

ForumIAS

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Prelims Marathon

14th to 20th November, 2022

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

FORUMIAS



Environment – Environmental Legislations

Q.1) Consider the following statements:

1. 5th June is celebrated as world environment day.
2. Wildlife act 1972 was the first legislation to deal with environment.

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: India is the first country in the world to have made provisions for the protection and conservation of environment in its constitution.

- On 5th June 1972, environment was first discussed as an item of international agenda in the U.N. Conference of Human Environment in Stockholm and thereafter 5th June is celebrated all over the world as World Environment Day.
- Soon after the Stockholm Conference our country took substantive legislative steps for environmental protection.
- The Wildlife (Protection) Act was passed in 1972, followed by the Water (Prevention and Control of Pollution) Act 1974, the Forest (Conservation) Act, 1980, Air (Prevention and Control of Pollution) Act, 1981 and subsequently the Environment (Protection) Act, 1986.

Source: SHANKAR IAS Environment

Q.2) “It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures” is related to?

- a) Article 21
- b) Article 29
- c) Article 48 – a
- d) Article 51 – a

ANS: D

Explanation: Article 51-A (g) Provides: It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.”

Thus our constitution includes environmental protection and conservation as one of our fundamental duties.

Source: SHANKAR IAS Environment

Q.3) Consider the following statements regarding Wildlife Protection Act, 1972:

1. It has eight schedules which give varying degrees of protection.
2. Schedule V includes the animals which may be hunted.

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: B

Explanation: The Wild Life Protection Act, 1972 is enacted for protection of plants and animal species. The Act provides for the protection of wild animals, birds and plants. It has six schedules which give varying degrees of protection.

- Schedule I and part II of Schedule II provide absolute protection - offences under these are prescribed the highest penalties.
- Species listed in Schedule III and Schedule IV are also protected, but the penalties are much lower.
- Schedule V includes the animals which may be hunted.
- The specified endemic plants in Schedule VI are prohibited from cultivation and planting.

Source: SHANKAR IAS Environment

Q.4) Consider the following statements regarding Environmental (Protection) Act, 1986:

1. The Act empowers the State Government to take all appropriate measures to prevent and control pollution.
2. It has relaxed the rule of "Locus Standi".

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: B

Explanation: The genesis of the Environmental (Protection) Act, 1986, thus, is in Article 48A (Directive Principles of State Policy) and Article 51A (g) (Fundamental Duties) of the Indian Constitution.

- The **Act empowers the Central Government** to take all appropriate measures to prevent and control pollution and to establish effective machinery for the purpose of protecting and improving the quality of the environment and protecting controlling and abating environmental pollution.
- The Central Government or any other person duly authorized is empowered to collect the samples of air, water, soil or other substances as evidence of the offences under the Environment (Protection) Act, 1986.
- The Act prescribes a special procedure for handling hazardous substances and the concerned person has to handle the hazardous substances according to the procedure of the Act.
- The Environment (Protection) Act, 1986 has relaxed the **rule of "Locus Standi"** and because of such relaxation even a common citizen can approach the Court provided he has

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given a notice of sixty days of the alleged offence and his intention to make a complaint to the Central Government or any other competent authority.

Source: SHANKAR IAS Environment

Q.5) Which of the following is/are objective/objectives of National Forest Policy, 1988?

1. Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna,
2. Checking soil erosion and denudation in the catchments areas of rivers, lakes and reservoirs.
3. Checking the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: The principal aim of National Forest Policy, 1988 is to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which is vital for sustenance of all life forms, human, animal and plant.

Objectives:

Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.

- Checking soil erosion and denudation in the catchments areas of rivers, lakes, reservoirs in the “interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.
- Checking the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.
- Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
- Increasing the productivity of forests to meet essential national needs.
- Encouraging efficient utilization of forest produce and maximizing substitution of wood.

Source: SHANKAR IAS Environment

Q.6) Which of the following is the nodal agency for implementation of forest rights act, 2006?

- a) The Ministry of Tribal Affairs
- b) The Ministry of Environment, Forest and Climate Change
- c) The Ministry of Agriculture
- d) The NITI Aayog

ANS: A

Explanation: The Ministry of the Central Government dealing with Tribal Affairs or any officer or authority authorized by the Central Government in this behalf shall be the nodal agency for

the implementation of the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

Source: SHANKAR IAS Environment

Q.7) “Project REPLAN” is related to which of the following?

- a) Sustainable agriculture
- b) Plastic Management
- c) Electronic Waste
- d) Municipal Solid Waste

ANS: B

Explanation: Khadi and Village Industries Commission (KVIC) has secured Patent registration for its innovative Plastic-mixed Handmade Paper developed to reduce plastic menace from nature.

- The patent certificate was issued to KVIC’s Kumarappa National Handmade Paper Institute (KNHPI), Jaipur, on 2nd August 2021, by the Controller of Patent, Intellectual Property of India.
- The idea of developing plastic-mixed handmade paper was invented in September 2018, and in just two months, i.e. in November 2018, the project was executed by the team of scientists at KNHPI.
- The plastic-mixed handmade paper was developed under Project REPLAN (REducing PLastic from Nature).
- This is the first of its kind project in India, where plastic waste is de-structured, degraded, diluted and used with paper pulp while making handmade paper and thus reduces plastic waste from nature.
- The invention is aligned with the Prime Minister’s call for fighting the menace of single-use plastic.

Source: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1742710>

Q.8) Consider the following statements regarding National Green tribunal (NGT):

1. It is guided by principles of natural justice.
2. It is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same.

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: The National Green Tribunal has been established on 18.10.2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.

- It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.

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- The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.
- The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts.
- The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same.
- Initially, the NGT is proposed to be set up at five places of sittings and will follow circuit procedure for making itself more accessible.
- New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other four place of sitting of the Tribunal.

Source: <https://www.greentribunal.gov.in/about-us>

Q.9) “Mouling National Park” is located in which of the following state?

- a) Assam
- b) Nagaland
- c) Arunachal Pradesh
- d) Tripura

ANS: C

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: SHANKAR IAS Environment

Q.10) “Tampara lake” is recently seen in news is located in which of the following state?

- a) Tamil Nadu
- b) Odisha
- c) Karnataka
- d) Kerala

ANS: B

Explanation: Tampara Lake is among the most prominent freshwater lakes in the State of Odisha situated in Ganjam district.

- The depression on the ground gradually filled with rainwater from catchment flow and was called “Tamp” by the British and subsequently termed “Tampara” by the locals.
- The wetland supports at least 60 species of birds, 46 species of fishes, at least 48 species of phytoplanktons, and more than seven species of terrestrial plants and macrophytes.
- The wetland is an important habitat for vulnerable species such as Cyprinus carpio, common pochard (Aythya ferina), and river tern (Sterna aurantia).
- With an estimated average fish yield of 12 tonnes per year, the wetland is an important source of livelihood for the local communities.
- Along with fishes the wetland also provides provisioning services like water for agriculture, and domestic use and is a well-known tourism and recreation site.

Source: <https://pib.gov.in/PressReleasePage>.

Environment–Environmental Organizations

Q.1) Consider the following statement regarding “National Wildlife Action Plan”:

1. First action plan was adopted in 2002.
2. Present action plan has 5 components and 17 themes.

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: B

Explanation: The first National Wildlife Action Plan (NWAP) was adopted in 1983, based upon the decision taken in the XV meeting of the Indian Board for Wildlife held in 1982.

- 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 (3rd NWAP) for the period 2017-2031 and Secure Himalaya were released on the occasion.
- The Plan focuses on preservation of genetic diversity and sustainable development. The NWAP has five components, 17 themes, 103 conservation actions and 250 projects.
- The five components are – strengthening and promoting the integrated management of wildlife and their habitats;
- Adaptation to climate change and promoting integrated sustainable management of aquatic biodiversity in India; promoting eco-tourism, nature education and participatory management;
- Strengthening wildlife research and monitoring of development of human resources in wildlife conservation and enabling policies and resources for conservation of wildlife in India.
- The Plan will help to mainstream wildlife conservation in development planning processes.

Source: SHANKAR IAS Environment & <https://piib.gov.in/PressReleasePage>

Q.2) Consider the following statements regarding “National Afforestation and Eco-development Board (NAEB):

1. It was established in 1992.
2. National Afforestation Programme is a flagship programme of (NAEB).

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: The Ministry of Environment and Forests constituted the National Afforestation and Eco-development Board (NAEB) in August 1992.

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- National Afforestation and Eco development Board has evolved specific schemes for promoting afforestation and management strategies, which help the states in developing specific afforestation and management strategies and eco-development packages for augmenting biomass production through a participatory planning process of Joint Forest Management and micro-planning.
- NAFIP is a flagship programme of National Afforestation and Eco-development Board (NAEB) and provides physical and capacity building support to the Forest Development Agencies (FDAs), which are the implementing agencies.

Source: SHANKAR IAS Environment

Q.3) “CAMPA” often seen in news is related to which of the following?

- a) Afforestation fund
- b) Renewable energy
- c) Electric vehicles
- d) Bio piracy

ANS: A

Explanation: While according prior approval under the Forest (Conservation) Act, 1980 for diversion of forest land for nonforest purpose, Central Government stipulates conditions that amounts shall be realised from the user agencies to undertake compensatory afforestation and such other activities related to conservation and development of forests, to mitigate impact of diversion of forest land.

In April 2004, the central government, under the orders of the Supreme Court, constituted the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for the management of money towards compensatory afforestation, and other money recoverable, in compliance of the conditions stipulated by the central government and in accordance with the Forest (Conservation) Act.

Source: SHANKAR IAS Environment

Q.4) Consider the following statements regarding “Social Forestry”:

1. The National Commission on Agriculture first used the term social forestry in 1976.
2. Social forestry also aims at raising plantations by the common man so as to meet the growing demand for food, fuel wood, fodder, fiber and fertilizer.

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: 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.
- Social forestry also aims at raising plantations by the common man so as to meet the growing demand for food, fuel wood, fodder, fiber and fertilizer etc, thereby reducing the pressure on the traditional forest area.

Source: SHANKAR IAS Environment

Q.5) Consider the following statements regarding “Animal Welfare Board of India”:

1. It was set up in accordance with section 4 of wildlife protection act, 1972.
2. Shrimati Rukmini Devi Arundale pioneered the setting up of the Board.

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: B

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.
- Shrimati Rukmini Devi Arundale pioneered the setting up of the Board, with its Headquarters at Chennai and it was shifted to Ballabgarh (Haryana) in 2018.
- She guided the activities of the Board for nearly twenty years till her demise in 1986.

Source: SHANKAR IAS Environment

Q.6) Which of the following is/are powers of Central Zoo Authority?

1. Recognition of zoos
2. Permission for acquisition of wild - captive animals
3. Cognizance of offences

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

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.

According to the provisions of this chapter, only such zoos which were operated in accordance with the norms and standards prescribed by the Central Zoo Authority would be granted ‘recognition’ to operate by the Authority.

Powers:

- Recognition of zoos
- Permission for acquisition of wild / captive animals
- Cognizance of offences
- Grant of licences, certificate of ownership, recognition, etc

Source: SHANKAR IAS Environment

Q.7) Consider the following statements regarding “National Biodiversity Authority (NBA)”:

1. It is a statutory and autonomous body.
2. Anybody seeking any kind of intellectual property rights on a research based upon biological resource or knowledge obtained from India has to obtain prior approval of the NBA.

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

The NBA is a Statutory, Autonomous Body and it performs facilitative, regulatory and advisory function for the Government of India on issues of conservation, sustainable use of biological resources and fair and equitable sharing of benefits arising out of the use of biological resources.

Objectives of the NBA:

- Anybody seeking any kind of intellectual property rights on a research based upon biological resource or knowledge obtained from India has to obtain prior approval of the NBA.
- The NBA will impose benefit-sharing conditions.
- For ensuring equitable sharing of benefits arising from the use of biological resources and associated knowledge, Sections 19 and 21 stipulate prior approval of the National Biodiversity Authority (NBA) before their access.
- Ensures protection to the knowledge of local people relating to biodiversity through measures such as registration of such knowledge.

Source: SHANKAR IAS Environment

Q.8) “Wildlife Crime Control Bureau” was established by amending which of the following act?

- a) The prevention of cruelty to animals act, 1960
- b) The wild life (protection) act, 1972
- c) The biodiversity act, 2002
- d) The forest rights act, 2006

ANS: B

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 Environment

Q.9) “Periyar National Park” is related to which of the following state?

- a) Kerala
- b) Andhra Pradesh
- c) Maharashtra
- d) Jharkhand

ANS: A

Explanation: Periyar National Park, also known as Periyar Tiger Reserve, is in the mountainous Western Ghats of Kerala, southern India.

This wildlife sanctuary is home to tigers and a significant elephant population, as well as rare lion-tailed macaques, sambar deer, leopards and Indian bison. In the park's north, Periyar Lake is popular for boat rides.

Source: SHANKAR IAS Environment

Q.10) “Biosphere Reserve (BR)” is an international designation given by?

- a) UNEP
- b) UNESCO
- c) IUCN
- d) WEF

ANS: B

Explanation: “Biosphere Reserve (BR) is an international designation by UNESCO for representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/ marine ecosystems or a combination thereof.

- BRs are designated to deal with one of the most important questions of reconciling the conservation of biodiversity, the quest for economic and social development and maintenance of associated cultural values.
- BRs are thus special environments for both people and the nature and are living examples of how human beings and nature can co-exist while respecting each other's needs.

Source: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=169754>

Environment – Environmental Legislations

Q.1) “GLOBE programme” is recently seen in news is related to?

- a) Environmental education
- b) Renewable energy
- c) Bio-geo chemical cycles
- d) Plastic management

ANS: A

Explanation: Since our founding on Earth Day 1994, the Global Learning and Observations to Benefit the Environment (GLOBE) Program has been providing students and the public worldwide with the opportunity to meaningfully contribute to our understanding of the Earth system and global environment.

As an international science and education program, GLOBE is dedicated to supplying the STEM professionals of tomorrow with the scientific knowledge necessary to tackle Earth's biggest mysteries.

Source: <https://www.globe.gov/about>

Q.2) Consider the following statements regarding “Mangroves For the Future (MFF)”:

1. It is a partnership-based initiative promoting investment in coastal ecosystems for sustainable development.
2. India, Pakistan and Sri Lanka are the member countries of MFF.

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: Mangroves for the Future are a partnership-based initiative promoting investment in coastal ecosystems for sustainable development.

Mission of MFF is to promote healthy coastal ecosystems through a partnership-based, people-focused, policy-relevant and investment-orientated approach, which builds and applies knowledge, empowers communities and other stakeholders, enhances governance, secures livelihoods, and increases resilience to natural hazards and climate change.

- Member countries: India, Indonesia, Maldives, Pakistan, Seychelles, Sri Lanka, Thailand, Viet Nam.
- Outreach countries: Bangladesh, Cambodia, Myanmar, Timor-Leste.
- Dialogue countries: Kenya, Malaysia.

Source: SHANKAR IAS Environment

Q.3) “Biodiversity Management Committee (BMC)” is related to which of the following?

- a) Wildlife Protection Act, 1972
- b) Forest Conservation Act, 1980
- c) Biological Diversity Act, 2002
- d) Forest Rights Act, 2006

ANS: C

Explanation: As per the Biological Diversity Act, 2002 the local bodies constitute the BMC in accordance with Section 41, within their area of jurisdiction for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals, micro-organisms and chronicling of knowledge relating to biological diversity.

The BMC consists of a Chairperson, and six persons nominated by local bodies, including 1/3rd women and 18% SC/ST.

Source: <http://nbaindia.org/text/14/BiodiversityManagementCommittees.html>

Q.4) “National Biodiversity Authority” is often seen in news is established to implement which of the following act?

- a) Wildlife Protection Act, 1972
- b) Forest Conservation Act, 1980
- c) Biological Diversity Act, 2002
- d) Forest Rights Act, 2006

ANS: C

Explanation: The National Biodiversity Authority (NBA) was established in 2003 by the Central Government to implement India’s Biological Diversity Act (2002).

- The NBA is a statutory body and that performs facilitative, regulatory and advisory function for Government of India on issue of Conservation, sustainable use of biological resource and fair equitable sharing of benefits of use.
- The Biological diversity Act (2002) mandates implementation of the provisions of the Act through decentralized system with the NBA focusing on advice the Central Government on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilization of biological resources;
- Advice the State Government in the selection of areas of biodiversity importance to be notified under Sub-Section (1) of Section 37 as heritage sites and measures for the management of such heritage sites.

Source: <http://nbaindia.org/content/16/14/1/introduction.html>

Q.5) Consider the following statements regarding National Tiger Conservation Authority (NTCA):

1. Prime Minister is the chairman of NTCA.
2. NTCA has been constituted under 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: B

Explanation: The National Tiger Conservation Authority (NTCA) has been constituted under section 38 L (1) of Wildlife (Protection) Act, 1972.

- Further, as per the section 38 L, sub section 2 of the said Act, the authority consists of the Minister in charge of the Ministry of Environment and Forests (as Chairperson), the Minister of State in the Ministry of Environment and Forests (as Vice-Chairperson), three members of Parliament, Secretary, Ministry of Environment and Forests and other members.
- The authority derives its power from section 38 O (1) of WLPA, 1972 and functions under the guidance of Chairperson, Vice-Chairperson and members.

Source: <https://ntca.gov.in/about-us/#ministers>

Q.6) “Agenda 21” is often seen in news is related to?

- a) UNCED
- b) IUCN
- c) UNCCD
- d) UNDP

ANS: A

Explanation: United Nations Conference on Environment and Development (UNCED) Also known as the Rio Summit, Rio Conference, Earth Summit held in Rio de Janeiro in June 1992. 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 smog
- The growing scarcity of water.

The Earth Summit resulted in the following documents:

- Rio Declaration on Environment and Development
- Agenda 21
- Forest Principles

Source: SHANKAR IAS Environment

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Q.7) “Nagarhole, Bandipur and Madumalai, Nilambur, Silent Valley and Siruvani hills” is related in which of the following?

- a) Niligiri biosphere reserve
- b) Gulf of Mannar biosphere reserve
- c) Agasthyamalai biosphere reserve
- d) Seshachalam Hills biosphere reserve

ANS: A

Explanation: Biosphere reserves are sites established by countries and recognized under UNESCO's Man and the Biosphere (MAB) Programme to promote sustainable development based on local community efforts and sound science. The programme of Biosphere Reserve was initiated by UNESCO in 1971.

Nilgiri	01.09.1986	5520 (Core 1240 & Buffer 4280)	Part of Wayanad, Nagarhole, Bandipur and Madumalai, Nilambur, Silent Valley and Siruvani hills (Tamil Nadu, Kerala and Karnataka).
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Source: http://www.wiienvis.nic.in/Database/br_8225.aspx

Q.8) “Chandoli National Park” is located in which of the following state?

- a) Madhya Pradesh
- b) Maharashtra
- c) Jharkhand
- d) Chhattisgarh

ANS: B

Explanation: Sitting amid the Sahyadri Hills in the Western Ghats, Chandoli National Park constitutes the southern part of the Sahyadri Tiger Reserve.

- The park measures 317.6 sq km, straddling across three districts of Maharashtra – Satara, Kolhapur and Sangli.
- In 1985, it was established as a wildlife sanctuary and elevated to the status of a national park in 2004. It is fed mainly by the river Warna and the reservoir of Chandoli dam, built on the river.

Source: SHANKAR IAS Environment

Q.9) “Yashwant Sagar” is recently awarded as Ramsar site is located in which of the following state?

- a) Odisha
- b) Madhya Pradesh
- c) Maharashtra
- d) Uttar Pradesh

ANS: B

Explanation: India adds 11 more wetlands to the list of Ramsar sites to make total 75 Ramsar sites covering an area of 13,26,677ha in the country in the 75th year of Independence.

- The 11 new sites include: Four (4) sites in Tamil Nadu, Three (3) in Odisha, Two (2) in Jammu & Kashmir and One (1) each in Madhya Pradesh and Maharashtra.

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- Designation of these sites would help in conservation and management of wetlands and wise use of their resources.

S.No	Name of wetland	Area in Ha	State
1.	Tampara Lake	300	Odisha
2.	Hirakud Reservoir	65400	
3.	Ansupa Lake	231	
4.	Yashwant Sagar	822.90	Madhya Pradesh

Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1851484>

Q.10) “National Ganga River Basin Authority (NGRBA)” was established under which of the following act?

- a) Environment (Protection) Act
- b) Wildlife Protection Act
- c) Forest Conservation Act
- d) Forest Rights Act

ANS: A

Explanation: NGRBA was constituted on February 2009 under the Environment (Protection) Act, 1986.

- The NGRBA is a planning, financing, monitoring and coordinating body of the centre and the states.
- The objective of the NGRBA is to ensure effective abatement of pollution and conservation of the river Ganga by adopting a river basin approach for comprehensive planning and management.
- The Authority has both regulatory and developmental functions. The Authority will take measures for effective abatement of pollution and conservation of the river Ganga in keeping with sustainable development needs.

Source: SHANKAR IAS Environment

Environment – India & Climate Change

Q.1) Consider the following statements:

1. Emissions gap report is released by UNEP.
2. India's per capita greenhouse gas emissions were below the world average.

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: At 2.4 tCO₂e (tonne carbon dioxide equivalent), India's per capita greenhouse gas emissions were far below the world average of 6.3 tCO₂e in 2020, according to a new report released by the United Nations Environment Programme (UNEP).

- The “Emissions Gap Report 2022: The Closing Window”, released ahead of the UN Climate Change Conference (COP27) in Egypt next month, also said the international community is still falling far short of the Paris goals, with no credible pathway to limiting global temperature rise to 1.5° C in place.
- To address climate change, countries adopted the Paris Agreement in 2015 to limit global temperature rise in this century to well below 2° C, preferably to 1.5° C, compared to pre-industrial levels.
- “World average per capita GHG emissions (including land use, land-use change, and forestry – LULUCF) were 6.3 tCO₂e in 2020.
- The US remains far above this level at 14 tCO₂e, followed by 13 tCO₂e in the Russian Federation, 9.7 tCO₂e in China, about 7.5 tCO₂e in Brazil and Indonesia, and 7.2 tCO₂e in the European Union.”
- “India remains far below the world average at 2.4 tCO₂e. On average, least developed countries emit 2.3 tCO₂e per capita annually,” the report said.
- Per capita emissions range widely across G20 members: emissions of India are about half of the G20 average, whereas Saudi Arabia reaches more than twice the G20, it said.

Source: <https://thewire.in/environment/india-per-capita-greenhouse-gas-emissions-unep>

Q.2) Consider the following statements regarding “NATCOM project”:

1. It was launched by the Ministry of Environment and Forests (MoEF) for communicating to the UNFCCC about anthropogenic emissions of GHGs from various sources.
2. It is a World Bank project funded under the Global Environment Facility (GEF).

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 Ministry of Environment and Forests (MoEF), Government of India, has initiated a National Communication (NATCOM) project for communicating to the UNFCCC about anthropogenic emissions of GHGs from various sources and their removal by sinks not controlled by the Montreal Protocol.

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- As a UNDP project funded under the Global Environment Facility (GEF), NATCOM is as per the commitment under UNFCCC.
- The NATCOM process comprises comprehensive scientific and technical exercises for estimating GHG emissions from different sectors, reduce uncertainties in current estimations, develop sector- and technology-specific emission coefficients pertinent to India, and assess the adverse impacts of climate change and strategies for adapting to these impacts.
- NATCOM will also provide the general description of steps taken or envisaged to implement the convention.
- NATCOM will lead to developing a reliable database and capacity that will help to fulfill commitments under the Convention.
- The process is also expected to initiate efforts to identify areas of Targeted Research on climate change according to sustainable development plans of the country.

Source: <https://www.tropmet.res.in/~icrp/icrpv11/icrp7.html>

Q.3) “International Consultation and Analysis” is often seen in news is related to?

- a) UNDP
- b) UNFCCC
- c) GEF
- d) WEF

ANS: B

Explanation: India submitted its first Biennial Update Report (BUR) today, to the United Nations Framework Convention on Climate Change (UNFCCC), towards fulfillment of the reporting obligation under the Convention.

- As per the provisions of the Convention, countries need to periodically provide information in the form of their National Communication.
- BUR contains national GHG inventory of India for the year 2010, prepared in accordance with the guidelines of Intergovernmental Panel on Climate Change (IPCC).
- As per the rules of UNFCCC, BURs are subjected to an international process known as International Consultation and Analysis (ICA).
- It is a process that includes international scrutiny of BUR in a manner that is non-intrusive, non-punitive and respectful of national sovereignty. All BURs are subjected to ICA process.

Source: <https://pib.gov.in/newsite/printrelease.aspx?relid=135727>

Q.4) Consider the following statements regarding “The National Action Plan on Climate Change (NAPCC)”:

1. It was launched in 2018.
2. It consists of eight missions.

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: B

Explanation: The National Action Plan on Climate Change (NAPCC) was released by the Prime Minister on 30th June 2008.

- It outlines a national strategy that aims to enable the country to adapt to climate change and enhance the ecological sustainability of India’s development path.

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- It stresses that maintaining a high growth rate is essential for increasing living standards of the vast majority of people of India and reducing their vulnerability to the impacts of climate change.
- There are eight –National Missions which form the core of the National Action Plan.
- They focus on promoting understanding of climate change, adaptation and mitigation, energy efficiency and natural resource conservation.

Source: <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf>

Q.5) “Perform, Achieve and Trade (PAT)” is often seen in news is related to?

- a) Organic Farming
- b) Energy Efficiency
- c) Renewable Energy
- d) Uranium Enrichment

ANS: B

Explanation: NMEEE aims to strengthen the market for energy efficiency by creating conducive regulatory and policy regime and has envisaged fostering innovative and sustainable business models to the energy efficiency sector. The Mission is implemented since 2011.

NMEEE consists of four initiatives to enhance energy efficiency in energy intensive industries:

- Perform, Achieve and Trade (PAT)
- Market Transformation for Energy Efficiency (MTEE)
- Energy Efficiency Financing Platform (EEFP)
- Framework for Energy Efficient Economic Development (FEEED)

Source: SHANKAR IAS Environment

Q.6) “Common But Differentiated Responsibilities (CBDR)” is often seen in news is first reported in?

- a) Earth Summit
- b) Stockholm conference
- c) Kyoto protocol
- d) Montreal protocol

ANS: A

Explanation: The concept of Common But Differentiated Responsibilities (CBDR) was enshrined as Principle 7 of the Rio Declaration at the first Rio Earth Summit in 1992.

- The declaration states: “In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.
- The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.”
- Similar language exists in the Framework Convention on Climate Change; parties should act to protect the climate system “on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities.”

Source: SHANKAR IAS Environment

Q.7) “NICRA project” is often seen in news is related to?

- a) Agriculture
- b) Solar energy
- c) Plastic mitigation
- d) Energy from industrial waste

ANS: A

Explanation: Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers Welfare, Government of India launched a flagship network project ‘National Innovations in Climate Resilient Agriculture’ (NICRA) in 2011.

- The project aims at strategic research on adaptation and mitigation, demonstration of technologies on farmers’ fields and creating awareness among farmers and other stakeholders to minimize the climatic change impacts on agriculture.
- In the strategic research, the main thrust areas covered are (i) identifying most vulnerable districts/regions, (ii) evolving crop varieties and management practices for adaptation and mitigation, (iii) assessing climate change impacts on livestock, fisheries and poultry and identifying adaptation strategies.

Source: <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1743354>

Q.8) Consider the following statements regarding “National Adaptation Fund for Climate Change (NAFCC)”:

1. It was established to meet the cost of adaptation to climate change for the State and Union Territories of India.
2. NABARD has been designated as National Implementing Entity (NIE) for implementation of adaptation projects under NAFCC.

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: The National Adaptation Fund for Climate Change (NAFCC) was established in August, 2015 to meet the cost of adaptation to climate change for the State and Union Territories of India that are particularly vulnerable to the adverse effects of climate change.

- Government has set up a budget provision of Rs.350 crores for the year 2015-16 and 2016-17, with an estimated requirement of Rs. 181.5 crores for financial year 2017-18 for NAFCC.
- The projects under NAFCC prioritize the needs that build climate resilience in the areas identified under the SAPCC (State Action Plan on Climate Change) and the relevant Missions under NAPCC (National Action Plan on Climate Change).
- Considering the existing arrangement with NABARD as National Implementing Entity (NIE) for Adaptation Fund (AF) under Kyoto Protocol and its presence across the country, NABARD has been designated as National Implementing Entity (NIE) for implementation of adaptation projects under NAFCC by Govt. of India.
- Under this arrangement, NABARD would perform roles in facilitating identification of project ideas/concepts from State Action Plan for Climate Change (SAPCC), project formulation,

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appraisal, sanction, disbursement of fund, monitoring & evaluation and capacity building of stakeholders including State Governments.

Source: <https://www.nabard.org/content>.

Q.9) “Chitragudi Bird Sanctuary” is recently seen in news is located in?

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

ANS: B

Explanation: India adds 11 more wetlands to the list of Ramsar sites to make total 75 Ramsar sites covering an area of 13,26,677 ha in the country in the 75th year of Independence.

- The 11 new sites include: Four (4) sites in Tamil Nadu, Three (3) in Odisha, Two (2) in Jammu & Kashmir and One (1) each in Madhya Pradesh and Maharashtra.
- Designation of these sites would help in conservation and management of wetlands and wise use of their resources.

Chitragudi Bird Sanctuary	260.47	Tamil Nadu
Suchindram Theroor Wetland Complex	94.23	
Vaduvur Bird Sanctuary	112.64	
Kanjirankulam Bird Sanctuary	96.89	

Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1851484>

Q.10) “Kalesar National Park” is located in which of the following state?

- a) Haryana
- b) Punjab
- c) Maharashtra
- d) Madhya Pradesh

ANS: A

Explanation: Kalesar National Park is situated in the foot hills of Shiwalik ranges of mighty Himalayas. On map it is located between 30° 18' to 30° 27' North latitude & 77° 18' to 77° 35' East longitude.

- It falls under Yamunanagar District of Haryana, sharing boundary with three States viz., Himachal Pradesh, Uttaranchal & U.P.
- The Yamuna river form the Eastern boundary with Uttar Pradesh, the main Shiwalik ridge separates State boundary among Haryana, Himachal Pradesh & Uttaranchal in the north.
- Kalesar National Park is named after the Kalesar (shiva) temple located in protected area.
- The whole area is full of bio-diversity having dense Sal forests, Khair forests and patches of grass lands, which support an amazing variety of plants and animal species.
- The park was declared as National Park on 8th December 2003 having an area of 11570 acres.
- Just adjacent to the National Park is Kalesar Wildlife Sanctuary and it was notified on 13th December 1996, having an area of 13209 acres.

Source: <https://haryanaforest.gov.in/centers/kalesar-national-park-district-yamunanagar/>

Environment – Climate Change

Q.1) Consider the following statements regarding rise in temperature:

1. A rise in temperature of 1 to 3 degree Celsius will have positive effect on cereals in low latitude areas.
2. Warming of more than 3°C is expected to have negative effect on production in all regions.

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: B

Explanation: Climate Change can affect crop yield as well as the types of crops that can be grown in certain areas, by impacting agricultural inputs such as water for irrigation, amounts of solar radiation that affect plant growth, as well as the prevalence of pests.

- Rise in temperatures caused by increasing green house gases is likely to affect crops differently from region to region.
- For example, moderate warming (increase of 1 to 3°C in mean temperature) is expected to benefit crop yields in temperate regions, while in lower latitudes especially seasonally dry tropics, even moderate temperature increases (1 to 2°C) are likely to have negative impacts for major cereal crops.
- Warming of more than 3°C is expected to have negative effect on production in all regions.

Source: SHANKAR IAS Environment

Q.2) Which of the following is/are used as carbon sink/s?

1. Oceans
2. Soil
3. Un-mineable mines

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Carbon sequestration may be carried out by pumping carbon into ‘carbon sinks’— an area that absorbs carbon.

- Natural sinks - Oceans, forests, soil etc.
- Artificial sinks - Depleted oil reserves, un-mineable mines, etc.

Carbon capture has actually been in use for years. The oil and gas industries have used carbon capture for decades as a way to enhance oil and gas recovery. Only recently have we started thinking about capturing carbon for environmental reasons.

Source: SHANKAR IAS Environment

Q.3) “Climate Neutral Now” initiative is often seen in news is related to?

- a) IUCN
- b) UNFCCC Secretariat
- c) UNEP
- d) World Bank

ANS: B

Explanation: The Climate Neutral Now Initiative is one of several initiatives launched by the UNFCCC secretariat to increase climate action by engaging non-Party stakeholders (sub-national governments, companies, organizations, individuals).

- It was launched in 2015 based on a mandate to promote the voluntary use of carbon market mechanisms recognized under the Convention.
- It has evolved to become a much wider tool for awareness-raising, capacity building, partnership development, promoting and facilitating the estimation of carbon footprints, the reduction of those footprints, and voluntary compensation (offsetting).

Source: <https://unfccc.int/climate-neutral-now>

Q.4) Which of the following is/are come/comes under Kyoto Protocol?

1. International Emissions Trading
2. Clean Development Mechanism
3. Joint Implementation

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: One important element of the Kyoto Protocol was the establishment of flexible market mechanisms, which are based on the trade of emissions permits. Under the Protocol, countries must meet their targets primarily through national measures. However, the Protocol also offers them an additional means to meet their targets by way of three market-based mechanisms:

- International Emissions Trading
- Clean Development Mechanism (CDM)
- Joint implementation (JI)

Source: https://unfccc.int/kyoto_protocol

Q.5) “Global Environment Facility” is established with the help of which of the following institution?

- a) World Bank
- b) Asian Development Bank
- c) AIIB
- d) IMF

ANS: A

Explanation: The GEF was established in 1991 by the World Bank in consultation with the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), to provide funding to protect the global environment.

Source: SHANKAR IAS Environment

Q.6) Consider the following statements Inter-Governmental Panel on Climate Change (IPCC):

1. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).
2. It is open to all member countries of the United Nations (UN) and WMO.

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: The UN General Assembly adopted a resolution, in December 1988, on the subject and endorsed the UNEP/ WMO proposal for the setting up of the Inter-Governmental Panel on Climate Change (IPCC).

- It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide the governments of the world with a clear scientific view of what is happening to the world's climate.
- The Secretariat coordinates all the IPCC work and liaises with Governments. The secretariat is supported by WMO and UNEP and hosted at WMO headquarters in Geneva.
- It is open to all member countries of the United Nations (UN) and WMO. Currently 195 countries are members of the IPCC.

Source: SHANKAR IAS Environment

Q.7) “The BioCarbon Fund Initiative for Sustainable Forest Landscapes” is often seen in news is related to?

- a) World Bank
- b) IMF
- c) GEF
- d) UNDP

ANS: A

Explanation: Biocarbon Fund:

- Administered by the World Bank
- Area of focus - Adaptation, Mitigation - general, Mitigation - REDD
- Date operational – 2004

The BioCarbon Fund Initiative for Sustainable Forest Landscapes supports developing countries' efforts to reduce emission through testing jurisdictional approaches that integrate reducing deforestation and degradation, sustainable forest management with the climate smart agricultural practices to green supply chains.

Source: SHANKAR IAS Environment

Q.8) “Madhav National Park” is located in which of the following state?

- a) Tamil Nadu
- b) Madhya Pradesh
- c) Maharashtra
- d) Jharkhand

ANS: B

Explanation: The Madhav National Park is situated near Shivpuri town and is a part of the upper Vindhyan hills.

- The Park was the hunting ground of Mughal emperors and Maharaja of Gwalior. It got the status of a National Park in 1958.
- There are two entry points for the park; one situated on NH-25 (Old Jhansi road) about 5 km from Shivpuri town while the other is on NH-3 (Agra-Mumbai road) at a distance of 7 km from Shivpuri towards Gwalior.
- The Park is gifted with a diverse ecosystem comprising of lakes, forests and grasslands. The forest is home to antelopes like Nilgai, Chinkara and Chowsinga and Deer including Chital, Sambar and Barking Deer.
- Animals like the Leopard, Wolf, Jackal, Fox, Wild Dog, Wild Pig, Porcupine, Python etc are also sighted in the park.

Source: SHANKAR IAS Environment

Q.9) “Chakrashila Wildlife Sanctuary” is recently seen in news is located at?

- a) Assam
- b) Nagaland
- c) Manipur
- d) West Bengal

ANS: A

Explanation: Chakrashila Wildlife Sanctuary is a wildlife sanctuary falling under Kokrajhar district and some adjacent areas of Dhubri district of Assam, India.

It is famous for the golden langur and is the second protected habitat for golden langur in India.

Source: <https://www.thehindu.com/news/national/other-states/kaziranga-wildlife-rehab-centre-completes-20-years/article65821438.ece>

Q.10) “Ranganathittu Bird Sanctuary” is recently seen in news is related to?

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

ANS: B

Explanation: The renowned Ranganathittu Bird Sanctuary in Srirangapatna has been declared a Ramsar site underlining its status as a wetland of international importance. This is also the first and the only Ramsar site in Karnataka.

Source: <https://www.thehindu.com/news/national/karnataka/ranganathittu-bird-sanctuary-is-now-a-ramsar-site/article65722536.ece>

Environment – Environmental Impact Assessment

Q.1) Which of the following is/are consequence/s of sand mining?

1. Forces the river to change its course.
2. Depletion of groundwater tables.
3. Adversely impacting the habitat of micro-organisms.

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Environmental consequences of sand mining:

- Forcing the river to change its course: Sand and boulders prevent the river from changing the course and act as a buffer for the riverbed.
- Illegally dredged sand is equivalent to robbing water: Sand holds a lot of water, and when it is mindlessly mined and laden on to trucks, large quantities of water is lost in transit.
- Depletion of groundwater tables: Sand, on a riverbed it acts as a link between the flowing river and the water table and is part of the aquifer.
- For e.g.: Illegal and excessive sand mining in the riverbed of the Papagani catchment area in Karnataka has led to the depletion of groundwater levels and environmental degradation in the villages on the banks of the river in both Andhra Pradesh and Karnataka.
- Adversely impacting the habitat of micro-organisms: There are a lot of micro-organisms that are not visible and widely known, but are critical to soil structure and fertility. When sand is dredged, literally it takes away their habitat.

Source: SHANKAR IAS Environment

Q.2) “Colony Collapse Disorder (CCD)” is related to which of the following?

- a) Elephants
- b) Tigers
- c) Butterflies
- d) Bees

ANS: D

Explanation: Bees are not summertime nuisance, they are small and hard-working insects actually make it possible for many of your favorite foods to reach your table.

- From apples to almonds to the pumpkin in our pumpkin pies, we have bees to thank.
- Now, a condition known as Colony Collapse Disorder is causing bee populations to plummet, which means these foods are also at risk.
- Colony Collapse Disorder (CCD) is a new tag name presently being given to a condition that is characterized by an unexplained rapid loss of a Bee colony’s adult population.

Source: SHANKAR IAS Environment

Q.3) “Neonicotinoids” are often seen in news is related to?

- a) Insecticides
- b) Pesticides
- c) Fertilizers
- d) Micro plastics

ANS: A

Explanation: Neonicotinoids are a new class of insecticides chemically related to nicotine. The name literally means “new nicotine-like insecticides”.

- Like nicotine, the neonicotinoids act on certain kinds of receptors in the nerve synapse.
- They are much more toxic to invertebrates, like insects, than they are to mammals, birds and other higher organisms.
- Neonicotinoids share a common mode of action that affects the central nervous system of insects, resulting in paralysis and death.

Source: SHANKAR IAS Environment

Q.4) Which of the following measure/s reduce the wildlife collision with trains?

1. Vulnerable patches for wildlife to be identified as wild life crossing spots.
2. Electronically tag prominent wildlife.
3. Coordination between Ministry of Environment & Forests and Railways.

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Wildlife (elephant, leopard, etc) deaths due to collision with trains:

- Coordination between MoEF and Railways has to be enhanced to ensure the safety of wildlife.
- Vulnerable patches for wildlife to be identified as wild life crossing spots, and signage put up to warn train drivers and other railway personnel, to enable them to give directions for trains to slow down their speed in these patches in the normal course.
- Update the list of well known vulnerable patches for wild life, and conveying them to the Railways.
- Electronically tag prominent wildlife like elephants, leopards, etc particularly in high traffic areas, so that wildlife and forest personnel could keep track of their movements, and warn railway officials well in time to enable them to avoid accident.
- Once they are electronically tagged, forest personnel could track their movements, and keep them from harm.
- Improvement in infrastructure for forest and Railway staff, such as, equipped with walkie talkies, constant connection with the control room, etc.

Source: SHANKAR IAS Environment

Q.5) Which of the following is/are under schedule 1 of Wildlife Protection Act, 1972?

1. Sharks
2. Rays
3. Skates

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: With a view to stop the inhuman hunting of sharks and to enable the enforcement agencies to monitor the illegal hunting/poaching of the species of Sharks, Rays and Skates (Elasmobranchs) listed in Schedule I of the Wild Life (Protection) Act, 1972, Minister of for Environment and Forests has approved a policy for prohibiting the removal of shark fins on board a vessel in the sea.

Source: SHANKAR IAS Environment

Q.6) “Environment Impact Assessment” in India is statutorily backed by?

- a) Environment Protection Act, 1986
- b) Forest Conservation Act, 1980
- c) Forest Rights Act, 2006
- d) Indian Forest Act, 1927

ANS: A

Explanation: Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse.

Environment Impact Assessment in India is statutorily backed by the Environment Protection Act, 1986 which contains various provisions on EIA methodology and process.

Source: SHANKAR IAS Environment

Q.7) “PARIVESH” is often seen in news is related to?

- a) National Parks
- b) Protection of inland fisheries
- c) Environmental Management System
- d) Zero Budget Natural Farming

ANS: C

Explanation: PARIVESH is a Single-Window Integrated Environmental Management System. Key features include single registration and single sign-in for all types of clearances (i.e. Environment, Forest, Wildlife and CRZ), unique-ID for all types of clearances required for a particular project and a single Window interface for the proponent to submit applications for getting all types of clearances (i.e. Environment, Forests, Wildlife and CRZ clearances).

Source: SHANKAR IAS Environment

Q.8) Which of the following is the first country to implement the Environment Impact Assessment (EIA)?

- a) Canada
- b) Australia
- c) United States of America
- d) Netherlands

ANS: C

Explanation: The first country to give importance to EIA through its National Environmental Protection Act (NEPA) of 1969 was the United States.

A large number of countries followed, which were having industries. Canada, Australia, the Netherlands and Japan adopted EIA legislation in 1973, 1974, 1981 and 1984, respectively.

Source: SHANKAR IAS Environment

Q.9) Which of the following Biosphere Reserve/s is/are part of World Network of Biosphere Reserves?

- 1. Nilgiris
- 2. Nokrek
- 3. Nanda Devi

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: There are 18 biosphere reserves in the country, only nine, including the Nilgiris, Nanda Devi, Nokrek, Gulf of Mannar, Sundarban, and Great Nicobar, have been included in the network.

- Biosphere reserves are “representative parts of natural and cultural landscapes extending over a large area of terrestrial or coastal/marine ecosystems or a combination thereof and representative examples of bio-geographic zones/provinces.”
- Globally, 621 biosphere reserves from 117 countries are included in the network so far, according to the Union Ministry of Environment and Forests and Climate Change.

Source: <https://www.thehindu.com/news/national/andhra-pradesh/Agasthyamala-likely-to-be-part-of-World-biosphere-reserves/article60514619.ece>

Q.10) Kanger Valley National Park is located in which of the following state?

- a) Himachal Pradesh
- b) Chhattisgarh
- c) Uttarakhand
- d) Maharashtra

ANS: B

Explanation: The name of Kanger Ghati National Park is derived from the Kangar River, which flows in its length. Kanger Valley is spread over 200 square kilometers.

- Kanger Valley got the status of a national park in the year 1982. It is a friendly place for high mountains, deep valleys, giant trees and various species of wildlife.
- Kanger Valley National Park is a typical mixed humid deciduous type of forest, in which the Sal, Saugaun, teak and bamboo trees are available in abundance.
- The most popular species in this area is Bastar Maina which enchant everyone with their human voice.
- The state bird, Bastar Maina, is a type of Hill maina (*gruncula Dhariosoa*), which is capable of emulating the human voices. The forest is home to migrant and resident birds.

Source: <https://bastar.gov.in/en/tourist-place/kanger-ghati-national-park/>

Revision

Q.1) Which of the following service/s is/are provided by ecosystem?

1. Purification of air and water.
2. Detoxification and decomposition of wastes.
3. Moderation of floods, droughts, temperature extremes and the forces of wind.

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Goods and Services provided by ecosystems include:

- Provision of food, fuel and fibre
- Provision of shelter and building materials
- Purification of air and water
- Detoxification and decomposition of wastes
- Stabilization and moderation of the Earth's climate
- Moderation of floods, droughts, temperature extremes and the forces of wind.
- Generation and renewal of soil fertility, including nutrient cycling.
- Pollination of plants, including many crops Control of pests and diseases

Source: SHANKAR IAS Environment

Q.2) Which of the following is/are characteristic/s of ecotone?

1. It may be very narrow or quite wide.
2. It has the conditions intermediate to the adjacent ecosystems.
3. It is linear as it shows progressive increase in species composition of one in coming community and a simultaneous decrease in species of the other out going adjoining community

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Ecotone is a zone of junction between two or more diverse ecosystems. For e.g. the mangrove forests represent an ecotone between marine and terrestrial ecosystem. Other examples are – grassland, estuary and river bank.

Characteristics of Ecotone:

- It may be very narrow or quite wide.
- It has the conditions intermediate to the adjacent ecosystems. Hence it is a zone of tension.
- It is linear as it shows progressive increase in species composition of one in coming community and a simultaneous decrease in species of the other out going adjoining community.

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- Well developed ecotones contain some organisms which are entirely different from that of the adjoining communities.
- Sometimes the number of species and the population density of some of the species is much greater in this zone than either community. This is called edge effect.

Source: SHANKAR IAS Environment

Q.3) 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. In biomagnification there is an increase in concentration of a pollutant from one link in a food chain to another.

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) Biomagnification

Bioaccumulation:

- It refers to how pollutants enter a food chain.
- In bioaccumulation there is an increase in concentration of a pollutant from the environment to the first organism in a food chain.

Biomagnification:

- Biomagnification refers to the tendency of pollutants to concentrate as they move from one trophic level to the next.
- Thus in biomagnification there is an increase in concentration of a pollutant from one link in a food chain to another.

Source: SHANKAR IAS Environment

Q.4) Which of the following is NOT a Sedimentary biogeochemical cycle?

- a) Phosphorous
- b) Nitrogen
- c) Calcium
- d) Magnesium

ANS: B

Explanation: Phosphorus, calcium and magnesium circulate by means of the sedimentary cycle.

The element involved in the sedimentary cycle normally does not cycle through the atmosphere but follows a basic pattern of flow through erosion, sedimentation, mountain building, volcanic activity and biological transport through the excreta of marine birds.

Source: SHANKAR IAS Environment

Q.5) Consider the following statements regarding “eutrophication”:

1. It is primarily caused by the leaching of phosphate and - or nitrate containing fertilisers from agricultural lands into lakes or rivers.
2. The growth of green algae which we see in the lake surface layer is the physical identification of an Eutrophication.

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: EUTROPHICATION:

- Greek word – Eutrophia means adequate & healthy nutrition.
- Eutrophication is a syndrome of ecosystem, response to the addition of artificial or natural nutrients such as nitrates and phosphates through fertilizer, sewage, etc that fertilize the aquatic ecosystem.
- It is primarily caused by the leaching of phosphate and - or nitrate containing fertilisers from agricultural lands into lakes or rivers.
- The growth of green algae which we see in the lake surface layer is the physical identification of an Eutrophication.
- Some algae and blue-green bacteria thrive on the excess ions and a population explosion covers almost entire surface layer is known as algal bloom. This growth is unsustainable, however.
- As Algal Bloom covers the surface layer, it restricts the penetration of sunlight. Diffusion of gas from atom
- Oxygen is required by all respiring animals in the water and it is replenished by diffusion and photosynthesis of green plants.

Source: SHANKAR IAS Environment

Q.6) “Montreux Record” is often seen in news is related to?

- a) Wetlands
- b) Renewable energy
- c) Organic farming
- d) River pollution

ANS: A

Explanation: Montreux Record is the principal tool under the Ramsar Convention, is a register of wetland sites on the List of Wetlands of International Importance.

- It highlights those sites where adverse changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference and which are therefore in need of priority conservation attention. It is maintained as part of the Ramsar List.
- Montreux Record is employed to identify priority sites for positive national and international conservation attention. Sites may be added to and removed from the Record only with the approval of the Contracting Parties in which they lie.

Source: SHANKAR IAS Environment

Q.7) Which of the following is/are source/s of geothermal energy?

1. Cambay graben
2. Damodar valley
3. West coast

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: India has a potential for producing around 10,600 MW of power from geothermal resources.

- Although India was among the earliest countries to begin geothermal projects since the 1970's, at present there are no operational geothermal plants in India. 340 hot springs were identified across India.
- These have been grouped together and termed as different geothermal provinces based on their occurrence in specific geotectonic regions, geological and structural regions such as occurrence in orogenic belt regions, structural grabens, deep fault zones, active volcanic regions etc.

Orogenic regions:

- Himalayan geothermal province
- Naga-Lushai geothermal province
- Andaman-Nicobar Islands geothermal province

Non-orogenic regions:

- Cambay graben,
- Son-Narmada-Tapigraben,
- West coast,
- Damodar valley,
- Mahanadi valley

Source: SHANKAR IAS Environment

Q.8) Which of the following schedule of wildlife protection act, 1972 is related to species "vermin"?

- a) Schedule I
- b) Schedule II
- c) Schedule III
- d) Schedule V

ANS: D

Explanation: Animals listed in schedule 5 are called "vermin" which can be hunted.

Mice, rat, common crow and flying fox (fruit eating bats) are the list of animals (only 4 nos) in schedule 5 [i.e. vermin].

Source: SHANKAR IAS Environment

Q.9) Consider the following statements:

1. Seaweeds are macroscopic algae.
2. Seaweeds, the larger and visible marine plants are found attached to rocks, corals and other submerged strata.

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: Seaweeds are (thalloid plants) macroscopic algae, which mean they have no differentiation of true tissues such as roots, stems and leaves. They have leaf-like appendages.

- Seaweeds, the larger and visible marine plants are found attached to rocks, corals and other submerged strata in the intertidal and shallow sub tidal zones of the sea.
- Seaweeds grow in shallow coastal waters wherever sizable substrata is available.

Source: SHANKAR IAS Environment

Q.10) Which of the following vulture/s is/are found in India?

1. Red – Headed vulture
2. White – Rumped vulture
3. Egyptian vulture

Choose the correct answer from below given codes:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: India has nine species of 'endangered' and 'critically endangered' raptors that include five vulture species (Red-headed Vulture, Indian Vulture, White-rumped Vulture, Slender-billed Vulture and Egyptian Vulture), one owl species (Forest Owlet), one falcon (Saker Falcon) and two eagles (Steppe Eagle and Pallas's Fish-eagle).

- There are many reasons for loss in the number of these birds, ranging from chemical poisoning, and human disturbances to their preferred habitats, hunting, habitat degradation and pollution.
- For their role in maintaining the food chain and giving us free ecosystem service, they and their habitat should be protected.

Source: <https://www.thehindu.com/education/in-sync-with-nature/article65418700.ece>