
 - Plastic pollution
 - Electromagnetic pollution

- 31 What is the primary characteristic that distinguishes traditional resource management from contemporary adaptive management approaches?
- a) Focus on maximizing resource extraction. c) Exclusive use of economic paradigms concerned only with neoclassical resource scarcity.
- b) The reliance on the "Command and Control" model. d) Recognition that many management activities are inherently experiments, providing essential learning opportunities.
- 32 Adaptive management is best understood as a systematic process that integrates which combination of methodologies?
- a) Industrial ecology, full cost accounting, and total quality management. c) Hazard identification, exposure assessment, and risk characterization.
- b) Systems analysis, social learning, experimental design, decision analysis, and feedback dynamics. d) Defining the EMS scope, setting objectives, and conducting internal audits.
- 33 According to the principles of adaptive management, which role does uncertainty play in managing natural systems?
- a) It should be ignored to maintain management stability. c) It is considered an unavoidable attribute arising from the stochastic nature of ecological processes and incomplete knowledge.
- b) It is viewed as an occasional problem resulting from political pressure. d) It must be eliminated entirely before any management intervention can occur.
- 34 Which characteristic is NOT listed as one that makes long-term environmental governance challenges, such as climate change and biodiversity loss, extremely demanding?
- a) The presence of very long time-lags between human action and environmental effect. c) The challenges involve global collective goods that extend beyond unilateral solutions.
- b) Problems being embedded in highly complex systems that are not well understood. d) The solutions are amenable to simple managerial technocratic resolution by scientific experts.
- 35 Social science research on severe collective response challenges distinguishes primarily between which two models of governance?
- a) Passive adaptive management and active adaptive management. c) Centralized leadership (Collective Action) guided by a synoptic master plan, and adaptive/pluralistic governance focused on learning and flexibility.
- b) Command and Control management and Natural Resource Management. d) Before-After-Control-Impact (BACI) designs and Total Exposure Assessment Methodology (TEAM).
- 36 The GEF serves as the financial mechanism for a total of how many multilateral environmental conventions (MEAs) and associated protocols?
- a) Two: the UNFCCC and the CBD. c) Six: CBD, UNFCCC, Stockholm POPs, UNCCD, Minamata Convention on Mercury, and BBNJ Agreement.
- b) Four: CBD, UNFCCC, Kyoto Protocol, and Minamata Convention. d) Ten: covering all major global environmental agreements.
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- 37 Which mechanism, unique to the GEF, provides funds to recipient countries in a transparent and predictable manner, adjusting allocations based on a country's potential to generate global environmental benefits, performance on existing projects, and economic needs?
- a) The Multilateral Climate Funds Joint Action Plan (MCF-JAP). c) The Country Policy and Institutional Assessment (CPIA).
 b) The System for Transparent Allocation of Resources (STAR). d) The Global Biodiversity Framework Fund (GBFF).
- 38 The UNEP, in collaboration with the World Meteorological Organization (WMO), established which key scientific body in 1988?
- a) The Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA). c) The Intergovernmental Panel on Climate Change (IPCC)
 b) The Scientific and Technical Advisory Panel (STAP) d) The Global Biodiversity Framework Fund (GBFF)
- 39 What is the specific focus of the GEF's Food Systems, Land Use and Restoration (FOLUR) Impact Program, launched under the GEF-7 phase?
- a) *Eliminating* mercury-contaminated waste in electrical equipment c) Improving the sustainability of landscapes that produce the world's food.
 b) Addressing the drivers of ocean acidification and marine debris. d) Promoting the use of remote sensing and GIS for monitoring.
- 40 The UNEP's Regional Seas Programme, established in 1974, is characterized by which unique feature in global ocean governance?
- a) It exclusively funds projects in the Pacific Ocean. c) It is managed solely by the GEF Secretariat.
 b) It is the world's only legal program focused on protecting the oceans and seas at the regional level. d) It only applies to areas beyond national jurisdiction (High Seas Treaty).
