INSTA 75 Days REVISION PLAN
UPSC Prelims 2020

INSTA Tests
49 to 52 (GS)

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Insta 75 Days Revision Plan for UPSC Civil Services Prelims – 2020

This document is the compilation of 100 questions that are part of InsightsIAS famous INSTA REVISION initiative for UPSC civil services Preliminary examination – 2020 (which has become most anticipated annual affair by lakhs of IAS aspirants across the country). These questions are carefully framed so as to give aspirants tough challenge to test their knowledge and at the same time improve skills such as intelligent guessing, elimination, reasoning, deduction etc – which are much needed to sail through tough Civil Services Preliminary Examination conducted by UPSC.

These questions are based on this INSTA Revision Plan which is posted on our website (www.insightsonindia.com). Every year thousands of candidates follow our revision timetable – which is made for SERIOUS aspirants who would like to intensively revise everything that’s important before the exam.

Those who would like to take up more tests for even better preparation, can enroll to Insights IAS Prelims Mock Test Series – 2020 (https://prelims.insightsonindia.com). Every year toppers solve our tests and sail through UPSC civil services exam. Your support through purchase of our tests will help us provide FREE content on our website seamlessly.

Wish you all the best!

Team InsightsIAS
1. Consider the following statements regarding Vaccine
   1. A vaccine is a substance that resembles the disease-causing agent but does not cause the disease.
   2. It trains the body’s immune system to recognise and kill the pathogen, and creates a memory for the future.
   3. Vaccine development is time consuming and capital intensive process.

Which of the statements given above is/are correct?
(a) 1 and 3 only
(b) 2 only
(c) 1 and 2 only
(d) 1, 2 and 3

Solution: D

Vaccines are one of the most effective tools to prevent diseases. A vaccine is a substance that resembles the disease-causing agent (also called pathogen) but does not cause the disease.

- It trains the body’s immune system to recognise and kill the pathogen, and creates a memory for the future. Vaccines are available to protect us against many life-threatening diseases such as polio, influenza, meningitis, typhoid, tetanus, diphtheria and certain types of cancers.
- Vaccines have also been responsible for eradication (or near eradication) of deadly diseases such as smallpox and polio.
- Vaccine development is time consuming and capital intensive process.

https://www.who.int/topics/vaccines/en/

2. Consider the following statements regarding black soils
   1. The black soils are generally clayey, deep and impermeable.
   2. They lack in lime, iron, magnesia and alumina.
   3. The black soils are rich in phosphorous, nitrogen and organic matter.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: A

- The **black soils** are generally **clayey, deep** and **impermeable**. They **swell** and become **sticky when wet** and **shrink when dried**. So, during the dry season, these soils develop **wide cracks**. Thus, there occurs a kind of ‘**self ploughing**’. Because of this character of slow absorption and loss of moisture, the **black soil retains the moisture for a very long time**, which helps the crops, especially, the rain fed ones, to sustain even during the dry season.

- Chemically, the **black soils** are **rich in lime, iron, magnesia and alumina**. They also **contain potash**. But they **lack in phosphorous, nitrogen and organic matter**. The color of the soil ranges from deep black to grey.

3. Consider the following statements regarding Tropical Evergreen forest

1. They are found in areas with an annual precipitation of over 200 cm and mean annual temperature above 22°C.
2. There is no definite time for trees to shed their leaves, flowering and fruition.
3. Species found in these forests include rosewood, mahogony, aini, ebony, etc.

Which of the statements given above is/are correct?

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

Solution: D

- **Tropical Evergreen forests** are found in the **western slope of the Western Ghats, hills of the northeastern region** and the **Andaman and Nicobar Islands**. They are found in warm and humid areas with an **annual precipitation of over 200 cm** and **mean annual temperature above 22°C**. Tropical evergreen forests are **well stratified**, with layers closer to the ground and are covered with **shrubs and creepers**, with **short structured trees** followed by **tall variety of trees**.
In these forests, trees reach great heights up to 60 m or above. There is no definite time for trees to shed their leaves, flowering and fruition. As such these forests appear green all the year round. Species found in these forests include rosewood, mahogony, aini, ebony, etc.

4. Consider the following pairs

<table>
<thead>
<tr>
<th>Temple</th>
<th>Located in</th>
</tr>
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<tbody>
<tr>
<td>1. Palkulangara Sree Bhagavathy Temple</td>
<td>Tamil Nadu</td>
</tr>
<tr>
<td>2. Kanaka Durga temple</td>
<td>Andhra Pradesh</td>
</tr>
<tr>
<td>3. Siddhivinayak</td>
<td>Maharashtra</td>
</tr>
</tbody>
</table>

Which of the pairs given above is/are correctly matched?

(a) 1 and 3 only

(b) 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Solution: C

Palkulangara Devi Temple is a Hindu temple in Palkulangara, Thiruvananthapuram, Kerala, India.

Kanaka Durga Temple is a famous hindu Temple of Goddess Durga located in Vijayawada, Andhra Pradesh. The temple is located on the Indrakeeladri hill, on the banks of Krishna River.

The Shree Siddhivinayak Ganapati Mandir is a Hindu temple dedicated to Lord Shri Ganesh. It is located in Prabhadevi, Mumbai, Maharashtra. It was originally built by Laxman Vithu and Deubai Patil on 19 November 1801.

5. Arrange the following hills from north to south

1. Palakonda Range
2. Nallamala Hills
3. Shevroy hills
4. Anaimalai hills

Select the correct answer using the code given below:

(a) 2 1 4 3

(b) 2 1 3 4
6. Arrange the following cities from east to west
   1. Gangtok
   2. Shillong
   3. Itanagar
   4. Kohima

   Select the correct answer using the code given below:

Solution: B
7. Consider the following statements
1. Reunion island is the overseas island of British located in Indian Ocean.
2. Socotra Island is an island belongs to Oman
3. Diego Garcia is an island of the British Indian Ocean Territory.

Which of the statements given above is/are correct?

(a) 1 and 3 only
(b) 2 only
(c) 1 and 2 only
(d) 3 only

Solution: B
Réunion is an overseas department and region of the French Republic and an island in the Indian Ocean, east of Madagascar and 175 km southwest of Mauritius.

Socotra or Soqotra located between the Guardafui Channel and the Arabian Sea, is the largest of four islands in the Socotra archipelago. The territory is located near major shipping routes and is officially part of Yemen, and had long been a subdivision of the Aden Governorate.

Diego Garcia is an island of the British Indian Ocean Territory, an overseas territory of the United Kingdom. It is a militarised atoll just south of the equator in the central Indian Ocean, and the largest of 60 small islands comprising the Chagos Archipelago.

8. Consider the following statements regarding The Northeastern Plateau

1. It is an extension of the main Peninsular plateau.
2. Meghalaya plateau is rich in mineral resources like coal, iron ore, sillimanite, limestone and uranium.
3. Meghalaya plateau has a highly eroded surface.

Which of the statements given above is/are correct?

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

Solution: D

The Northeastern Plateau

- In fact it is an extension of the main Peninsular plateau. It is believed that due to the force exerted by the northeastward movement of the Indian plate at the time of the Himalayan origin, a huge fault was created between the Rajmahal hills and the Meghalaya plateau. Later, this depression got filled up by the deposition activity of the numerous rivers.

- Today, the Meghalaya and Karbi Anglong plateau stand detached from the main Peninsular Block. The Meghalaya plateau is further sub-divided into three: (i) The Garo Hills; (ii) The Khasi Hills; (iii) The Jaintia Hills, named after the tribal groups inhabiting this region. An extension of this is also seen in the Karbi Anglong hills of Assam. Similar to the Chotanagpur plateau, the Meghalaya plateau is also rich in
mineral resources like coal, iron ore, sillimanite, limestone and uranium. This area receives maximum rainfall from the south west monsoon. As a result, the Meghalaya plateau has a highly eroded surface. Cherrapunji displays a bare rocky surface devoid of any permanent vegetation cover.

9. Consider the following statements regarding Shiwaliks
1. They extend over a width of 10-50 Km and have an altitude varying between 4000 and 5000 metres.
2. These ranges are composed of unconsolidated sediments.
3. The longitudinal valley lying between lesser Himalaya and the Shiwaliks are known as Duns.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: B

• The outer-most range of the Himalayas is called the Shiwaliks. They extend over a width of 10-50 Km and have an altitude varying between 900 and 1100 metres. These ranges are composed of unconsolidated sediments brought down by rivers from the main Himalayan ranges located farther north. These valleys are covered with thick gravel and alluvium. The longitudinal valley lying between lesser Himalaya and the Shiwaliks are known as Duns. Dehra Dun, Kotli Dun and Patli Dun are some of the well-known Duns.

10. Consider the following statements regarding National Career Service Project
1. It works towards bridging the gap between job-seekers and employers, candidates seeking training and career guidance and agencies providing training and career counselling
2. It is an initiative of NITI Ayog
3. It provides unemployment allowance for limited period of time

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 3 only
(c) 1 and 3 only
(d) 1 only

Solution: D

NATIONAL CAREER SERVICE

- It is one of the mission mode projects under the umbrella of E-Governance Plan.
- It works towards bridging the gap between job-seekers and employers, candidates seeking training and career guidance and agencies providing training and career counselling by transforming the National Employment Service.
- NCS provides a host of career-related services such as dynamic job matching, career counselling, job notifications, vocational guidance, information on skill development courses, internships and alike.
- It is an initiative of Ministry of Labour and Employment.

The focus areas for the National Career Service platform are listed below:

1. Enhancing career and employment opportunities.
2. Counselling and guidance for career development.
3. Focusing on decent employment
4. Enhancing female labour force participation.
5. Encouraging entrepreneurial endeavours.
6. It doesn’t provide unemployment allowance.

https://www.insightsonindia.com/2020/03/16/ncs-national-career-service/
https://www.thehindubusinessline.com/info-tech/few-takers-for-govts-national-career-service-portal/article10038047.ece

11. Which of the following are the tributaries of Yamuna
   1. Chambal
   2. Varuna
   3. Ken
   4. Rind

Select the correct answer using the code given below:

(a) 1 and 3 only
(b) 1, 2 and 3 only
(c) 1 and 2 only
(d) 1, 2, 3 and 4
• The **Yamuna**, the **western most** and the **longest tributary of the Ganga**, has its source in the **Yamunotri glacier** on the western slopes of **Banderpunch range** (6,316 km). It joins the Ganga at **Prayag** (Allahabad). It is joined by the Chambal, the Sind, the Betwa and the Ken on its right bank which originates from the Peninsular plateau while the Hindan, the Rind, the Sengar, the Varuna, etc. join it on its left bank. Much of its water feeds the western and eastern Yamuna and the Agra canals for irrigation purposes.

12. Consider the following statements regarding causes of Break in the Monsoon

1. In northern India, if the rain-bearing storms are very frequent along the monsoon trough.
2. Over the west coast the dry spells are associated with days when winds blow parallel to the coast.

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

**Solution: B**

**Break in the Monsoon**

During the south-west monsoon period after having rains for a few days, if rain fails to occur for one or more weeks, it is known as **break in the monsoon**. These **dry spells** are quite common during the rainy season. These breaks in the different regions are due to different reasons:

1. In northern India rains are likely to fail if the rain-bearing storms are not very frequent along the monsoon trough or the ITCZ over this region.
2. Over the west coast the dry spells are associated with days when winds blow parallel to the coast.
13. The Grand Renaissance Dam, sometime seen in the news, is located in which of the country?
   (a) China
   (b) Egypt
   (c) Kenya
   (d) Ethiopia

Solution: D

- The Grand Ethiopian Renaissance Dam, formerly known as the Millennium Dam and sometimes referred to as Hidase Dam, is a gravity dam on the Blue Nile River in Ethiopia that has been under construction since 2011. It is in the Benishangul-Gumuz Region of Ethiopia, about 15 km east of the border with Sudan.


14. Consider the following statements regarding retreating southwest monsoon
   1. It is marked by cloudy skies and rise in temperature.
   2. The weather in the retreating monsoon is dry in north India but it is associated with rain in the eastern part of the Peninsula.
   3. The widespread rain in this season is associated with the passage of cyclonic depressions.

Which of the statements given above is/are correct?
   (a) 1 and 2 only
   (b) 2 and 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

Solution: B

- The retreating southwest monsoon season is marked by clear skies and rise in temperature. The land is still moist. Owing to the conditions of high temperature and humidity, the weather becomes rather oppressive. This is commonly known as the ‘October heat’. In the second half of October, the mercury begins to fall rapidly,
particularly in northern India. The weather in the retreating monsoon is dry in north India but it is associated with rain in the eastern part of the Peninsula. Here, **October** and **November** are the rainiest months of the year.

- The widespread rain in this season is associated with the **passage of cyclonic depressions** which **originate over the Andaman Sea** and manage to cross the eastern coast of the southern Peninsula. These tropical cyclones are **very destructive**.

15. Consider the following statements regarding Tsunami

1. The speed of wave in the ocean depends upon the depth of water.
2. The speed is more in the shallow water than in the ocean deep.
3. It is easy to detect a tsunami in the deeper parts of sea.

Which of the statements given above is/are correct?

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

**Solution:** A

**Tsunami**

- **Earthquakes** and **volcanic eruptions** that cause the **sea-floor** to move abruptly resulting in **sudden displacement of ocean water** in the form of **high vertical waves** are called **tsunamis** (harbour waves) or **seismic sea waves**.

- Normally, the seismic waves cause only one instantaneous vertical wave; but, after the initial disturbance, a **series of afterwaves** are created in the water that oscillate between **high crest and low trough** in order to restore the water level.

- The **speed of wave in the ocean depends upon the depth of water**. It is **more in the shallow water than in the ocean deep**. As a result of this, the **impact of tsunami is less over the ocean and more near the coast** where they cause large-scale devastations. Therefore, a **ship at sea is not much affected by tsunami** and it is **difficult to detect a tsunami in the deeper parts of sea**. It is so because **over deep water the tsunami has very long wave-length and limited wave-height**. Thus, a tsunami wave raises the ship only a metre or two and each rise and fall takes several minutes. As opposed to this, when a tsunami enters shallow water, its wave-length gets reduced and the period remains unchanged, which increases the wave-height.

- Sometimes, this height can be up to 15m or more, which causes large-scale destructions along the shores. Thus, these are also called **Shallow Water Waves**.
Tsunamis are frequently observed along the Pacific ring of fire, particularly along the coast of Alaska, Japan, Philippines, and other islands of Southeast Asia, Indonesia, Malaysia, Myanmar, Sri Lanka, and India etc.

16. Consider the following statements regarding Shola Grassland
1. These forests are found sheltered in valleys with sufficient moisture and proper drainage, at an altitude of more than 1,500 metres.
2. They are rich store houses of biodiversity and home to extremely rich wildlife.
3. Nilgiris upper region is classified as southern mountain grassland.

Which of the statements given above is/are correct?
(a) 2 and 3 only
(b) 1 only
(c) 1 and 2 only
(d) 1, 2 and 3

Solution: D

- Expanding plantations of exotic species, including tea, in the Nilgiris can wipe out Shola vegetation, according to a report filed by an expert committee formed by the Madras High Court.

Key findings:
- This change in vegetation will result in loss of water sources and is already leading to massive landslides.
- Invasive species like eucalyptus, tea plantations and wattle and naturalised alien species like Lantana camara, Opuntia stricta, Chromolaena odorata, Parthenium hysterophorus and Senna spectabilis have had a serious impact on the Shola forest and grasslands.

What are Shola Grasslands?
- The Shola vegetation are tropical montane forests found in the Western Ghats separated by rolling grasslands in high altitudes.
- Shola grasslands consist of dwarf trees growing 25-30 feet.
- It is a stunted forest growths of diverse grass species.
- Vegetation is double layered storey with closed canopy which hardly permits a single ray of sunlight to penetrate in the natural vegetation.
- Nilgiris upper region is classified as southern grassland mountain grassland.
- Between 1973-2014 Shola grasslands area had seen a 66.7% decline.
These forests are found sheltered in **valleys** with sufficient moisture and proper drainage, at an altitude of more than 1,500 metres.

**Significance:**

- The Shola forests and associated grasslands **store large quantities of water on the mountain ranges**, thus serving as **huge `water harvesting and storage structures`**.
- Many of the rivers in **Kerala** and **Tamil Nadu** originate from the Shola grasslands and were perennial. **With depletion of Sholas and other forests, the streams that supply water to them dry up in summer.**
- They are **rich store houses of biodiversity** and also home to extremely rich wildlife.

17. Consider the following statements regarding Jute Cultivation
   1. 25°C to 30°C is ideal for jute cultivation.
   2. Humid weather will result in bad yield.
   3. Jute cultivation requires about 160 cm to 200 cm rainfall.

Which of the statements given above is/are correct?

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

**Solution: C**

**Jute**

- Jute is used for making coarse cloth, bags, sacks and decorative items. It is a **cash crop** in West Bengal and adjoining eastern parts of the country. India lost large jute growing areas to East Pakistan (Bangladesh) during partition. At present, **India** produces about **three-fifth of jute production of the world**. **West Bengal accounts for about three-fourth of the production in the country**. Bihar and Assam are other jute growing areas. Being concentrated only in a few states, this crop accounts for only about **0.5 per cent of total cropped area in the country**.
- It is known as the **golden fibre**. Jute grows well on **well-drained fertile soils** in the **flood plains** where soils are renewed every year. **High temperature** is required during the time of growth.

**Climate Required for Jute Cultivation:** Jute crop grows well in **rainfed, moderate, warm humid atmosphere and sunshine** conditions. **25°C to 30°C** is ideal for jute cultivation. Jute cultivation requires about **160 cm to 200 cm rainfall**. Humid weather will result in good yield.
Soil Requirement for Jute Cultivation:- River basins or alluvial or loamy soils are best for jute cultivation. Jute cultivation in red soils may require high dose of manure and PH range between 4.8 and 5.8 is best for its cultivation.

18. Consider the following statements regarding physiography of Manipur
   1. Manipur is known as the ‘Molassis basin’ which is made up of soft unconsolidated deposits.
   2. The physiography of Manipur is unique by the presence of a large lake known as ‘Loktak’ lake.

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

Solution: B

- The Barak is an important river in Manipur and Mizoram.
- The physiography of Manipur is unique by the presence of a large lake known as ‘Loktak’ lake at the centre, surrounded by mountains from all sides. Mizoram which is also known as the ‘Molassis basin’ which is made up of soft unconsolidated deposits. Most of the rivers in Nagaland form the tributary of the Brahmaputra. While two rivers of Mizoram and Manipur are the tributaries of the Barak river

19. Consider the following statements regarding World Trade Organization
   1. The definition of the terms “developed” and “developing” countries has been clearly given by WTO
   2. All decisions are made by consensus of its members
   3. WTO’s Ministerial Conference meeting takes place every year.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3
World Trade Organization

- It was established on 1 January 1995 and its official languages are English, French and Spanish.
- It is an inter-governmental organization for governments to negotiate global trade agreements and progressively liberalizing trade.
- It operates system of trade rules that apply to all its members.
- It is also a place for Member governments to settle their trade disputes.
- Ministerial Conference is WTO’s top level decision making body. It meets once in two years.
- Its headquarters are located in Geneva, Switzerland.
- All decisions are made by consensus. All major decisions are made by the membership as a whole, either by ministers (who usually meet at least once every two years) or by their ambassadors or delegates (who meet regularly in Geneva).
- There are no WTO definitions of “developed” and “developing” countries. Members announce for themselves whether they are “developed” or “developing” countries.
- The WTO maintains regular dialogue with non-governmental organizations, parliamentarians, other international organizations, the media and the general public on various aspects of the WTO.

20. Which of the following are the tributaries of Kaveri
   1. Amravati
   2. Indravati
   3. Kabini
   4. Bhavani

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

Solution: C

- The Kaveri rises in Brahmagiri hills (1,341m) of Kogadu district in Karnataka. Its length is 800 km and it drains an area of 81,155 sq. km.
Since the upper catchment area receives rainfall during the southwest monsoon season (summer) and the lower part during the northeast monsoon season (winter), the river carries water throughout the year with comparatively less fluctuation than the other Peninsular rivers. About 3 per cent of the Kaveri basin falls in Kerala, 41 per cent in Karnataka and 56 per cent in Tamil Nadu. Its important tributaries are the Kabini, the Bhavani and the Amravati.

21. Consider the following statements regarding Astra Missile
1. It is indigenously developed by DRDO
2. It enables the fighter-pilots to shoot precisely at the enemy targets which are beyond their visual range
3. It can be launched from different altitudes but it is capable of engaging targets only at long-range targets.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3 only
(c) 1 and 2 only
(d) 1, 2 and 3

Solution: C

Astra Missile

- It is the indigenously developed Beyond Visual Range (BVR) air-to-air that enables the fighter-pilots to shoot precisely at the enemy targets which are beyond their visual range.
- It is an all-weather, state-of-the-art missile developed by DRDO and can engage and destroy enemy aircraft at supersonic speed (1.2 Mach to 1.4 Mach) in head-on (up to 80 km) and tail-chase (up to 20 km) modes.
- The 3.8 metre tall Astra is a radar homing missile and the smallest of the DRDO-developed missiles and can be launched from different altitudes.
- It can be launched from different altitudes and is capable of engaging targets at varying range and altitudes at both short-range targets (up to 20 km) in tail-chase mode and long-range targets (up to 80 km) in head-on mode.
22. Consider the following statements regarding Tropical Thorn Forests
1. Tropical thorn forests occur in the areas which receive rainfall less than 50 cm.
2. In these forests, plants remain leafless for most part of the year.
3. Tussocky grass grows up to a height of 2 m as the under growth.

Which of the statements given above is/are correct?

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

**Solution: D**
Tropical Thorn Forests

- Tropical thorn forests occur in the areas which receive rainfall less than 50 cm. These consist of a variety of grasses and shrubs. It includes semi-arid areas of southwest Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh. In these forests, plants remain leafless for most part of the year and give an expression of scrub vegetation.
- Important species found are babool, ber, and wild date palm, khair, neem, khejri, palas, etc.
- Tussocky grass grows up to a height of 2 m as the undergrowth.

23. Consider the following statements regarding Universal Postal Union (UPU)
1. It is a specialized agency of United Nations that coordinates postal policies among member nations
2. India is yet to become the member of this union.

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

Solution: A

Universal Postal Union (UPU):

- A specialized agency of United Nations that coordinates postal policies among member nations, in addition to worldwide postal system.
- Established in 1874 and is second oldest international organization worldwide after International Telecommunication Union (ITU) which was established in 1865.
- Headquartered in Berne, Switzerland.
- Has 192 member countries.
- It is primary forum for cooperation between postal sector players among member countries.
- UPU has four units: the Congress, the Council of Administration, the International Bureau, and the Postal Operations Council.
- Regulates 40 lakh postal outlets worldwide.
- India joined the UPU on July 1, 1876 and Pakistan on November 10, 1947.
24. Consider the following pairs of dams and the states they are located

1. Tungabhadra Dam : Andhra Pradesh
2. Koyna Dam : Maharashtra
3. Krishnarajasagar Dam : Karnataka
4. Hirakud dam : Punjab

Which of the pairs given above is/are correctly matched?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 and 4 only
(d) 1 and 4 only

Solution: B

**List Of Major Dams in India**

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<thead>
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<th>State</th>
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<th>River</th>
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25. The World Energy Outlook has been released by
   (a) International Institute for Energy Conservation (IIEC)
   (b) United Nations Forum on Energy Efficiency and Energy Security for Sustainable Development
   (c) International Energy Agency
   (d) World Wind Energy Association (WWEA)

   **Solution: C**

   - The *World Energy Outlook* series is a leading source of strategic insight on the future of energy and energy-related emissions, providing detailed scenarios that map out the consequences of different energy policy and investment choices. It has been released by International Energy Agency. The *International Energy Agency (IEA)* has projected a rapid increase in installed capacity of solar power by **2040**, from **495 GW** now to **3,142 GW**. IEA projects a ‘profound shift’ in global energy systems, with rapid increase in the installed solar capacity by 2040, flattening of coal-based power generation and a decline in reliance of oil.

**DAY – 50 (InstaTest-50)**

26. Consider the following statements
   1. Recently, mouse deer, an endangered species is introduced in this tiger reserve.
   2. It is located in Nallamalla hills
   3. Nagarjuna Viswa Vidyalayam, an university ran by Nagarjunacharya in ancient times is located here.

   Identify the tiger reserve based on the features explained in the above statements

   (a) Nagarjunasagar-Srisailam Tiger Reserve
   (b) Amrabad Tiger Reserve
   (c) Kawal Tiger Reserve
   (d) None of the above

   **Solution: B**
Amrabad Tiger Reserve lies in Nallamala hills of Telangana. It is India’s second-largest tiger reserve, next only to Nagarjunasagar Srisailam Tiger Reserve (Andhra Pradesh and Telangana).

- In 2017, the endangered species of mouse deer was reintroduced here. It contains ruins of the ancient Nagarjuna ViswaVidyalayam run by the great Buddhist scholar Nagarjunacharya (150 AD).
- It has a large presence of the Chenchu tribe.
- It harbours great biodiversity, consisting of around 70 species of mammals, more than 300 hundred avian varieties, 60 species of reptiles and thousands of insects, all supported and nourished by more than 600 different plant species.


27. Consider the following statements regarding population interactions

1. In competition, only one species benefits and the other is harmed.
2. The interaction where one species is benefitted and the other is neither benefitted nor harmed is called commensalism.
3. Example of commensalism is the interaction between sea anemone that has stinging tentacles and the clown fish.

Which of the statements given above is/are correct?

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

Solution: B

Table 13.1: Population Interactions

<table>
<thead>
<tr>
<th>Species A</th>
<th>Species B</th>
<th>Name of Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>Mutualism</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Competition</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
<td>Predation</td>
</tr>
<tr>
<td>+</td>
<td>0</td>
<td>Parasitism</td>
</tr>
<tr>
<td>+</td>
<td>0</td>
<td>Commensalism</td>
</tr>
<tr>
<td>-</td>
<td>0</td>
<td>Amensalism</td>
</tr>
</tbody>
</table>
Both the species benefit in **mutualism** and both lose in competition in their interactions with each other. In both **parasitism** and **predation** only one species benefit (parasite and predator, respectively) and the interaction is detrimental to the other species (host and prey, respectively).

The interaction where one species is benefitted and the other is neither benefitted nor harmed is called **commensalism**. In **amensalism** on the other hand one species is harmed whereas the other is unaffected. **Predation**, parasitism and commensalism share a common characteristic— the interacting species live closely together.

Example of commensalism is the interaction between sea anemone that has stinging tentacles and the clown fish that lives among them. The fish gets protection from predators which stay away from the stinging tentacles. The anemone does not appear to derive any benefit by hosting the clown fish.

28. Consider the following statements regarding National Ganga Council (NGC)

1. It was a statutory body created under the River Ganga (Rejuvenation, Protection and Management) Authorities act, 2016.
2. It is headed by the Prime Minister.
3. NGC would have on board the chief ministers of five Ganga basin states.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

**Solution: B**

**Namami Gange Programme**

- It is an umbrella programme which integrates previous and currently ongoing initiatives with more comprehensive & better coordinated interventions.
- Implemented by the **National Mission for Clean Ganga (NMCG)**, and its state counterparts—State Programme Management Groups.

**National Ganga Council (NGC):**

- Created in October 2016 under the **River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016**, dissolving the National Ganga River Basin Authority.
- **Headed by the Prime Minister.**
NGC would have on board the chief ministers of five Ganga basin states—Uttarakhand, Uttar Pradesh (UP), Bihar, Jharkhand and West Bengal—besides several Union ministers and it was supposed to meet once every year.

Main Pillars of the Namami Gange Programme are:

- Sewerage Treatment Infrastructure
- River-Surface Cleaning
- Afforestation
- Industrial Effluent Monitoring
- River-Front Development
- Bio-Diversity
- Public Awareness
- Ganga Gram

29. Consider the following statements regarding Colistin

1. Colistin is an antibiotic used for therapeutic purpose in veterinary.
2. It is largely misused in poultry industry as a growth promoter.
3. The drug is banned under the provisions of the Drugs and Cosmetics Act, 1940.

Which of the statements given above is/are correct?

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

Solution: D

Colistin is an antibiotic for therapeutic purpose in veterinary. But the drug is highly misused in poultry industry as a growth promoter for prophylactic purpose.

- Colistin is a valuable, last-resort antibiotic that saves lives in critical care units but in recent years, there have been patients who have exhibited resistance to the drug.
- Recently, the Ministry of Health and Family Welfare has issued an order prohibiting the manufacture, sale and distribution of Colistin and its formulations for food-producing animals, poultry, aqua farming and animal feed supplements.
- The ban has been imposed under the provisions of the Drugs and Cosmetics Act, 1940.

30. Consider the following statements regarding Great Green Wall
   1. It was launched by African Union.
   2. Once complete, the Wall will be the largest living structure on the planet.

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

Solution: C

What is the Great Green Wall?

- The Great Green Wall is a symbol of hope in the face of one of the biggest challenges of our time – desertification. Launched in 2007 by the African Union, this game-changing African-led initiative aims to restore Africa’s degraded landscapes and transform millions of lives in one of the world’s poorest regions, the Sahel. Once complete, the Wall will be the largest living structure on the planet – an 8,000 km natural wonder of the world stretching across the entire width of the continent.

- The Great Green Wall is now being implemented in more than 20 countries across Africa and more than eight billion dollars have been mobilized and pledged for its support. The initiative brings together African countries and international partners, under the leadership of the African Union Commission and Pan-African Agency of the Great Green Wall.

Objectives

By 2030, the ambition of the initiative is to restore 100 million hectares of currently degraded land; sequester 250 million tons of carbon and create 10 million green jobs. This will support communities living along the Wall to:

- Grow fertile land, one of humanity’s most precious natural assets
- Grow economic opportunities for the world’s youngest population
- Grow food security for the millions that go hungry every day
- Grow climate resilience in a region where temperatures are rising faster than anywhere else on Earth
- Grow a wonder of the world spanning 8000 km across Africa
31. Consider the following statements regarding Cheetah
   1. The Asiatic cheetah is classified as an extinct species by the IUCN Red List.
   2. The African cheetah is classified as a critically endangered species by the IUCN Red List.

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

Solution: D

Cheetah reintroduction project

- The Supreme Court recently allowed the Centre to introduce the **African cheetah** to a suitable habitat in India.
- With India’s own cheetahs vanishing, a plea for this had been filed by the **National Tiger Conservation Authority (NTCA)**, seeking permission to introduce the African cheetah from Namibia.
- The matter came up before the Supreme Court during a hearing on **shifting a few lions from Gujarat to Kuno-Palpur wildlife sanctuary, Madhya Pradesh**, which was also one of the sites identified for releasing cheetahs.

What is reintroduction and why reintroduce Cheetah now?

- ‘**Reintroduction**’ of a species means releasing it in an area where it is capable of surviving.
- Reintroductions of large carnivores have increasingly been recognised as a strategy to **conserve threatened species and restore ecosystem functions**.
- The cheetah is the only large carnivore that has been extirpated, mainly by over-hunting in India in historical times.

Facts:

- The **cheetah**, Acinonyx jubatus, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the **world’s fastest land mammal**.
- It is listed as **vulnerable** in IUCN red listed species.
- The **country’s last spotted feline died in Chhattisgarh in 1947**. Later, the cheetah was declared extinct in India in 1952.
32. The Asiatic cheetah is classified as a “critically endangered” species by the IUCN Red List, and is believed to survive only in Iran.

32. Central Fraud Registry, sometime seen in the news, is set up by

(a) Ministry of Corporate Affairs
(b) SEBI
(c) Reserve Bank of India
(d) Central Bureau of Investigation.

Solution: C

32. Reserve Bank of India (RBI) has put in place a Central Fraud Registry. It has informed that 13,083, 16,468 and 13,653 cases of ATM/Debit Card and Internet Banking frauds, where the amount involved is Rs. 1 lakh and above, were reported by commercial banks during financial years 2014-15, 2015-16 and 2016-17 respectively. As per RBI’s instructions, banks are required to report cases of fraud to law enforcement agencies. No centralised information is maintained regarding the outcome of investigations by law enforcement agencies.


33. Consider the following statements regarding National Policy on Biofuels

1. The Policy categories biofuels as Basic Biofuels and Advanced Biofuels.
2. Policy allows use of surplus food grains for production of ethanol for blending with petrol.
3. It has an indicative target of 25% blending of ethanol in petrol and 10% blending of bio-diesel in diesel by 2030.

Which of the statements given above is/are correct?

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

Solution: A
National Policy on Biofuels-2018

- The National Policy on Biofuels-2018 approved by the Government envisages an indicative target of 20% blending of ethanol in petrol and 5% blending of bio-diesel in diesel by 2030.

National Policy on biofuels- salient features:

- **Categorization:** The Policy categorises biofuels as “Basic Biofuels” First Generation (1G) bioethanol & biodiesel and “Advanced Biofuels” – Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.

- **Scope of raw materials:** The Policy expands the scope of raw material for ethanol production by allowing use of Sugarcane Juice, Sugar containing materials like Sugar Beet, Sweet Sorghum, Starch containing materials like Corn, Cassava, Damaged food grains like wheat, broken rice, Rotten Potatoes, unfit for human consumption for ethanol production.

- **Protection to farmers:** Farmers are at a risk of not getting appropriate price for their produce during the surplus production phase. Taking this into account, the Policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee.

- **Viability gap funding:** With a thrust on Advanced Biofuels, the Policy indicates a viability gap funding scheme for 2G ethanol Bio refineries of Rs. 5000 crore in 6 years in addition to additional tax incentives, higher purchase price as compared to 1G biofuels.

- **Boost to biodiesel production:** The Policy encourages setting up of supply chain mechanisms for biodiesel production from non-edible oilseeds, Used Cooking Oil, short gestation crops.

34. Consider the following statements regarding three species of crocodilians
   1. Mugger is listed as vulnerable by IUCN.
   2. The Gharial is listed as a Critically Endangered by IUCN.
   3. Saltwater Crocodile is listed as least concern by IUCN.

Which of the statements given above is/are correct?

(a) 1 and 2 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3
Bhitarkanika census on saltwater crocodiles

- Bhitarkanika census finds an increase of 15 saltwater crocodiles from last year.
- There are now 1,757 crocodiles in the park, the census conducted on January 3, 2020, found. Last year, there were 1,742.
- There are three species of crocodilians—saltwater, Mugger and Gharial.

Mugger:

- The mugger crocodile, also called the Indian crocodile, or marsh crocodile, is found throughout the Indian subcontinent.
- It is listed as vulnerable by IUCN.
- The mugger is mainly a freshwater species, and found in lakes, rivers and marshes.

Gharial:

- The Gharial or fish-eating crocodile is native to the Indian subcontinent.
- It is listed as Critically Endangered by IUCN.
- Small released populations are present and increasing in the rivers of the National Chambal Sanctuary, Katarniaghat Wildlife Sanctuary, Son River Sanctuary and the rainforest biome of Mahanadi in Satkosia Gorge Sanctuary, Orissa.

Saltwater Crocodile:

- It is the largest of all living reptiles. It listed as least concern by IUCN. It is found throughout the east coast of India.

35. Sukhna Lake, recently declared as living entity by high court, is located in which of the following state?

(a) Himachal Pradesh
(b) Arunachal Pradesh
(c) Punjab
(d) Uttarkhand

Solution: C

- Sukhna Lake in Chandigarh, India, is a reservoir at the foothills of the Himalayas. This 3 km² rainfed lake was created in 1958 by damming the Sukhna Choe, a seasonal
stream coming down from the Shivalik Hills. Originally the seasonal flow entered the lake directly causing heavy siltation.


36. Consider the following pairs of National parks/tiger reserve and the States they are located in

1. Guru Ghasidas National Park : Punjab
2. Kamlang Tiger Reserve : Arunachal Pradesh
3. Achanakmar Tiger Reserve : Chattisgarh
4. Sanjay-Dubri Tiger Reserve : Assam

Which of the pairs given above is/are correctly matched?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 and 4 only
(d) 1 and 4 only

Solution: B

Guru Ghasidas National Park

- This will be Chattisgarh’s 4th tiger reserve.
- Current 3 tiger reserves: Achanakmar, Udanti- Sitanadi and Indravati tiger reserves.

Tiger Reserves in India:

1. Nagarjunsagar Srisailam (part)* Andhra Pradesh
2. Namdapha Arunachal Pradesh
3. Kamlang Tiger Reserve Arunachal Pradesh
4. Pakke Arunachal Pradesh
5. Manas Assam
6. Nameri Assam
7. Orang Tiger Reserve Assam
37. Consider the following statements regarding process of Decomposition
   1. In the process of fragmentation, Detritivores break down detritus into smaller particles.
   2. In the process of catabolism, Bacterial and fungal enzymes degrade detritus into simpler inorganic substances.

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
Decomposition:

- You may have heard of the earthworm being referred to as the farmer’s ‘friend’. This is so because they help in the breakdown of complex organic matter as well as in loosening of the soil. Similarly, decomposers break down complex organic matter into inorganic substances like carbon dioxide, water and nutrients and the process is called decomposition.
- Dead plant remains such as leaves, bark, flowers and dead remains of animals, including fecal matter, constitute detritus, which is the raw material for decomposition. The important steps in the process of decomposition are fragmentation, leaching, catabolism, humification and mineralisation.
- Detritivores (e.g., earthworm) break down detritus into smaller particles. This process is called fragmentation. By the process of leaching, watersoluble inorganic nutrients go down into the soil horizon and get precipitated as unavailable salts. Bacterial and fungal enzymes degrade detritus into simpler inorganic substances. This process is called as catabolism.
- It is important to note that all the above steps in decomposition operate simultaneously on the detritus. Humification and mineralisation occur during decomposition in the soil.

38. Consider the following statements regarding crypto currencies
   1. A cryptocurrency is a digital or virtual currency designed to work as a medium of exchange.
   2. Any cryptocurrency network is based on the absolute consensus of all the participants regarding the legitimacy of balances and transactions.
   3. Cryptocurrencies are banned in India.

Which of the statements given above is/are correct?

(a) 1 and 3 only
(b) 2 only
(c) 1 and 2 only
(d) 1 only

Solution: C
A cryptocurrency is a digital or virtual currency designed to work as a medium of exchange. It uses cryptography to secure and verify transactions as well as to control the creation of new units of a particular cryptocurrency. Essentially, cryptocurrencies are limited entries in a database that no one can change unless specific conditions are fulfilled.

- Within a cryptocurrency network, only miners can confirm transactions by solving a cryptographic puzzle. They take transactions, mark them as legitimate and spread them across the network. Afterwards, every node of the network adds it to its database. Once the transaction is confirmed it becomes unforgeable and irreversible and a miner receives a reward, plus the transaction fees.
- Essentially, any cryptocurrency network is based on the absolute consensus of all the participants regarding the legitimacy of balances and transactions. If nodes of the network disagree on a single balance, the system would basically break. However, there are a lot of rules pre-built and programmed into the network that prevents this from happening.
- Cryptocurrencies are so called because the consensus-keeping process is ensured with strong cryptography. This, along with aforementioned factors, makes third parties and blind trust as a concept completely redundant.
- Recently, SC uplifted ban on Cryptocurrency imposed by RBI more than one year ago

https://cointelegraph.com/bitcoin-for-beginners/what-are-cryptocurrencies


39. Consider the following statements regarding Photosynthetically active radiation (PAR)
1. It is light of wavelengths 400-700 nm and is the portion of the light spectrum utilized by plants for photosynthesis.
2. Plants capture nearly 20-30 per cent of the PAR.

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

Solution: A

- Photosynthetically active radiation (PAR) is light of wavelengths 400-700 nm and is the portion of the light spectrum utilized by plants for photosynthesis.
• Except for the **deep-sea hydro-thermal ecosystem**, sun is the only source of energy for all ecosystems on Earth. Of the incident solar radiation less than 50 per cent of it is photo synthetically active radiation (PAR). We know that plants and **photosynthetic bacteria (autotrophs)**, fix Sun’s radiant energy to make food from simple inorganic materials. Plants capture only 2-10 per cent of the PAR and this small amount of energy sustains the entire living world.

40. Consider the following statements regarding limitations of ecological pyramids
1. It does not take into account the same species belonging to two or more trophic levels.
2. It assumes a simple food chain.
3. Saprophytes are not given any place in ecological pyramids.

Which of the statements given above is/are correct?

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

**Solution: D**

• There are **certain limitations of ecological pyramids** such as it does not take into account the same species belonging to two or more trophic levels. It assumes a simple food chain, something that almost never exists in nature; it does not accommodate a food web. Moreover, **saprophytes** are not given any place in ecological pyramids even though they play a vital role in the ecosystem.

41. Consider the following statements regarding Asian Waterbird Census
1. It has been conducted by BirdLife International
2. It is an international programme that focuses on monitoring the status of water birds and wetlands
3. In India, it is jointly coordinated by the Bombay Natural History Society (BNHS) and Wetlands International.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 and 3 only
Asian Waterbird Census was recently conducted in Upper Kuttanad region and has recorded 16,767 birds of 47 continental and local species.

The Asian Waterbird Census:

- The Asian Waterbird Census (AWC) the largest such census in Asia, is organised by Wetlands International, is an international programme that focuses on monitoring the status of water birds and wetlands.
- It also aims to increase public awareness on issues related to wetland and water bird conservation.
- In India, the AWC is annually coordinated by the Bombay Natural History Society (BNHS) and Wetlands International.
- Asian Waterbird Census is a part of the global project ‘International Waterbird Census Programme’ and is carried out every year in January.
- Any wetland which consistently holds 1% or more of water birds can be qualified as a wetland of international importance under the Ramsar Convention. Hence, statement 2 is correct.

42. Consider the following statements regarding Hydrarch succession

1. Hydrarch succession takes place in wet areas.
2. The successional series progress from hydric to the xeric conditions.

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

Solution: A

- Hydrarch succession takes place in wet areas and the successional series progress from hydric to the mesic conditions. As against this, xerarch succession takes place
in dry areas and the series progress from xeric to mesic conditions. Hence, both hydrarch and xerarch successions lead to medium water conditions (mesic) – neither too dry (xeric) nor too wet (hydric).

- The species that invade a bare area are called pioneer species. In primary succession on rocks these are usually lichens which are able to secrete acids to dissolve rock, helping in weathering and soil formation. These later pave way to some very small plants like bryophytes, which are able to take hold in the small amount of soil. They are, with time, succeeded by higher plants, and after several more stages, ultimately a stable climax forest community is formed. The climax community remains stable as long as the environment remains unchanged. With time the xerophytic habitat gets converted into a mesophytic one.

43. Consider the following statements regarding Niche
1. A niche is the unique functional role or place of a species in an ecosystem.
2. Niche plays an important role in conservation of organisms.
3. A niche is unique for a species.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: D

Niche

- A niche is the unique functional role or place of a species in an ecosystem. It is a description of all the biological, physical and chemical factors that a species needs to survive, stay healthy and reproduce.
- A niche is unique for a species, which means no two species have exact identical niches. Niche plays an important role in conservation of organisms.
- If we have to conserve species in its native habitat we should have knowledge about the niche requirements of the species and should ensure that all requirements of its niche are fulfilled.
44. Consider the following statements
1. Tigris River flows through Turkey, Syria and Iraq.
2. Persian Gulf lies between Iran to the northeast and the Arabian Peninsula to the southwest.
3. Euphrates river forms boundary between Israel and Jordan

Which of the statements given above is/are correct?

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

Solution: B

Tigris:
- The Tigris is the eastern of the two great rivers that define Mesopotamia, the other being the Euphrates.
- The river flows south after originating in Lake Hazar from the Taurus Mountains of southeastern Turkey through Iraq and empties itself into the Persian Gulf as Shatt al-Arab.
- It flows through Turkey, Syria (as a border with Turkey) and Iraq.
• Flooding of the Tigris usually occurs about a month before flooding of the Euphrates. This is due to the shorter length of the Tigris.
• Baghdad, the capital of today’s Iraq, is located on both banks of the Tigris while Mosul, the site of Iraq’s largest dam, is principally located on the west bank. (Mosul is opposite the remains of ancient Ninevah.)
• Not all of the Tigris River is navigable by shallow-draft vessels. Upstream, during ancient times, people used rafts to reach the city of Ninevah. Today people still use rafts to reach the city of Mosul.
• The last time anyone saw a lion along the Tigris River was in 1926.
• Around 55 fish species live in the Tigris. Although fishing was once very important to people living along the river’s banks, pollution and wars have harmed the fishing industry.

The Persian Gulf is a Mediterranean sea in Western Asia. The body of water is an extension of the Indian Ocean (Gulf of Oman) through the Strait of Hormuz and lies between Iran to the northeast and the Arabian Peninsula to the southwest. The Shatt al-Arab river delta forms the northwest shoreline.

The Euphrates is the longest and one of the most historically important rivers of Western Asia. Together with the Tigris, it is one of the two defining rivers of Mesopotamia. The Jordan River flows downstream through Israel where it forms the border with Jordan South of the Sea of Galilee. As for the Yarmouk, it originates in Syria and forms the border between Jordan and Israel, before joining the Jordan River downstream to the Sea of Galilee.

45. Consider the following statements regarding Bioaccumulation

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

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

Solution: B
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.
- In order for biomagnification to occur, the pollutant must be: long-lived, mobile, soluble in fats, biologically active.

46. Recently Araku Valley Coffee has won the Gold Medal for the best coffee pod in the Prix Epicures. Araku valley is located in

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

**Solution: D**

- **Araku Valley Coffee** has won the **Gold Medal for the best coffee pod in the Prix Epicures in Paris, France**.
- **Araku Valley** is a hill station and valley region in the southeastern Indian state of **Andhra Pradesh**. It’s surrounded by the thick forests of the **Eastern Ghats mountain** range. The **Tribal Museum** is dedicated to the area’s numerous indigenous tribes, known for their traditional **Dhimsa dance**, and showcases traditional handicrafts. A miniature train runs through **Padmapuram Gardens**, with its sculptures and tree-top huts.

47. Consider the following statements regarding nitrogen cycle

1. Fixing atmospheric nitrogen: Azotobacter and Clostridium
2. Nitrobacter bacteria promote transformation of ammonia into nitrite.
3. Nitrite is then further transformed into nitrate by the bacteria Nitrosomonas.

Which of the statements given above is/are correct?
• Certain microorganisms are capable of fixing atmospheric nitrogen into ammonium ions. These include free living nitrifying bacteria (e.g. aerobic Azotobacter and anaerobic Clostridium) and symbiotic nitrifying bacteria living in association with leguminous plants and symbiotic bacteria living in non-leguminous root nodule plants (e.g. Rhizobium) as well as blue green algae (e.g. Anabaena, Spirulina).

• Ammonium ions can be directly taken up as a source of nitrogen by some plants, or are oxidized to nitrites or nitrates by two groups of specialised bacteria: Nitrosomonas bacteria promote transformation of ammonia into nitrite. Nitrite is then further transformed into nitrate by the bacteria Nitrobacter.

• The nitrates synthesised by bacteria in the soil are taken up by plants and converted into amino acids, which are the building blocks of proteins. These then go through higher trophic levels of the ecosystem. During excretion and upon the death of all organisms nitrogen is returned to the soil in the form of ammonia.

48. Consider the following statements regarding Food Corporation of India
1. It is a statutory body
2. It has primary duty to undertake purchase, store, and transport, distribute and sell food grains and other foodstuffs.

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

Solution: C
The Food Corporation of India is an organization created and run by the Government of India. It is a statutory body under the Ministry of Consumer Affairs, Food and Public Distribution, Government of India. Its top official is designated as Chairman. It was set up in 1965 with its Initial headquarters at Chennai. Later this was moved to New Delhi. It also has regional centers in the capitals of the states. Important regions of the state also serve as district centers.

Objectives:
- Effective price support operations for safeguarding the interests of the poor farmers
- Distribution of foodgrains throughout the country for Public Distribution System (PDS)
- Maintaining a satisfactory level of operational and buffer stocks of food grains to ensure National Food Security
- Regulate market price to provide food grains to consumers at a reliable price.
- It has primary duty to undertake purchase, store, and move/transport, distribute and sell food grains and other foodstuffs.

49. Consider the following statements regarding characteristics of Mangroves
1. They are basically evergreen land plants and found in locations where no silt is found.
2. Their physiological adaptation to salinity stress and to water logged anaerobic mud is high.
3. It produces pneumatophores (blind roots) to overcome respiration problem.

Which of the statements given above is/are correct?
(a) 1, 2 and 3 only
(b) 2, 3 and 4 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

Solution: B

Characteristics of mangroves
- They are basically evergreen land plants growing on sheltered shores, typically on tidal flats, deltas, estuaries, bays, creeks and the barrier islands.
- The best locations are where abundant silt is brought down by rivers or on the backshore of accreting sandy beaches.
• Their physiological adaptation to salinity stress and to water logged anaerobic mud is high.
• They require high solar radiation and have the ability to absorb fresh water from saline/brackish water.
• It produces pneumatophores (blind roots) to overcome respiration problem in the anaerobic soil conditions.
• Mangroves occur in variety of configurations. Some species (e.g. Rhizophora) send arching prop roots down into the water. While other (e.g. Avicennia) send vertical “Pneumatophores” or air roots up from the mud.
• Most mangrove vegetation has lenticellated bank which facilitates more water loss, produces coppices. Leaves are thick and contain salt secreting glands.
• Mangroves exhibit Viviparity mode of reproduction. i.e. seeds germinate in the tree itself (before falling to the ground). This is an adaptative mechanism to overcome the problem of germination in saline water.
• Some secrete excess salt through their leaves as if you look closely, you can see crystals of salt on the back of the leaves; others block absorption of salt at their roots.
• Adventitious roots which emerged from the main trunk of a tree above ground level are called stilt roots.

50. Consider the following statements
1. ASAT missile can be only land-based missile.
2. India became only the fourth country to carry out an anti-satellite missile test.
3. Mission Shakti is a joint programme of DRDO and ISRO.

Which of the statements given above is/are correct?

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

Solution: B

India's Anti-Satellite (ASAT) missile

• **Mission Shakti** is a joint programme of the Defence Research and Development Organisation (DRDO) and the Indian Space Research Organisation (ISRO).
• As part of the mission, an **anti-satellite (A-SAT) weapon** was launched and targeted an Indian satellite which had been decommissioned.
• The **target** of the test was a satellite present in a low Earth orbit.
• The test sparked concerns regarding the creation of space debris.
• ASAT missile can be air, sea or land-based

Significance:
• India is only the 4th country to acquire such a specialised and modern capability, and Entire effort is indigenous. Till now, only the US, Russia and China had the capability to hit a live target in space.
• India’s successful demonstration of the ASAT capability is said to signify its ability to intercept an intercontinental ballistic missile.

What is space debris?
• Space junk is an ever-growing problem with more than 7,500 tonnes of redundant hardware now thought to be circling the Earth. Ranging from old rocket bodies and defunct spacecraft through to screws and even flecks of paint – this material poses a collision hazard to operational missions.
• The rising population of space debris increases the potential danger to all space vehicles, but especially to the International Space Station (ISS), space shuttles, satellites and other spacecraft.

Technologies that can tackle the problem in future are:
• Nasa’s Space Debris Sensor orbits the Earth on the International Space Station. The sensor was attached to the outside of the space station’s European Columbus module in December 2017. It will detect millimetre-sized pieces of debris for at least two years, providing information on whatever hits it such as size, density, velocity, and orbit and will determine whether the impacting object is from space or a man-made piece of space debris.
• REMOVE debris, satellite contain two cubesats that will release simulated space debris so that it can then demonstrate several ways of retrieving them.
• Deorbit mission: e.Deorbit is a planned European Space Agency active space debris removal mission developed as a part of their Clean Space initiative.
• Other technologies include moving objects with a powerful laser beam. It is important to start doing that soon, current scientific estimates predict that without active debris removal, certain orbits will become unusable over the coming decades.

DAY – 51 (InstaTest-51)

51. Consider the following statements regarding Lokpal
1. It is the central governing body that has jurisdiction over all members of parliament and central government employees in case of corruption.
2. The Lokpal can initiate a preliminary investigation after it receives a complaint under the Prevention of Corruption Act, 1988.
3. It can attach or confiscate property of public servants acquired by corrupt means, even while prosecution is pending.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 only

(c) 1, 2 and 3

(d) 1 and 3 only

Solution: C

- A national anti-corruption ombudsman to look into complaints against public servants as defined under the Lokpal Act, 2013.

Powers of Lokpal

- If the complaint is found to be true, the Lokpal can ask the government to take disciplinary action against the public servant and also file a case in a special court to be set up by the Centre.
- The Lokpal can initiate a preliminary investigation after it receives a complaint under the Prevention of Corruption Act, 1988.

Jurisdiction

- It will cover all categories of public servants including Group ‘A’, ‘B’, ‘C’ & ‘D’ officers and employees of Government. With respect to Group ‘A’ and ‘B’ officers, CVC will send its report of Preliminary enquiry to Lokpal for further decision.
- With respect to Group ‘C’ and ‘D’ employees, CVC will proceed further in exercise of its own powers under the CVC Act subject to reporting and review by Lokpal.
- All entities receiving donations from foreign source in excess of Rs. 10 lakhs per year are brought under the jurisdiction of Lokpal.
- Lokpal will have power of superintendence and direction over any investigation agency including CBI for cases referred to them by Lokpal.
- It can attach or confiscate property of public servants acquired by corrupt means, even while prosecution is pending.

52. Consider the following statements regarding Mineral Accretion Technology

1. It is a process to restore coral reefs using biorock.

2. Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures.

3. Botanical Survey of India is implementing this in Gulf of Kachchh.
Which of the statements given above is/are correct?

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

Solution: A

Biorock or Mineral Accretion Technology

- The Zoological Survey of India (ZSI), with help from Gujarat’s forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral accretion technology in the Gulf of Kachchh.

What is Biorock?

- It is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.

How they are formed?

- The technology works by passing a small amount of electrical current through electrodes in the water.
- When a positively charged anode and negatively charged cathode are placed on the sea floor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).
- This results in calcium carbonate formation. Coral larvae adhere to the $\text{CaCO}_3$ and grow quickly.
- Fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.

53. Consider the following statements regarding Least Developed Countries Fund

1. It is administered by World Bank.
2. It was established to meet the adaptation needs of least developed countries (LDCs).
3. It has financed the preparation and implementation of National Adaptation Programs of Action (NAPAs).

Which of the statements given above is/are correct?
(a) 2 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

Solution: B

Least Developed Countries Fund

- Administered by The Global Environment Facility (GEF)
- Area of focus – Adaptation
- Date operational – 2002
- The Least Developed Countries Fund (LDCF) was established to meet the adaptation needs of least developed countries (LDCs).
- Specifically the LDCF has financed the preparation and implementation of National Adaptation Programs of Action (NAPAs) to identify priority adaptation actions for a country based on existing information.

54. “2 billion kilometres to safety” campaign, sometime seen in the news, is launched by which of the following organisation?

(a) United Nations Environment Programme.
(b) World Wide Fund for Nature
(c) United Nations High Commissioner for Refugees
(d) International Labour Organization

Solution: C

- The UN Refugee Agency UNHCR has announced a new global campaign urging people worldwide to cover the total distance travelled by refugees each year – 2 billion kilometers – by running, jogging or walking. The “2 Billion Kilometers to Safety” campaign vies to encourage people to support refugees by championing individual acts of solidarity, UNHCR said in a statement. The goal is to acknowledge the resilience and strength of refugees.

55. Consider the following statements regarding Conclave of Himalayan States

1. It is for the first time that the Himalayan states have come on a single platform to take a unanimous stand on the issue of green bonus and demanded a separate ministry.

2. Mussoorie resolution was passed at the conclave making a collective pledge to conserve and protect the Himalayan region.

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

Solution: C

- It is for the first time that the Himalayan states have come on a single platform to take a unanimous stand on the issue of green bonus and demanded a separate ministry to deal with problems unique to them.

Green Bonus

- Himalayan states met at a conclave to demand a separate ministry to deal with problems endemic to them and a green bonus in recognition of their contribution to environment conservation.

- A “Mussoorie resolution” was passed at the conclave making a collective pledge to conserve and protect their rich cultural heritage, bio-diversity, glaciers, rivers and lakes besides making their own contribution to the nation’s prosperity.

Indian Himalayan region:

- IHR is the section of Himalayas within India, spanning 11 Indian states (Arunachal Pradesh, Assam Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand) & 2 districts of Bengal and that runs along 2500 km of Himalayan ranges between Indus river basin in North-West and Brahmaputra in the East.

- Approximately 9,000 glaciers of IHR store about 12,000 km³ of freshwater.

- This region is endowed with rich vegetation & is home to almost 36% of India’s total biodiversity. More than 41.5% area of IHR states is under forests, representing 1/3rd of total forest cover of India & nearly half (47%) of the “very good” forest cover of the country.

- The total geographical area of IHR states is approximately 591,000 sq. km (18% of India) and it is inhabited by about 3.8% of the country’s population.
• The **strategic importance** of the IHR is evident from the fact that IHR states share borders with 6 neighbouring countries.

• This is one of **India’s major carbon sink**. Besides it **averts soil erosion from the world’s youngest mountain range**.

56. Consider the following statements regarding Hong Kong convention

   1. It is an international convention aimed at the prevention of pollution from ships caused by operational or accidental causes.
   2. It was adopted by the International Maritime Organization (IMO) in 2009.
   3. The Convention has come into force and India is a party to the convention.

Which of the statements given above is/are correct?

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

**Solution: B**

**MARPOL** is the main **international convention** aimed at the **prevention of pollution from ships caused by operational or accidental causes**. It was adopted at the **International Maritime Organization (IMO)** in 1973. The **Protocol of 1978** was adopted in response to a number of tanker accidents in 1976–1977. The 1978 Protocol was absorbed into the parent Convention and the combined instrument entered into force in 1983. In 1997, a Protocol was adopted to amend the Convention and a new Annex VI was added, which came into force in May 2005. The technical requirements of MARPOL are included in six separate Annexes:

• **Annex I**—Regulations for the Prevention of Pollution by Oil
• **Annex II**—Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk
• **Annex III**—Prevention of Pollution by Harmful Substances Carried in Sea in Packaged Form
• **Annex IV**—Prevention of Pollution by Sewage from Ships
• **Annex V**—Prevention of Pollution by Garbage from Ships
• **Annex VI**—Prevention of Air Pollution from Ships
About International Convention for the Prevention of Pollution from Ships (MARPOL):

- The Convention was adopted on 2 November 1973 at IMO.
- It includes regulations aimed at preventing and minimizing pollution from ships – both accidental pollution and that from routine operations.
- All ships flagged under countries that are signatories to MARPOL are subject to its requirements, regardless of where they sail and member nations are responsible for vessels registered on their national ship registry.

Recycling of Ships Bill, 2019

- The Union Cabinet has approved the proposal for enactment of Recycling of Ships Bill, 2019 and accession to the Hong Kong International Convention for Safe and Environmentally Sound Recycling of Ships, 2009.

What is Hong Kong convention?

- The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (the Hong Kong Convention), was adopted at a diplomatic conference held in Hong Kong, China in 2009.
- It was adopted by the International Maritime Organization (IMO) in 2009.
- The Convention is aimed at ensuring that ships, when being recycled after reaching the end of their operational lives, do not pose any unnecessary risks to human health, safety and to the environment.
- The Convention is yet to come into force because it has not been ratified by 15 nations, representing 40 per cent of the world merchant shipping by gross tonnage (capacity) and a maximum annual ship recycling volume of not less than 3 per cent of the combined tonnage of the countries.

57. Consider the following statements regarding Indian Pangolin

1. It is listed under the Schedule II of the Wildlife Protection Act, 1972.
2. It is an endangered species.
3. Its sticky tongue is longer than its body and specifically adapted for reaching and lapping up insects in deep crevices.

Which of the statements given above is/are correct?

(a) 2 only 
(b) 1 and 3 only 
(c) 3 only 
(d) 2 and 3 only 

Solution: D
Of the eight extant species of pangolin, the **Indian Pangolin** *Manis crassicaudata* and **Chinese Pangolin** *M. pentadactyla* occur in India. Indian Pangolin is a large anteater covered dorsally by 11-13 rows of scales.

The adult male is about one-third larger than the female. A terminal scale is also present on the ventral side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin. Its sticky tongue, which is longer than its body, is specially adapted for reaching and lapping up insects in deep crevices.

It is an **endangered species**. Out of the eight species of pangolin, the Indian and the Chinese pangolins are found in India. **Both these species** are listed under **Schedule I Part I** of the **Wildlife (Protection) Act, 1972**.

Indian pangolin, which dons a thick scaly skin, is hunted for meat and used in traditional Chinese medicine.

https://www.wwfindia.org/about_wwf/priority_species/threatened_species/indian_pangolin/

**58.** Consider the following statements regarding Clean Ganga Fund

1. The Fund will have the objective of contributing to the national effort of cleaning the river Ganga.
2. It receives voluntary contributions from residents of the country and Non-Resident Indian (NRIs).
3. The Fund would be managed by a Trust to be headed by Minister of Water Resources, River Development and Ganga Rejuvenation.

Which of the statements given above is/are correct?

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

**Solution: A**

The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi, gave its approval for establishment of the **Clean Ganga Fund (CGF)**. The following broad activities will be financed from the Fund:

- Activities outlined under the ‘**Namami Gange’ programme** for cleaning of river Ganga.
**Control of non-point pollution from agricultural runoff, human defecation, cattle wallowing, etc.**

- Setting up of waste treatment and disposal plants along the river around the cities.
- Conservation of the biotic diversity of the river.
- Community based activities to reduce polluting human interface with the river.
- Development of public amenities including activities such as Ghat redevelopment.
- Research and Development and innovative projects.
- Research and Development projects and innovative projects for new technology and processes for cleaning the river.
- Independent oversight through intensive monitoring and real time reporting.
- Any other activity as approved by the Trust.

Considering that the measures taken till now are inadequate and a national effort is required to mobilize resources for improving the condition of the river Ganga, the Government announced the setting up of an **Integrated Ganga Conservation Mission** called **“Namami Gange”** and an initial sum of Rs. 2,037 crore has been allocated in the Union Budget 2014-15.

- The Cabinet has now agreed to set up “Clean Ganga Fund (CGF)” with voluntary contributions from residents of the country and Non-Resident Indian (NRIs) / Person of Indian Origin (PIO) and others to harness their enthusiasm to contribute towards the conservation of the river Ganga.
- The Fund will have the objective of contributing to the national effort of cleaning of the river Ganga. Domestic donors to the Fund shall be eligible for tax benefits as applicable in the case of the Swachh Bharat Kosh. The Fund would be managed by a Trust to be headed by Finance Minister. The secretariat of the Trust will be set up in Ministry of Water Resources, River Development and Ganga Rejuvenation under the Mission Director, Clean Ganga.
- The proposal to set up CGF is to attract private contributions globally for increasing people’s participation in this massive task. As this would also cover NRIs, CGF would also fulfil the Budget announcement in the Regular Budget 2014-15. Considering that the measures taken till now are not adequate and a national effort is required to mobilize resources for improving the condition of the river Ganga, the Government has announced the setting up of an Integrated Ganga Conservation Mission called “Namami Gange”.

### 59. Consider the following statements regarding Coastal regulation zones

1. **CRZ-I:** Ecologically sensitive areas and the geomorphological features that play a primary role in maintaining the integrity of the coast.
2. **CRZ-II:** The areas which are developed up to or close to the shoreline and falling within municipal limits.
3. **CRZ-III:** The areas that are relatively undisturbed and do not fall under either in Category I or II.
4. **CRZ-IV**: The aquatic area from low tide line upto territorial limits including the area of the tidal influenced water body.

Which of the statements given above is/are correct?

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

**Solution: D**

**Coastal regulation zone, 2011**

In the 1991 Notification the CRZ area was classified as **CRZ-I (ecological sensitive), CRZ-II (built-up area), CRZ-III (Rural area) and CRZ-IV (water area)**. In the 2011 Notification the above classification is retained. The only change is the inclusion of CRZ-IV, which includes the water areas upto the territorial waters and the tidal influenced water bodies.

For the very first time, a separate **draft Island Protection Zone** Notification has been issued for protection of the islands of Andaman & Nicobar and Lakshadweep under Environment (Protection) Act, 1986.

1. **CRZ-I**: Ecologically sensitive areas and the geomorphological features that play a primary role in maintaining the integrity of the coast.
2. **CRZ-II**: The areas which are developed up to or close to the shoreline and falling within municipal limits.
3. **CRZ-III**: The areas that are relatively undisturbed and do not fall under either in Category I or II and also include rural and urban areas that are not substantially developed.
4. **CRZ-IV**: The aquatic area from low tide line upto territorial limits including the area of the tidal influenced water body.

**60. Consider the following statements regarding Long term repo operation**

1. It will replace repo and repo rate in near future.  
2. It will lead to decline in short term lending rates of banks.

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

Solution: B

- RBI has announced a new liquidity facility under Long Term Repo Operations (LTRO) to inject liquidity in the banking system.
- LTRO scheme will be in addition to the existing LAF and MSF (Marginal Standing Facility) operations.
- Under LTRO, RBI will conduct term repos of one-year and three-year tenors of appropriate sizes for up to a total amount of Rs 1 lakh crore at the policy repo rate.
- LTRO will lead to decline in short term lending rates of banks.


61. Which of the following are the pollutants released from Flue ash?
   1. Silicon dioxide
   2. Aluminum oxide
   3. Strontium
   4. Mercury

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

Solution: D

Fly Ash
- Popularly known as Flue ash or pulverised fuel ash, it is a coal combustion product.

Composition:
- Composed of the particulates that are driven out of coal-fired boilers together with the flue gases.
- Depending upon the source and composition of the coal being burned, the components of fly ash vary considerably, but all fly ash includes substantial amounts
of silicon dioxide (SiO₂), aluminium oxide (Al₂O₃) and calcium oxide (CaO), the main mineral compounds in coal-bearing rock strata.

- Minor constituents include: arsenic, beryllium, boron, cadmium, chromium, hexavalent chromium, cobalt, lead, manganese, mercury, molybdenum, selenium, strontium, thallium, and vanadium, along with very small concentrations of dioxins and PAH compounds. It also has unburnt carbon.

62. Consider the following statements regarding World Wetlands Day 2020

1. The theme for 2020 is ‘Wetlands and Plastic Pollution’.
2. It is celebrated on February 2 each year to mark the Day the Convention on Wetlands of International Importance especially as Waterfowl Habitat was adopted.

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

Solution: B

World Wetlands Day 2019

- **World Wetlands Day** is celebrated on **February 2** each year to mark the Day the **Convention on Wetlands** was adopted in the **Iranian City of Ramsar** in **1971**.
- **India is a party to the Convention since 1982** and committed to the Ramsar approach of wise use of wetlands.
- The **theme for 2020** is ‘Wetlands and Biodiversity’.

Wetlands in India:

- The country has over 757,000 wetlands with a total wetland area of 15.3 million ha, accounting for nearly 4.7% of the total geographical area of the country.
- India has **37 Ramsar sites** now, covering an area of 1.07 million ha. The latest additions include **Maharashtra’s first Ramsar site**, the **Nandur Madhmeshwar bird sanctuary**; three more from **Punjab** (in **Keshopur-Miani, Beas Conservation Reserve** and **Nangal**); and six more from **Uttar Pradesh** (in **Nawabganj, Parvati Agra, Saman, Samaspur, Sandi** and **Sarsai Nawar**).
About Ramsar convention:

- The Ramsar Convention is an international treaty for the conservation and wise use of wetlands.
- It is named after the Iranian city of Ramsar, on the Caspian Sea, where the treaty was signed on 2 February 1971.
- Known officially as ‘the Convention on Wetlands of International Importance especially as Waterfowl Habitat’ (or, more recently, just ‘the Convention on Wetlands’), it came into force in 1975.

63. Consider the following statements regarding Geological Survey of India (GSI)
   1. It functions under Ministry of Earth Sciences
   2. It creates and updates national geoscientific data and carries out mineral resource assessment.

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

Solution: B

- The Geological Survey of India (GSI), founded in 1851, is a Government of India Ministry of Mines organisation, one of the oldest of such organisations in the world and the second oldest survey in India after Survey of India (founded in 1767), for conducting geological surveys and studies of India, and also as the prime provider of basic earth science information to government, industry and general public, as well as the official participant in steel, coal, metals, cement, power industries and international geoscientific forums.
- The principal function of GSI relate to creation and updation of national geoscientific data and mineral resource assessment, air-borne and marine surveys and conducting multifarious geo-technical, geo-environmental and natural hazards studies, glaciology, seismotectonics, etc. and to nurture studies on fundamental research.

https://mines.gov.in/ViewData/index?mid=1437
64. Which of the following pollutants are included under National Ambient Air Quality Standards (NAAQS)?

1. Carbon Dioxide
2. Ozone
3. Ammonia
4. Benzene

Select the correct answer using the code given below:

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

Solution: B

National Ambient Air Quality Standards (NAAQS)

National Ambient Air Quality Standards (NAAQS) were notified in the year 1982, duly revised in 1994 based on health criteria and land uses.

The NAAQS have been revisited and revised in November 2009 for 12 pollutants, which include

1. Sulphur dioxide (SO2),
2. Nitrogen dioxide (NO2),
3. Particulate matter having size less than 10 micron (PM10),
4. Particulate matter having size less than 2.5 micron (PM2.5),
5. Ozone,
6. Lead,
7. Carbon monoxide (CO),
8. Arsenic,
9. Nickel,
10. Benzene,
11. Ammonia, and

65. Consider the following statements regarding water pollution

1. Water having dissolved Oxygen (DO) content above 8.0 mg L-1 may be considered as contaminated.
2. Water pollution by organic wastes is measured in terms of Biochemical Oxygen Demand (BOD).
3. Biochemical Oxygen Demand (BOD) is more accurate and reliable method of measuring pollution load in water.

Which of the statements given above is/are correct?

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

Solution: A

**DO, BOD, COD**

- Presence of organic and inorganic wastes in water decreases the dissolved Oxygen (DO) content of the water. Water having DO content below 8.0 mg L-1 may be considered as contaminated. Water having DO content below 4.0 mg L-1 is considered to be highly polluted. DO content of water is important for the survival of aquatic organisms. A number of factors like surface turbulence, photosynthetic activity, O2 consumption by organisms and decomposition of organic matter are the factors which determine the amount of DO present in water.

- The higher amounts of waste increase the rates of decomposition and O2 consumption, thereby decreases the DO content of water. The demand for O2 is directly related to increasing input of organic wastes and is expressed as biological oxygen demand (BOD) of water.

- Water pollution by organic wastes is measured in terms of Biochemical Oxygen Demand (BOD). BOD is the amount of dissolved oxygen needed by bacteria in decomposing the organic wastes present in water. It is expressed in milligrams of oxygen per litre of water.

- The higher value of BOD indicates low DO content of water. Since BOD is limited to biodegradable materials only. Therefore, it is not a reliable method of measuring pollution load in water. Chemical oxygen demand (COD) is a slightly better mode used to measure pollution load in water. It is the measure of oxygen equivalent of the requirement of oxidation of total organic matter (i.e. biodegradable and non-biodegradable) present in water.

66. Consider the following statements regarding Drug prices control order (DPCO)

1. At comes under Essential Commodities Act 1955
2. All the drugs marketed in the country are under the Drugs Prices Control Order
3. It monitors maximum retail prices of all drugs, including the non-scheduled formulations.

Which of the statements given above is/are correct?

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

**Solution: C**

**Drugs (Prices Control) Order (DPCO):**

- The **Drugs Prices Control Order** is an order issued by the Government of India under **Sec. 3 of Essential Commodities Act, 1955** to regulate the prices of drugs.
- The Order interalia provides the list of price controlled drugs, procedures for fixation of prices of drugs, method of implementation of prices fixed by Govt., penalties for contravention of provisions etc.
- For the purpose of **implementing** provisions of DPCO, powers of Govt. have been vested in **NPPA**.
- The **DPCO fixes the prices of scheduled drug formulations**.
- It also monitors maximum retail prices of all drugs, including the non-scheduled formulations.

**Are all the drugs marketed in the country under price control?**

- No. The **National List of Essential Medicines (NLEM) 2011** is adopted as the primary basis for determining essentiality, which constitutes the **list of scheduled medicines** for the purpose of price control. The **DPCO 2013** contains more than **600 scheduled drug formulations** spread across 27 therapeutic groups. However, the prices of other drugs can be regulated, if warranted in public interest.

67. Consider the following statements regarding Black carbon (BC)

1. Black carbon is a form of particulate air pollutant, produced from incomplete combustion.
2. Black carbon stays in the atmosphere for several months to years.
3. Black Carbon is the strongest absorber of sunlight and heats the air directly.

Which of the statements given above is/are correct?

(a) 1 only
Black Carbon

- 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.
- Source - biomass burning, cooking with solid fuels, and diesel exhaust, etc.

What does BC do?

- **Black carbon warms the Earth** by absorbing heat in the atmosphere and by reducing albedo, (the ability to reflect sunlight) when deposited on snow and ice.
- BC is the strongest absorber of sunlight and heats the air directly. In addition, it darkens snow packs and glaciers through deposition and leads to melting of ice and snow.
- Regionally, BC disrupts cloudiness and monsoon rainfall and accelerates melting of mountain glaciers such as the Hindu Kush-Himalayan glaciers.

Life time

- 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.

Ocean Acidification

68. Consider the following statements regarding Ocean acidification
1. The ocean currently has a pH around 6.0 and is acidic.
2. Ocean acidification is the lowering of ocean pH driven by the uptake of carbon compounds by the ocean from the 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
Solution: B

- **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.
- The **uptake of atmospheric carbon dioxide** is occurring at a rate exceeding the natural buffering capacity of the ocean.
- The pH of the ocean surface waters has decreased by about pH unit (i.e. 26% increase in ocean hydrogen ion concentration) since the beginning of the industrial revolution.
- The **ocean currently has a pH around 8.0 and is therefore ‘basic’**.

Why do we therefore refer to ‘ocean acidification’?

- That is because acidification is the direction of travel, the trend, regardless of the starting point. Acidification refers to lowering pH from any starting point to any end point on the pH scale.

69. KALIA scheme often seen in the news, was launched by which of the following state?
   
   (a) Jharkhand
   
   (b) Haryana
   
   (c) Odisha
   
   (d) Telangana

**Solution: C**

- **KALIA (Krishak Assistance for Livelihood and Income Augmentation) scheme** was launched by the **Odisha Government** for **farmer’s welfare**. The aim of the scheme is to accelerate agricultural prosperity and reduce poverty in the State payments to encourage cultivation and associated activities.
70. Consider the following statements regarding ocean upwelling
1. This exposes the productive upper ocean ecosystems to colder water containing more nutrients & more CO2.
2. Coastal marine organisms that form shells are accustomed to such events.
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

Solution: A
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 CO2.
- As ocean acidification makes the upper oversaturated layer of sea water shallower each year, these natural upwelling events will more often cause undersaturated 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.

71. Consider the following statements regarding Madan Mohan Malaviya
1. He was a participant in the Second Round Table Conference in 1931.
2. He was instrumental in founding the Benares Hindu University.
3. He was opposed to separate electorates to Muslims and the Lucknow Pact.

Which of the statements given above is/are correct?
(a) 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: D

Madan Mohan Malaviya

The Prime Minister of India paid tribute to Pt. Madan Mohan Malaviya on his 158th birth anniversary (25th December, 2019).

- Madan Mohan Malaviya was a freedom fighter and social reformer.
- He had served as the President of the INC on four occasions.
- He was awarded the Bharat Ratna posthumously in 2014.
- He was the editor of a Hindi magazine, ‘Hindosthan’.
- He became the editor of the ‘Indian Opinion’ in 1889. He also started a Hindi weekly ‘Abhyudaya’, an English daily ‘Leader’, a Hindi newspaper ‘Maryada’.
- Pandit Malaviya was instrumental in founding the Benares Hindu University in 1916. He also became its Vice-Chancellor till 1939.
- He was opposed to separate electorates to Muslims and the Lucknow Pact.
He was also against the INC’s participation in the Khilafat Movement.
He was a participant in the Second Round Table Conference in 1931.
He started the Ganga Mahasabha to oppose construction of dams in the Ganga.
He was also a social reformer who opposed untouchability. He worked for the temple entry of Dalits at the Kalaram Temple at Nashik, Maharashtra.
He also founded the organisation Shri Mathura Vrindavan Hasanand Gochar Bhoomi in Vrindavan.
Malaviya is credited with popularising the term ‘Satyameva Jayate’ (Truth alone triumphs) – India’s national motto. He did not coin the term. It is a mantra from the Upanishads, written thousands of years ago.

72. Consider the following statements regarding Kyoto Flexible Market Protocol mechanisms
1. Joint Implementation: It allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries.
2. Clean Development mechanism: It allows a country with an emission reduction under the Kyoto Protocol (Annex B Party – developed country) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party.
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

Solution: D

The Kyoto Flexible Market Protocol mechanisms

Joint Implementation:

• The mechanism known as “joint implementation”, allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party – developed country) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO2, which can be counted towards meeting its Kyoto target.
Joint implementation offers Parties a flexible and cost-efficient means of fulfilling a part of their Kyoto commitments, while the host Party benefits from foreign investment and technology transfer.

Projects starting as from the year 2000 may be eligible as JI projects, ERU issued from 2008

Clean Development mechanism:

- The Clean Development Mechanism (CDM) allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries.
- It is the first global, environmental investment and credit scheme of its kind, providing standardized emissions offset instrument, CERs.
- Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO2, which can be counted towards meeting Kyoto targets.

Offset Trading/ Carbon Project/ ‘baseline-and credit’ trading:

- Another variant of carbon credit is to be earned by a country by investing some amount of money in such projects, known as carbon projects, which will emit lesser amount of green-house gas in the atmosphere.

73. Consider the following statements regarding National Broadband Mission (NBM)
   1. It has been launched by Ministry of Communications and Information Technology
   2. It is part of the National Digital Communications Policy, 2018.
   3. It aims to provide broadband access to all BPL card holders by 2022.

Which of the statements given above is/are correct?

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

Solution: B

National Broadband Mission (NBM)

- The Ministry of Communications has launched ‘National Broadband Mission’ that will facilitate universal and equitable access to broadband services across the country, especially in rural and remote areas.
The Mission is part of the National Digital Communications Policy, 2018.
The mission will facilitate universal and equitable access to broadband services across the country, especially in rural and remote areas.
It also involves laying of incremental 30 lakh route km of optical fibre cable and increasing tower density from 0.42 to 1 tower per thousand population by 2024.
The mission also envisages increasing fiberisation of towers to 70% from 30% at present.
The mission will envisage stakeholder investment of $100 billion (Rs 7 lakh crore) including Rs 70,000 crore from Universal Service Obligation Fund (USOF) in the coming years.
The mission also involves the development of a Broadband Readiness Index to measure the availability of digital communication infrastructure and foster conducive policy ecosystem within a state/UT.
It will also strive for the creation of a digital fibre map of the communications network and infrastructure, including optical fibre cables and towers across the country.

Objective of NBM:
- To fast track growth of digital communications infrastructure, bridge digital divide and to provide affordable and universal access of broadband for all
- To provide broadband access to all villages by 2022

74. Consider the following statements regarding Insu Resilience Global Partnership
1. It was launched at the UN Climate Conference COP23 in Bonn.
2. It brings together G20 countries in partnership with the V20 nations.
3. The V20 is a group of 20 of the most vulnerable countries including small islands.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: A

Insu Resilience Global Partnership
- The InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions was launched at the UN Climate Conference COP23 in Bonn.
• It brings together **G20 countries** in partnership with the **V20 nations**, as well as civil society, international organizations, the private sector, and academia. The V20 is a group of 49 of the most vulnerable countries including small islands.

• Its vision is to strengthen the resilience of developing countries and to protect the lives and livelihoods of poor and vulnerable people from the impacts of disasters by enabling faster, more reliable and cost-effective responses to disasters.

• It aims to increase the number of poor and vulnerable people in developing countries benefiting from direct or indirect insurance by up to 400 million by 2020.

75. Consider the following statements regarding EChO Network

1. It has been launched by Ministry of Environment, Forest and Climate Change
2. It aims to reduce noise pollution in public places and noise shouldn’t be cross above 85 decibels.

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

**Solution: D**

**EChO Network**

• Indian Government has launched a network to encourage cross-disciplinary leadership- Called **EChO Network**.

• It has launched by Principal Scientific Adviser to the Government of India

• **Aim:** To identify gaps in knowledge regarding environment and then train postdoctoral leaders in research and outreach on these topics, incorporating current public and private efforts.

**Key features:**

• It will provide a template for cross-disciplinary leadership in India with the specific focus of increasing research, knowledge, and awareness of Indian ecology and the environment.

• The Network would develop a national network to catalyse a new generation of Indians who can synthesize interdisciplinary concepts and tackle real-world problems in medicine, agriculture, ecology, and technology.
How it works?

- Through interactive sessions with citizens, industry, academia, and the government, the Network will identify gaps in knowledge regarding selected topics in human and environmental ecosystems.
- The program will then train postdoctoral leaders in research and outreach on these topics, while also incorporating current public and private efforts into a national network.
- It would then go on to establishing nation-wide awareness in these issues through public discourse and education for citizens, industry, and government with information exchange at all educational levels.

DAY – 52 (InstaTest-52)

76. Consider the following statements regarding Punch Mission

1. It is focused on understanding the transition of particles from the Sun’s outer corona to the solar wind.
2. It will consist of a ‘constellation’ of four suitcase-sized microsats that will orbit the Sun in the formation and study of the corona

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

Solution: A

- NASA has selected Texas-based Southwest Research Institute to lead its PUNCH mission which will image the Sun. This is a landmark mission that will image regions beyond the Sun’s outer corona. Dipankar Banerjee, solar physicist from Indian Institute of Astrophysics is also a Co-Investigator of the PUNCH mission.
- PUNCH, which stands for “Polarimeter to Unify the Corona and Heliosphere,” is focused on understanding the transition of particles from the Sun’s outer corona to the solar wind that fills interplanetary space.
- PUNCH will consist of a ‘constellation’ of four suitcase-sized microsats that will orbit the Earth in formation and study how the corona, which is the atmosphere of the Sun,
connects with the interplanetary medium. The mission is expected to be launched in 2022.

- The **mission will image and track the solar wind** and also the **coronal mass ejections** – which are huge masses of plasma that get thrown out of the Sun’s atmosphere. The coronal mass ejections can affect and drive space weather events near the Earth.


77. Consider the following statements regarding Key Biodiversity Areas

1. Key Biodiversity Areas (KBAs) is an umbrella term commonly used to include areas that contribute to the global persistence of biodiversity.
2. The criteria for designating a site as KBA have been described by UN Environment.
3. Globally KBAs are designated based on 11 criteria defined under five broad categories.

Which of the statements given above is/are correct?

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

**Solution: C**

**Key Biodiversity Areas**

- **Key Biodiversity Areas (KBAs)** is an umbrella term commonly used to include areas that contribute to the **global persistence of biodiversity**, including vital habitat for threatened plant and animal species in terrestrial, freshwater and marine ecosystems. Globally KBAs are designated based on 11 criteria defined under five broad categories of threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability.

- The criteria for designating a site as KBA have been described in the document “**The Global Standard for the Identification of Key Biodiversity Areas (2016)**” by International Union for Conservation of Nature (IUCN). IUCN identifies 531 KBA sites in India but these have no legal basis
78. Consider the following statements regarding India State of Forest Report (ISFR) 2019
1. The report is published by Forest Research Institute (FRI).
2. Compared to the assessment of 2017, there is an increase in the total forest and tree cover of the country.
3. Area-wise Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

Solution: B

India State of Forest Report (ISFR) 2019

- The report is published by the Forest Survey of India (FSI) which has been mandated to assess the forest and tree resources of the country including wall-to-wall forest cover mapping in a biennial cycle. Starting 1987, 16 assessment have been completed so far. ISFR 2019 is the 16th report in the series.
- The total forest and tree cover of the country is 80.73 million hectare which is 24.56 percent of the geographical area of the country.
- Compared to the assessment of 2017, there is an increase of 5,188 sq. km in the total forest and tree cover of the country.
- Top three states showing increase in forest cover are Karnataka (1,025 sq. km) followed by Andhra Pradesh (990 sq km) and Kerala (823 sq km).”
- Area-wise Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.
- In terms of forest cover as percentage of total geographical area, the top five States are Mizoram (85.41%), Arunachal Pradesh (79.63%), Meghalaya (76.33%), Manipur (75.46%) and Nagaland (75.31%).
- Mangrove cover has been separately reported in the ISFR 2019 and the total mangrove cover in the country is 4,975 sq km. An increase of 54 sq Km in mangrove cover has been observed as compared to the previous assessment of 2017. Top three states showing mangrove cover increase are Gujarat (37 sq km) followed by Maharashtra (16 sq km) and Odisha (8 sq km).
- The extent of bamboo bearing area of the country has been estimated 16.00 million hectare. There is an increase of 0.32 million hectare in bamboo bearing area as compared to the last assessment of ISFR 2017. The total estimated green weight of
bamboo culms is 278 million tonnes, slowly an increase of 88 million tonnes as compared to ISFR 2017.

- Under the current assessment the **total carbon stock** in country’s forest is estimated **7,124.6 million tonnes** and there an **increase** of 42.6 million **tonnes in the carbon stock** of country as compared to the last assessment of 2017.
- FSI’s assessment is largely based on **digital data whether it is satellite data, vector boundaries of districts or data processing of field measurements**.

79. Consider the following statements regarding Superconductivity.

1. Superconductivity is a state in which a material shows very high electrical resistance.
2. Superconducting materials can save huge amounts of energy, and be used to make highly efficient electrical appliances.
3. Superconductivity is possible only at high temperatures.

Which of the statements given above is/are correct?

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

**Solution: B**

**Superconductivity** is a phenomenon in which the **resistance of the material to the electric current flow is zero**.

- Because of zero resistance, **superconducting materials can save huge amounts of energy**, and be used to make **highly efficient electrical appliances**.
- Superconductivity is largely possible at low temperature. Metallic superconductors usually have transition temperatures (temperatures below which they are superconductive) below 30 K (−243.2 °C) and must be cooled using liquid helium in order to achieve superconductivity.

[https://www.britannica.com/science/superconductivity](https://www.britannica.com/science/superconductivity)
80. National performances under Climate Change Performance Index are assessed based on which of following categories
1. GHG Emissions.
3. Energy Use.
4. Climate Policy.

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

Solution: D

Climate Change Performance Index (CCPI) 2019
- The latest edition of Climate Change Performance Index (CCPI) was recently presented at the climate summit in Madrid.

What is Climate Change Performance Index (CCPI)?
- Designed by the German environmental and development organisation Germanwatch e.V.
- Published in cooperation with the New Climate Institute and Climate Action Network International and with financial support from Barthel Foundation.
- Objective: To enhance transparency in international climate politics.
- First published in 2005 and an updated version is presented at the UN Climate Change Conference annually.
- In 2017, the methodology of the CCPI was revised and adapted to the new climate policy framework of the Paris Agreement from 2015. The CCPI was extended in order to include the measurement of a country’s progress towards the Nationally Determined Contributions (NDCs) and the country’s 2030 targets.

The national performances are assessed based on 14 indicators in the following four categories:
- GHG Emissions (weighting 40%).
- Renewable Energy (weighting 20%).
- Energy Use (weighting 20%).
- Climate Policy (weighting 20%).

India, at rank 9, joins the top ten countries
81. Consider the following pairs regarding Elephant reserves and the states they belong to

1. Mayurbhanj ER : Orissa
2. Anamalai ER : Kerala
3. Periyar ER : Tamil Nadu
4. Kaziranga-Karbi Anglong ER : Assam

Which of the pairs given above is/are correctly matched?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 and 4 only
(d) 1 and 4 only

**Solution: D**

<table>
<thead>
<tr>
<th>Elephant Range</th>
<th>Elephant Reserve</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>East-Central landscape</td>
<td>Mayurjharna ER</td>
<td>West Bengal</td>
</tr>
<tr>
<td>(South-West Bengal-Jharkhand-Orissa)</td>
<td>Singhbhum ER</td>
<td>Jharkhand</td>
</tr>
<tr>
<td></td>
<td>Mahanadi ER</td>
<td>Orissa</td>
</tr>
<tr>
<td></td>
<td>Sambalpur ER</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baitami ER</td>
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</tr>
<tr>
<td></td>
<td>South Orissa ER</td>
<td></td>
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<tr>
<td></td>
<td>Lemru ER</td>
<td>Chhattisgarh</td>
</tr>
<tr>
<td></td>
<td>Badalkhol-Tamorpingla ER</td>
<td></td>
</tr>
<tr>
<td>Kameng-Sonitpur Landscape (Arunachal-Assam)</td>
<td>Kameng ER</td>
<td>Arunachal Pradesh</td>
</tr>
<tr>
<td>Total</td>
<td>Sonitpur ER</td>
<td>Assam</td>
</tr>
<tr>
<td></td>
<td>Dihing-Patkai ER</td>
<td>Assam</td>
</tr>
<tr>
<td>Eastern-South Bank Landscape (Assam-Arunachal</td>
<td>South Arunachal Pradesh ER</td>
<td>Arunachal Pradesh</td>
</tr>
<tr>
<td>Pradesh)</td>
<td></td>
<td></td>
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<tr>
<td>Kaziranga-Karbi Anglong-Intanki Landscape</td>
<td>Kaziranga-Karbi Anglong ER</td>
<td>Assam</td>
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<tr>
<td>(Assam-Nagaland)</td>
<td>Dhansiri-Lungding ER</td>
<td></td>
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<tr>
<td></td>
<td>Intanki ER</td>
<td>Nagaland</td>
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<tr>
<td>North Bengal-Greater Manas Landscape (Assam-</td>
<td>Chirang-Ripu ER</td>
<td>Assam</td>
</tr>
<tr>
<td>West Bengal)</td>
<td>Eastern Doars ER</td>
<td>West Bengal</td>
</tr>
<tr>
<td>Meghalaya Landscape</td>
<td>Garo Hills ER</td>
<td>Meghalaya</td>
</tr>
<tr>
<td></td>
<td>Khasi Hills ER</td>
<td></td>
</tr>
</tbody>
</table>
82. Consider the following statements regarding Urea Subsidy
1. Presently, urea is made available to farmers at statutorily controlled price.
2. 100% Neem Coated Urea was made mandatory in 2019
3. Urea production units use Natural Gas as well as Naphtha as feedstock.

Which of the statements given above is/are correct?
(a) 1 and 3 only
(b) 3 only
(c) 1 and 2 only
(d) None

Solution: A

- **Urea Subsidy** is a part of Central Sector Scheme of Department of Fertilizers wholly financed by the Government of India.
- The difference between the delivered cost of fertilizers at farm gate and MRP payable by the farmer is given as subsidy to the fertilizer manufacturer/importer by the Government of India.
- Urea production units use Natural Gas as well as Naphtha as feedstock/fuel.
- Presently, urea is made available to farmers at statutorily controlled price.
Features of Urea

- Urea, a white crystalline solid containing 46% nitrogen, is widely used in the agricultural industry as an animal feed additive and fertilizer.
- Unlike many fertilizers, Urea can be applied to soil as a solid or solution.
- 100% Neem Coated Urea was made mandatory in 2015.

Benefits of Neem Coating Urea

- Improvement in soil health.
- Reduction in costs with respect to plant protection chemicals.
- Reduction in pest and disease attack.
- Plugging the diversion of the subsidized Urea towards non-agricultural purposes.
- It reduces loss of Nitrogen/ammonia from urea when it remains on the soil surface for extended periods of time during warm weather.

83. Consider the following statements regarding Basel Ban Amendment
   1. It was adopted by the parties to the Basel Convention in 1995.
   2. The amendment prohibits all export of hazardous wastes from non-OECD countries to OECD countries.

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

Solution: A

- Parties agreed that Parties listed in Annex VII (members of OECD, EU, Liechtenstein) prohibit immediately all transboundary movements of hazardous wastes which are destined for final disposal operations from OECD to non-OECD States.

About the 1995 Basel Ban Amendment:

- Adopted by the parties to the Basel Convention in 1995.
- To protect human health and the environment against the adverse effects of hazardous wastes.
- The amendment prohibits all export of hazardous wastes, including electronic wastes and obsolete ships from 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.
Basel Ban Amendment

• The 1995 Basel Ban Amendment, a global waste dumping prohibition, has become an international law after Croatia (97th country to ratify) ratified it on September 6, 2019.

What next?

• It will become a new Article in the Convention and will enter into force in the 97 countries after 90 days — on December 5.

Basel Convention — Control of Transboundary Movements of Hazardous Wastes and Their Disposal:

• Opened for signature on 22 March 1989
• entered into force on 5 May 1992
• Parties — 187.
• It is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs).
• It does not address the movement of radioactive waste.

84. Consider the following statements regarding Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
1. It is administered by the United Nations Environment Programme (UNEP).
2. CITES is non-legally binding on state parties to the convention.

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

Solution: A

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

• It is an International agreement to regulate worldwide commercial trade in wild animal and plant species.
• It restricts trade in items made from such plants and animals, such as food, clothing, medicine, and souvenirs.
• It was signed on March 3, 1973 (Hence world wildlife day is celebrated on March 3).
It is administered by the United Nations Environment Programme (UNEP).
- Secretariat — Geneva (Switzerland).
CITES is legally binding on state parties to the convention, which are obliged to adopt their own domestic legislation to implement its goals.

Classifications:
It classifies plants and animals according to three categories, or appendices, based on how threatened. They are.

- **Appendix I**: It lists species that are in danger of extinction. It prohibits commercial trade of these plants and animals except in extraordinary situations for scientific or educational reasons.
- **Appendix II species**: They are those that are not threatened with extinction but that might suffer a serious decline in number if trade is not restricted. Their trade is regulated by permit.
- **Appendix III species**: They are protected in at least one country that is a CITES member states and that has petitioned others for help in controlling international trade in that species.

85. Consider the following statements regarding Government E-Marketplace
1. It is an online marketplace for procurement of common use goods and services directly from farmers and small scale industries.
2. It was setup in 2016.
3. It aims to enhance transparency, efficiency and speed in public procurement of goods and services and eliminate corruption.

Which of the statements given above is/are correct?
(a) 1 and 3 only
(b) 3 only
(c) 1 and 2 only
(d) 2 and 3 only

**Solution: D**

- **Government e-Marketplace** is an online market place for procurement of common use goods and services by government ministries, departments and CPSEs.
- It was setup in 2016. The platform offers online, end to end solution for procurement of commonly used goods and services for all central government departments and state governments, public sector units and affiliated bodies.
- It aims to **enhance transparency, efficiency and speed** in public procurement of goods and services and eliminate corruption.

**86.** Consider the following statements regarding United Nations Convention to Combat Desertification (UNCCD)

1. It is the sole legally binding international agreement linking environment and development to sustainable land management.
2. Conference of Parties to the United Nations Convention to Combat Desertification (UNCCD COP 14) was hosted by India.
3. The theme of the Conference was ‘Restore land, Sustain future’.

Which of the statements given above is/are correct?

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

**Solution: D**

**United Nations Convention to Combat Desertification (UNCCD)**

- The **14th meeting** of the **Conference of Parties** to the United Nations Convention to Combat Desertification (UNCCD COP 14) was held in New Delhi.
- India took over the Presidency of the COP from China.
- **Framework for the Assessment of Benefits of Action/Cost of Inaction for Drought Preparedness report** was released at the 14th Conference of Parties (COP14) to the United Nations Convention to Combat Desertification (UNCCD).

**About UNCCD:**

- Established in **1994**.
- It is the sole legally binding international agreement linking environment and development to sustainable land management.
- It is the only convention stemming from a direct recommendation of the Rio Conference’s Agenda 21.
- To help publicize the Convention, 2006 was declared “International Year of Deserts and Desertification”.
- **Focus areas:** The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the **drylands**, where some of the most vulnerable ecosystems and peoples can be found.
• **Aim**: Its 197 Parties aim, through partnerships, to implement the Convention and achieve the Sustainable Development Goals. The end goal is to protect land from overuse and drought, so it can continue to provide food, water and energy.

• The Ministry of Environment, Forest and Climate Change is the nodal Ministry for this Convention.

• The 14th edition of the Conference of Parties (COP-14) to the UN Convention to Combat Desertification (UNCCD) ended on 13th September 2019.

• Held in Greater Noida, this was the first time that India hosted an edition of the UNCCD COP.

• The theme of the Conference was ‘**Restore land, Sustain future**’.

• India being the global host for COP 14 has taken over the COP Presidency from China for the next two years till 2021.

• India is among the select few countries to have hosted the COP of all three Rio conventions on climate change, biodiversity and land.

87. Consider the following statements regarding ‘Red Atlas Action Plan Map’ atlas

1. It is a first of its kind ready reckoner map, prepared by Ministry of Environment, Forest and Climate Change.

2. The atlas is aimed at flood mitigation, preparedness, operations and management aspects.

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

**Solution: B**

‘**Red Atlas Action Plan Map**’ atlas and CFLOWS-Chennai

• Vice-President M Venkaiah Naidu recently unveiled the ‘**Red Atlas Action Plan Map**’ atlas and the ‘**Coastal Flood Warning System App (CFLOWS-Chennai)**’ for flood mitigation in Chennai, Tamil Nadu.

What is **Red Atlas Action Plan Map**?

• It is a first of its kind ready reckoner map, prepared by **Union Ministry of Earth Sciences** to aid state government of Tamil Nadu in effective flood mitigation in Chennai which witnessed the worst deluge in 2015.
• The atlas is aimed at flood mitigation, preparedness, operations and management aspects.

Coastal Flood Warning System app for Chennai (CFLOWS-CHENNAI):

• Launched by NIOT.
• It is India’s first integrated coastal flood warning system.
• It is an integrated GIS-based decision support system to provide forecast on potential inundation 10 days in advance.
• It will be hosted and made operational at National Centre for Coastal Research (NCCR)

88. Consider the following statements Bharat Stage VI (BS-VI) norms
1. The BS-VI fuel is estimated to bring around an 80 per cent reduction of sulphur, from 50 parts per million to 10 ppm.
2. BS VI makes on-board diagnostics (OBD) mandatory for all vehicles.

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

Solution: C

• Bharat Stage emission standards are emission standards that have been set up by the Central government to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles.
• With appropriate fuel and technology, they limit the release of air pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons, particulate matter (PM) and sulphur oxides from vehicles using internal combustion engines.
• It was introduced in 2000.
• India has been following European (Euro) emission norms, although with a time lag of five years.
• The BS IV norms had been enforced across the country since April 2017.
• In 2016, the Centre had announced that the country would skip the BS-V norms altogether and adopt BS-VI norms by 2020.
• The main difference in standards between the existing BS-IV and the new BS-VI auto fuel norms is the presence of sulphur.
• The BS-VI fuel is estimated to bring around an 80 per cent reduction of sulphur, from 50 parts per million to 10 ppm.
• The emission of NOx (nitrogen oxides) from diesel cars is also expected to come down by nearly 70 per cent and 25 per cent from cars with petrol engines.
• BS VI also makes on-board diagnostics (OBD) mandatory for all vehicles.

89. Consider the following statements regarding Mangroves for the Future (MFF)
1. It was developed by IUCN (International Union for Conservation of Nature) and the United Nations Development Programme (UNDP).
2. It is a unique partner-led initiative to promote investment in coastal ecosystem conservation for sustainable development.
3. It is an initiative exclusively for the sustainable development of mangroves.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: A

Mangroves for the Future (MFF)
• 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.
• Mangroves for the Future (MFF) is a unique partner-led initiative to promote investment in coastal ecosystem conservation for sustainable development. Co-chaired by IUCN and UNDP, MFF provides a platform for collaboration among the many different agencies, sectors and countries which are addressing challenges to coastal ecosystem and livelihood issues. The goal is to promote an integrated ocean-wide approach to coastal management and to building the resilience of ecosystem-dependent coastal communities.
• Mangroves are the flagship of the initiative, but MFF is inclusive of all types of coastal ecosystem, such as coral reefs, estuaries, lagoons, sandy beaches, sea grass and wetlands.
• Member countries: Bangladesh, Cambodia, India, Indonesia, Maldives, Myanmar, Pakistan, Seychelles, Sri Lanka, Thailand, and Viet Nam.

90. Consider the following statements regarding Central Zoo Authority
1. It was established as a statutory body under Wildlife (Protection) Act, 1972.
2. Secretary to Ministry of Environment, Forest and Climate Change is the chairperson.
3. Its main objective is to complement and strengthen the national effort in conservation of the rich biodiversity of the country.

Which of the statement above is/are correct?
(a) 1 and 2 only
(b) 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Solution: C

Central Zoo Authority
• A separate chapter, Chapter IVA contain Section 38 A to 38 J was added to the Wildlife (Protection) Act, 1972 for establishment of the Central Zoo Authority in India. Accordingly, the Central Zoo Authority was established as a statutory body under the Ministry of Environment & Forests by the Government of India in the year 1992. The Authority consists of a Chairman, ten members and a Member Secretary.
• Union Minister for Environment, Forest and Climate Change is the chairperson.
• The main objective of this Authority is to complement and strengthen the national effort in conservation of the rich biodiversity of the country, particularly the fauna as per the National Zoo Policy, 1998. Other objectives of this Authority include-enforcing minimum standards and norms for upkeep and healthcare of animals in Indian zoos and to control mushrooming of unplanned and ill-conceived zoos.
91. Consider the following statements regarding Emissions Trading Scheme (ETS)
   1. It has been launched by Ministry of Environment, Forest and Climate Change.
   2. It has been launched as per Kyoto Protocol guidelines.
   3. Various industries can buy and sell the ability to emit particulate matter, by trading permits in kilograms under this scheme.

Which of the statements given above is/are correct?

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

Solution: A

Emissions Trading Scheme (ETS):

- Launched in Surat by Gujarat Government, the Emissions Trading Scheme (ETS) is a regulatory tool that is aimed at reducing the pollution load in an area and at the same time minimising the cost of compliance for the industry.
- ETS is a market in which the traded commodity is particulate matter emissions.
- It is also being described as the world’s first market for trading in particulate matter emissions.

How is it being implemented?

- The Gujarat Pollution Control Board (GPCB) sets a cap on the total emission load from all industries.
- Various industries can buy and sell the ability to emit particulate matter, by trading permits (in kilograms) under this cap. For this reason, ETS is also called a cap-and-trade market.

Significance and benefits:

- The reason for trading is that in a cap and trade market, the regulator will measure pollution over a period of time and industries must own enough permits to cover their total emissions.
- Factories who find it very expensive to reduce pollution, will seek to buy more permits. Those who can easily reduce pollution are encouraged to do so because then they have excess permits to sell.
- Eventually, after buying and selling by plants that find it cheap to cut pollution and those for whom it is expensive, most pollution is taken care of.
Whatever the final allocation, the total number of permits does not change so the total pollution is still equal to the predefined cap. And yet the costs to industry are decreased.

92. Consider the following statements regarding Initiative on Sustainability, Stability and Security (3S)
1. It is an inter-governmental initiative that works to prevent the emerging threats linked to the depletion and mismanagement of natural resources.
2. India is a member of this initiative.

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

Solution: A

What is the Initiative on Sustainability, Stability and Security (3S) in Africa?

- It is an inter-governmental initiative that works to address the underlying causes of instability and prevent the emerging threats linked to the depletion and mismanagement of natural resources leading to chaos.
- By tackling conditions such as land degradation and scarcity, rural unemployment, insecurity of tenure and competition for resources in a joined up way, the 3S Initiative is adopting an innovative approach. The bold, innovative and ambitious approach has been widely acknowledged and welcomed by the international community.
- At the First African Action Summit (Marrakesh, 16 November 2016), the Heads of State and Government launched the initiative and committed to accelerate its implementation building on their own resources and mobilizing multilateral and bilateral donors.
- India is not a member of this initiative.

93. Consider the following statements regarding Carbon disclosure project
1. CDP Global is an international non-profit organization.
2. The CDP is a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.

Which of the statements given above is/are correct?
Carbon disclosure project

- **CDP Global** is an international non-profit organization comprising of CDP Worldwide Group and CDP North America, Inc. It is directed by a board of trustees and board of directors respectively. As an international organization, CDP receives funding support from a wide range of sources.

Vision and mission

- We want to see a thriving economy that works for people and planet in the long term. We focus investors, companies and cities on taking action to build a truly sustainable economy by measuring and understanding their environmental impact.

Carbon Disclosure Project

- The CDP India annual report has been released by **CDP (Carbon Disclosure Project) India**.
- The report examines carbon reduction activities of companies.
- India is now among the top five countries globally when it comes to adopting science-based target initiatives (SBT) with as many as 38 Indian companies in 2019 committing to going beyond policy requirements to plan urgent climate action, a significant rise from 25 firms in 2018.

About CDP:

- The CDP is a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.
- It collects and collates self-reported environmental data in the world.
- It is aimed at measuring the carbon reduction activities undertaken by different companies and firms operating in various countries across the globe.

94. Consider the following statements regarding National Technical Textiles Mission

1. Recently, the Cabinet Committee on Economic Affairs (CCEA) has approved the setting up of a National Technical Textiles Mission
2. It aims at taking domestic market size from $40 million to $50 million by 2024.
3. It had prepared four-year roadmap for robust development of the India’s textiles industry.

Which of the statements given above is/are correct?

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

**Solution: B**

**National Technical Textiles Mission:**

- The **Cabinet Committee on Economic Affairs (CCEA)** has approved the setting up of a **National Technical Textiles Mission** at a total outlay of ₹1,480 Crore.
- **Aim:** To position the country as a global leader in technical textiles and increase the use of technical textiles in the domestic market.

**Key facts:**

The Mission will be implemented for four years from 2020-2021 and will have four components:

- The first component will focus on research and development and innovation and will have an outlay of ₹1,000 crore. The research will be at both, fibre level and application-based in geo, agro, medical, sports and mobile textiles and development of bio-degradable technical textiles.
- The second component will be for promotion and development of market for technical textiles. The Mission will aim at taking domestic market size to $40 billion to $50 billion by 2024.
- The third component will focus on export promotion so that technical textile exports from the country reach from the ₹14,000 crore now to ₹20,000 crore by 2021-2022 and ensure 10% average growth every year till the Mission ends.
- The **last component will be on education, training and skill development.**
- **The Mission will aim at taking domestic market size to $40 billion to $50 billion by 2024.**
95. Which of the following species is/are part of ‘Integrated Development of Wildlife Habitats (IDWH)?

1. Dugong
2. Snow Leopard
3. Asiatic Lion
4. Great Indian Bustard

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

Solution: D
**What is Species Recovery Programme?**

- The country’s flagship and charismatic species face a variety of threats, ranging from habitat destruction and illegal wildlife trade to reduction in forest cover outside protected areas. Significant populations of these species exist outside Protected Areas moving for dispersal from their natal habitats or for seasonal migrations.

- The erstwhile *Ministry of Environment and Forest* scheme of ‘**Assistance for the Development of National Parks and Sanctuaries**’ was reformulated and renamed as ‘**Integrated Development of Wildlife Habitats (IDWH)**’ during the 11th Plan period (2007-2012). The MoEF, in consultation with Wildlife Institute of India and other scientific institutions/organizations, identified 16 terrestrial and 7 aquatic species with the objective of saving critically endangered species/ecosystems that to ensure their protection outside Protected Areas, across the wider landscape/seascape.

- **Species Recovery Plans** were prepared for several of these species. The **Lion** (Panthera leo persica) and **Rhinoceros** (Rhinoceros unicornis) populations are showing an increasing trend, and the **Sangai** (Rucervus eldii eldii) and **Hangul** (Cervus elaphus hanglu) populations are stable; but the populations of the **Great Indian bustard** (Ardeotis nigriceps) and the **Nicobar megapode** (Megapodius nicobariensis) have recorded declines. **Vulture populations**, in particular **Gyps bengalensis**, that had declined substantially in recent times have registered a small upward trend, indicating that conservation measures taken for the species are showing a positive outcome. Efforts are underway for developing protocols for monitoring the status and trends of the remaining IDWH species.

**Species under IDWH Scheme:**

- Asian Wild Buffalo
- Asiatic Lion
- Brow-Antlered Deer or Sangai
- Dugong
- Edible Nest Swiftlet
- Gangetic River Dolphin
- Great Indian Bustard
- Hangul
- Indian Rhino or Great One-horned Rhinoceros
- Jerdon’s Coursier
- Malabar Civet
- Marine Turtles
- Nicobar Megapode
- Nilgiri Tahr
- Snow Leopard
- Swamp Deer
- Vultures
96. Which of the following organisations has “Regional Anti-Terrorist Structure (RATS)” as the counter terrorism wing?

(a) North Atlantic Treaty Organisation (NATO)
(b) The South Asian Association for Regional Cooperation (SAARC)
(c) Shanghai Cooperation Organisation (SCO)
(d) East Asia Summit

Solution: C

- The Regional Anti-Terrorist Structure (RATS), headquartered in Tashkent, Uzbekistan, is a permanent organ of the SCO which serves to promote cooperation of member states against the three evils of terrorism, separatism and extremism.

97. Consider the following statements regarding Conservation reserves and community reserves

1. These are protected areas which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India.
2. These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002
3. Community areas are uninhabited and completely owned by the Government of India but used for subsistence by communities.

Which of the statements given above is/are correct?

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

Solution: A

- Conservation reserves and community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India. Such areas are designated as conservation areas if they are
uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands are privately owned.

- These protected area categories were first introduced in the *Wildlife (Protection) Amendment Act of 2002* – the amendment to the *Wildlife Protection Act of 1972*. These categories were added because of reduced protection in and around existing or proposed protected areas due to private ownership of land, and land use.

98. Consider the following pairs:

<table>
<thead>
<tr>
<th>Folk Dance</th>
<th>Related Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bardo Chham</td>
<td>Sherdukpen</td>
</tr>
<tr>
<td>2. Buiya Dance</td>
<td>Digaru Mishmis</td>
</tr>
<tr>
<td>3. Bagurumba</td>
<td>Bodo</td>
</tr>
</tbody>
</table>

Which of the pairs given above is/are correctly matched?

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

**Solution: D**

- **Bardo Chham** is performed by the Sherdukpen tribe of the West Kameng district. The dancers wear masks of 12 different animals and perform to the beats of many percussion instruments. Sherdukpen tribe believes that there are 12 different evil forces and they all appear in different months to mar the happiness of the community. The masks represent evil forces and the main objective of this art form is to ward off these evil forces. Men and women don colorful clothes before showcasing their dancing skills.

- Performed by the Digaru Mishmis of Arunachal Pradesh, **Buiya dance** is the main attraction of many tribal festivals. Women dancers stand in a straight line before commencing the act, thus paving the way for a strange formation. Men support the performance by playing different instruments like drums, gongs and cymbals.

- **Bagurumba**: The Bodo tribe of Assam practices this dance form. Usually performed by women, the dance is accompanied by instruments like drums and flutes. Since Bagurumba is believed to have been inspired from nature, it can be further classified into different dance forms – each inspired from elements of nature like animals, plants, birds, insects, water, air and so on.

https://www.culturalindia.net/indian-dance/folk-dances/north-east-india.html
99. Which of the following are the standard criteria for designation of Important Bird Areas (IBAs)?
   1. They hold significant numbers of one or more globally threatened bird species.
   2. They are one of a set of sites that together hold a suite of restricted-range species or biome-restricted species.
   3. They have exceptionally large numbers of migratory or congregatory birds.

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

**Solution: D**

**What is Important Bird Areas (IBAs)**

Birds are excellent indicators of ecosystem health. The [IBA programme of Birdlife International](http://www.birdlife.org) aims to identify, monitor and protect a global network of IBAs for conservation of the world’s birds and associated biodiversity. The IBAs serve as conservation areas for protection of birds at the global, regional or sub-regional level. According to Birdlife International, designation of IBAs is based on standardized criteria, namely

1. hold significant numbers of one or more globally threatened bird species,
2. be one of a set of sites that together hold a suite of restricted-range species or biome-restricted species and
3. have exceptionally large numbers of migratory or congregatory birds.

The IBAs contain a range of habitats, such as wetlands, mudflats, microhabitats in biodiversity hotspots, grasslands and scrublands, making them excellent indicators of biodiversity richness ([India’s 5th National Report to the Convention on Biological Diversity, 2014](http://www.moi.gov.in)). The Bombay Natural History Society (BNHS; [http://www.bnhs.org](http://www.bnhs.org)) and Birdlife International have identified 467 IBAs in India (Islam and Rahmani, 2004). Forty percent of these IBAs fall outside the PA network and thus form an important tool for landscape-level conservation planning. BNHS has also prepared a list of 96 new/potential sites which can be designated as IBAs in the future.
100. Which of the following National Park has been designated as mixed site in the list of UNESCO’s World Heritage sites?

(a) Sunderbans  
(b) Nandadevi  
(c) Manas  
(d) Khangchendzonga

**Solution: D**

**Khangchendzonga National Park (KNP), Sikkim** has been inscribed as India’s first “Mixed World Heritage Site” on UNESCO World Heritage List, by fulfilling the nomination criteria under both natural and cultural heritage. The 40th Session of the UNESCO World Heritage Committee, at a meeting in Istanbul, Turkey, granted approval for the inscription of India’s on the coveted UNESCO World Heritage List.

- The KNP exhibits one of the widest altitudinal ranges of any protected area worldwide. The Park has an extraordinary vertical sweep of over 7 kilometres (1,220m to 8,586m) within an area of only 178,400 ha and comprises a unique diversity of lowlands, steep-sided valleys and spectacular snow-clad mountains including the world’s third highest peak, Mt. Khangchendzonga. Numerous lakes and glaciers, including the 26 km long Zemu Glacier, dot the barren high altitudes.
- The KNP is home to a significant number of endemic, rare and threatened plant and animal species and has the highest number of plant and mammal species recorded in the Central/High Asian Mountains, except compared to the Three Parallel Rivers of Yunnan Protected Areas, in China; and also has a high number of bird species.
- The cultural significance of KNP is portrayed by two main different facets: firstly, the notion of beyul or hidden sacred land, which extends to all of Sikkim, but has its heart in the territory of Khangchendzonga National Park, is important in Tibetan Buddhism, not only intrinsic to Sikkim, but in the neighbouring countries and beyond – that is to say, KNP is home to a sacred site of one of the world’s leading religious traditions; secondly, the multi-layered sacred landscape of Khangchendzonga and the cultural and religious relevance of the hidden land (beyul in Tibetan Buddhism and Mayel Lyang, in Lepcha tradition) is specific to Sikkim and is a unique example of co-existence and exchange between different religious traditions and people.

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thnx insight nd team for all ur motivation,

Nd m a person with very weak immune system nd multiple organ disfunctioning, prone to minor weather nd circumstances changes, facing all these tantrums since 2009, so m habitual to breaks in routine nd planning again nd again, nd dont knw whether this spiral hve END or not,,,, so i always do my best with my circumstances without any complaint, bcoz this hs become a reality of my lyf nd i cnt escape from it whether being in my hometown or in Lbasna or at any other place with any other work than study, i'll be back to slightly normal routine of study perhaps from 14 or at max 15 april,,bcoz these dayz having some neuro nd eye issues so cant read more thn 10 to 15 minute in one shot,,,,nd yes i really want to end this journey as happy as well story,, BE WITH ME TILL THE END, I REALLY NEED YOUR SUPPORT ND GUIDANCE, THNKU TEAM

Sonali Palkar

Thank you so much Sir. Your review is most important part of my preparation.

In fact, whatever positive improvements seems in me till today is only because of you team Insights. Whole team Insights are really doing great work, not only designing best test everyday to us but also pushing us towards our goal. And telling about perseverance is only because of your teaching how to stay with our goal at any situation. Proud to be an Insightian.

Thanks again. 😊

http://disq.us/p/28l4yy

Rurmita

@ insights

Thank you so much for your appreciating words .. I'm thinking to continue my dance after mains I really love to dance ...and all your suggestions is added to my list ...from Day 1 getting 46.67% to Day 30 getting 70% accuracy I really tried hard learning from my mistakes and others too..and insights your suggestions really helped me to keep me moving...😊 thank you and loads of respect to the Team and all of your selfless efforts..

RamadeviChelliah

Thank you Insights...I will recover soon...and I never want to give up my commitment and passion of my dream...I ll work with perseverance...more harder...thank you Insights for such a beautiful message today... I too saw the strong and commitment of that lady bureaucrat who wanted to do good to people in situations...It is really great right...I will never give up on my passion... insights Thank you again... I ll be good soon
**Poonam yadav**

I'm happy that today I got soo many questions correct. Just through logic and intuition ....n I need to put more focus on important committee s and env. Bodies ...thanks insights ....biggest advantage of Insta is that I m learning new tactics to apply in a question n get the right answer ....it's been „,31 days of Insta n I feel so confident in attempting questions ...although I got only 8marks yesterday ....I thought that art n culture is daunting for 99% aspirants n I should not be worried about that...your advice of culture topics maps is very nice n I've downloaded some of them n would revise them daily ...also maps of national parks sanctuaries ..... thanks insights sooooooo much🙏

**Runjhun**

I am! Thank you for these tests. :) I get uneasy if I don’t solve them within 24 hours of being posted and making notes.

It's reassuring that @Insights is the only constant thing in a time like this. Thank you!

http://disq.us/p/28mtksp