

## 13A01403 ENVIRONMENTAL SCIENCE Short Answers

### Unit -I

1. Define Environment.
  - A. The sum total of water, air, land and the inter-relationships that exist among them and with the human beings, other living organisms and materials is called environment.
  
2. Define Sustainable Development.
  - A. Development that is aimed in judicious utilization of resources, so as, the resources can be given to the next generations also. "It is meeting the needs of present generation without compromising the needs of future generations".
  
3. What is green advocacy?
  - A. Consortium of lawyers, advocates who plead the cases relating to environment.
  
4. What is green marketing?
  - A. The marketing involving Eco friendly products is called green marketing. The certification ISO 14000 or ecomark is given to Eco friendly products, such products should be encouraged by the people.
  
5. What are eco-friendly products?
  - A. Products that can degrade automatically in soil in 15 to 45 days are called Eco friendly products. They won't harm the environment.
  
6. What is green media?
  - A. Media or mass communication spreading environmental awareness is known as green media. Television, radio, newspapers, magazines, hoardings, ads etc. that propagate environmental awareness are called green media.
  
7. What is environmental consultancy?
  - A. The experts group advising or helping in implementation of environmental standards is known as environmental consultancy. Many NGOs, industries, and government bodies are engaging these consultants in complying the standards.
  
8. What is earth summit?
  - A. The conference held at Rio de Janeiro, in 1992 on Environment & Development is known as earth summit. In this conference many declarations were made to control pollution, to protect earth and to save wild life etc.

9. What is green belt movement?

A. It is the movement started in Kenya by a women group. The Kenyan women under the leadership of Ms. Wangari Maathai planted 30 million trees across Africa. This helped in slowing desertification, preserving forest habitats for wildlife, food for future generation and combating poverty.

10. What is Ecomark?

A. The labelling given to Eco friendly products is called as ecomark. Every country has their own ecomark. The Indian ecomark is introduced in 1991 by ministry of Environment and Forests. It is an earthen pitcher - symbol of Eco friendliness and traditional heritage.

11. Why environmental science is a multidisciplinary subject?

A. For understanding the complexities of environment, different disciplines input are required. We require many inputs from biology, soil science, statistics, economics, technology, oceanography, atmospheric science, sociology, anthropology, ethics, modelling, engineering etc. so it's a multidisciplinary subject.

12. Write about silent spring.

A. It is the book written by Rachel Carson in 1962. It is the milestone marking the birth of environmental movement. Carson exposed the perils of the indiscriminate use of pesticides, particularly DDT. Initially the chemical industry supported by the agriculture department questioned the Carson's credibility as scientist and made legal acquisitions. Yet when the book became a best seller, President John F. Kennedy called for a committee to examine the issues raised. The committee's report endorsed Carson's accusations, exposing corporate culpability and bureaucratic indifference. DDT came under government supervision and eventually banned in 1972.

13. Major International conventions:

**Ramsar Convention:**

It was adopted on 2nd Feb 1971 at Ramsar, Iran, yet came into force on 21st Dec 1975. The objectives were to recognize the importance of marshes for animals and plants and the ecological system as a whole and to promote the conservation of marshes.

**CITES:**

Convention on International Trade in Endangered Species of Wild Fauna and Flora. It was adopted on 3rd Mar 1973, at Washington DC, USA. Came in to force from 1st July 1975. CITES aims to protect wild fauna and flora in danger of extinction by cooperation in restricting international trade between export and import states. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild, and it accords varying degrees of protection to more than 35,000 species of animals and plants. In order to ensure that the General Agreement on Tariffs and Trade (GATT) was not violated, the Secretariat of GATT was consulted during the drafting process.

**Vienna Convention for Ozone Protection:**

Vienna convention raised the importance of protection of Ozone for protecting ourselves from UV-B radiation. it was signed on 22nd Mar 1985 and came into effect on 22nd Sep 1988. Meanwhile the Montreal Protocol signed on 16 September 1987 gained a lot of importance for protection of Ozone. These two conventions facilitated the developing countries to reduce ODS (Ozone Depleting Substances) smoothly.

**Basel Convention:**

Basel convention on the Control of Trans boundary Movement of Hazardous Wastes and their Disposal. It was adopted on 2nd Mar 1989 at Basel, Switzerland and came into force on 5th May 1992. international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). It does not, however, address the movement of radioactive waste. The Convention is also intended to minimize the amount and toxicity of wastes generated, to ensure their environmentally sound management as closely as possible to the source of generation, and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate.

**Earth Summit:**

"Conventions on Climate Change and Biological Diversity. The United Nations Conference on Environment and Development (UNCED), also known as the Rio Summit, Rio Conference, and Earth Summit, was a major United Nations conference held in Rio de Janeiro from 3 to 14 June 1992. 172 governments participated, with 116 sending their heads of state or government. Some 2,400 representatives of non-governmental organizations (NGOs) attended, with 17,000 people at the parallel NGO ""Global Forum"" (also called Forum Global), who had Consultative Status.

The issues addressed included:

- systematic scrutiny of patterns of production — particularly the production of toxic components, such as lead in gasoline, or poisonous waste including radioactive chemicals
- alternative sources of energy to replace the use of fossil fuels which are linked to global climate change
- new reliance on public transportation systems in order to reduce vehicle emissions, congestion in cities and the health problems caused by polluted air and smoke the growing scarcity of water
- An important achievement was an agreement on the Climate Change Convention which in turn led to the Kyoto Protocol. Another agreement was to "not carry out any activities on the lands of indigenous peoples that would cause environmental degradation or that would be culturally inappropriate".

The Convention on Biological Diversity was opened for signature at the Earth Summit, and made a start towards redefinition of measures that did not inherently encourage destruction of natural ecoregions and so-called uneconomic growth."

**UNFCCC:**

United Nations Framework Convention on Climate Change. It is a part of Earth Summit or Rio declaration. The UNFCCC was opened for signature on 9 May 1992, after an Intergovernmental Negotiating Committee produced the text of the Framework Convention as a report following its meeting in New York from 30 April to 9 May 1992. It entered into force on 21 March 1994. One of the first tasks set by the UNFCCC was for signatory nations to establish national greenhouse gas inventories of greenhouse gas (GHG) emissions and removals.

**CBD:**

Convention on Biological Diversity. The Convention was opened for signature at the Earth Summit in Rio de Janeiro on 5 June 1992 and entered into force on 29 December 1993. Its objective is to develop national strategies for the conservation and sustainable use of biological diversity. It is often seen as the key document regarding sustainable development.

**Aarhus Convention:**

Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. It was signed on 25 June 1998 in the Danish city of Aarhus. It entered into force on 30 October 2001. The Aarhus Convention grants the public rights regarding access to information, public participation and access to justice, in governmental decision-making processes on matters concerning the local, national and trans boundary environment. It focuses on interactions between the public and public authorities.

**Stockholm Convention on Persistent Organic Pollutants:**

It is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs). 12 POPs known as dirty dozen, like Dioxin, Furan and DDT which can remain in environment for long time and which can affect the next generations are aimed for elimination.

**Rotterdam Convention:**

Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Signed on 10 September 1998 @ Rotterdam, Netherlands. Came in to force on 24th Feb 2004. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans. Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply