ForumIAS

Prelims Marathon

1st Week Dec, 2023

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

Index

Environment Institutions & Measures

Q.1) Which of the following statements is/are correct about "National Wildlife Action Plan (NWAP) for the period 2017-2031"?

1. It has 5 components and 17 themes.
2. The plan focuses on preservation of genetic diversity and sustainable development.
3. It is third action plan.

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: The first National Wildlife Action Plan (NWAP) of 1983 has been revised and the Wildlife Action Plan (2002- 2016) has been adopted.

- India's National Wildlife Action Plan (NWAP) for the period 2017-2031 focuses on preservation of genetic diversity and sustainable development.
- The NWAP has five components, 17 themes, 103 conservation actions and 250 projects.

Source: Shankar IAS

Q.2) The National Afforestation and Eco-Development Board set up in?

a) 1972
b) 1982
c) 1992
d) 2002

ANS: C

Explanation: National Afforestation and Eco-Development Board set up in August 1992, is responsible for promoting afforestation, tree planting, ecological restoration and eco-development activities in the country, with special attention to the degraded forest areas and lands adjoining the forest areas, national parks, sanctuaries and other protected areas as well as the ecologically fragile areas like the Western Himalayas, Aravallis, Western Ghats, etc.

Source: Shankar IAS

Q.3) The term "CAMPA" is often seen in news related to?

a) Afforestation fund
b) Conservation agriculture
c) Cyclone management
d) Cyber protection

ANS: A

Explanation: The Compensatory Afforestation Fund (CAF Act), 2016 and Rules, 2018 provide elaborate guidelines and activities for utilization of CAMPA Fund.

The CAMPA funds are utilized for compensating the loss of forest land and ecosystem services by raising of compensatory afforestation, improving quality of forests through assisted natural regeneration, enrichment

of biodiversity, improvement of wildlife habitat, control of forest fire, forest protection and soil and water conservation measures.
Source: Shankar IAS

Q.4) The "Joint Forest Management (JFM)" is often seen in news, came into effect through?
a) Wildlife protection act, 1972
b) Environment protection act, 1981
c) National forest policy of 1988
d) Sustainable action plan 2002

ANS: C
Explanation: Joint Forest Management (JFM) is partnership involving both the forest departments and local communities in natural forest management.
The concept was introduced by Government of India through the National Forest Policy of 1988.
Source: Shankar IAS

Q.5) The term "Social Forestry" first came into effect through?
a) National Commission on Agriculture in 1976
b) Environment protection act, 1981
c) National forest policy of 1988
d) Sustainable action plan 2002

ANS: A
Explanation: The National Commission on Agriculture, Government of India, first used the term 'social forestry' in 1976.
It was then that India embarked upon a social forestry project with the aim of taking the pressure off the forests and making use of all unused and fallow land.
Source: Shankar IAS

Q.6) Consider the following statements regarding "National Bamboo Mission":
1. It is a central sector scheme.
2. It is implemented by NABARD.

Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: D
Explanation: The National Bamboo Mission is a Centrally Sponsored Scheme with 100% contribution from Central Government.
It is being implemented by the Horticulture Division under Department of Agriculture and Co-operation in the Ministry of Agriculture, New Delhi.
Source: Shankar IAS

Q.7) The "Lighting A Billion Lives (LABL)" is an initiative of?

a) World Bank
b) World Economic Forum
c) TERI
d) Centre for Science & Environment

ANS: C

Explanation: LaBL is a campaign by TERI that promotes the use of solar lanterns specially designed and manufactured on a decentralized basis.

- LaBL has been able to engage with government interventions under Sarva Shiksha Abhiyan, Madhya Pradesh Rural Livelihood Project, Rasthriya Gramin Vikas Nidhi, and has facilitated the spread of mobile telephony with support from Department of Telecommunications, Government of India.
- LaBL has successfully engaged the private sector and leveraged Corporate Social Responsibility (CSR).

Source: Shankar IAS

Q.8) Consider the following statements regarding "National Clean Energy Fund (NCEF)":

1. It was constituted in the public account of India in the Finance Bill 2010-11.
2. Its objective is to invest in entrepreneurial ventures and research & innovative projects in the field of clean energy technology.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: National Clean Energy Fund' (NCEF) was constituted in the public account of India in the Finance Bill 2010-11.

Objective - to invest in entrepreneurial ventures and research & innovative projects in the field of clean energy technology.

Source: Shankar IAS

Q.9) The "FAME India Scheme" is often seen in news related to?

a) Electric vehicles
b) Fertilizers
c) Incubation centres
d) Nuclear reactors

ANS: A

Explanation: Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme Phase-II is being implemented by the Ministry of Heavy Industries for a period of five years commencing from 1st April,2019 with a total budgetary support of Rs. 10,000 crore.

- This phase mainly focuses on supporting electrification of public & shared transportation, and aims to support through demand incentive 7090 eBuses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers.
- In addition, creation of charging infrastructure is also supported under the Scheme.

Source: Shankar IAS

Q.10) The "Neyyar and Peppara wildlife sanctuaries" are recently seen in news located at?

a) Tamil Nadu
b) Kerala
c) Andhra Pradesh
d) Karnataka

ANS: B

Explanation: The MoEFCC has issued a draft notification to declare an Eco-Sensitive Zone (ESZ) that will encompass large swathes of areas around the Neyyar and Peppara wildlife sanctuaries in Thiruvananthapuram.

Source: FORUMIAS

Environment Institutions & Measures

Q.1) Consider the following statements regarding "Animal Welfare Board of India":

1. It is a statutory body.
2. It was established through wildlife protection act, 1972.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: A

Explanation: The Animal Welfare Board of India is a statutory advisory body on Animal Welfare Laws and promotes animal welfare in the country.

The Animal Welfare Board of India, the first of its kind to be established by any Government in the world, was set up in 1962, in accordance with Section 4 of the Prevention of Cruelty to Animals Acts 1960.

Source: Shankar IAS

Q.2) The famous "Shrimati Rukmini Devi Arundale" was associated with which of the following?

a) Zoological park
b) Animal welfare board
c) Jim Corbett national park
d) National green tribunal

ANS: B

Explanation: Shrimati Rukmini Devi Arundale pioneered the setting up of the Animal welfare Board, with its Headquarters' at Chennai. She guided the activities of the Board for nearly twenty years till her demise in 1986.

Source: Shankar IAS

Q.3. The "Central Zoo Authority" was constituted through amendment of which of the following act?

a) Prevention of Cruelty to Animals Acts 1960
b) Wildlife protection act, 1972
c) Biological Diversity Act ,2002
d) National green tribunal act, 2010

ANS: B

Explanation: The amendment made to the Wild Life (Protection) Act in 1991 added a new chapter dealing with zoos to the Act and allowed for the Central Government to constitute an authority known as the Central Zoo Authority to oversee the functioning and development of zoos in the country.

Source: Shankar IAS

Q.4) Which of the following is/are function/s of "Central Zoo Authority"?

1. To specify the minimum standards for housing, upkeep and veterinary care of animals kept in a zoo.
2. To recognize and derecognize zoos.
3. To identify endangered species of wild animals for purposes of captive breeding and assigning responsibility in this regard to a zoo.

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: The following are the functions of the Central Zoo Authority as specified in the Act:

1. To specify the minimum standards for housing, upkeep and veterinary care of animals kept in a zoo
2. To evaluate and assess the functioning of zoos with respect to the standards or the norms as are prescribed
3. To recognize and derecognize zoos
4. To identify endangered species of wild animals for purposes of captive breeding and assigning responsibility in this regard to a zoo
5. To co-ordinate the acquisition, exchange and loaning of animals for breeding purposes

Source: Shankar IAS

Q.5) The "National Biodiversity Authority (NBA)" was established in?

a) 1972
b) 1992
c) 2003
d) 2010

ANS: C

Explanation: The National Biodiversity Authority (NBA) was established in 2003 to implement India's Biological Diversity Act (2002).

Source: Shankar IAS

Q.6) Consider the following statements regarding "Wildlife Crime Control Bureau":

1. It was established in 2002.
2. It was established through amendment of Prevention of Cruelty to Animals Act.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: D

Explanation: The Government of India constituted a statutory body, the Wildlife Crime Control Bureau on 6th June 2007, by amending the Wildlife (Protection) Act, 1972.

The bureau would complement the efforts of the state governments, primary enforcers of the Wildlife (Protection) Act, 1972 and other enforcement agencies of the country.

Source: Shankar IAS

Q.7) The "Biodiversity Management Committees (BMCs)" is often seen in news associated with?

a) Wildlife protection act, 1972
b) Environment protection act, 1986
c) Biodiversity act, 2002
d) National green tribunal act, 2010

ANS: C

Explanation: The Biodiversity Management Committees (BMCs) at local level was formed under India's Biological Diversity Act (2002).

Source: Shankar IAS

Q.8) The famous "Wular Lake" is often seen in news located at?

a) Chennai
b) Ahmadabad
c) Lucknow
d) Kashmir

ANS: D

Explanation: Lake Wular belongs to the largest freshwater lakes in India and lies in the Kashmir Valley, 40 km northwest of Srinagar City in the Northwest of India. With a size of 189 sq. km, Wular Lake is also one of the largest freshwater lakes in Asia.

- The lake lies at an altitude of 1,580 m. Its maximum depth is 14 metres, it has a length of 16 km and a breadth of 10 km.
- In recognition of its biological, hydrological and socio-economic values, the lake was included in 1986 as a Wetland of National Importance under the Wetlands Programme of the Ministry of Environment and Forests, Government of India for intensive conservation and management purposes.
- Subsequently in 1990, it was designated as a Wetland of International Importance under the Ramsar Convention.

Source: FORUMIAS

Q.9) The "Mouling National Park" is recently seen in news located at?

a) Assam
b) Arunachal Pradesh
c) Himachal Pradesh
d) Sikkim

ANS: B

Explanation: Mouling National Park is a national park located in the Indian state of Arunachal Pradesh, spread primarily over the Upper Siang district and parts of the West Siang and East Siang district.
It was the second national park to be created in the state, after Namdapha National Park in 1972.
Source: FORUMIAS

Q.10) The "Brahmagiri Wildlife Sanctuary" is recently seen in news located at?

a) Tamil Nadu
b) Andhra Pradesh
c) Karnataka
d) Goa

ANS: C

Explanation: The Brahmagiri Wildlife Sanctuary is located in Kodagu District, Karnataka State, India, within the Western Ghats and about 250 km from Bangalore.
The sanctuary derives its name from the highest peak of the mountain range, Brahmagiri Peak. It was declared a sanctuary on June 5, 1974.
Source: FORUMIAS

Climate Change & India

Q.1) Consider the following statements regarding "climate change":

1. The Earth's climate is not static.
2. Climate change is a change of weather in a particular day.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: A

Explanation: Climate is the long-term average of a region's weather events. The Earth's climate is not static.

- Over the billions of years of earth's existence, it has changed many times in response to natural causes like sun spot, ice age glaciations, etc.
- The phrase 'climate change' represents a change in the long-term weather patterns.
- Climate change is not a change of weather in a particular day; it is the cumulative change of long term weather pattern i.e. changes in climate.

Source: Shankar IAS

Q.2) Which of the following is/are green house gas/gases?

1. Carbon dioxide
2. Ozone
3. Water vapor

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Greenhouse gases consist of carbon dioxide, methane, ozone, nitrous oxide, chlorofluorocarbons, and water vapor.

Source: Shankar IAS

Q.3) Which of the following is emitted through wetlands?

a) Carbon monoxide
b) Ozone
c) Methane
d) Chlorofluorocarbon

ANS: C

Explanation: Methane (CH4) is emitted by natural sources such as wetlands, as well as human activities such as leakage from natural gas systems and the raising of livestock.

Source: Shankar IAS

Q.4) Which of the following is/are source/s of Nitrous oxide?

1. Synthetic fertilizers
2. Livestock manure
3. Transportation fuels

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Nitrous oxide is emitted when people add nitrogen to the soil through the use of synthetic fertilizers.

- Nitrous oxide is also emitted during the breakdown of nitrogen in livestock manure and urine, which contributed to 6% of N2 O emissions in 2010.
- Nitrous oxide is emitted when transportation fuels are burned.

Source: Shankar IAS

Q.5) In which of the following area/s Hydro fluorocarbons is/are used?

1. Aerosol propellants
2. Fire retardants
3. Refrigerants

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Hydro fluorocarbons are used as refrigerants, aerosol propellants, solvents, and fire retardants. These chemicals were developed as a replacement for chlorofluorocarbons (CFCs) and hydro chlorofluorocarbons (HCFCs) because they do not deplete the stratospheric ozone layer.

Source: Shankar IAS

Q.6) Which of the following is/are source/s of "black carbon"?

1. Biomass burning
2. Solid fuels
3. Diesel exhaust

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Black carbon (BC) is a solid particle or aerosol, (though not a gas) contributes to warming of the atmosphere.

Source of black carbon are biomass burning, cooking with solid fuels, and diesel exhaust, etc.

Source: Shankar IAS

Q.7) Consider the following statements regarding "Global warming potential (GWP)":

1. Gases with a higher GWP absorb more energy than gases with a lower GWP.
2. Methane (CH_4) has a GWP more than 20 times higher than CO_2.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP, and thus contribute more to warming Earth.

Methane (CH_4) has a GWP more than 20 times higher than CO_2 for a 100-year time scale.

Source: Shankar IAS

Q.8) Which of the following has the highest "Global warming potential (GWP)"?

a) Carbon dioxide
b) Methane
c) Hydro fluorocarbons
d) Sulfur hexafluoride

ANS: D

Explanation: Global warming potential describes the impact of each gas on global warming.

GWP & Lifetime of Green House Gases:

S. No	GAS	GWP (100-year)	LIFETIME (years)
1	Carbon di oxide	1	100
2	Methane	21	12
3	Nitrous oxide	310	120
4	Hydro fluoro carbons (HFCs)	140-11,700	1-270
5	Perfluoro carbons (PFCs)	6,500-9,200	800-50,000
6	Sulfur hexafluoride (SF6)	23,900	3,200

Source: Shankar IAS

Q.9) The "shoal forests" are found in which of the following region in India?

a) Tamil Nadu
b) Maharashtra
c) Assam
d) Himachal Pradesh

ANS: A

Explanation: Shola forest, temperate forest is an evergreen ecosystem found at the high altitude regions. It is distributed in Nilgris and Palani hills of Tamil Nadu, Kerala and Karnataka.

Source: Shankar IAS

Q.10) Consider the following statements:

1. Spices and condiments are flavoring agents obtained from plants.
2. Spices and condiments are classified as foods.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: A

Explanation: Spices and condiments are flavoring agents obtained from plants. Because they have little nutritive value, they are not classified as foods.

- They contain essential oils, which impart flavor and aroma to food and add greatly to the pleasure of eating.
- They stimulate the appetite and increase the flow of gastric juices.

Source: Shankar IAS

Climate Change & Mitigation Strategies

Q.1) Which of the following change/s is/are correct about "ocean acidification process"?

1. The concentration of hydrogen ions in the ocean increases.
2. The concentration of carbonate ions in the ocean increases.
3. The pH of the oceans increases.

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: A

Explanation: Ocean acidification is the change in ocean chemistry - lowering of ocean pH (i.e. increase in concentration of hydrogen ions) driven by the uptake of carbon compounds by the ocean from the atmosphere.

As the uptake of atmospheric carbon dioxide by the ocean increases, the concentration of hydrogen ions in the ocean increases, the concentration of carbonate ions decreases, the pH of the oceans decreases and the oceans become less alkaline – this process is known as ocean acidification.

Source: Shankar IAS

Q.2) Which of the following is the primary nutrient in the process "Eutrophication"?

a) Carbon
b) Sulfur
c) Potassium
d) Nitrogen

ANS: D

Explanation: Coastal waters are also affected by excess nutrient inputs, mostly nitrogen, from agriculture, fertilizers and sewage.

The resulting eutrophication leads to large plankton blooms, and when these blooms collapse and sink to the sea bed the subsequent respiration of bacteria decomposing the algae leads to a decrease in sea water oxygen and an increase in CO_2 (a decline in pH).

Source: Shankar IAS

Q.3) Which of the following is/are the mitigation strategy/strategies of "ocean acidification"?

1. Reducing carbon dioxide
2. Eliminate offshore drilling
3. Advocating for energy efficiency

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Mitigation strategies of ocean acidification are:

- Reducing CO2
- promoting government policies to cap CO2 emissions,
- eliminate offshore drilling,
- by advocating for energy efficiency and
- Alternative energy sources such as wind power, solar, etc.

Source: Shankar IAS

Q.4) Consider the following statements regarding "upwelling of coastal oceans":

1. In upwelling events where deeper ocean water circulates onto continental shelves and near-shore areas.
2. The hot water of ocean circulation contains more nutrients & more CO2.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: A

Explanation: Surface Coastal regions periodically experience upwelling events where deeper ocean water circulates onto continental shelves and near-shore areas.
This exposes the productive upper ocean ecosystems to colder water containing more nutrients & more CO2.

Source: Shankar IAS

Q.5) Consider the following statements regarding "Ozone":

1. It is a natural gas.
2. It is an allotrope of oxygen consisting of three atoms of oxygen bound together in a non-linear fashion.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: Ozone is a natural gas; it is an allotrope of oxygen consisting of three atoms of oxygen bound together in a non-linear fashion. The chemical symbol of ozone is O3.

Source: Shankar IAS

Q.6) Which of the following ape is found in India?

a) Gorilla
b) Gibbon
c) Orangutan
d) Langur

ANS: B

Explanation: Hoolock Gibbon is the only ape found in India. Rest of the monkeys is all macaques and langurs. In India is distributed in the northeast India.

Source: Shankar IAS

Q.7) Which of the following is/are characteristic/s of chlorofluorocarbons (CFCs)?

1. Non-corrosiveness
2. High inflammability
3. Low toxicity

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: B

Explanation: CFCs has a wide and varied application due to its properties like non-corrosiveness, non-inflammability, low toxicity and chemical stability, etc.

Source: Shankar IAS

Q.8) Consider the following statements regarding "bromine":

1. It contains compounds called halons and Hydro-bromo fluorocarbons (HBFCs).
2. Bromine atom destroys more ozone molecules than the chlorine atom.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: Bromine containing compounds called halons and HBFCs, i.e. hydrobromo fluorocarbons [both used in fire extinguishers and methyl bromide (a widely used pesticide)].

Each bromine atom destroys hundred times of more ozone molecules than what a chlorine atom does.

Source: Shankar IAS

Q.9) The "Dobson unit" is associated with which of the following?

a) Ozone
b) Ocean acidification
c) Eutrophication
d) Upwelling

ANS: A

Explanation: The most common measure of total ozone abundance is the Dobson unit (named after the pioneering atmospheric physical Gordon Dobson) which is the thickness of the ozone column (compressed at Standard Temperature and Pressure (STP)) in milli-centimeters.

At STP one Dobson unit is equal to 2.69x1020 molecules per square meter.
Source: Shankar IAS

Q.10) The "Dholpur-Karauli Tiger Reserve" is recently seen in news related to?
a) Gujarat
b) Madhya Pradesh
c) Maharashtra
d) Rajasthan

ANS: D
Explanation: National Tiger Conservation Authority (NTCA) has given its approval for the establishment of the Dholpur-Karauli Tiger Reserve in the state of Rajasthan.
It has secured its position as the fifth tiger reserve in the state of Rajasthan following Mukundra Hills, Ramgarh Vishdhari, Ranthambore, and Sariska.
Source: FORUMIAS

Environment

Q.1) Consider the following statements:
1. That it allows decision makers to assess a project's impacts in all its phases
2. That it allows the public and other stakeholders to present their views and inputs on the planned development
3. That it contributes to and improve the project design, so that environmental as well as socioeconomic measures are core parts of it.
Which of the above given statements is/are essential in an Environment Impact Assessment?
a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1, 2 and 3

ANS: D
Explanation: An EIA should allow decision makers to assess a project's impacts in all its phases. It should also allow the public and other stakeholders to present their views and inputs on the planned development. Furthermore, to be truly effective, an EIA must contribute to and improve the project design, so that environmental as well as socioeconomic measures are core parts of it. Information used in the EIA needs to be based on good data, use accepted methodological approaches and be summarized in plain language that is understandable for decision makers.
Finally, the EIA does not end with the granting of a licence to operate. It is critical that that the approved practices and design are followed during the project operations and construction and that ongoing monitoring is in place during the lifetime of the project.
Essentials of EIA:

- Applicable to all actions expected to have a significant environmental impact.
- Presents two alternatives to compare to the proposed actions (including the possibility of not acting).
- Makes clear the significance of probable impacts to experts and laypeople.
- Includes broad public participation.
- Programmed toward providing information for decision makers.

- Includes monitoring and control procedures.

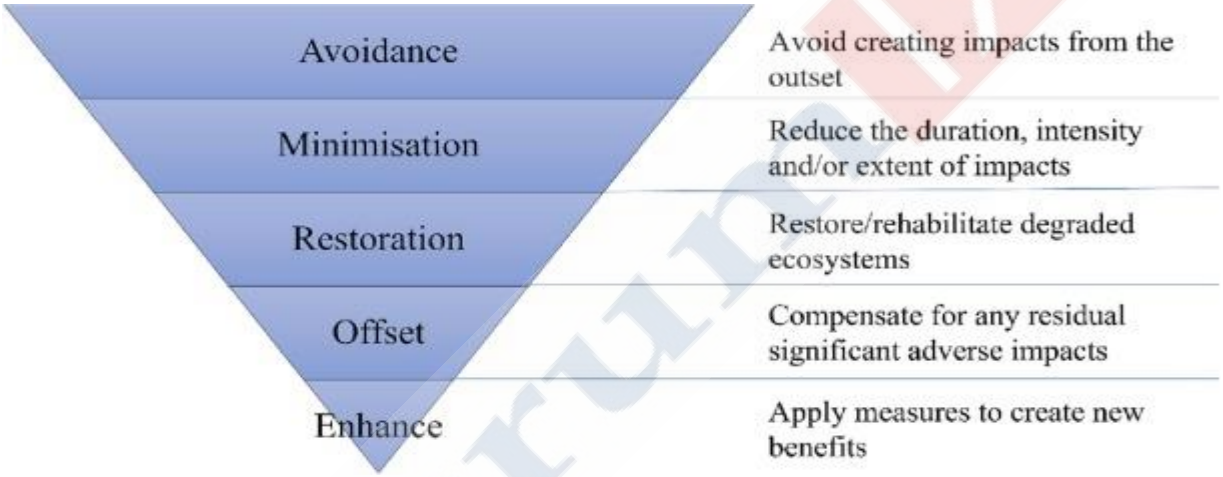
Source: UNEP, 2002; Friends of the Earth, 2005

Q.2) Negative impacts on the environment identified during the EIA can be alleviated through mitigation measures. Which of the following gives the correct mitigation hierarchy?

a) Reduce - Remedy - Avoid - Compensate – Adopt
b) Avoid - Reduce - Remedy - Compensate - Adopt
c) Compensate - Reduce - Remedy - Avoid - Adopt
d) Remedy - Avoid - Compensate – Reduce – Adopt

ANS: B

Explanation: The mitigation hierarchy is a widely used tool that guides users towards limiting as far as possible the negative impacts on biodiversity from development projects. It emphasises best-practice of avoiding and minimising any negative impacts, and then restoring sites no longer used by a project, before finally considering offsetting residual impacts.



Source: ForumIAS

Q.3) 'Silent Spring' a landmark book written by Rachel Carson (in 1962) highlighted the environmental problems due to which of the following?

a) Excessive use of pesticides
b) Excessive air pollution due to industrial operations and vehicles in cities
c) Excessive noise produced by industrial operations and vehicles in cities
d) Both (a) and (b)

ANS: A

Explanation: The book 'Silent Spring' published in 1962 which set the tone for an environmental movement in the world was written by Rachel Carson.

Silent Spring is an environmental science book which documents the adverse environmental effects caused by the indiscriminate use of pesticides.

Her notable books were The Edge of the Sea, The Sense of Wonder and Lost Woods.

Source: ForumIAS

Q.4) How many of the following statements regarding EIA is/are correct?

1. EIA helps in early identification and prevention of impacts
2. EIA helps in generating public awareness about environmental issues
3. EIA helps in formulating environmental management plan for residual issues

Select the correct answer using the codes given below:

a) Only one statement
b) Only two statements
c) All three statements
d) None of the above statements

ANS: C

Explanation: Objective of EIA

- To bring out a national policy to encourage productive and enjoyable harmony between man and environment.
- To promote efforts to prevent or eliminate damage to the environment.
- To increase understanding of ecological systems and natural resources important to the nation

Why we need Environmental Impact Assessment (EIA)? / Significance of EIA / Benefits of EIA

- Facilitates sustainable development: In present times anthropogenic activities like rapid industrialization, mass production and clearing of forests have created immense pressure on the natural environment. Tools like EIA help in balancing the need for economic growth with equally important concept of sustainability.
- Mitigating negative impacts & informed decision-making– Environmental Impact Assessment (EIA) helps in minimizing the negative impact of various development projects. It enables monitoring programmes to be established to assess future impacts and provide data on which managers can take informed decisions to avoid environmental damage.
- Aids cost-effectiveness– EIA helps in selection and design of projects, programmes or plans with long term viability and therefore improves cost effectiveness.
- Advance assessments also helps avoid future losses that may be incurred if the project is found environmentally unacceptable at a later stage. Cost of adaptation when a project is already running is usually more.

Thus, EIA as a tool aims to minimize the environmental impacts emanating out of any economic activity that have the potential to cause environmental degradation.

Source: ForumIAS

Q.5) Who are responsible for the public consultation process of EIA?

a) State Pollution Control Board
b) State Pollution Control Board and District Collector
c) State Pollution Control Board and CPCB Chairman
d) State Pollution Control Board and Civil Society

ANS: B

Explanation: The public hearing is a mandatory step in the process of environmental clearance for certain developmental projects. This provides a legal space for people of an area to come face-to-face with the project proponent and the government and express their concerns.

The process of public hearing is conducted prior to the issue of NOC from SPCB. The District Collector is the chairperson of the public hearing committee. Other members of the committee includes the official from the district development body, SPCB, Department of Environment and Forest, Taluka and Gram Panchayat

representative, and senior citizen of the district, etc. The hearing committee hears the objections/suggestions from the public and after inserting certain clauses it is passed on to the next stage of approval (Ministry of Forest and Environment).

Source: ForumIAS

Q.6) Why are greenhouse gases essential to the survival of humans and other living things?

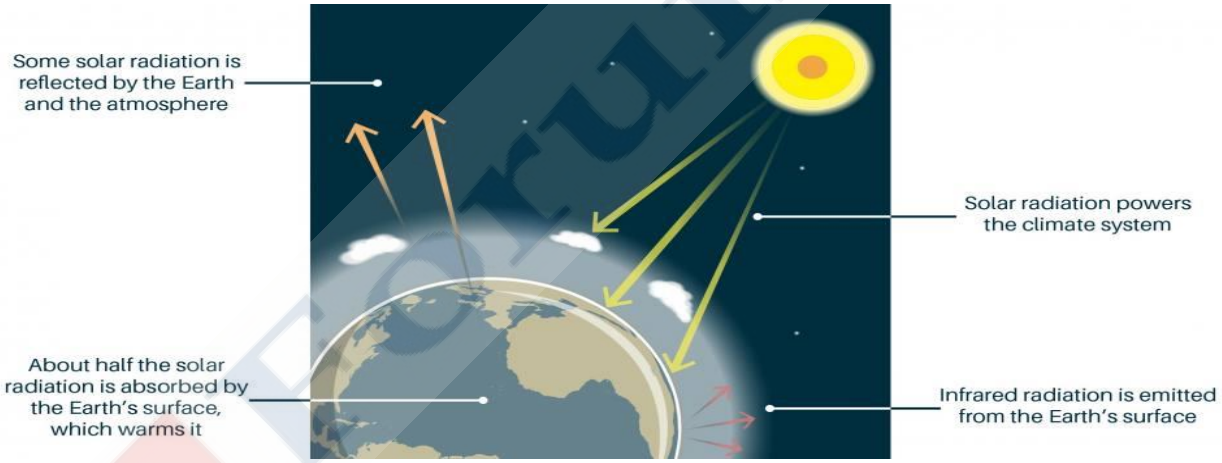
a) They make the Earth habitable
b) They cause global warming
c) They reduce air pollution
d) They are toxic to most living things

ANS: A

Explanation: 'Greenhouse gases' are crucial to keeping our planet at a suitable temperature for life. Without the natural greenhouse effect, the heat emitted by the Earth would simply pass outwards from the Earth's surface into space and the Earth would have an average temperature of about -20°C.

A greenhouse gas is called that because it absorbs infrared radiation from the Sun in the form of heat, which is circulated in the atmosphere and eventually lost to space. Greenhouse gases also increase the rate at which the atmosphere can absorb short-wave radiation from the Sun, but this has a much weaker effect on global temperatures.

The CO2 released from the burning of fossil fuels is accumulating as an insulating blanket around the Earth, trapping more of the Sun's heat in our atmosphere. Actions carried out by humans are called anthropogenic actions; the anthropogenic release of CO2 contributes to the current enhanced greenhouse effect



Source: ForumIAS

Q.7) What is the full form of UNFCC with respect to global warming convention?

a) United Nations Framework Convention on Climate Change
b) United Nations Federation Convention on Climate Change
c) United Nations Framework Center on Climate Change
d) United Nations Federation Center on Climate Change

ANS: A

Explanation: In order to control the continuous increase in the carbon dioxide level many countries have signed a convention to reduce greenhouse gas under the United Nationals Framework Convention on Climate Change (UNFCC).

Source: ForumIAS

Q.8) Too many greenhouse gasses in the atmosphere may block heat from escaping into space and trap too much heat next to the Earth's surface causing:

a) another ice age
b) global warming
c) earthquakes
d) volcanic eruptions

ANS: B

Explanation: Global warming occurs when carbon dioxide (CO2) and other air pollutants collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Normally this radiation would escape into space, but these pollutants, which can last for years to centuries in the atmosphere, trap the heat and cause the planet to get hotter. These heat-trapping pollutants—specifically carbon dioxide, methane, nitrous oxide, water vapor, and synthetic fluorinated gases—are known as greenhouse gases, and their impact is called the greenhouse effect.

Source: ForumIAS

Q.9) The concept of carbon credit originated from which of the following?

a) Kyoto Protocol
b) Earth Summit
c) Montreal Protocol
d) Doha Round

ANS: A

Explanation: The concept of carbon credits emerged during the Kyoto Protocol discussions and is an integral part of today's environmental economics. Carbon credits basically refer to certificates giving the beholder the right to emit 1 tonne of carbon dioxide or its equivalent.

Source: ForumIAS

Q.10) The Environmental Kuznets Curve (EKC) shows the relationship between per capita GDP and environmental loss. What is the shape of Environmental Kuznets Curve?

a) Inverted 'U' shaped
b) Inverted 'I' shaped
c) Inverted 'L' shaped
d) None of these

ANS: A

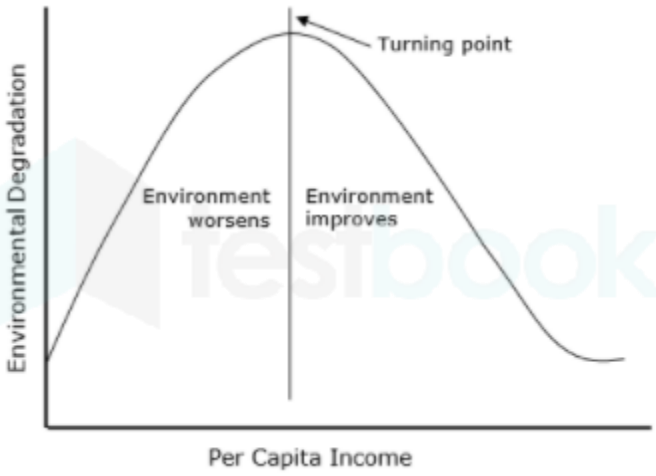
Explanation: Environmental Kuznets curve -

The environmental Kuznets curve (EKC) is a relationship between environmental quality and economic development.

According to this theory, many indicators of environmental degradation tend to get worse as modern economic growth occurs until average income reaches a certain point over the course of development.

In other words, the environmental Kuznets curve suggests that economic development initially leads to a deterioration in the environment, but after a certain level of economic growth, a society begins to improve its relationship with the environment, and levels of environmental degradation reduce.

The EKC suggests that the solution to pollution is economic growth.



Source: ForumIAS

Conservation Efforts

Q.1) Which of the following vulture species is/are found in India?

1. Oriental White-backed Vulture
2. Slender billed Vulture
3. Long billed Vulture

How many of the statements given above are correct?

3. Only one
4. Only two
5. Only three
6. None

ANS: C

Explanation: India has nine species of vultures in the wild. They are:

- Oriental White-backed Vulture (Gyps bengalensis),
- Slender billed Vulture (Gyps tenuirostris),
- Long billed Vulture (Gyps indicus),
- Egyptian Vulture (Neophron percnopterus),
- Red Headed Vulture (Sarcogyps calvus),
- Indian Griffon Vulture (Gyps fulvus),
- Himalayan Griffon (Gyps himalayensis),
- Cinereous Vulture (Aegypius monachus) and
- Bearded Vulture or Lammergeier (Gypaetus barbatus).

Source: Shankar IAS

Q.2) The term "Meloxicam" is often seen in news related to?

a) Livestock drug
b) Asthma medicine
c) Nanorobot
d) Super computer

ANS: A

Explanation: Meloxicam is a second generation NSAID and rated better than Diclofenac for the treatment of livestock, with reduced risk of side effects, and is also approved for human use in more than 70 countries. Meloxicam is licensed as a veterinary drug in India, Europe and USA.

Source: Shankar IAS

Q.3) Which of the following is/are vulture breeding centres in India?

1. Pinjore
2. Rani
3. Buxa

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Vulture Breeding and Conservation Centre had already been established at Pinjore, Haryana in 2001, and Rani, Guwahati (Assam) and another one has been established at Buxa, West Bengal in 2005.
The Central Zoo Authority of India has also committed for supporting 4 such centers in the zoos at Junagadh, Bhopal, Hyderabad and Bhubhaneshwar in 2006-07.

Source: Shankar IAS

Q.4) The rhino/s is/are found in which of the following areas/parks?

1. Manas national park
2. Kaziranga national park
3. Periyar national park

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: B

Explanation: Concentrating so many rhinos in a single protected area like Kaziranga exposes the species to risks of calamities (epidemics, floods, massive poaching attempts).
The goal set was to populate the potential rhino habitat areas identified viz. Manas NP, Dibru Saikhowa WLS, Laokhowa - Bura Chapori WLS with a viable population of rhino through translocations from Kaziranga NP and Pobitora WLS.

Source: Shankar IAS

Q.5) The "secure Himalaya project" was launched by ministry of environment with the help of?

a) UNEP
b) UNDP
c) WEF
d) World Bank

ANS: B

Explanation: The project was launched by the MoEF&CC in collaboration with UNDP.

- The plan intends to conserve the snow leopards by protecting their habitats and improve the ecology of Himalayan ranges and lives of the mountain communities.
- It covers Himachal Pradesh, Jammu and Kashmir, Uttarakhand and Sikkim.

Source: Shankar IAS

Q.6) Which of the following is the nodal agency for conservation of olive ridley turtles?

a) Central Zoo Authority
b) Wildlife institute of India
c) Coast guard
d) Centre for Science & Environment

ANS: B

Explanation: With the objective of conservation of olive ridley turtles and other endangered marine turtles, Ministry of Environment & Forests initiated the Sea Turtle Conservation Project in collaboration of UNDP in November, 1999 with Wildlife Institute of India, Dehradun as the Implementing Agency.

Source: Shankar IAS

Q.7) In which of the following pace/s is/are dolphin/s found?

1. Sea water
2. Fresh water
3. Brackish water

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Dolphins are animals of aquatic ecosystems. They are found in the sea, brackish water and fresh water.

A total of 15 species of marine and harbor dolphins have been reported from Indian waters and coasts.

Source: Shankar IAS

Q.8) The Irrawady Dolphins are found in brackish waters of?

a) Gujarat
b) Maharashtra
c) Goa
d) Odisha

ANS: D

Explanation: The Irrawady Dolphins are found in brackish waters of Odisha.

- Amongst the fresh water dolphins, the Gangetic Dolphin is found in the Ganges River and its tributaries.
- Apart from this, Indus River Dolphins have also been reported in Indus River in Punjab.

Source: Shankar IAS

Q.9) The "bonsai method" is often seen in news related to?

a) Japan
b) Switzerland
c) Afghanistan
d) Mexico

ANS: A

Explanation: Bonsai—i.e., tailored or human-made miniature or dwarfed living trees that have been prevented from reaching their normal size—are grown in pots and kept in greenhouses, drawing rooms, etc. This technique was first perfected by the Japanese.

Source: Shankar IAS

Q.10) The silent valley national park is recently seen in news located at?

a) Tamil Nadu
b) Kerala
c) Himachal Pradesh
d) Sikkim

ANS: B

Explanation: Silent Valley National Park is a national park in Kerala, India. It is located in the Nilgiri hills and has a core area of 89.52 km^2. It is surrounded by a buffer zone of 148 km^2.

- This national park has some rare species of flora and fauna.
- Silent Valley National Park was explored in 1847 by the botanist Robert Wight.

Source: FORUMIAS

Revision

Q.1) The most of the "epiphytic plants" are confined to which of the following region?

a) Arctic & Antarctica areas
b) Tundra areas
c) Taiga areas
d) Tropical rain forest areas

ANS: D

Explanation: Tropical rainforest covers about 7% of the earth's surface & 40% of the world's plant and animal species.

- Multiple storeys of broad-leafed evergreen tree species are in abundance.
- Most animals and epiphytic plants are concentrated in the canopy or tree top zones.

Source: Shankar IAS

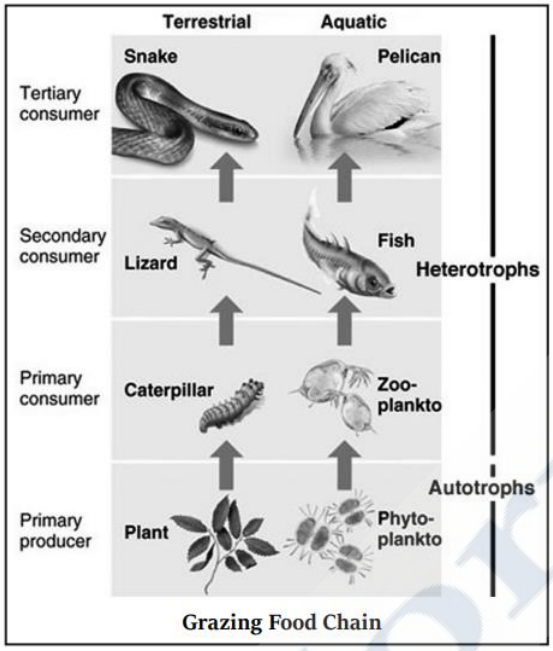
Q.2) Which of the following is a tertiary consumer in food chain?

a) Phytoplankton
b) Zooplankton
c) Cater pillar
d) Snake

ANS: D

Explanation: The consumers which start the food chain, utilizing the plant or plant part as their food, constitute the grazing food chain.

- This food chain begins from green plants at the base and the primary consumer is herbivore.
- For example, in terrestrial ecosystem, grass is eaten up by caterpillar, which is eaten by lizard and lizard is eaten by snake.



Source: Shankar IAS

Q.3) Consider the following statements regarding "cetaceans":

1. It is a creature belonging to a group of water living mammals that have no hind limbs and a blow hole for breathing.
2. Dolphins, Porpoises and whales are called cetaceans.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: Dolphins, Porpoises and whales are called cetaceans.

A cetacean is a creature belonging to a group of water living mammals that have no hind limbs and a blow hole for breathing.

Source: Shankar IAS

Q.4) Consider the following statements regarding "snake":

1. When a snake sticks out its tongue it smells its surroundings.
2. The moist tongue collects scents and small organisms from whatever it touches and from the air around it.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: All snakes smell with their tongues. When a snake sticks out its tongue it smells its surroundings.

- The moist tongue collects scents and small organisms from whatever it touches and from the air around it.
- When the tongue goes back into the mouth the forks touch a special sensory spot called the Jacobson's organ on the roof of the mouth and tell the snake what it smells.
- Snakes have a small notch in their lips that they can stick their tongues through so they don't need to open their mouths. Some snakes can smell with their noses.

Source: Shankar IAS

Q.5) Consider the following statements:

1. In bioaccumulation there is an increase in concentration of a pollutant from the environment to the first organism in a food chain.
2. Bio-magnification refers to the tendency of pollutants to concentrate as they move from one tropic level to the next.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: Movement of these pollutants involves two main processes: i) Bioaccumulation ii) Bio-magnification.

- In bioaccumulation there is an increase in concentration of a pollutant from the environment to the first organism in a food chain.
- Bio-magnification refers to the tendency of pollutants to concentrate as they move from one tropic level to the next.

Source: Shankar IAS

Q.6) The elements or mineral nutrients are always in circulation moving from non-living to living and then back to the non-living components of the ecosystem in a more or less circular fashion – describes?

a) Bio – remediation
b) Bio – geo chemical cycles
c) Bio – accumulation
d) Bio – magnification

ANS: B

Explanation: Carbon, hydrogen, oxygen, nitrogen and phosphorus as elements and compounds make up 97% of the mass of our bodies and are more than 95% of the mass of all living organisms.

- In addition to these about 15 to 25 other elements are needed in some form for the survival and good health of plants and animals.
- These elements or mineral nutrients are always in circulation moving from non-living to living and then back to the non-living components of the ecosystem in a more or less circular fashion.
- This circular fashion is known as biogeochemical cycling (bio for living; geo for atmosphere).

Source: Shankar IAS

Q.7) Consider the following statements:

1. When succession is brought about by living inhabitants of that community itself, the process is called autogenic succession.
2. The change brought about by outside forces is known as allogenic succession.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

ANS: C

Explanation: When succession is brought about by living inhabitants of that community itself, the process is called autogenic succession, while change brought about by outside forces is known as allogenic succession.

Source: Shankar IAS

Q.8) In which of the following area/s arctic tundra climate found?

1. Canada
2. Alaska
3. Serbia

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: B

Explanation: Tundra means a "barren land" since they are found where environmental conditions are very severe. There are two types of tundra- arctic and alpine.

- Arctic tundra extends as a continuous belt below the polar ice cap and above the tree line in the northern hemisphere.
- It occupies the northern fringe of Canada, Alaska, European Russia, Siberia and island group of Arctic Ocean. On the South Pole, tundra is very small since most of it is covered by ocean.

Source: Shankar IAS

Q.9) In which of the following place/s tropical dry evergreen forest is/are found?

1. Tamil Nadu
2. Andhra Pradesh
3. Karnataka

How many of the statements given above are correct?

a) Only one
b) Only two
c) Only three
d) None

ANS: C

Explanation: Dry evergreens are found along Tamil Nadu, Andhra Pradesh and Karnataka coast.
It is mainly hard-leaved evergreen trees with fragrant flowers, along with a few deciduous trees.

Source: Shankar IAS

Q.10) The "Sri Venkateshwara Zoological Park" is often seen in news related to?

a) Tamil Nadu
b) Karnataka
c) Andhra Pradesh
d) Kerala

ANS: C

Explanation: Sri Venkateshwara Zoological Park located in Tirupati city in Andhra Pradesh is the largest zoo in the country.

Source: Shankar IAS