

ForumIAS

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## Prelims Marathon

23rd to 29th November, 2020

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*HISTORY*  
*ECONOMICS*  
*POLITY*  
*SCIENCE AND TECHNOLOGY*  
*GEOGRAPHY AND ENVIRONMENT*

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## *Environmental Organisations*

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**Q.1)** Consider the following statements regarding “The Indian Network on Climate Change Assessment (INCCA)”:

1. It was launched at CoP – 21 of UNFCCC in 2015.
2. It was launched to assist the countries who are willing to join International Solar Alliance (ISA).

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 Indian Network on Climate Change Assessment (INCCA) was launched in October 2009 by the Ministry of Environment and Forests (MoEF) in an effort to promote domestic research on climate change, and build on the country’s climate change expertise.

- INCCA is a network-based programme of the MoEF, which consists of over 120 institutions and over 250 scientists country wide is aimed at bringing in more science-based policy-making, based on measurements, monitoring and modeling.
- Reports prepared by the INCCA will form a part of India’s National Communication (Nat Com) to the United Nations Framework Convention on Climate Change (UNFCCC).

Source: Shankar

**Q.2)** Indian government created National Communications (NATCOM) to implement the provisions of which of the following?

- a) UNFCCC
- b) UNCCD
- c) Kyoto Protocol
- d) Montreal Protocol

**ANS: A**

**Explanation:** In pursuance of the implementation of the provisions of the Convention, India’s Initial National Communication (NATCOM) to the UNFCCC has been initiated in 2002 funded by the Global Environment Facility under its enabling activities programme through the United Nations Development Programme, New Delhi.

Source: Shankar

**Q.3)** “Joint Implementation and Clean Development Mechanism” are often seen in news is related to which of the following?

- a) UNCBD
- b) Kyoto Protocol
- c) UNEP
- d) Montreal Protocol

**ANS: B**

**Explanation:** The Kyoto Protocol is made up of essential architecture that has been built and shaped over almost two decades of experience, hard work and political will. The beating heart of KP is made up of:

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

1. Reporting and verification procedures;
2. Flexible market-based mechanisms, which in turn have their own governance procedures; and
3. A compliance system.

The Kyoto Flexible Market Protocol mechanisms:

- Joint Implementation (JI)
- The Clean Development Mechanism (CDM)
- Emission Trading

Source: Shankar

**Q.4)** Consider the following statements regarding “Global Environment Facility (GEF)”:

1. It was established in 1991.
2. It was established by World Bank in consultation with UNEP and UNDP.

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 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: GEF

**Q.5)** Which of the following famous organization logo is a Giant Panda?

- a) World Wildlife Fund or World Wide Fund for Nature (WWF)
- b) International Union for Conservation of Nature and Natural Resources (IUCN)
- c) United Nations Educational, Scientific and Cultural Organization (UNESCO)
- d) United Nations Environment Programme (UNEP)

**ANS: A**

**Explanation:** The inspiration came from Chi-Chi: a giant panda that had arrived at the London Zoo in the year 1961, when WWF was being created. Aware of the need for a strong, recognizable symbol that would overcome all language barriers, WWF’s founders agreed that the big, furry animal with her appealing, black-patched eyes would make an excellent logo.

Source: Shankar

**Q.6)** Which of the following are the focal areas of Global Environment Facility (GEF) for climate finance?

1. Biological diversity
2. Climate change
3. International Waters
4. Land degradation
5. Persistent Organic Pollutants (POP’s)

Select the correct answer using the code given below:

- a) 1, 2, 4 and 5 only
- b) 1, 2 and 5 only
- c) 1, 2, 3 and 4 only
- d) 1, 2, 3, 4 and 5

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

**ANS: D**

**Explanation:** The GEF's governance, operational, financial and administrative oversight procedures are set out in the Instrument for the Establishment of the Restructured Global Environment Facility, which was adopted in 1994 and subsequently amended in 2002 (GEF Instrument). The GEF now has six focal areas:

- biological diversity;
- climate change;
- international waters;
- land degradation, primarily desertification and deforestation;
- ozone layer depletion; and
- Persistent organic pollutants.

Source: GEF

**Q.7)** Inter-Governmental Panel on Climate Change (IPCC) is often seen in news was established by?

- a) UNEP, WMO & GEF
- b) UNEP & WMO
- c) GEF & UNEP
- d) UNDP & WMO

**ANS: B**

**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.

Source: Shankar

**Q.8)** Which of the following institution (s) is/are collaborated to establish UN – REDD programme?

1. UNEP
2. FAO
3. UNDP

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** Three UN Agencies – United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and Food and Agriculture Organization of the United Nations (FAO) – have collaborated in the establishment of the UN-REDD programme, a multi-donor trust fund that allows donors to pool resources and provide funding with the aim of significantly reducing global emissions from deforestation and forest degradation in developing countries.

Source: Shankar

**Q.9)** Which of the following convention provides the mechanisms to develop the International Standards for Phyto-sanitary Measures (ISPMs) and to help countries to implement the ISPMs?

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- a) Convention on Biological Diversity.
- b) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- c) World Heritage Convention (WHC).
- d) International Plant Protection Convention (IPPC).

**ANS: D**

**Explanation:** The International Plant Protection Convention (IPPC) aims to protect world plant resources, including cultivated and wild plants by preventing the introduction and spread of plant pests and promoting the appropriate measures for their control.

- The convention provides the mechanisms to develop the International Standards for Phyto-sanitary Measures (ISPMs), and to help countries to implement the ISPMs and the other obligations under the IPPC, by facilitating the national capacity development, national reporting and dispute settlement.
- The Secretariat of the IPPC is hosted by the Food and Agriculture Organization of the United Nations (FAO).

Source: UN CBD

**Q.10)** Consider the following statements regarding India Biodiversity Awards:

1. It was launched in 2012 to recognize excellence in biodiversity governance across the country.
2. It was launched by Ministry of Environment with the help of UNEP.

Which of 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:** India is one of the mega-diverse countries in the world and home to nearly eight percent of the world's total recorded species of plants and animals.

- Across the country, people, communities and governments have played an outstanding and innovative role in conserving India's rich heritage.
- Government of India, Ministry of Environment, Forest and Climate Change in association with UNDP India, therefore, started the India Biodiversity Awards in 2012, to recognise excellence in biodiversity governance across the country.
- The first round of Awards was launched in 2012 during India's Presidency of the Eleventh Meeting of Conference of Parties to the Convention on Biological Diversity.
- The award selection process is conducted in partnership with the National Biodiversity Authority of India.

Source: The Hindu

**Q.11)** Which of the following convention is formed to control of trans-boundary movements of hazardous waste and their disposal?

- a) Basel Convention
- b) Rotterdam Convention
- c) Stockholm Convention
- d) Vienna Convention

**ANS: A**

**Explanation:** The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 22 March 1989 by the Conference of

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

Plenipotentiaries in Basel, Switzerland, in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad.

Source: Basel Convention

**Q.12)** MARPOL Convention is related to which of the following?

- a) Sustainable use of marine resources
- b) Development of renewable energy on sea shores
- c) Prevention of pollution of the marine environment by ships
- d) All of the above

**ANS: C**

**Explanation:** The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

- The MARPOL Convention was adopted on 2 November 1973 at IMO. The Protocol of 1978 was adopted in response to a spate of tanker accidents in 1976-1977.
- As the 1973 MARPOL Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the parent Convention. The combined instrument entered into force on 2 October 1983.
- In 1997, a Protocol was adopted to amend the Convention and a new Annex VI was added which entered into force on 19 May 2005. MARPOL has been updated by amendments through the years.
- The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and that from routine operations - and currently includes six technical Annexes.

Source: Shankar

**Q.13)** Which of the following activities carried out by Wildlife Institute of India (WII)?

1. Training
2. Research
3. Publicity
4. Consultancy services

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

**ANS: D**

**Explanation:** Build up scientific knowledge on wildlife resources. Train personnel at various levels for conservation and management of wildlife.

- Carry out research relevant to management including the development of techniques appropriate to Indian conditions.
- Provide information and advice on specific wildlife management problems.
- Collaborate with international organizations on wildlife research, management and training.
- Develop as a regional centre of international importance on wildlife and natural resource conservation.
- Publicity and consultancy services

Source: Shankar

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

**Q.14)** Which of the following convention is related to Persistent Organic Pollutants?

- a) Basel convention
- b) Paris convention
- c) Stockholm convention
- d) Rotterdam convention

**ANS: C**

**Explanation:** The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

- Exposure to Persistent Organic Pollutants (POPs) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.
- Given their long range transport, no one government acting alone can protect its citizens or its environment from POPs.
- In response to this global problem, the Stockholm Convention, which was adopted in 2001 and entered into force in 2004, requires its parties to take measures to eliminate or reduce the release of POPs into the environment.

Source: Stockholm Convention

**Q.15)** Mangroves For the Future (MFF) was an initiative of which of the following institution?

- a) IUCN
- b) World Bank
- c) UNEP
- d) GEF

**ANS: A**

**Explanation:** The devastation caused by the Indian Ocean tsunami of December 2004 laid bare the vital link between coastal ecosystems and human livelihoods.

- It was United States President Bill Clinton's vision that rebuilding in tsunami-hit areas should improve natural infrastructure and strengthen resilience against future natural disasters.
- In response to this vision, IUCN (International Union for Conservation of Nature) and the United Nations Development Programme (UNDP) developed Mangroves for the Future in 2006.
- Since then, MFF has grown to include eight institutional partners, plus a growing number of countries.

Source: Shankar

**Q.16)** Which state in India deployed artificial reefs to protect the Islands?

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

**ANS: A**

**Explanation:** Sinking islands may become a reality with sea level rise and climate change in decades to come.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- Tamil Nadu has hit upon a novel idea to protect such islands on its coast – deployment of artificial reefs near vulnerable islands.
- Artificial reefs, made of concrete, have been found to be capable of preventing further erosion of ecologically sensitive islands and also regenerate coral biodiversity in the Gulf of Mannar region.
- Vaan is one of the 21 islands in the Gulf of Mannar, which was declared marine biodiversity park in 1986.
- Indiscriminate mining of coral and use of destructive fishing practices in the past few decades have fully submerged two of the islands while Vaan was on the verge of submergence when the project began in 2015.
- Its area had been reduced from 16 hectares in 1986 to 2 hectares in 2014.

Source: The Hindu

**Q.17)** Consider the following statements regarding “Estuarine Biology Regional Centre (EBRC)”:

1. India has more than 20 EBRCs.
2. Primary objective of this centre is to conduct investigations on faunal diversity of estuaries only.

Which of the statements given above is/are NOT correct?

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

**ANS: D**

**Explanation:** Estuarine Biology regional centre, Gopalpur-on-sea, Ganjam is one of the sixteen regional Centre of Zoological Survey of India, Ministry of Environment, Forest and Climate change, Govt of India established in 1980 during the 6th five year plan of Govt of India.

The Primary objective of this centre is to conduct investigations on faunal diversity of estuaries, backwaters, lagoons and mangrove ecosystem along the east and west coast of India.

Source: ENVIS

**Q.18)** Consider the following statements regarding “Wetlands International”:

1. It is an inter-governmental organization to protect wetlands.
2. Luc Hoffmann Medal was presented by Wetlands International for Wetland Science and Conservation

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:** Wetlands International is the global not-for-profit organization dedicated to the conservation and restoration of wetlands.

- Wetlands are the source of water that supports all forms of life.
- Despite our efforts to promote their importance, loss and damage to wetlands and their biodiversity continues.



## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide.
- The Wetlands International Luc Hoffmann Medal for Wetland Science and Conservation is awarded every triennium to honor Dr Luc Hoffmann, one of the inspirational and far-sighted founders of Wetlands International.

Source: Shankar

**Q.19)** In which year the Government of India enacted the Disaster Management Act, which envisaged the creation of National Disaster Management Authority (NDMA)?

- a) 2001
- b) 2003
- c) 2005
- d) 2007

**ANS: C**

**Explanation:** The Government of India (GOI), in recognition of the importance of Disaster Management as a national priority, set up a High-Powered Committee (HPC) in August 1999 and a National Committee after the Gujarat earthquake, for making recommendations on the preparation of Disaster Management plans and suggesting effective mitigation mechanisms.

- The Tenth Five-Year Plan document also had, for the first time, a detailed chapter on Disaster Management.
- The Twelfth Finance Commission was also mandated to review the financial arrangements for Disaster Management.
- On 23 December 2005, the Government of India enacted the Disaster Management Act, which envisaged the creation of National Disaster Management Authority (NDMA), headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

Source: Shankar

**Q.20)** Global Environment Outlook is published by which of the following Institution?

- a) UNEP
- b) WEF
- c) World Bank
- d) UNFCCC

**ANS: A**

**Explanation:** The Global Environment Outlook (GEO) is often referred to as UN Environment's flagship environmental assessment. The first publication was in 1997 and was originally requested by Member States.

- It is a flagship report because it fulfills the core functions of the organization, which date back to the UN General Assembly resolution that established the UN Environment Programme in 1972.
- The Global Environment Outlook (GEO) is a consultative and participatory process to prepare an independent assessment of the state of the environment, the effectiveness of the policy response to address these environmental challenges and the possible pathways to be achieve various internationally agreed environmental goals.
- The process also builds capacity for conducting integrated environmental assessments and reporting on the state, trends and outlooks of the environment.

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

- The Global Environment Outlook (GEO) is also a series of products that informs environmental decision-making for not only governments but also various stakeholders such as the youth, businesses and local governments and aims to facilitate the interaction between science and policy.

Source: The Hindu

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## Climate Change

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**Q.1)** Which of the following is/are the sources of methane?

1. Wetlands
2. Oceans
3. Volcanoes

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** Methane (CH<sub>4</sub>) 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. Smaller sources include termites, oceans, sediments, volcanoes, and wildfires.

Source: Shankar

**Q.2)** Consider the following statements regarding “fluorinated gases”:

1. They have very high global warming potentials (GWPs) relative to other greenhouse gases.
2. They are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere.

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:** Fluorinated gases are emitted through a variety of industrial processes such as aluminum and semiconductor manufacturing & Substitution for Ozone-Depleting Substances.

- Many fluorinated gases have very high global warming potentials (GWPs) relative to other greenhouse gases. Fluorinated gases are well-mixed in the atmosphere, spreading around the world after they're emitted.
- Fluorinated gases are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere. In general, fluorinated gases are the most potent and longest lasting type of greenhouse gases emitted by human activities.

Source: Shankar

**Q.3)** Which of the following statement is NOT correct about black carbon?

- a) Black carbon warms the Earth by absorbing heat in the atmosphere and by reducing albedo.
- b) Black carbon disrupts cloudiness and monsoon rainfall and accelerates melting of mountain glaciers such as the Hindu Kush-Himalayan glaciers.
- c) Black carbon stays in the atmosphere for years.
- d) Both A & C.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

**ANS: C**

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

- Black carbon, commonly known as soot, is a form of particulate air pollutant, produced from incomplete combustion.
- It consists of pure carbon in several linked forms. Black carbon stays in the atmosphere for only several days to weeks.
- Thus the effects of BC on the atmospheric warming and glacier retreat disappear within months of reducing emissions.

Source: Shankar

**Q.4)** Arrange the following greenhouse gases according to their global warming potential (GWP) in ascending order:

1. Methane
2. Carbon Dioxide
3. Nitrous Oxide

Select the correct answer using the code given below:

- a) 1 – 2 – 3
- b) 3 – 2 – 1
- c) 2 – 1 – 3
- d) 3 – 1 – 2

**ANS: C**

**Explanation:**

**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

**Q.5)** Consider the following statements:

1. Oceans are a significant reservoir for Carbon Dioxide.
2. Ocean acidification is the change in ocean chemistry – increasing of ocean pH.

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:** Oceans are an important reservoir for CO<sub>2</sub>, absorbing a significant quantity of it (one-third) produced by anthropogenic activities and effectively buffering climate change.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- 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

**Q.6)** “Coastal waters are also affected by excess nutrient inputs, mostly nitrogen, from agriculture, fertilizers and sewage” – describes which of the following?

- a) Eutrophication
- b) Bio-magnification
- c) Bio-accumulation
- d) Ocean Acidification

**ANS: A**

**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<sub>2</sub> (a decline in pH).

Source: Shankar

**Q.7)** Consider the following statements regarding “upwelling zones”:

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

Which of the statements given above is/are NOT correct?

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

**ANS: D**

**Explanation:** UPWELLING: 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 CO<sub>2</sub>.
- As ocean acidification makes the upper oversaturated layer of sea water shallower each year, these natural upwelling events will more often cause under-saturated water to well up and flow to the shore.
- Coastal marine organisms that form shells are unaccustomed to such events, and periodic exposures to these significantly different conditions may affect these communities.

Source: Shankar

**Q.8)** The term “paraquat poisoning” is in news is related to which of the following?

- a) Pesticide
- b) Fungicide

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

- c) Herbicide
- d) Insecticide

**ANS: C**

**Explanation:** The VIMSAR, a major public healthcare center for western Odisha and parts of Chhattisgarh and Jharkhand, has many deaths cases of farmers, since September 2017.

- The reason behind these deaths is the consumption of Paraquat — a herbicide used in agricultural fields.
- Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.

Source: Indian Express

**Q.9)** Recently, which of the following “**International Organization/Bank**” has announced that it would stop funding fossil fuel projects at the end of 2021?

- a) International Monetary Fund
- b) World Bank
- c) European Investment Bank
- d) AIIB

**ANS: C**

**Explanation:** The European Investment Bank said that it would stop funding fossil fuel projects at the end of 2021, in a landmark decision.

- The ban on funding comes into effect a year later than originally proposed after lobbying by European Union member states.
- Under the new policy, energy projects applying for EIB funding will need to show they can produce one kilowatt hour of energy while emitting less than 250 grams of carbon dioxide, a move which bans traditional gas-burning power plants.
- Gas projects are still possible, but would have to be based on what the bank called “new technologies,” such as carbon capture and storage, combining heat and power generation or mixing in renewable gases with the fossil natural gas.
- The European Commission has only an observer role on the EIB board, but the powerful EU executive body has much sway and holds the power to cast a deciding vote at a deadlock between the bank's current 28 shareholders, the EU member states.
- There was no need for that as the bank said that members representing 90% of its capital had approved the new energy lending policy.
- The EIB, the biggest multilateral lender in the world, has ambitious goals on sustainable finance.

Source: The Hindu

**Q.10)** The words “**SWAS, STAR and SAFAL**” is often seen in news is related to which of the following?

- a) Bio-pesticides
- b) Bio-fertilizers
- c) Air purifying machines
- d) Green crackers

**ANS: D**

**Explanation:** 'Green' crackers have a small shell size compared to traditional crackers.

- They are produced using less harmful raw materials and have additives which reduce emissions by suppressing dust.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- Green crackers don't contain banned chemicals such as lithium, arsenic, barium and lead.
- **They are called Safe Water Releaser (SWAS), Safe Thermite Cracker (STAR) and Safe Minimal Aluminium (SAFAL) crackers.**

Green crackers release water vapour and don't allow the dust particles to rise. They are designed to have 30% less particulate matter pollution.

Source: The Hindu

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## *Climate Change & Mitigation Strategies*

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**Q.1)** “Saturation Horizon” mechanism is related to which of the following?

- a) Ocean acidification
- b) Global Warming
- c) Land degradation
- d) Shifting of ITCZ

**ANS: A**

**Explanation:** Deep, cold ocean waters are naturally under saturated with carbonate ions causing the shells of most calcifying organisms to dissolve.

- Surface waters are over saturated with carbonate ions and do not readily dissolve shells of calcifying organisms.
- The saturation horizon is the level below which calcium carbonate minerals undergo dissolution.
- Those organisms that can survive below the saturation horizon do so due to special mechanisms to protect their calcium carbonate from dissolving.
- As ocean acidification causes this horizon to rise vertically in the water column so more and more calcifying organisms will be exposed to under saturated water and thus vulnerable to dissolution of their shells and skeletons.
- The saturation horizon of calcite occurs at a greater ocean depth than that for aragonite, but both horizons have moved closer to the surface presently when compared to the 1800s.

Source: Shankar

**Q.2)** Consider the following statements regarding “Ozone”:

1. It is an allotrope of oxygen consisting of three atoms of oxygen.
2. It is only found in the stratosphere.

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:** 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 O<sub>3</sub>.

- It is found in two different layers of the atmosphere. Ozone in the troposphere is “bad” because it dirties the air and helps to form smog, which is not good to breathe.
- Ozone in the stratosphere is “good” because it protects life on Earth by absorbing some of the sun’s harmful Ultra Violet (UV) rays.
- The ozone layer is very important because the configuration of the ozone molecule and its chemical properties are such that ozone efficiently absorbs ultraviolet light, thus acting like a sun-screen.

Source: Shankar



**Q.3)** Chloroflourocarbons (CFCs) are used in which of the following?

1. Refrigerators
2. Foaming agents
3. Freezing foods

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** CFCs molecules are made up of chlorine, fluorine and carbon. They are used as refrigerants, propellants in aerosol sprays, foaming agents in plastic manufacturing, fire extinguishing agents, solvents for cleaning electronic and metallic components, for freezing foods etc.

Two-thirds of CFC is used as refrigerants while one-third is used as blowing agents in foam insulation products.

Source: Shankar

**Q.4)** “The Umheher technique” is related to which of the following?

- a) Ozone measurement
- b) Global warming potential measurement
- c) Sea level rise measurement
- d) Glaciers measurement

**ANS: A**

**Explanation:** The Umheher technique: 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  $2.69 \times 10^{20}$  molecules per square meter.

Source: Shankar

**Q.5)** Which of the statement is NOT correct about impact of climate change?

- a) Moderate warming i.e. increase of 1 to 3°C in mean temperature, is expected to benefit crop yields in temperate regions.
- b) In lower latitudes in seasonally dry tropics, even moderate temperature increases (1 to 2°C) are likely to have negative impacts for major cereal crops.
- c) Warming of more than 3°C is expected to have negative effect on production in all regions.
- d) None.

**ANS: D**

**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 greenhouse 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

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

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

**Q.6)** Which of the following is/are examples of carbon sinks?

1. Oceans
2. Unmineable mines
3. Soil

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** Carbon capture and storage, also known as CCS or carbon sequestration, describes the technologies designed to tackle global warming by capturing CO<sub>2</sub> at power stations, industrial sites or even directly from the air and permanently storing it underground.

Carbon sequestration describes long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming. 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, unmineable mines, etc.

Source: Shankar

**Q.7)** Consider the following statements regarding "Carbon Offset":

1. Carbon offsets are credits for reductions in greenhouse gas emissions.
2. Carbon offsets are quantified and sold in metric tons of carbon dioxide equivalent (CO<sub>2</sub>e).

Which of the statements given above is/are NOT correct?

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

**ANS: D**

**Explanation:** Carbon offsets are credits for reductions in greenhouse gas emissions made at another location, such as wind farms which create renewable energy and reduce the need for fossil-fuel powered energy.

- Carbon offsets are quantified and sold in metric tonnes of carbon dioxide equivalent (CO<sub>2</sub>e).
- Buying one tonne of carbon offsets means there will be one less tonne of carbon dioxide in the atmosphere than there would otherwise have been.

Source: Shankar

**Q.8)** Which of the following initiatives are covered under the National Mission for Enhanced Energy Efficiency (NMEEE)?

1. Perform Achieve and Trade
2. Market Transformation for Energy Efficiency

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

3. Bureau of Energy Efficiency
4. Framework for Energy Efficient Economic Development (FEEED)

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 2 and 4 only
- d) 1, 2, 3 and 4

**ANS: C**

**Explanation:** The National Mission for Enhanced Energy Efficiency (NMEEE), which seeks to strengthen the market for energy efficiency by creating conducive regulatory and policy regime.

- NMEEE has been envisaged to foster innovative and sustainable business models to the energy efficiency sector.
- The NMEEE seeks to create and sustain markets for energy efficiency in the entire country which will benefit the country and the consumers”.

Four New Initiatives to Enhance Energy Efficiency:

- Perform Achieve and Trade
- Market Transformation for Energy Efficiency
- Energy Efficiency Financing Platform (EEP)
- Framework for Energy Efficient Economic Development (FEEED)

Source: Shankar

**Q.9) “Global Animal Protection Index”** is released by which of the following institute?

- a) World Economic Forum
- b) UNEP
- c) World Animal Protection
- d) FAO

**ANS: C**

**Explanation:** India is one of the better-performing countries in the global Animal Protection Index 2020, created by international animal welfare charity, World Animal Protection.

- The Animal Protection Index (API) aims to showcase where countries are doing well, and where they fall short on animal welfare policy and legislation, so they can take steps to improve.
- The index ranks countries from A (being the highest score) to G (being the weakest score) according to their policy and legislation.
- India has attained a C ranking in the index, along with countries like New Zealand, Mexico, France, and Spain.

Source: The Hindu

**Q.10) Which of the following is/are principle agents of Acid rain?**

1. Sulfuric Acid
2. Methane
3. Nitric Acid

Select the correct answer using the code given below:

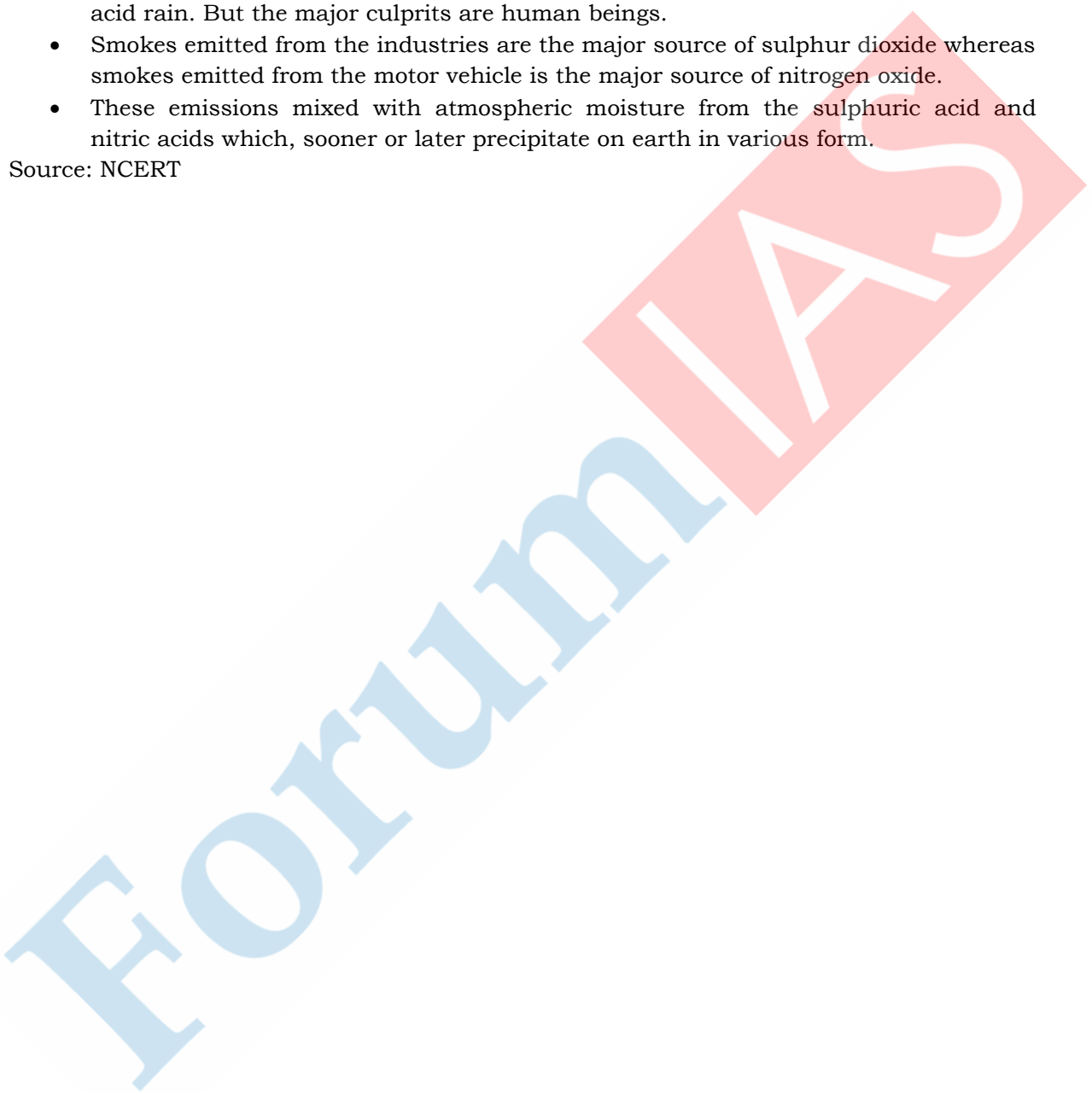
- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

**ANS: C**

**Explanation:** The term 'acid rain' refers to the deposition of wet or dry acidic materials from the atmosphere on the earth's surface.

- Although most conspicuously associated with rainfall, the pollutants may fall on the earth's surface either in the form of snow, sleet, hail or fog or in the dry form of gases or particulate matter.
- Sulphuric acid and nitric acid is considered as the principal agents responsible for acid rain. But the major culprits are human beings.
- Smokes emitted from the industries are the major source of sulphur dioxide whereas smokes emitted from the motor vehicle is the major source of nitrogen oxide.
- These emissions mixed with atmospheric moisture from the sulphuric acid and nitric acids which, sooner or later precipitate on earth in various form.

Source: NCERT



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## *Environment Impact Assessment & Ecosystem*

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**Q.1)** Which of the following is/are the impacts of sand mining in India?

1. Changes in channel course.
2. Deepening of rivers and estuaries.
3. Enlargement of river mouths.

Select the correct answer using the code given below:

- 1 only
- 1 and 2 only
- 2 and 3 only
- 1, 2 and 3

**ANS: D**

**Explanation:** Sand acts as an aquifer, and as a natural carpet on the bottom of the river.

- Stripping this layer leads to downstream erosion, causing changes in channel bed and habitat type, as well as the deepening of rivers and estuaries, and the enlargement of river mouths.
- As the river system lowers, local groundwater is affected, which leads to water scarcities aggravating agriculture and local livelihoods.

Source: Shankar

**Q.2)** “Bharathappuzha River” is often seen in news is flows in which of the following state?

- Kerala
- Tamil Nadu
- Karnataka
- Andhra Pradesh

**ANS: A**

**Explanation:** Bharathappuzha, also known as the Nila or Ponnani River, is a river in India in the state of Kerala.

- With a length of 209 km, it is the second longest river in Kerala after the Periyar.
- Nila has groomed the culture and life of South Malabar part of Kerala.
- Despite numerous prohibitions and regulations, sand mining continues rapidly on the riverbed of the Bharathapuzha in Kerala.
- Water tables have dropped dramatically and a land once known for its plentiful rice harvest now faces scarcity of water.

Source: The Hindu

**Q.3)** “Colony Collapse Disorder” is related to which of the following?

- Butterflies
- Honey Bees
- Rhinoceros
- Elephants

**ANS: B**

**Explanation:** 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.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- Sudden loss of a colony's worker bee population with very few dead bees found near the colony.
- The queen and brood (young) remained, and the colonies had relatively abundant honey and pollen reserves.
- But hives cannot sustain themselves without worker bees and would eventually die.
- This combination of events resulting in the loss of a bee colony has been called Colony Collapse Disorder (CCD).

Source: Shankar

**Q.4)** Which Article of Indian Constitution states that the State shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country?

- a) Article 41 A
- b) Article 47 A
- c) Article 48 A
- d) Article 51 A

**ANS: C**

**Explanation:** Article 48A (DPSP) of the Indian Constitution, it is stated that the State shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country.

Source: Indian Constitution

**Q.5)** Which of the following species is/are covered under schedule 1 of Wild Life (Protection) Act, 1972?

1. Sharks
2. Rays
3. Skates

Select the correct answer using the code given below:

- 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

**Q.6)** "Environment Impact Assessment" in India is statutorily backed by which of the following Act?

- a) The Environment Protection Act
- b) The Water (Prevention and Control of Pollution) Act
- c) The Air (Prevention and Control of Pollution) Act
- d) Forest Conservation Act

**ANS: A**

**Explanation:** UNEP defines Environmental Impact Assessment (EIA) as a tool used to identify the environmental, social and economic impacts of a project prior to decision-making.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- It aims to predict environmental impacts at an early stage in project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the predictions and options to decision-makers.
- Environment Impact Assessment in India is statutorily backed by the Environment Protection Act, 1986 which contains various provisions on EIA methodology and process.

Source: The Hindu

**Q.7)** Which of the following greenhouse gas/gases included in the Global Carbon project?

1. Carbon Dioxide
2. Methane
3. Nitrous Oxide

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** The Global Carbon Project (GCP) is an organization seeks to quantify global greenhouse gas emissions and their causes.

Established in 2001, its projects include global budgets for three dominant greenhouse gases

- Carbon dioxide,
- Methane,
- Nitrous oxide

GCP's complementary efforts are in areas of urban, regional, cumulative, and negative emissions.

- The main object of the group has been to fully understand the carbon cycle.
- The project has brought together emissions experts, earth scientists, and economists to tackle the problem of rising concentrations of greenhouse gases.
- The Global Carbon Project is currently chaired by Rob Jackson of Stanford University.

Source: The Hindu

**Q.8)** "Askot Wildlife Sanctuary" is located in which of the following state?

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

**ANS: D**

**Explanation:** Himalayan tailless bush blue, *Arhopala ganesa ganesa*, is a butterfly that is usually present in the elevation between 1200 meters and 2400 meters in the states of Jammu & Kashmir and Uttarakhand.

- It later recorded an altitude 3577 meters in Askot Wildlife Sanctuary in Uttarakhand.
- Researchers believe that these butterflies have migrated in search of a suitable climate where the climates in several Himalayan mountain ranges have already noticed significant changes.

Source: The Hindu

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

**Q.9)** “The Commission on Ecosystem Management (CEM)” is related to which of the following?

- a) UNEP
- b) IUCN
- c) UNFCCC
- d) UNCBD

**ANS: B**

**Explanation:** The Commission on Ecosystem Management (CEM) is one of the six expert commissions of IUCN. CEM provides expert guidance on integrated approaches to the management of natural and modified ecosystems to promote biodiversity conservation and sustainable development.

The commission promotes the adoption of and provides guidance for ecosystem-based approaches to the management of landscapes and seascapes and builds resilience of socio-ecological systems to address global challenges.

Source: The Hindu

**Q.10)** “Project REGENERATE” is related to which of the following?

- a) Renewable energy production by least developed countries.
- b) Conservation of Mangroves.
- c) Conservation of Coral Reefs.
- d) Conservation of Soil.

**ANS: C**

**Explanation:** Recognising that sound coastal resource management is critical to sustainable development and climate adaptation, the Government of Maldives is developing and implementing policies to protect coral reefs and support marine management.

Project REGENERATE is generously funded by the United States Agency for International Development (USAID) and works towards building capacity for marine management and climate change adaptation of ecosystems, local communities and government in the Maldives.

Source: The Hindu



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## *Conservation efforts made by government*

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**Q.1)** Consider the following statements regarding national parks:

1. National parks are established by respective government in accordance with environment protection act, 1980.
  2. National Parks enjoy a greater degree of protection than sanctuaries.
- 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 (WPA) of 1972 provided for the declaration of National Parks by the State Government in addition to the declaration of wildlife sanctuaries.

- National Parks are declared in areas that are considered to be of adequate ecological, geomorphologic and natural significance although within the law, the difference in conservation value of a National Park from that of a sanctuary is not specified in the WPA 1972.
- National Parks enjoy a greater degree of protection than sanctuaries.
- Certain activities which are regulated in sanctuaries, such as grazing of livestock, are prohibited in National Parks.

Source: Shankar page no: 175

**Q.2)** The Chief Wild Life Warden may, on application, grant to any person a permit to enter or reside in a sanctuary/ National Park for which of the following purposes?

1. Investigation of wildlife
2. Photography
3. Tourism

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** The Chief Wild Life Warden may, on application, grant to any person a permit to enter or reside in a sanctuary/ National Park for all or any of the following purposes:

- investigation or study of wildlife and purposes ancillary or incidental thereto
- photography
- scientific research
- tourism
- transaction of lawful business with any person residing in the sanctuary

Source: Shankar Page no: 176

## **PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

**Q.3)** Consider the following statements regarding “conservation reserves”:

1. It was created under forest rights act, 2006.
2. It is an area owned by the State Government adjacent to National Parks and sanctuaries for protecting the landscape, seascape and habitat of fauna and flora.

Which of the statements given above is/are NOT correct?

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

**ANS: A**

**Explanation:** The Amendment Act (Wildlife Protect Act, 1972) of 2003 provided for the creation of a new type of protected area called a Conservation Reserve.

- It is an area owned by the State Government adjacent to National Parks and sanctuaries for protecting the landscape, seascape and habitat of fauna and flora.
- It is managed through a Conservation Reserve Management Committee
- The State Government may, after having consultations with the local communities, declare any area owned by the Government as conservation reserve.

Source: Shankar Page No: 177

**Q.4)** “Bhitarkanika National Park and Bhitarkanika Sanctuary” is often seen in news is located in which of the following state?

- a) Andhra Pradesh
- b) Kerala
- c) Tamil Nadu
- d) None

**ANS: D**

**Explanation:** The Bhitarkanika Wildlife Sanctuary (Odisha) is one of India’s biggest estuarine crocodile habitats and a major coastal eco-system.

- It was declared as a National Park because of its ecological, faunal, floral, geomorphological and zoological association and importance and for the purpose of protection in 1998.
- In August 2002, it was designated as the second Ramsar site (i.e. Wetland of International importance).

Source: The Hindu

**Q.5)** Which of the following flora and fauna are prohibited for exports in India?

1. Meat of buffalo
2. Sea shell
3. Fuel wood

Select the correct answer using the code given below:

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

**ANS: D**

**Explanation:** The prohibited items are not permitted to be exported. An export licence will not be given in the normal course for goods in the prohibited category. The following are the items prohibited in the flora and fauna category:

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- All wild animals, animal articles including their products and derivatives (excluding those for which ownership certificates have been granted and also those required for transactions for education, scientific research and management under Wild Life (Protection) Act, 1972 including their parts and products).
- Beef of cows, oxen and calf. Beef in the form of offal of cows, oxen and calf
- Meat of buffalo (both male and female) fresh and chilled and frozen
- Peacock Tail Feathers & its Handicrafts and articles
- Shavings & Manufactured Articles of shavings of Shed Antlers of Chital and Sambhar
- Sea shells
- Wood and wood products
- Fuel wood

Source: Shankar Page No: 179

**Q.6)** Which international institution designates parts of natural and cultural landscapes extending over large area of terrestrial or coastal/marine ecosystems or a combination as a biosphere reserve?

- a) UNICEF
- b) UNESCO
- c) GEF
- d) IUCN

**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 special environments for both people and the nature and are living examples of how human beings and nature can co-exist while respecting each others' needs.
- 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.

Source: Shankar Page no: 180

**Q.7)** Consider the following statements regarding "tigers" in India:

1. The Central Government shall, on recommendation of the National Tiger Conservation Authority, notify an area as a tiger reserve.
2. The present tiger population in India is greater than in 1900.

Which of the statements given above is/are NOT correct?

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

**ANS: C**

**Explanation:** A potential example of conservation of a highly endangered species is the Indian Tiger (*Panthera tigris*).

- The fall and rise in the number of Tiger population in India is an index of the extent and nature of conservation efforts.
- It is estimated that India had about 40 000 tigers in 1900, and the number declined to a mere about 1800 in 1972.

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

- The tiger tally in the country stands at 2,967. The tiger population in the country has grown from 1,400 in 2014 to 2,967 in 2019.
- The State Government shall, on recommendation of the National Tiger Conservation Authority, notify an area as a tiger reserve.

Source: Shankar page no: 187 and The Hindu

**Q.8)** Which of the following subspecies of tiger is/are extinct?

1. Sumatran
2. Bali
3. Javan

Select the correct answer using the code given below:

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

**ANS: C**

**Explanation:** The scientific name for the tiger is *Panthera tigris*.

- There are eight subspecies of tiger: among the eight, at present five subspecies are present in the wild.
- They are - Bengal, South China, Indochinese, Sumatran, and Siberian.
- Three subspecies of tiger—Caspian, Bali, and Javan—are extinct.

Source: Shankar page no: 187

**Q.9)** “Pugmark Census Technique” is used to estimate the population of which of the following specie?

- a) Tiger
- b) Elephant
- c) Rhinoceros
- d) Snow Leopard

**ANS: A**

**Explanation:** The process of estimating the number of tigers in a given area is called ‘Tiger census.’

- This exercise provides us with an estimate of tiger number, density and change in tiger indices - a measure of tiger occupancy in a given area.
- It is conducted at regular intervals to know the current tiger populations and population trends.
- Besides estimating the number of tigers the method also helps to gather information on the density of the tiger populations and associated prey.
- The most commonly used technique in the past was ‘Pugmark Census Technique’.
- In this method the imprints of the pugmark of the tiger were recorded and used as a basis for identification of individuals.
- Now it is largely used as one of the indices of tiger occurrence and relative abundance.

Source: Shankar page no: 188

**Q.10)** “Nagarjunsagar-Srisaïlam Tiger Reserve” is the largest tiger reserve in India is located in which of the following state (s)?

- a) Andhra Pradesh
- b) Telangana

**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

- c) Chhattisgarh
- d) Both A & B

**ANS: D**

**Explanation:** Nagarjunsagar-Srisaïlam Tiger Reserve is the largest tiger reserve in India.

- The reserve spreads over five districts, Kurnool District, Prakasam District, Guntur District of Andhra Pradesh and Nalgonda District and Mahbubnagar district of Telangana state.
- The total area of the tiger reserve is 3,728 km<sup>2</sup>.

Source: ENVIS

ForumIAS

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## *Revision Test*

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**Q.1)** Consider the following statements regarding “Green Climate fund”:

1. It was established at CoP – 16 of UNFCCC.
2. It funds both developed and developing countries green projects.

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:** At COP 16, Parties established a Green Climate Fund (GCF) as an operating entity of the financial mechanism of the Convention under Article 11.

The GCF will support projects, programmes, policies and other activities in developing country Parties. The Fund will be governed by the GCF Board.

Source: Shankar page no: 255

**Q.2)** The Loess Plateau – climate smart agriculture is worldwide famous for its success. In which of the following country it was implemented?

- a) Australia
- b) Japan
- c) China
- d) Canada

**ANS: C**

**Explanation:** Climate-smart agriculture gives attention to landscape approaches, for example, integrated planning of land, agriculture, forests, fisheries and water to ensure synergies are captured.

- These can be further strengthened by adding better weather forecasting, more resilient food crops and risk insurance to cover losses when the vagaries of weather strike.
- If yields increase through such practices and become more stable, it results in improved farm incomes. A more stable income helps enhance the adaptive capacity of farmers.
- A good number of countries are now showing that it can be done.
- China has been a leader in this, with programs such as the Loess Plateau now internationally famous.

Source: Shankar page no: 263

**Q.3)** Which of the following process/methods used by IPCC related to climate change?

1. Review
2. Research
3. Monitoring

Select the correct answer using the code given below:

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

## PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020

### **ANS: A**

**Explanation:** The IPCC is a scientific body. It reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change.

- It does not conduct any research nor does it monitor climate related data or parameters.
- Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis.
- Review is an essential part of the IPCC process, to ensure an objective and complete assessment of current information.

Source: Shankar page no: 263

**Q.4)** National Green House Gas Inventories Programme (NGGIP) was established by which of the following institution?

- WEF
- UNDP
- IPCC
- IUCN

### **ANS: C**

**Explanation:** The IPCC established the national green house gas Inventories Programme (NGGIP) to provide methods for estimating national inventories of greenhouse gas emissions to, and removals from, the atmosphere.

The guidance produced by the NGGIP is used by countries that are Parties to the UN Framework Convention on Climate Change (UNFCCC) to estimate the emissions and removals that they report to the UNFCCC.

Source: Shankar page no: 264

**Q.5)** “Global Stocktake” is often seen in news is related to which of the following?

- UNFCCC
- Global Environment Facility
- World Bank
- UNEP

### **ANS: A**

**Explanation:** GST refers to proposed five-yearly-review of the impact of climate change action undertaken by countries.

- Under the Paris Agreement, each country has to present a climate action plan every five years.
- Under the Paris Agreement, the first global stocktake will happen in 2023.
- It will help world to determine whether it needs to do more and how much more.

Source: Shankar page no: 259

**Q.6)** “FAME India scheme” is often seen in news is related to which of the following?

- Climate smart agriculture
- Smart fuels
- Smart household appliances
- Electric & Hybrid vehicles

### **ANS: D**

**Explanation:** Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles (FAME India) scheme rolled out in april, 2015 by Union Minister for Heavy Industries and Public Enterprises

## **PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

- The scheme will help promote use of electric and hybrid vehicles, and initially, a subsidy of 30% will be provided to the buyers.
- Phased replacement of fossil fuel-based vehicles with those based on latest technologies will lead to a net saving of Rs 14,000 crore.
- The scheme is proposed to be implemented over six years, till 2020, which looks at sales of electric and hybrid vehicles up to 60-70 lakh units per year.

**Q.7)** Which of the following are the key dimensions of National Mission on Sustainable Agriculture (NMSA)?

1. Water efficiency
2. Credit support
3. Nutrient management
4. Agriculture insurance

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

**ANS: D**

**Explanation:** The NMSA has identified 10 key dimensions for adaptation and mitigation:

- Improved Crop Seeds, Livestock and Fish Culture
- Water Efficiency
- Pest Management
- Improved Farm Practices
- Nutrient Management
- Agricultural Insurance
- Credit Support
- Markets
- Access to Information
- Livelihood Diversification

Source: Shankar page no: 239

**Q.8)** The grey slender loris is often seen in news is a?

- a) Primate
- b) Reptile
- c) Bird
- d) Insect

**ANS: A**

**Explanation:** The gray slender loris (primate) is found in India and Sri Lanka. Its natural habitats are subtropical or tropical dry forests and subtropical or tropical moist lowland forests. It is threatened by habitat loss.

Source: Shankar page no: 220

**Q.9)** Which of the following institutions are involved in monitoring the ozone layer?

1. World Meteorological Organization (WMO).
2. World Weather Watch (WWW).
3. Integrated Global Ocean Services Systems (IGOSS).

Select the correct answer using the code given below:

- a) 1 and 2 only



**PRELIMS MARATHON COMPILATION FOR THE WEEK - 23<sup>rd</sup> TO 29<sup>th</sup> NOVEMBER, 2020**

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

**ANS: D**

**Explanation:** Some organizations that help in monitoring the atmosphere and form a network of information's communication about the atmosphere, including ozone layer monitoring are:

- World Meteorological Organization (WMO)
- World Weather Watch (WWW)
- Integrated Global Ocean Services Systems (IGOSS)
- Global Climate Observing System (GCOS)

Source: Shankar page no: 217

**Q.10)** "Nameri tiger reserve" is located in which of the following state?

- a) Tamil Nadu
- b) Assam
- c) Tripura
- d) Himachal Pradesh

**ANS: B**

**Explanation:** Nameri Tiger Reserve (declared in 1999-2000) is located in the foothills of the eastern Himalayas in the Sonitpur district of the state of Assam.

- It is on the interstate border with Arunachal Pradesh. The Pakke Tiger Reserve of Arunachal Pradesh adjoins it on its north-eastern point.
- The river Jia-Bhareli (a tributary of Brahmaputra River) with its tributaries, the Nameri, Upper Dikorai and Bor Dikorai flow through the Reserve.
- Besides Tiger, the reserve is also home to the sambar, barking deer, wild boar and bison.

Source: The Hindu