

Assignment No = 1

Part-A

Q1) What is environment?

Ans Everything that surrounds and affect living organisms is called as environment. It also refers as sum total of water, air and land and the interrelationship that exists among them and with human beings, other living organisms and materials.

Q2) Write names of 5 international days that are celebrated to make awareness for the environment.

- Ans:
- 1.) World Environment day = June 5
Led by UNEP (United Nations Env't Programme)
 - 2.) Earth Day = April 22.
To protest against environmental degradation.
 - 3.) International Day for the Biological Diversity : May 22.
To increase understanding and awareness of biodiversity issues.
 - 4.) International day of forests = March 21,
celebrates and raise awareness of the importance of all types of forests.
 - 5.) World Wildlife day = March 3
To protect endangered species, manage their habitats.

Q3) Write names of environmentalists who won noble peace prize for their contribution to save the environment.

- Ans: ① Wangari Maathai (2004) = Contribution to sustainable development, peace and specific through her Green Belt Movement in Kenya
- ② Al Gore (2007) : To build up and disseminate greater knowledge about man made climate change.

Q4) What is meant by Ecomark?

Ans It is a certification mark awarded by Bureau of Indian Standards (BIS) to products that meet specific environmental criteria and standards.

Logo is an Earthen Pot (signifying the usage of renewable resources)

Q5) Name four government initiatives for public awareness.

Ans ① Public Env'tl Awareness:

Aims to raise awareness in society to reduce and control pollution

② Mahila Shakti Kendra: (MSK)

Aims to help rural women develop skills and find employment.

③ Ujjala Yojana:

Aims to promote energy efficient lighting by Eg= LED bulbs

④ Green Good Deeds (GGDs)

encourages green habits like using public transportation, saving water and avoiding single use plastics.

Part-B

Q1 What are the major components of environment? Explain their role.

Ans: The environment consists of various components that interact with each other to sustain life.

i) Atmosphere: Layer of gases surrounding the Earth. Plays roles in:

- * Protecting life by blocking harmful solar radiation.
- * Regulating temperature through the greenhouse effect.
- * Providing essential gases like O₂, CO₂.

ii) Biosphere: Includes all living organisms.

- * Supports biodiversity.

* Facilitates energy flow and nutrient cycle.

* Maintains food chains balance by

iii) Hydrosphere: All water bodies like oceans, lakes

- * Supports aquatic life.

* Regulates climate and weather through water cycles.

* Provide water for drinking, agriculture etc.

iv) Lithosphere: Earth's outer shell having crust and the upper mantle.

* Provides habitats for terrestrial organisms.

* Contains minerals, resources.

- * Have role in processes erosion, plate tectonics.

Q 2) Describe Chipko Movement.

Ans: It was a non violent social aimed at protecting trees and forests from being felled.

- * Origins : Starts in 1973 from village Mandal. Led by activists like Chandi brasad and Gaura devi.

Protest against govt. decision to allow cutting of trees for commercial purpose.

- * Method : Villagers hugging trees to prevent them from being cut down.

Term 'Chipko' means 'hug'

- * Role of Women : Women played a significant role, as they were affected by deforestation. Forests provide firewood, water etc.

- * Impact : The chipko movement halted the cutting of trees and led to ban on commercial logging in the region.

It highlighted the role of local communities in environmental conservation.

Q 3) who are entitled as the green Judge and the green advocate? discuss their roles for this recognition.

Ans Justice Kuldip Singh, a former judge of the Supreme court, is known as "green judge" because he presided over many public interest

litigations (PILs) on environmental issues. Till retirement in 1996, he passed crucial judgements on air pollution, including specifying norms for industries around Taj Mahal.

M.C. Mehta is also Green Advocate, who single handedly won numerous landmark judgements from India's Supreme Court since 1984, introducing lead free gasoline to India and reducing the industrial pollution polluting the Ganges and eroding the Taj Mahal.

Part -3

Q1) Write role of an individual to protect and manage the environment. What is the role of community participation in envt-management programme.

Ans: Role of Individual:

1) Collective Action:

- Reduce, Reuse, Recycle:

Minimize waste by reusing items, recycling materials and reducing consumption of single use plastics.

2) Conserve Energy: Use energy efficient appliances, turn off lights & electronics when not in use, consider using renewable energy sources.

3) Water Conservation: Fix leaks, use water saving fixtures, and practice mindful water usage in daily activities.

4. Sustainable Transportation: Opt for public transportation, biking or walking instead of driving alone to reduce carbon emissions.
5. Support Sustainable Products: Choose products made from sustainable materials and companies that prioritize envtal responsibility.
6. Educate & Advocate: Stay informed about Environmental issues & advocate for policies that protect the environment.
7. Plant trees and gardens: Maintains gardens to enhance local biodiversity and reduce carbon dioxide levels.
8. Avoid Pollution: Dispose of hazardous materials, participate in clean up drives.

Role of Community:

1. Collective Action: Community involvement leads to address larger environmental issues more effectively.
2. Local Knowledge: Communities possess local knowledge that can be crucial in identifying & solving environmental problems to their area.
3. Resource Sharing: Community members can pool resources, time, money and materials, to support envt projects.
4. Enhanced Monitoring: Local communities can monitor environmental changes & impacts more regularly, providing valuable data for larger initiatives.

5. Social Cohesion: Working together on environmental projects strengthens community bonds.
6. Policy influence: A united community can exert pressure on local govt. and policymakers to implement and enforce environmental regulations.

(Q2) What is atmosphere? Discuss different layers of atmosphere and their importance to protect the environment.

Ans: Atmosphere is a layer of gases surrounding Earth, held in place by gravity. It is crucial for life on Earth as it provides oxygen for breathing; protects harmful solar radiations.

Layers of the Atmosphere:

1) Troposphere:

- Extends up to 8-15 km above Earth's surface
- Contains approx 75% of the atmosphere's mass and nearly all its water vapor.
- Clouds and precipitation occur in this layer.
- Supports life, climate and weather system.

2) Stratosphere:

- Ranges from 15 to 50 km above earth's surface
- Contains the ozone layer, which absorbs and scatters ultraviolet solar radiation.

3) Mesosphere :

- Extends from 50 to 80 km
- Temperature decrease with altitude and this layer is where most meteors burn.
- Protects Earth from meteors by burning.

4) Thermosphere :

- Ranges from 85 to 600 km.
- Temp increases with altitude due to the absorption of high energy x-rays and UV radiation.
- Having ionosphere, which is important for radio communication.
- Absorbs high energy radiation and supports satellite, radio communications by reflecting radio waves back to Earth.

5) Exosphere :

- Extends 600 to 1000 Km.
- Outermost layer where the atmosphere thins out into space.
- Contains very few particles, which can travel 100's of Kms with colliding.
- Gradually transitions into outer space and helps Earth by protecting from solar winds and cosmic rays.

~~Ecology~~. Study of living organisms and their interactions with each other and their environments.

2. Chemistry = Analysis of pollutants, chemical processes in nature, and the development of green technologies.
3. Geology = Understanding earth processes, natural resources, and the impacts of human activity on geological systems.
4. Physics = Application of physical principles to study energy flows, climate dynamics and environmental technology.
5. Geography = Examination of spatial relationships and human-environment interactions.
6. Sociology and Anthropology = Study of human societies, culture, and their impacts on the environment
7. Economics = Analysis of environmental costs, resource management, and economic incentives for sustainable practices.
8. Political Science: Understanding environmental policies, governance and international agreements.
9. Law = Environmental legislation, regulations and enforcement mechanisms
10. Engineering : Development of sustainable technologies, waste management, and environmental engineering solutions.

10. Public Health: Impact of environmental factors on human health and strategies for mitigation.

Scope of Environmental Studies :

1. Sustainable Development : Promoting practices that meet present needs without compromising future generations.
2. Conservation and biodiversity : Protecting species, habitats and ecosystems.
3. Pollution Control : Developing methods to reduce air, water and soil pollution.
4. Climate Change Mitigation and Adaptation : Understanding, addressing the causes and impacts of climate change.
5. Resource Management : Efficient and sustainable use of natural resources like water, minerals.
6. Waste Management : Developing strategies for waste reduction, recycling and disposal.
7. Urban Planning : Designing cities and infrastructure that are environmentally friendly.

Sam
12/8/22