



# IAS PARLIAMENT

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A Shankar IAS Academy Initiative

## MONTHLY PRESTORMING

### NOVEMBER 2020

**Shankar IAS Academy™**

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**02-11-2020**

**1) 16 Psyche, often seen in the news recently, is?**

- An asteroid which orbits between Mars and Jupiter
- An awareness movie launched by the Ministry of Culture
- A movement launched by the Ministry of Sports to maintain the physical health
- None of the above

b. 1 and 3 only

c. 2 and 3 only

d. 1, 2 and 3

**2) Consider the following statements with respect to Surinsar & Mansar Lakes**

- Surinsar lake is rain-fed without permanent discharge whereas the Mansar is primarily fed by surface runoff.
- Surinsar-Mansar Lake is one of the Ramsar Sites designated as Wetlands of International importance located in Jammu & Kashmir.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**3) Consider the following statements with respect to Nitrogen oxides (NO<sub>x</sub>)**

- They are poisonous gases derived from nitrogen and oxygen combustion under low pressure and temperatures.
- NO<sub>x</sub> can be produced both by Natural & Anthropogenic activity.
- Nitrogen Dioxide (NO<sub>2</sub>) is one among the NO<sub>x</sub> Gas that reacts in the atmosphere to form ozone (O<sub>3</sub>) and acid rain.

**Which of the statements given above are correct?**

- 1 and 2 only

**4) Strategic Policy & Facilitation Bureau (SPFB) was recently established by?**

- Ministry of AYUSH
- Ministry of Defence
- Ministry of Home Affairs
- Ministry of Health & Family Welfare

**5) With reference to the "Law Commission of India", consider the following statements:**

- The Law Commission of India is a non-statutory and advisory body.
- It is established by an order of the Central Government for every 5 years.
- Its function is to recommend the legislative measures for the purpose of consolidation and codification of laws.
- Its recommendations are binding on the government.

**Which of the statements given above is/are correct?**

- 1, 2 and 3 only
- 1, 3 and 4 only
- 1 and 3 only
- 1, 2, 3 and 4

## Answers

1. a

- A recent study has found that **asteroid 16 Psyche**, which orbits between Mars and Jupiter, could be made entirely of metal and is worth an estimated \$10,000 quadrillion — more than the entire economy of Earth.
- Asteroid 16 Psyche's surface may mostly comprise iron and nickel, similar to the Earth's core.
- In fact, scientists believe that the asteroid may be the leftover core of an earlier planet that



*lost its crust and mantle after multiple collisions during the creation of our solar system.*

### **Asteroid 16 Psyche**

- Located around 370 million kilometres away from Earth, asteroid 16 Psyche is one of the most massive objects in the asteroid belt in our solar system.
- The somewhat potato-shaped asteroid has a diameter of around 140 miles, according to NASA.
- It was first discovered on March 17, 1853, by the Italian astronomer Annibale de Gasparis and was named after the ancient Greek goddess of the soul, Psyche.
- Unlike most asteroids that are made up of rocks or ice, scientists believe that Psyche is a dense and largely metallic object thought to be the core of an earlier planet that failed in formation.

2. c

- *Union government has recently inaugurated the Mansar Lake Development Plan in Jammu and Kashmir.*
- *The project is eyed to attract almost 20 lakh tourists every year and create employment for 1.15 crore man-days with an income generation of Rs.800 crore per year.*

### **Mansar Lake Development Plan**

- Surinsar Lake and Mansar Lake are considered to be twin lakes.
- Surinsar is rain-fed without permanent discharge, and Mansar is primarily fed by surface runoff and partially by mineralized water through paddy fields, with inflow increasing in the rainy season.
- Mansar is of immense importance from Pilgrimage as well Heritage point of view beyond being the most scenic attraction due to vast Mansar Lake and its flora and fauna.
- It is one of the 26 Ramsar Sites designated as Wetlands of International importance located in Jammu & Kashmir.
- The Surinsar Mansar Wildlife Sanctuary is nestled in the midst of both the lakes.

- The site is socially and culturally very important with many temples around owing to its mythical origin from the Mahabharata period.

3. c

- *Recently Union Ministry of Environment, Forest and Climate Change (MoEF&CC) has relaxed NOx emission norms.*
- It has been relaxed to 450 mg / Nm<sup>3</sup>, from 300 mg / Nm<sup>3</sup>, for power stations commissioned between 2003 and 2015.
- The relaxations were brought about as the power sector strongly lobbied watering down the norms, alleging it was not possible to meet the 300 mg / Nm<sup>3</sup> standard at all loads.
- Boiler companies assured government that a NOx emission level of 450 mg / Nm<sup>3</sup> can be achieved by combustion modification.
- To meet emissions below it would mean installation of slightly expensive pollution control equipment like selective non-catalytic reactors (SNCR) will be required.

### **Nitrogen oxides (NOx)**

- They are poisonous gases derived from nitrogen and oxygen combustion under high pressure and temperatures.
- NOx is composed of nitric oxide (NO), and a smaller percentage of more poisonous nitrogen dioxide (NO<sub>2</sub>).

### **Man-made Source**

- Fossil-fuel burning is by far the main man-made source.
- Other sources includes industrial processes like power generation and cement-making.

### **Natural sources**

- It includes bacterial activity, volcanic outbursts and lightning.

### **Nitrogen Dioxide (NO<sub>2</sub>)**

- NOx represent a family of seven compounds.
- NO<sub>2</sub> is one of a group of highly reactive gases known as oxides of nitrogen or nitrogen oxides (NOx).
- Other nitrogen oxides include nitrous acid and nitric acid.

- NO<sub>2</sub> is an important air pollutant and it reacts in the atmosphere to form ozone (O<sub>3</sub>) and acid rain.
- NO<sub>2</sub> is used as the indicator for the larger group of nitrogen oxides.
- NO<sub>2</sub> primarily gets in the air from the burning of fuel.
- NO<sub>2</sub> forms from emissions from cars, trucks and buses, power plants, and off-road equipment.

4. a

- **Union Ministry of AYUSH and M/s Invest India** will form a collaboration to set up a strategic policy unit called "Strategic Policy & Facilitation Bureau (SPFB)".
- It aims to facilitate planned and systematic growth of the Ayush Sector.
- This Bureau will support the Ministry in strategic and policy making initiatives that shall help pave the way to reach the full potential of the Sector and stimulate growth and investment.

The activities to be undertaken by the SPFB would include :

1. Knowledge Creation and Management,
  2. Strategic & Policy-Making Support,
  3. State Policy Bench marking,
  4. Investment Facilitation,
  5. Issue Resolution.
- The Ministry of AYUSH would assist the Bureau in responding to investment proposal, issue and queries and fund Invest India for undertaking activities assigned.
  - The Ministry will also support the Bureau in building links with various stakeholders such as industry associations, affiliate bodies of Ministry and Industry representation.

5. c

- The Law Commission of India is a non-statutory advisory body.
- It is established by an order of the Central Government from time to time for a 3 years period.

- Its function is to recommend the legislative measures for the purpose of consolidation and codification of laws.
- Its recommendations are not binding on the government.

**03-11-2020**

**1) MALABAR 2020 is a multilateral maritime exercise to be held between which of the following countries?**

1. India
2. Japan
3. Australia
4. South Korea
5. United States of America

**Select the correct answer using the codes given below:**

- a. All except 4
- b. All except 2 and 4
- c. All except 3 and 4
- d. All of the above

**2) Mission Sagar – II, sometimes seen in the news recently, is associated with?**

- a. Internal Water Way Development
- b. Assistance to Friendly Foreign Countries
- c. Port Modernization & New Port Development
- d. None of the above

**3) Guru Ram Das, sometimes seen in the news recently, was associated with?**

- a. Jainism
- b. Sikhism
- c. Buddhism
- d. Zoroastrianism

**4) Consider the following statements with respect to Maharani Jindan Kaur**



1. Born into a royal family, she gave up her princely comforts by responding to the Gandhian call.
2. She laid the foundation of the All India Institute of Medical Sciences (AIIMS) and Lady Irwin College in Delhi.

Which of the statement(s) given above is/are correct?

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

5) **Water Risk Filter Report** was recently published by?

- a. Green Peace International
- b. World Wide Fund for Nature (WWF)
- c. International Union for Conservation of Nature (IUCN)
- d. None of the above

## Answers

1. a

- The 24th edition of the MALABAR naval exercise is scheduled in two phases in November 2020.
- Phase 1 of the Exercise MALABAR 20 involving participation by **Indian Navy (IN), United States Navy (USN), Japan Maritime Self Defence Force (JMSDF), and Royal Australian Navy (RAN)** is set to commence off Visakhapatnam in Bay of Bengal from 03 to 06 November 2020.
- Phase 2 of MALABAR 20 is scheduled to be conducted in the Arabian Sea in mid-November 2020.

### MALABAR Exercise

- It is a series of maritime exercises commenced in 1992 as a bilateral IN-USN exercise.
- JMSDF joined MALABAR in 2015.

- The 2020 edition will now witness participation of the RAN in this joint maritime exercise.

2. b

- As part of 'Mission Sagar-II', Indian Naval Ship Airavat entered Port Sudan on 02 November 2020.
- The Government of India is providing assistance to Friendly Foreign Countries to overcome natural calamities and COVID-19 pandemic, and towards the same INS Airavat is carrying a consignment of 100 Tonnes of food aid for the people of Sudan.
- Mission Sagar-II, follows the first 'Mission Sagar' undertaken in May-June 2020, wherein India reached out to Maldives, Mauritius, Seychelles, Madagascar and Comoros, and provided food aid and medicines.
- As part of Mission Sagar-II, Indian Naval Ship Airavat will deliver food aid to Sudan, South Sudan, Djibouti and Eritrea.

### Mission Sagar-II

- It is in line with the Prime Minister's vision of Security and Growth for All in the Region 'SAGAR' and highlights the importance accorded by India to relations with her maritime neighbours and further strengthens the existing bond.
- The Indian Navy is progressing this mission in close coordination with the Ministries of Defence and External Affairs, and other agencies of the Government of India.

3. b

### Guru Ram Das

- Guru Ram Das was the fourth of the ten Gurus of **Sikhism**, he lived between 1534 – 1581.
- His birth name was Jetha, he became the Guru of Sikhism in 1574 and served as the Sikh leader until his death in 1581.
- He appointed his own son as his successor, and unlike the first four Gurus who were not related through descent, the fifth through tenth Sikh Gurus were the direct descendants of Ram Das.
- Guru Ram Das is credited with founding the holy city of Amritsar in the Sikh tradition.



- He shifted his official base to lands identified by Guru Amar Das as Guru-ka-Chak.
- This newly founded town was eponymous Ramdaspur, later to evolve and get renamed as Amritsar.
- While Guru Amar Das introduced the manji system of religious organization, Ram Das extended it with adding the masand institution.
- The masand were Sikh community leaders who lived far from the Guru, but acted to lead the distant congregations, their mutual interactions and collect revenue for Sikh activities and temple building.

4. d

- *Recently some of the jewellery used by Maharani Jindan Kaur were auctioned in London.*

#### **Maharani Jindan Kaur**

- Maharani Jindan Kaur was the youngest wife of Maharaja Ranjit Singh, founder of the Sikh empire, whose boundaries stretched from Kabul to Kashmir and the borders of Delhi.
- She was also the mother of Maharaja Duleep Singh, the last ruler of the empire, who was raised by the British.
- Duleep Singh was five years old when he was placed on the throne in 1843 after the death of two heirs to Maharaja Ranjit Singh.
- Since he was just a child, Maharani Jindan was made the regent.
- She took an active interest in running the kingdom, introducing changes in the revenue system.
- As the only surviving widow of Ranjit Singh, Jindan Kaur led a spirited resistance to the encroachment of the British into the Punjab, but was eventually forced to surrender.

#### **Rajkumari Amrit Kaur**

- The Statements given in the question describes about **Rajkumari Amrit Kaur**.
- She was the first woman in independent India who joined the Cabinet as the Health Minister and remained in that position for 10 years.

- Before taking up the position of a Health Minister, Kaur was Mahatma Gandhi's secretary.
- During these 10 years, she founded the Indian Council for Child Welfare.
- She also laid the foundation of the All India Institute of Medical Sciences (AIIMS) and Lady Irwin College in Delhi in the following years.

5. b

- *Nearly a third of the 100 cities in the world susceptible to 'water risk' — defined as losses from battling droughts to flooding — are in India, according to the WWF Water Risk Filter Report.*

#### **Water Risk Filter**

- It is an online tool, co-developed by the World Wide Fund for Nature that helps evaluate the severity of risk places faced by graphically illustrating various factors that can contribute to water risk.
- Jaipur topped the list of Indian cities, followed by Indore and Thane.
- Mumbai, Kolkata and Delhi also featured on the list.
- The global list includes cities such as Beijing, Jakarta, Johannesburg, Istanbul, Hong Kong, Mecca and Rio de Janeiro.
- China accounts for almost half the cities.
- According to the scenarios in the WWF Water Risk Filter, the 100 cities that are expected to suffer the greatest rise in water risk by 2050 are home to at least 350 million people as well as nationally and globally important economies.
- Globally, populations in areas of high-water risk could rise from 17% in 2020 to 51% by 2050.

#### **World Wide Fund for Nature (WWF)**

- WWF stands for World Wide Fund for Nature.
- It was originally known as the World Wildlife Fund, but in 1986 it was changed to highlight the full scope of its work.
- However, the United States and Canada still retain the old name.

**04-11-2020**

1) Consider the following statements with respect to the **13th Urban Mobility India (UMI) Conference**

1. It is being organized by the Ministry of Housing and Urban Affairs.
2. The main theme of this year's event is "Accessible and Liveable Cities".

Which of the statement(s) given above is/are correct?

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

2) Consider the following statements with respect to **COVID-19 Shri Shakti Challenge**

1. The aim of this event is to address issues faced by the elderly in the society during pandemics through startups.
2. It was organized by MyGov in collaboration with UN Women.

Which of the statement(s) given above is/are correct?

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

3) **Justice B P Katakay Committee** was constituted to investigate Assam oil field fire incident by which of the following organisations?

- a. Supreme Court of India
- b. National Green Tribunal
- c. Ministry of Environment, Forest & Climate Change
- d. Parliamentary Committee on Petroleum and Natural Gas

4) Consider the following statements with respect to **National Monsoon Mission**

1. It aims to develop a state-of-the-art, dynamic monsoon prediction system for short, medium, and long-range forecasts.
2. It was launched by the Ministry of Earth Sciences (MoES) in 2012.

Which of the statement(s) given above is/are correct?

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

5) **Mallakhamb**, often seen in the news recently, refers to?

- a. A tax system based on the cattle wealth
- b. An Ancient Sport played against gravity
- c. A flower species that blossoms only once in 12 years
- d. None of the above

## Answers

1. a

### Urban Mobility India (UMI) Conference

- The 13th Urban Mobility India (UMI) Conference is being organized by the Ministry of Housing and Urban Affairs on 9th November 2020.
- The day-long Conference will be held on-line through Video Conference/Webinar.
- The main theme of this year's event is "**Emerging Trends in Urban Mobility**" with focus on innovative measures taken at national and international level to address the challenges posed by Covid-19 pandemic to provide accessible and convenient transport to the people.
- Till date, 12 events have been organized.

### 12th Urban Mobility India Conference





- The 12th Urban Mobility India (UMI) Conference was held from 15th to 17th November, 2019 at the Indira Gandhi Pratishthan, Lucknow.
- The theme of the conference was “Accessible and Liveable Cities”.

2. b

- *Six women led startups have won COVID-19 Shri Shakti Challenge.*
- The COVID-19 Shri Shakti Challenge was launched by MyGov in collaboration with UN Women in April 2020.
- It was launched with an objective **to encourage and involve women led startups** to come up with innovative solutions that can help in the fight against COVID19 or **solve problems that impact a large number of women.**
- The Challenge was implemented in two stages: Ideation stage and Proof of Concept (PoC) Stage.

3. b

- *The Baghjan oilfield, along with 26 oil wells in Assam was operating without mandatory environmental clearances when one of the wells experienced a blowout May 27, 2020, followed by a fire, a National Green Tribunal (NGT) committee said recently.*
- NGT's principal bench headed by AK Goel, constituted a committee led by former Judge BP Katakey in June, 2020 to investigate the cause and the impact of the blowout.
- The blowout site, located next to the Dibru Saikhowa National Park (DSNP) in Tinsukia district, has been burning for 160 days.
- It continues to impact an area of 10 kilometres around the controversial Baghjan 5 oil and gas rig.
- This was after Kolkata-based activist, Bonani Kakkar and Wildlife and Environment Conservation Organization, an Assam-based non-profit, approached the tribunal.
- On November 3, Judge Katakey submitted a status report on the ongoing investigation into the cause and impact of the blowout.

- The committee has recommended payment of Rs 25 Lakh to 173 families and Rs 20 lakh to 439 families identified by the district administration.

4. c

- *A report was recently published by the National Council of Applied Economic Research (NCAER).*
- NCAER is an independent, not for profit, economic policy research and think tank based in New Delhi.
- According to the report, for every rupee spent by the government on the National Monsoon Mission and High-performance Computing programs of the Ministry of Earth Sciences (MoES), the country would gain economic benefits worth fifty rupees, which is 50 times more benefit on the investment over the next five years period.

#### **National Monsoon Mission**

- It was launched by **Ministry of Earth Sciences (MoES)** in 2012.
- It aims to develop a state-of-the-art, dynamic monsoon prediction system for short, medium, and long-range forecasts.
- The augmentation of the National Monsoon Mission with High-performance Computing facilities has helped the country in achieving a paradigm shift in weather and climate modeling for operational weather forecasts.

5. b

- *PM has recently mentioned about this game in his “Mann Ki Baat” Program.*

#### **Mallakhamb**

- Mallakhamb is one of the few ancient games that is played against gravity.
- The origin of this ancient Indian sport can be traced to earlier part of the 12th century.
- A mention of wrestlers exercising on wooden poles is found in the Manasholas, written by Chalukya, in 1153 AD.
- It was revived late in the 19th century by Balambhatta Dada Deodhar, physical instructor to Bajirao Peshwa II.



- The word malla means a wrestler or an athlete in Sanskrit and can also indicate a verb, such as strong or good.
- Khamb or kham, in spoken Marathi, means a pole.
- Therefore, Mallakhamb has come to be known as wrestling against a pole.
- It functions on a synergy of mind and body, employing every muscle in a way that enables a person to develop speed, stamina and better health.
- In recent times Mallakhamb has developed an identity that is separate from wrestling or kushti.
- There are two other Mallakhamb styles such as 'rope mallakhamb' and 'hanging mallakhamb'.

**05-11-2020**

**1) Which of the following is not an objective of PRASHAD Scheme?**

- Rejuvenation and spiritual augmentation of important national/ global pilgrimage destinations
- Preserve the character of the soul of heritage city and facilitate inclusive heritage linked urban development
- Creating awareness among the local communities about the importance of tourism for them in terms of increase in sources of income, improved living standards and overall development of the area
- Promote heritage in the form heritage structures especially under integrated tourism development of heritage city, local arts, culture, handicrafts, cuisine, etc., to generate livelihood in the identified places

**2) Luhri Stage-I Hydro Electric Project is located on which of the following rivers?**

- R. Lohit
- R. Satluj
- R. Subansiri
- R. Sabarmati

**3) Shashi S Vempati Committee, sometimes seen in the news recently, was constituted for which of the following purposes?**

- To restrict pornographic content in Social Media
- To review guidelines on Television Rating Agencies in India
- To suggest censorship guidelines for TV Serials and Web Series
- To recommend repeal of redundant and obsolete laws in India

**4) Consider the following statements with respect to PINAKA Rocket System**

- It is a Multi barrel Rocket Launch System (MLRS) with range from 60 to 90 kilometres.
- It was developed by Defence Research and Development Organisation (DRDO) in collaboration with Russia's Rosoboronexport.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**5) Consider the following statements with respect to Char-chaporis**

- They are shifting riverine islands of the River Brahmaputra.
- They are primarily inhabited by the Muslims of Bengali-origin migrated to Assam.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

## Answers

1. b

### **National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD)**

- It was launched by the Ministry of Tourism in the year 2014-15 with the objective of integrated development of identified pilgrimage and heritage destinations.
- The scheme aimed at infrastructure development such as entry points (Road, Rail and Water Transport), last mile connectivity, basic tourism facilities, etc.

### **HRIDAY Scheme**

- The main objective of HRIDAY Scheme is to preserve character of the soul of heritage city and facilitate inclusive heritage linked urban development by exploring various avenues including involving private sector.

2. b

- *The Cabinet Committee on Economic Affairs chaired by Prime Minister Shri Narendra Modi has recently approved the investment of Rs.1810.56 crore for 210 MW Luhri Stage-I Hydro Electric Project.*

### **Luhri Stage-I Hydro Electric Project**

- It is located on river Satluj which is situated in Shimla & Kullu districts of Himachal Pradesh.
- This project will generate 758.20 million units of electricity annually.
- This project is being implemented by Satluj Jal Vidyut Nigam Limited (SJVN) on Build-Own-Operate-Maintain (BOOM) basis with active support from Government of India and State Government.
- The power generated from the Project will help in providing Grid stability and will improve the power supply position.
- Besides adding valuable renewable energy to the Grid, the project would also lead to reduction of 6.1 lakh Tons of carbon dioxide from environment annually, thus contributing to improvement in air quality.

3. b

- *Ministry of Information and Broadcasting has recently constituted a committee to review “Guidelines on Television Rating Agencies in India” notified by the Ministry in 2014.*

- The present guidelines issued by the Ministry of Information and Broadcasting (MIB) on Television Rating Agencies in India were notified after detailed deliberations by the Parliamentary Committee, Committee on Television Rating Points (TRP) constituted by the MIB and recommendations of Telecom Regulatory Authority etc.

- It has been found that there is a need to have a fresh look on the guidelines particularly keeping in view the recent recommendations of Telecom Regulatory Authority of India (TRAI), technological advancements / interventions to address the system and further strengthening of the procedures for a credible and transparent rating system.

- A committee has been hereby constituted to study different aspects of the television rating system in India as they have evolved over a period of time.

- The Committee shall carry out an appraisal of the existing system; examine TRAI recommendations notified from time to time, overall industry scenario and addressing the needs of the stakeholders and make recommendations for robust, transparent and accountable rating system through changes, if any, in the existing guidelines.

- The Committee will be chaired by **Shri Shashi S. Vempati**, CEO, Prasar Bharti.

4. a

- *India has successfully flight-tested the enhanced version of Pinaka multi-barrel rocket system (MRLS).*

- It was indigenously developed by the **Defence Research and Development Organisation (DRDO)**.

- The enhanced Pinaka along with guidance Pinaka will cover the range between **60 to 90 kilometres** and will be deployed by the Indian Army.



- The test-flight was carried out from Integrated Test Range (ITR) in Chandipur, off the coast of Odisha.
- The DRDO said that this new rocket system has a longer range with reduced length compared to the earlier variant (Mk-1), which will now be phased out.
- The design and development has been carried out by Pune-based laboratories of DRDO, Armament Research & Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL).

5. c

- *Months ahead of the Assembly elections, a proposed "Miya museum" reflecting the "culture and heritage of the people living in char-chaporis" has stirred up a controversy in Assam.*

### Miyas

- The 'Miya' community comprises descendants of Muslim migrants from East Bengal (now Bangladesh) to Assam.
- They came to be referred to as 'Miyas', often in a derogatory manner.
- The community migrated in several waves — starting with the British annexation of Assam in 1826, and continuing into Partition and the 1971 Bangladesh Liberation War — and have resulted in changes in demographic composition of the region.
- Years of discontent among the indigenous people led to the six-year-long (1979-85) anti-foreigner Assam Agitation to weed out the "illegal immigrant", who was perceived as trying to take over jobs, language and culture of the indigenous population.

### Char-chaporis

- A char is a floating island while chaporis are low-lying flood-prone riverbanks.
- "They are used interchangeably or with a hyphen..."
- They keep changing shapes — a char can become a chapori, or vice versa, depending on the push and pull of the Brahmaputra.
- While Bengali-origin Muslims primarily occupy these islands, other communities such

as Misings, Deoris, Kocharis, Nepalis also live here.

**06-11-2020**

**1) Consider the following statements with respect to Fast Radio Bursts (FRBs)**

1. They are bright bursts of micro waves which are difficult to detect.
2. No FRBs are seen in the Milky Way galaxy so far.

**Which of the statement(s) given above is/are correct?**

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

**2) Consider the following statements with respect to Gurdwara Kartarpur Sahib**

1. It is located in Pakistan across the river Ravi.
2. It is the final resting place of Sikh faith's founder Guru Nanak Dev.

**Which of the statement(s) given above is/are correct?**

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

**3) Moto Tunnel, often seen in the news recently, is located in?**

- a. Italy
- b. Pakistan
- c. Turkey
- d. Australia

**4) Consider the following statements with respect to Mizoram**

1. Mizoram was a part of Assam until it became a full-fledged state in 1972.
2. River Kaladan passes through the state of Mizoram.

Which of the statement(s) given above is/are correct?

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

5) Which part of the human eye becomes wider in the dark and narrower in light?

- a. Cornea
- b. Iris
- c. Pupil
- d. Ciliary Muscle

## Answers

1. d

- NASA has recently reported that on April 28, it observed a mix of X-ray and radio signals never observed before in the Milky Way.
- Significantly, the flare-up it observed included the fast radio burst (FRB) seen within the Milky Way galaxy.
- It is the first fast radio burst ever seen from within our Milky Way galaxy.
- **Previously, FRBs were only seen in other galaxies.**

### Fast Radio Bursts (FRBs)

- The first FRB was discovered in 2007, since when scientists have been working towards finding the source of their origin.
- Essentially, FRBs are bright bursts of **radio waves** (radio waves can be produced by astronomical objects with changing magnetic fields) whose durations lie in the millisecond-scale, because of which it is **difficult to detect** them and **determine their position in the sky**.

- The source of the FRB detected in April in the Milky Way is a very powerful magnetic neutron star, referred to as a magnetar, called SGR 1935+2154 or SGR 1935, which is located in the constellation Vulpecula and is estimated to be between 14,000-41,000 light-years away.

### Magnetar

- According to NASA, a Magnetar is a neutron star, "the crushed, city-size remains of a star many times more massive than our Sun."
- The magnetic field of such a star is very powerful, which can be over 10 trillion times stronger than a refrigerator magnet and up to a thousand times stronger than a typical neutron star's.

### Neutron stars

- They are formed when the core of a massive star undergoes gravitational collapse when it reaches the end of its life.
- This results in the matter being so tightly packed that even a sugar-cube sized amount of material taken from such a star weighs more than 1 billion tons, which is about the same as the weight of Mount Everest, according to NASA.
- Magnetars are a subclass of these neutrons and occasionally release flares with more energy in a fraction of a second than the Sun is capable of emitting in tens of thousands of years.

2. c

- *The Pakistan government's decision to transfer the management and administrative control of the Gurdwara Darbar Sahib in Kartarpur from a Sikh body — Pakistan Sikh Gurudwara Prabhandhak Committee (PSGPC) — to a trust under the Evacuee Trust Property Board, a non-Sikh body, has inviting sharp reactions from India, which termed the move "highly condemnable" and against the spirit of the Kartarpur Corridor.*

### Gurdwara Darbar Sahib

- It is also known as Gurdwara Kartarpur Sahib.
- It is located in Pakistan's Narowal district across **River Ravi**, about five kilometres from the Dera Baba Nanak shrine in India's Punjab.
- **Guru Nanak Dev**, the first Sikh Guru had arrived in Kartarpur between 1520 and 1522,



as per historians, and spent the last 18 years of his life there.

- ***It was in Kararpur that he laid the foundations of a Sikh religion.***
  - ***At his final resting place stands the gurdwara.***
  - It was one of the most significant historical and spiritual place for Sikhs till 1947.
  - Following the partition, no Sikh was left to take care of the gurdwara, which slowly turned into ruins and at one point of time was also used as a shelter by smugglers.
  - One such person smuggled the Bir of Guru Granth Sahib left behind in the gurdwara and brought it back to east Punjab in late 60s.
  - Pakistan government restored the main building of the gurdwara in 2004, after about decade-long repair works.
  - The Kartarpur Corridor was finally thrown open in 2019 with the two sides agreeing on visa-free travel for Indian pilgrims to the shrine.
3. b
- *Recently, Pakistan's Ministry of Climate Change opened the 129-year-old Moto Tunnel for tourists after its revival.*

#### **Moto Tunnel**

- It is a British-era architectural marvel.
- The tunnel since decades was lying closed, buried under the heaps of trash and filth.
- It has been 'restored to its original glory from trash to treasure,' the Pakistan government said.
- The 250-feet long, 6-feet high and 4-feet wide tunnel carved out of stones and clay, is part of the longer 'nature pipeline walk' (a walk through the forests) in the Ayubia National Park of Khyber Pakhtunkhwa province in Pakistan.
- Located close to Ayubia is Murree, a small and famous hill town since British era in Galyat region (extending on both sides of Khyber Pakhtunkhwa and Punjab provincial border of Pakistan).

- The Galyat region is known among tourists for its hill towns and nature walk tracks through the forests.
- The tunnel has a stone mark atop with '1891' carved on it, indicating the year it was built by the British.

4. b

- *The Assam government accused Mizoram of occupying Assam's land near the 164.6 km inter-State border.*
- Assam's Forest Minister Parimal Suklabaidya said the people of Mizoram had occupied up to 1.5 km from the border.
- Trouble on the Assam-Mizoram border had flared up on October 17 after 20 houses and shops were burnt and some 50 people from both States were injured.

#### **Mizoram**

- Mizoram was a part of Assam until ***it became a Union Territory in 1972 and a State in 1987.***
- The border is not clearly demarcated and structures built by people of one State on the other side of the perceived boundary are often demolished leading to tension.

5. c

**07-11-2020**

**1) Consider the following statements with respect to North Indian Ocean**

- 1. Bay of Bengal and the Arabian Sea are together known as the North Indian Ocean.**
- 2. Cyclones in the North Indian Ocean are bi-modal in nature, occurs during April to June and October to December.**

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2



2) Consider the following statements with respect to *EOS-01 Satellite*

1. It is similar to the Radar Imaging Satellite (RISAT) and uses synthetic aperture radars to produce high-resolution images of the land.
2. It is intended for applications in both military and civilian purposes.

Which of the statement(s) given above is/are correct?

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

3) Consider the following statements with respect to *Gulf of Khambhat*

1. It is a tidal regime in the Arabian Sea formed at the mouth of major rivers Tapti, Narmada, Mahi, Sabarmati that form estuaries along the west coast.
2. It comprises mangroves, estuaries, creeks, and vast intertidal mudflats.

Which of the statement(s) given above is/are correct?

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

4) Consider the following statements with respect to *National Water Awards (NWAs)*

1. The award was presented by the Union Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation.
2. Maharashtra bagged the first place under the 'Best State' category under the National Water Awards (NWAs) 2019.

Which of the statement(s) given above is/are correct?

- a. 1 only

- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

5) *Tigray Region*, sometimes seen in the news recently, is located in?

- a. Eritrea
- b. Somalia
- c. Ethiopia
- d. Djibouti

## Answers

1. c

- October to December period is among the favourable months for the development of cyclones in the Bay of Bengal and the Arabian Sea.
- This year, however, October passed without witnessing a cyclonic storm.

## Cyclones in North Indian Ocean

- About 80 cyclones are formed around the world annually, out of which five are formed in the Bay of Bengal and the Arabian Sea, together known as the North Indian Ocean.
- India's east and west coasts are prone to cyclones with the maximum associated hazards—rain, heavy winds and storm surge—faced by coastal districts of West Bengal, Odisha and Andhra Pradesh.
- Cyclones in the North Indian Ocean are bi-modal in nature, that is, they occur during two seasons— April to June (pre-monsoon) and October to December (post-monsoon).
- Of these, May and November remain the most conducive for the development of cyclones.
- Cyclonic disturbances— either in the form of a well-marked low pressure, depression or a deep depression (weather systems with varying wind intensities ranging from 31 – 61 km/hr formed either over sea or land) — are common in October.



- Ocean disturbances enter the Bay of Bengal from the South China sea side and head towards the Indian coast.

2. c

- India will launch the EOS-01, an earth observation satellite, on 07th November 2020.
- EOS-01, along with nine satellites from foreign countries, would be launched by a PSLV rocket.
- Of the nine foreign satellites being carried in the mission, four each are from the United States and Luxembourg, while another is a technology demonstrator from Lithuania.

**EOS-01**

- EOS-01 is nothing but another Radar Imaging Satellite (RISAT) that will work together with RISAT-2B and RISAT-2BR1 launched last year.
- EOS-01 was initially named RISAT-2BR2, and was supposed to be the third of the three-spacecraft constellation aimed at providing all-weather round-the-clock service for high-resolution images.
- EOS-01, like its cousins RISAT-2B and RISAT-2BR1, uses synthetic aperture radars to produce high-resolution images of the land.
- One big advantage that radar imaging has over optical instruments is that it is unaffected by weather, cloud or fog, or the lack of sunlight.
- It can produce high-quality images in all conditions and at all times.
- EOS-01, and its sister RISATs, use X-band radars that operate at low wavelengths and are considered best for monitoring of urban landscape, and imaging of agricultural or forest land.
- According to ISRO, ***EOS-01 is intended for applications in agriculture, forestry and disaster management support.***
- The radar images are also considered to be ***immensely useful for military requirements.***

**PSLV**

- For the launch of EOS-01, ISRO would be using a new variant of its PSLV rocket that

*has been flown only once before, in January last year, when it had placed the Microsat-R satellite in orbit.*

- For the PSLV, this would be the 51st flight. Only two of its launches have not been successful.

3. c

- Prime Minister Narendra Modi will virtually inaugurate the Ghogha-Hazira Ro-Pax ferry service in Gujarat.
- This will be the second such ferry service to be launched by the PM after the Ghogha-Dahej route three years ago, which is now dysfunctional.
- Both the services were launched ***to bridge the Gulf of Khambhat*** by providing a sea route to large number of passengers travelling to and fro between Bhavnagar located on the western side of the Gulf and South Gujarat on the east.
- The sea route would be shorter compared to the road.

4. a

- Tamil Nadu has bagged the first place under the 'Best State' category under the National Water Awards (NWAs) 2019, presented by the Union Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation.
- Tamil Nadu was followed by Maharashtra and Rajasthan as the best states under the normal category.
- The National Water Awards 2019 are presented in 16 categories including Best State, Best District, Best Village Panchayat, Best Urban Local Body, Best Research/ Innovation/ New Technology and Best Education among others, and each of the categories has sub-categories in different zones of the country.
- The awards distribution ceremony will be held on November 11 and 12 virtually.

5. c

- The Ethiopian army recently said the country had been pushed into an "aimless war" with its northern Tigray region, which in turn said that areas around its capital were being bombed by fighter jets.



- The conflict in the region continued to escalate despite international calls for talks to calm the crisis.

### What is the Conflict?

- Tigray is a heavily armed region in northern Ethiopia that played a dominant role in the country's government and military.
- Its power has waned since Prime Minister Abiy Ahmed took power in 2018.
- The federal government declared a six-month emergency in the region, fueling tensions between government authorities and the Tigray People's Liberation Front (TPLF).
- The row escalated in September when Tigray held regional elections in defiance of the federal government, which called the vote "illegal".

**09-11-2020**

**1) AIM–Sirius Innovation Programme, sometimes seen in the news recently, is a bilateral youth innovation initiative between India and?**

- U.S.A
- Russia
- Poland
- France

**2) Consider the following statements with respect to Other Service Providers (OSPs) in India**

- These are companies or firms which provides primary, secondary or tertiary services for various companies.
- The registration of every OSP is mandatory under the Companies Act, 2013.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**3) Consider the following statements with respect to Wastelands of India**

- Wastelands in India are classified based on the social, cultural, ecology and ecosystems of the area.
- 17% of India is classified as wasteland according to the Wasteland Atlas of India 2019.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**4) Which of the following sectors in India are included so far under the ambit of Production-Linked Incentive (PLI) Scheme?**

- Textiles
- Mobile Phones
- Medical devices
- Food processing

**Select the correct answer using the codes given below:**

- 1 and 3 only
- 2 and 3 only
- 1, 3 and 4 only
- 1, 2, 3 and 4

**5) Consider the following pairs**

- Kari Ishad – A water bird
- Gajani Kagga – A Mango Variety
- Bellakki – A Salt tolerant paddy variety

**Which of the pair(s) given above is/are correctly matched?**

- 1 and 2 only
- 2 and 3 only
- All of the above

d. None of the above

## Answers

1. b

- *Atal Innovation Mission (AIM) and Sirius, Russia have recently launched 'AIM-Sirius Innovation Programme 3.0'.*
- It is a 14-day virtual programme for Indian and Russian school children.
- Over a two-week programme, from 7–21 November 2020, 48 students and 16 educators and mentors will create 8 virtual products and mobile applications addressing global challenges in the wake of the covid-19 pandemic.

### AIM Sirius Innovation Programme

- It is the first Indo-Russian bilateral youth innovation initiative.
- It seeks to develop technological solutions (both web- and mobile-based) for the two countries.

2. d

- *The Department of Telecom had recently eased the rules registration, submission of bank guarantee and other norms for other service providers (OSP) in the business process outsourcing (BPO) and information technology-enabled services (ITes).*
- **The new rules do away with the registration requirement for OSPs**, with such BPOs that are engaged only in data work have been taken out of the category of OSPs altogether.

### Other Service Providers

- OSPs are companies or firms which provide **secondary or tertiary services** such as telemarketing, telebanking or telemedicine for various companies, banks or hospital chains, respectively.
- Since most of these firms used leased telephone lines, which in turn used the telecom spectrum auctioned by the Department of Telecommunications (DoT), the new telecom policy of 1999 suggested that all OSPs register

themselves so that the government could keep a check on the usage of its resources.

- Further, the registration was also made mandatory to ensure that firms did not establish fake OSPs which swindled customers under the garb of providing telebanking and other such sensitive services.

### New Guidelines

- Registration of OSPs with the DoT is no longer required.
- DoT has now allowed permanent work from home or work from anywhere in India for OSP employees.
- Such employees working either from home or from remote locations would be treated as an extended agent or remote agent of the OSP.
- The new guidelines also do away with the need to furnish any bank guarantees for any of their location in India.

3. b

- Unique deserts and grasslands are as habitats that support human communities, wildlife, and vegetation.
- Ill-informed attempts to modify these landscapes are the legacy of colonialism, when **many such lands were considered wasteland because they did not generate revenue.**
- As much as 17% of India is classified as wasteland, according to **Wastelands Atlas of India 2019** released by the **Ministry of Rural Development.**
- The term 'wasteland', a colonial construct, obsesses with the monetary benefits that a piece of land may or may not provide.
- Monocultures and plantations were considered productive while wetlands, deserts, and grasslands were not.
- **The classification ignores the social, cultural and historical links of the inhabitants, as well as the ecology and ecosystems of these places.**
- The only true 'wastelands' on earth stem from human industrial activities that render land lifeless.

- Areas deemed wastelands — grasslands, deserts, rocky outcrops and sand dunes — are actually rich ecosystems teeming with unique biodiversity and human cultures finely attuned to the dynamics of such landscapes.
- This categorisation still persists, and these landscapes are thus vanishing.

### **Wasteland Distribution & its impacts**

- About 11% of Gujarat is categorised as wastelands with large swathes of Kutch falling under this classification.
- On the other side of the country, the floodplains of the Ganga and Brahmaputra along the Terai arc are not only one of the most biodiverse parts of the subcontinent, supporting rare species such as the endangered greater one-horned rhinoceros that thrives in the tall elephant grass, but are also among the most densely populated parts of the country.
- But parts of this region too are classified as wastelands.
- For instance, Assam has approximately 11% of its total area classified as such, while Arunachal Pradesh and Sikkim, renowned biodiversity hotspots, have 16% and 46%.
- At the country's southern tip, the biodiversity hotspot that is the Western Ghats is home to the rare Shola grasslands of the sky islands; these natural grasslands are the last refuge for several endemic species of birds, amphibians, reptiles, and mammals, including the Nilgiri tahr, and unique flora such as the neelakurinji that blossoms every 12 years and gives the Nilgiris its name.
- Parts of this ecosystem too come under the umbrella term 'wastelands'.
- As do parts of the central Indian grasslands, the last refuge of the tiger.
- Over 12% of Madhya Pradesh, which has national parks such as Kanha, Pench, and Panna, is categorised as scrub forest, degraded pastures, etc.
- Large chunks of the Himalaya and its foothills, with their cold deserts and montane grasslands, the strongholds of the snow leopard, are similarly classified.

- As much as 79% of Jammu and Kashmir, 41% of Himachal Pradesh, and 23% of Uttarakhand, are considered wastelands.
- The Asiatic cheetah that once roamed India's grasslands is already extinct, as is the pink-headed duck that once thrived in the Gangetic swamps.
- A grassland denizen, the great Indian bustard, once in the running for national bird status, is critically endangered today.

4. b

- *The government aims to expand the ambit of the production-linked incentive (PLI) scheme to include as many as ten more sectors such as food processing and textiles.*

### **Production Linked Incentive Scheme**

- In order to boost domestic manufacturing and cut down on import bills, the central government in March 2020 introduced a scheme that aims to give companies incentives on incremental sales from products manufactured in domestic units.
- Apart from inviting foreign companies to set shop in India, the scheme also aims to encourage local companies to set up or expand existing manufacturing units.
- ***So far, the scheme has been rolled out for mobile and allied equipment as well as pharmaceutical ingredients and medical devices manufacturing.***
- These sectors are labour intensive and are likely, and the hope is that they would create new jobs for the ballooning employable workforce of India.
- The objective is really to make India more compliant with our WTO (World Trade Organisation) commitments and also make it non-discriminatory and neutral with respect to domestic sales and exports.

5. d

- *Karnataka Biodiversity Board has recently recommended the Union government to grant Geographical Indication (GI) tag to Kari Ishad, a variety of mango grown in Ankola taluk of Uttara Kannada, the Gajani Kagga paddy cultivated in Kumta taluk in the same*





district, and the Rajamudi variety of paddy grown in Hassan district.

- The board had also recommended that the wildlife board declare Mundige Kere, a waterbody in Sonda village of Sirsi taluk in Uttara Kannada, a bird sanctuary as it is home to “**Bellakki**”, a water bird.

#### **Ishad mango**

- It is unique to Ankola taluk.
- It has two variants — Kari Ishad, which has a thin skin, more pulp and is sweeter, and Bili Ishad, which has a thick skin and has less pulp and sweetness.

#### **Gajani Kagga**

- It is a salt-tolerant paddy variety and it survives in standing water.
- It is grown in Kumta taluk in patches of water in small quantities now.

#### **Rajamudi**

- It is usually consumed as unpolished rice.
- Originally it was red in colour, but with evolution, it is now available in red mixed with light white colour.

**10-11-2020**

**1) Consider the following statements with respect to saffron**

1. The pH level of the soil is an important factor for saffron production.
2. Areas in Jammu & Kashmir are the only places in India suitable for saffron cultivation.
3. Kashmiri Saffron was given geographical indication tag by the geographical indications registry in 2008.

**Which of the statement(s) given above is/are correct?**

- a. 1 only
- b. 1 and 2 only
- c. 1, 2 and 3
- d. None of the above

**2) Yarkovsky effect, sometimes seen in the news recently, refers to?**

- a. A sharp surge in brightness around zero phase angles
- b. A minuscule push on a small body in space, imparted by sunlight
- c. Black holes emit thermal radiation with a temperature inverse to the black hole's mass
- d. When light falls on a metal, it kicks out electrons from their orbits around atomic nuclei

**3) Shivalik Elephant Reserve is located in which of the following states?**

- a. Bihar
- b. Uttarakhand
- c. Uttar Pradesh
- d. None of the above

**4) The gland that produces tears in eyes is called as?**

- a. Pineal glands
- b. Lacrimal gland
- c. Sebaceous glands
- d. Ceruminous glands

**5) Consider the following statements with respect to Tarballs**

1. They are small light-absorbing, carbonaceous particles.
2. They are formed from black carbon, emitted during the burning of biomass.
3. It deposits on snow and ice and could potentially contribute to hastening of glacial melt and global warming.

**Which of the statements given above are correct?**

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only



d. 1, 2 and 3

## Answers

1. a

- So far, the cultivation of saffron – the most expensive spice – in India has been limited to a few areas in Jammu and Kashmir such as Pampore, Budgam, Srinagar and Kishtwar districts.
- The Ministry of Science and Technology, through the Department of Science and Technology (DST), is now looking at extending its cultivation to some states in the Northeast.
- The North East Centre for Technology Application and Reach (NECTAR), an autonomous body under the Department of Science and Technology, supported a pilot project to explore the feasibility of growing saffron in the northeast region of the country with same quality and in higher quantity.
- The project has yielded successful results in Yangyang village of South Sikkim, which produced its first crop of saffron this September.
- The matching of climatic and geographical conditions between Pampore (Kashmir) and Yangyang (Sikkim) led to the successful sample farming of saffron in Yangyang.
- Kashmiri Saffron was given GI Tag recently in July 2020.
- The Kashmiri saffron crop sees both decline in its production as well as shrinking of the land under cultivation despite efforts taken through National Mission on Saffron.

### Saffron Conditions

- Saffron needs to remain underground for about 45 days at sub-zero temperatures.
- It also requires adequate rain, especially once sown in August.
- The pH level of the soil was a particularly important factor.

2. b

- The Asteroid Apophis was discovered in 2004 and since then it was revealed that the probability of a collision are almost negligible.

- It was earlier predicted to pass really close to Earth in 2068.
- But, according to the new calculations, the asteroid is drifting away from its original orbit now.
- The change in orbit is about 557 feet (170 metres) per year.
- The details were revealed by the lead author David Tholen who has been monitoring the asteroid closely from the University of Hawaii at Manoa.

### Yarkovsky Effect

- The asteroid's orbit has been disturbed by the heat it is taking from the Sun.
- This phenomenon is called Yarkovsky effect as it celestial object's path changes due to heat energy being radiated asymmetrically.
- Basically, the heat that an asteroid radiates gives it a very tiny push.
- The warmer hemisphere [of the asteroid] would be pushing slightly more than the cooler hemisphere, and that causes the asteroid to drift away from what a purely gravitational orbit would predict.

3. b

- The **Uttarakhand** **government** is considering denotifying the Shivalik Elephant Reserve.
- The matter, officials said, will be raised before the state Wildlife Advisory Board for discussion in its next meeting.
- If the board gives an in-principle approval, a detailed proposal will be taken up and the matter communicated to the Ministry of Environment, Forest and Climate Change (MoEF).
- The Shivalik Elephant Reserve which spreads over 5,000 sq km was notified in 2002.

4. b

5. b

- A recent study has found that nearly 28 per cent of particles collected from the air samples from a research station in the **Himalaya-Tibetan Plateau** were tarballs.

- The data revealed that a dense array of active fire spots — corresponding to large-scale wheat-residue burning on the Indo-Gangetic Plain — occurred along the pathways of air masses that reached the Himalayan research station during sampling.

### Tarballs

- Tarballs are formed from **brown carbon**, emitted during the burning of biomass or fossil fuels.
- Black Carbon (BC)** is emitted mainly by high-temperature combustion processes (diesel engines, etc.) whereas **Brown Carbon (BrC)**, emitted mainly by biomass combustion.
- Tarballs are small light-absorbing, carbonaceous particles that deposit on snow and ice.
- The percentage of the tarballs increased on days of higher levels of pollution and could contribute to hastening of glacial melt and global warming, the study said.
- Until now, black carbon was found to be transported long distances by wind to the Himalayan atmosphere; there was not sufficient direct evidence for Primary brown carbon (BrC) in the Himalayan atmosphere.
- Primary BrC co-emitted with black carbon (BC) from biomass burning is an important light-absorbing carbonaceous aerosol.
- The black carbon from the Indo-Gangetic Plain can reach the Himalaya region and influence glacial melting and climatic change.
- They suggested future climate models to consider the long-range transport of tarballs to the Himalayas to arrest climate change developments.

**13-11-2020**

**1) Which of the following is incorrect with respect to A68a, sometimes seen in the news recently?**

- It is the world's biggest iceberg that is heading towards the British Overseas Territory of South Georgia

- It separated from the Larsen C ice shelf on the Antarctic Peninsula in 2017
- It has been called a graveyard for Antarctica's icebergs
- None of the above

**2) Consider the following statements with respect to Sarna Tribals**

- It is a religious faith followed by the people in the areas of Jharkhand.
- The followers of Sarna faith pray to the trees and hills while believing in protecting the forest areas.
- Sarna was recently approved to be recognized as a separate religious code in the Census of 2021.

**Which of the statement(s) given above is/are correct?**

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

**3) Consider the following statements with respect to Pangong Tso Lake**

- It is an exorheic Lake that does not drain towards the ocean.
- It is located almost on the Indo-Chinese border, a part of it falls in India, while the other is in China.
- It is one of the high altitude fresh water lake in the world.

**Which of the statement(s) given above is/are correct?**

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

**4) Consider the following statements**

1. It is the northern most boundary of natural distribution to teak (*Tectona grandis*).
2. It is a natural habitat for sloth, Indian wolf, Bear Pangolin, Leopard and Gharial.
3. It is a prime tiger land which links the eastern and western populations of wild animals through the NE-SW running Vindhyan Hill ranges.
4. It has been declared as a UNESCO Biosphere Reserve recently.

Identify the Tiger Reserve that correctly matches with the above description:

- a. Panna
- b. Pench
- c. Valmiki
- d. Palamau

5) Consider the following statements with respect to *Food Coalition Initiative*

1. It is a voluntary multi-stakeholder and multi-sector alliance that ensures global food access to prevent potential food crisis triggered by the COVID-19 pandemic.
2. It was proposed by Italy and led by the UN Food and Agriculture Organization (FAO).

Which of the statement(s) given above is/are correct?

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

## Answers

1. c

- Populations of seals and penguins could be in grave danger if an iceberg, which has been drifting for more than three years in the Southern Ocean near Antarctica, hits a British island territory in the area.

## A68a

- The iceberg, named 'A68a', separated from the Larsen C ice shelf on the Antarctic Peninsula in 2017.
- At 100 miles long and 30 miles wide, it is roughly the size of the US state of Delaware.
- A68a was about 400 kilometres away from the coast of the British island territory of South Georgia, according to the British Antarctic Survey.
- If the iceberg ran aground near the island, it would lead to barriers in the path of seals and penguins for gathering food.
- Both, seals and penguins give birth on land and then travel back and forth to the ocean to provide food for their pups and chicks.
- If their routes are blocked, they would be unable to find food and that would lead to starvation, the scientists said.
- There was a chance, however, that the iceberg might just sail past the island as the ocean current in the area was quite strong, the report said.
- **South Georgia of Antarctica was often referred as a graveyard for Antarctica's greatest icebergs.**

2. a

- The Jharkhand government has recently convened a special session and **passed a resolution to send the Centre a letter to recognise Sarna religion and include it as a separate code in the Census of 2021.**

## Sarna Tribes

- The followers of Sarna faith believe pray to nature.
- The holy grail of the faith is "Jal, Jungle, Zameen" and its followers pray to the trees and hills while believing in protecting the forest areas.
- Jharkhand has 32 tribal groups of which eight are from Particularly Vulnerable Tribal Groups.
- While many follow Hindu religion, some have converted to Christianity — this has become one of the planks of demanding a separate



code “to save religious identity”— as various tribal organisations put it.

- It is believed that 50 lakhs tribal in the entire country put their religion as ‘Sarna’ in the 2011 census, although it was not a code.
- Many of the tribals who follow this faith have later converted to Christianity—the state has more than 4% Christians most of whom are tribals.

3. a

- Pangong Lake is perched at a height of 14,270 ft above sea level.
- Lying almost on the Indo-Chinese border, a part of it falls in India, while the other is in China.
- Pangong Tso is an **endorheic lake**.
- Endorheic (i.e., closed or terminal) basins and lakes are land locked drainage networks where water does not drain into large water bodies such as rivers connected to oceans.
- Endorheic lakes are generally saline as a result of being unable to get rid of solutes left in the lake by evaporation.
- Pangong tso is said to be one of the **highest brackish water** lake in the world.

#### Exorheic

- Exorheic regions are open systems in which surface waters ultimately drain to the ocean in well-defined patterns that involve streams and rivers temporarily impounded by permanent freshwater lakes.

4. a

- *Panna Tiger Reserve in Madhya Pradesh has been declared as a UNESCO Biosphere Reserve recently.*

#### Panna Tiger Reserve

- It is a prime tiger-land Located in Vindhyan Hills in northern Madhya Pradesh.
- It is fragile though dynamic dry deciduous forest.
- It has been characterised by extensive plateaus and gorges.

- It is the land of the Ken river, which lends it unparalleled beauty.
- It is the northern most boundary of natural distribution to teak (*Tectona grandis*) and the eastern limit of teak-kardhai (*Anogeissus pendula*) mixed forests.
- It Links the eastern and western populations of wild animals through the NE-SW running Vindhyan Hill ranges.

5. c

- *Food and Agriculture Organization (FAO) recently launches Food Coalition to lift food access, sustainable agri-food systems.*

#### Food Coalition

- A "network of networks", the Food Coalition is a voluntary multi-stakeholder and multi-sectoral alliance set up to support innovative initiatives to ensure global food access, increase the resilience of agri-food systems and put them on a more sustainable course.
- It aims to face COVID19 pandemic together to avoid the health crisis becoming into a food crisis.
- Proposed by Italy and led by FAO, the global alliance aims to help countries get back on track to achieve the UN-mandated Sustainable Development Goals by 2030, especially the ones on ending hunger and poverty. More than 30 countries have already expressed interest in joining the coalition.

**17-11-2020**

#### 1) Consider the following pairs

1. Lonar lake – Maharashtra
2. Keetham Lake – Gujarat

Which of the pair(s) given above is/are correctly matched?

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



2) Which of the following countries share borders with Peru?

1. Bolivia
2. Chile
3. Brazil
4. Ecuador

Select the correct answer using the codes given below:

- a. 2 and 3 only
- b. 1, 3 and 4 only
- c. 2, 3 and 4 only
- d. All of the above

3) Consider the following statements

1. He led an austere life as a Jain Saint working selflessly to spread the message of Lord Mahavira.
2. He gave active support to the freedom movement and the cause of Swadeshi.
3. Statue of Peace was recently unveiled in Rajasthan to mark his 151st Jayanti celebrations.

Identify the personality who correctly matches with the above description:

- a. Rishabhanatha
- b. Abhinandana Swami
- c. Vijay Vallabh Surishwer
- d. Vardhamana Mahavira

4) Which of the following statements with respect to *Tristan da Cunha*?

- a. It is a small chain of islands in the South Atlantic Ocean
- b. He is a Portuguese traveller who visits India during the reign of Jahangir
- c. He is a social reformer who work dedicatedly to end child marriage in India during the rule of English East Indian Company
- d. None of the above

5) Consider the following statements with respect to *UNESCO-Madanjeet Singh Prize*

1. The Prize was established in 1995 on the occasion of the 125th anniversary of the birth of Mahatma Gandhi.
2. The prize is awarded every two years on the International Day for Tolerance.

Which of the statement(s) given above is/are correct?

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

### Answers

1. a

- India has **41 wetlands**, the highest in South Asia, with two more added to the list of recognised sites of international importance under the treaty of Ramsar Convention.
- The Lonar lake in Maharashtra, the only crater lake of Country, and Sur Sarovar, also known as Keetham lake, in Agra, Uttar Pradesh have been added to the list of recognised Ramsar sites.

### Ramsar Convention

- The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat is a treaty for conservation and sustainable use of such sites.
- It is named after Ramsar, the Iranian city where the treaty was signed in 1971, and places chosen for conservation under it are given the tag 'Ramsar site.'
- The convention is one of the oldest inter-governmental accord for preserving the ecological character of wetlands.
- Also known as the Convention on Wetlands, it aims to develop a global network of wetlands for conservation of biological diversity and for sustaining human life.
- Wetlands provide a wide range of important resources and ecosystem services such as food, water, fibre, groundwater recharge, water



purification, flood moderation, erosion control and climate regulation.

2. d

- *Peru's congress has elected a new interim president after nearly 24 hours without a head of state as the country reels from an intense week of pro-democracy protests marked by accusations of police brutality.*
- Francisco Sagasti, an industrial engineer and member of the only political party that voted against the ousting of popular former president Martin Vizcarra a week ago, will be Peru's caretaker president presiding over elections in April 2021.
- The move is expected to ease tension on the streets after the impeachment of Vizcarra recently unleashed nationwide protests and what analysts have called Peru's worst political crisis in more than a decade.

3. c

- *Indian Prime Minister has recently unveiled the 'Statue of Peace' in Rajasthan's Pali to mark the 151st Jayanti celebrations of Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj, via video conferencing.*
- The 151-inch tall statue has been made from Ashtadhatu- 8 metals, with Copper being the major constituent, and is being installed at Vijay Vallabh Sadhana Kendra, Jetpura, in Pali, Rajasthan.
- Shree Vijay Vallabh Surishwer Ji Maharaj (1870-1954)
- He led an austere life as a Jain Saint working selflessly and dedicatedly to spread the message of Lord Mahavira.
- He also worked relentlessly for the welfare of masses, the spread of education, eradication of social evils, wrote inspiring literature (poetry, essays, devotional hymns and Stavans) and gave active support to the freedom movement and the cause of Swadeshi.

4. a

#### **Tristan da Cunha**

- It is an island with 245 permanent residents is creating a marine protection zone to safeguard endangered rockhopper penguins, yellow-nosed albatross and other wildlife in an area of

the South Atlantic three times the size of the United Kingdom.

- The government of the British overseas territory, which calls itself the most remote inhabited island on Earth, said that fishing and other "extractive activities" will be banned from ocean around Tristan da Cunha and the archipelago's three other major islands.
- The sanctuary will be the biggest "no-take zone" in the Atlantic Ocean and the fourth biggest anywhere in the world, protecting fish that live in the waters and tens of millions of seabirds that feed on them.
- The isolated area, roughly equidistant between South Africa and Argentina, supports 85% of the endangered northern rockhopper penguins, 11 species of whales and dolphins, and most of world's sub-Antarctic fur seals, according to the Pew Bertarelli Ocean Legacy Project.

5. c

#### **UNESCO-Madanjeet Singh Prize**

- In 1995, to mark the UN Year for Tolerance and the 125th anniversary of the birth of Mahatma Gandhi, UNESCO created a prize for the promotion of tolerance and non-violence.
- The UNESCO-Madanjeet Singh Prize for the Promotion of Tolerance and Non-Violence rewards significant activities in the scientific, artistic, and cultural or communication fields aimed at the promotion of a spirit of tolerance and non-violence.
- The prize is awarded every two years on the International Day for Tolerance, 16 November (The Day recognizes the universal human rights and fundamental freedoms of others)
- The Prize may be awarded to institutions, organizations or persons, who have contributed in a particularly meritorious and effective manner to tolerance and non-violence.

**18-11-2020**

#### **1) Consider the following statements**

1. **In India, Sex ratio at birth is defined as the number of females per thousand males in the age group 0–6 years.**





2. Arunachal Pradesh is having the best sex ratio in the country while Manipur recorded the worst sex ratio.

Which of the statement(s) given above is/are correct?

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

2) Consider the following statements with respect to *Param Siddhi*

- 1. It is a high performance computing-artificial intelligence (HPC-AI) supercomputer established at C-DAC.
- 2. It was developed jointly with the support of Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MeitY) under National Supercomputing Mission (NSM).

Which of the statement(s) given above is/are correct?

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

3) Consider the following statements with respect to *Chapare virus*

- 1. It belongs to the same arenavirus family which is responsible for illnesses such as the Ebola virus disease (EVD).
- 2. It is generally carried by rats and can be spread from person to person.

Which of the statement(s) given above is/are correct?

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

4) Which of the following statements with respect to *Article 32 of Indian Constitution* is incorrect?

- a. It grants the right to move the Supreme Court for the enforcement of the fundamental rights guaranteed under Part III of the Indian Constitution
- b. It cannot be abridged or taken away even by way of an amendment to the Constitution
- c. The jurisdiction of the Supreme Court in case of the enforcement of Fundamental Rights is original and exclusive
- d. Only the Fundamental Rights guaranteed by the Constitution can be enforced under Article 32 and not any other right like non-fundamental constitutional rights, statutory rights, and customary rights and so on.

5) *Reciprocal Access Agreement*, sometimes seen in the news recently, was recently signed between which of the following?

- a. India and Russia
- b. China and Russia
- c. India and ASEAN
- d. Japan and Australia

## Answers

1. b

- According to the 2018 report on "vital statistics of India based on the Civil Registration System (CRS), Arunachal Pradesh recorded the best sex ratio in the country while Manipur recorded the worst sex ratio.
- Sex ratio at birth is the number of females born per thousand males.
- Child Sex ration is the number of females per thousand males in the age group 0–6 years in a human population.
- Arunachal Pradesh recorded 1,084 females born per thousand males, followed by Nagaland (965) Mizoram (964), Kerala (963) and Karnataka (957).

- The worst was reported in Manipur (757), Lakshadweep (839) and Daman & Diu (877), Punjab (896) and Gujarat (896).
- Delhi recorded a sex ratio of 929, Haryana 914 and Jammu and Kashmir 952.
- The prescribed time limit for registration of birth or death is 21 days. Some States however register the births and deaths even after a year.

2. c

- **Param Siddhi**, the high performance computing-artificial intelligence (HPC-AI) supercomputer established under National Supercomputing Mission (NSM) at C-DAC has achieved global ranking of 63 in TOP 500 most powerful non-distributed computer systems in the world released recently.
- The supercomputer was conceived by C-DAC and developed jointly with the support of Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MeitY) under NSM.
- Param Siddhi Supercomputer is built on the NVIDIA DGX Super POD reference architecture networking along with C-DAC's indigenously developed HPC-AI engine, software frameworks and cloud platform and will help deep learning, visual computing, virtual reality, accelerated computing, as well as graphics virtualization.

3. c

- A rare Ebola-like illness that is believed to have first originated in rural Bolivia in 2004 can spread through human-to-human transmission, researchers from the US Centers for Disease Control and Prevention (CDC) have discovered.

### Chapare Virus

- The Chapare hemorrhagic fever (CHHF) is caused by the same arenavirus family that is responsible for illnesses such as the Ebola virus disease (EVD).
- According to the CDC website, **arenaviruses like the Chapare virus** are generally carried by rats and can be transmitted through direct contact with the infected rodent, its urine and droppings, **or through contact with an infected person.**

- The virus, which is named Chapare after the province in which it was first observed, causes a hemorrhagic fever much like Ebola along with abdominal pain, vomiting, bleeding gums, skin rash and pain behind the eyes.
- Viral hemorrhagic fevers are a severe and life-threatening kind of illness that can affect multiple organs and damage the walls of blood vessels.
- However, not a lot is known about the mysterious Chapare virus.
- Scientists believe that the virus could have been circulating in Bolivia for many years, even before it was formally documented.
- Infected people may have been misdiagnosed with dengue as the mosquito-borne illness is known to cause similar symptoms.

4. c

- *Recently, the Chief Justice of India during the hearing of a plea filed for release of Kerala journalist Siddique Kappan, said the court is trying to discourage petitions filed under Article 32.*

### Article 32

- Article 32 grants the right to move the Supreme Court by appropriate proceedings for the enforcement of the fundamental rights guaranteed under Part III of the Indian Constitution.
- The rights guaranteed by Article 32 shall not be suspended except as otherwise provided for by the Constitution.
- It allows incarcerated people to directly approach the top court against violation of their fundamental rights.
- It gives Supreme Court the power to issue directions or orders or writs, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto and certiorari, whichever may be appropriate, for the enforcement of any of the rights conferred under Part III.
- Only the Fundamental Rights guaranteed by the Constitution can be enforced under Article 32 and not any other right like non-fundamental constitutional rights, statutory rights, customary rights and so on.



- In case of the enforcement of Fundamental Rights, the jurisdiction of the Supreme Court is **original but not exclusive**.
- It is concurrent with the jurisdiction of the high court under Article 226.

5. d

- *Japanese Prime Minister Yoshihide Suga and his Australian counterpart Scott Morrison have signed a landmark defence deal in a bid to counter China's growing influence in the South China Sea and over the Pacific island nations.*

### **Reciprocal Access Agreement (RAA)**

- It comes weeks after foreign ministers of the Quad alliance, which includes the US and India, met in Tokyo.
- The pact allows Japanese and Australian troops to visit each other's countries and conduct training and joint operations.
- The joint statement said, the two sides also agreed on the need for a framework to allow Japanese military to protect Australian forces if needed.
- It also expressed serious concern about the situation in the South China Sea and reconfirmed their strong opposition to any coercive or unilateral attempts to change the status quo and thereby increase tensions in the region.

**19-11-2020**

**1) With respect to Deemed forests in India, consider the following statements**

- 1. The concept of deemed forests has not been clearly defined in any law including the Forest Conservation Act of 1980.**
- 2. An area once notified as deemed forests cannot be declassified under any circumstances.**

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2

d. Neither 1 nor 2

**2) Which of the following statements regarding Microwave Weapon System is incorrect?**

- They are electromagnetic weapons which have a similar effect like a micro wave oven
- The weapon works by heating the water molecules under the skin to painful temperatures, forcing people out of the area
- China is the first country that develops the microwave-style weapon called the Active Denial System
- None of the above

**3) Consider the following statements with respect to Guillain Barre Syndrome**

- 1. It is a rare neurological disorder in which the body's immune system mistakenly attacks part of its peripheral nervous system.**
- 2. In the recent past, people infected with Ebola virus are most affected by the Guillain Barre Syndrome.**

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**4) Mahajan Commission Report, often seen in the news recently, is associated with which of the following?**

- National Register of Citizens
- Regulation of Ghost nets in deep sea
- Border Dispute between Maharashtra and Karnataka
- Regulation of activities in the Baseline zone of territorial waters

5) Consider the following statements with respect to *Lilavati Award-2020*

1. The objective of the award is to create awareness about climate change among students in the age group of 6-14 years.
2. It was launched jointly by the Central Board of Secondary Education (CBSE) and National Council of Educational Research and Training (NCERT).

Which of the statement(s) given above is/are correct?

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

## Answers

1. a

- On September 25, Karnataka Forest Minister Anand Singh announced in the Assembly that the state government would soon declassify 6.64 lakh hectares of the 9.94 lakh hectares of deemed forests in the state (nearly 67%) and hand it over to Revenue authorities.
- The move has been taken after a study of the actual extent of deemed forest areas by local committees headed by officials from the Revenue, Forest and Land Records Departments in every district.
- The issue of deemed forests is a contentious one in Karnataka, with legislators across party lines often alleging that large amounts of agriculture and non-forest land are “unscientifically” classified as such.

### Deemed Forests

- The concept of deemed forests has **not been clearly defined in any law including the Forest Conservation Act of 1980**.
- The Supreme Court in the case of T N Godavarman Thirumalpad (1996) accepted a wide definition of forests under the Act.
- It has been 23 years since the Supreme Court asked all states in the country to identify deemed forests, but their status in several states is still unclear.

- The SC, in a December 12, 1996 judgement, had broadened the definition of forest to include not just land classified as forest under forest or revenue departments, but also those that are forests according to the definition of a forest.
- It had then also asked states to form committees to identify forests, irrespective of the nature of land ownership or whether they are notified, recognised or classified in a time-bound manner.
- There are forests that are notified either with the forest department or revenue department. Then there are those areas that are like forests but are neither recorded, nor notified.
- The Supreme Court had ordered that the states identify and classify these as deemed forests.

2. c

- *The Indian Army has recently dismissed reports that China had used ‘microwave weapons’ in eastern Ladakh, where Indian and Chinese soldiers are locked in a border standoff for the last six months.*

### Microwave weapons

- They are electromagnetic weapons and are called so because they have a **similar effect like an oven**.
- The weapon works by **heating the water molecules under the skin**, in the same way as the kitchen appliance, to painful temperatures, forcing people out of the area.
- The weapon, also used for crowd control, can be used to target up to 0.6 miles away.
- According to The Daily Mail, China had first put on display its microwave weapon, called Poly WB-1, at an air show in 2014.
- **Besides China, the United States has also developed microwave-style weapons, called the Active Denial System.**
- It was apparently deployed to Afghanistan but was withdrawn without ever being used against human targets.
- The Pentagon has touted it as “the first non-lethal, directed-energy, counter-personnel



system with an extended range greater than currently fielded non-lethal weapons.

3. a

- In a rare complication, some patients infected with Covid-19 have been found suffering from Guillain Barre Syndrome (GBS).
- In India, such cases have been reported since August.
- A group of neurologists in Mumbai is now mapping these cases and their symptoms. So far, 24 cases have been added to the study.

### **Guillain Barre Syndrome**

- It is a very rare autoimmune disorder.
- GBS is caused by bacteria or viral infection.
- In the past, patients of **Middle East Respiratory Syndrome** showed GBS symptoms, as did those infected with **Zika, HIV, Herpes virus and Campylobacter jejuni**.
- The **immune system**, in an attempt to kill the coronavirus, **accidentally starts attacking the peripheral nervous system**.
- The peripheral nervous system is a network of nerves that lead from the brain and spinal cord to different parts of the body.
- Attacking them can affect limb functions.
- The syndrome's first symptoms are a tingling or itching sensation in the skin, followed by muscle weakness, pain and numbness.
- The symptoms may emerge first in feet and hands.
- A person then starts experiencing reflex loss and paralysis, which may be temporary, but can last for 6-12 months or longer.
- With Covid-19 a year old, it is still difficult to assess the nature of permanency GBS in such cases may present.

4. c

- Maharashtra Deputy CM Ajit Pawar has recently sparked a controversy, when he called the incorporation of Belgaum (Belagavi), Karwar and Nipani areas of Karnataka into Maharashtra a "dream" of

*Shiv Sena founder Balasaheb Thackeray, as he paid tributes to the leader on his eighth death anniversary.*

- Karnataka Chief Minister B S Yediyurappa condemned the statement as an attempt to "incite fire".
- He also states that the whole world knows that the Mahajan Commission report is final.

### **Background**

- The erstwhile Bombay Presidency, a multilingual province, included the present-day Karnataka districts of Vijayapura, Belagavi, Dharwad and Uttara-Kannada.
- In 1948, the Belgaum municipality requested that the district, having a predominantly Marathi-speaking population, be incorporated into the proposed Maharashtra state.
- However, the States Reorganisation Act of 1956, which divided states on linguistic and administrative lines, made Belgaum and 10 talukas of Bombay State a part of the then Mysore State (which was renamed Karnataka in 1973).

### **The Mahajan Commission report**

- While demarcating borders, the Reorganisation of States Commission sought to include talukas with a Kannada-speaking population of more than 50 per cent in Mysore.
- Opponents of the region's inclusion in Mysore argued, and continue to argue, that Marathi-speakers outnumbered Kannadigas who lived there in 1956.
- In September 1957, the Bombay government echoed their demand and lodged a protest with the Centre, leading to the formation of the Mahajan Commission under former Chief Justice Mehr Chand Mahajan in October 1966.
- The Commission, which submitted its report in August 1967, recommended that 264 villages be transferred to Maharashtra (which formed in 1960) and that Belgaum and 247 villages remain with Karnataka.
- Maharashtra rejected the report, calling it biased and illogical, and demanded another review.

- Karnataka welcomed the report, and has ever since continued to press for implementation, although this has not been formally done by the Centre.

5. d

- Union Minister of Education has recently launched the Lilavati Award-2020: AICTE's Innovative education program **to empower women** virtually.
- The objective of the award is to create awareness about issues like sanitation, hygiene, health, nutrition, literacy, employment, technology, credit, marketing, innovation, skill development, natural resources and rights **among women**.

#### **AICTE Lilavati Award-2020**

- All India Council for Technical Education (AICTE)** has established the Lilavati Award.
- The award covers multidisciplinary areas such as women's health, self-defence, sanitation, literacy, entrepreneurship and legal awareness.
- The program will ensure the participation of women and enable them to hold higher positions in educational institutions.

**20-11-2020**

**1) Mission Purvodaya is associated with which of the following?**

- Development of Eastern India
- Sustaining the Himalayan Eco System
- Gold repatriation measure to ease down demand
- Strengthening Indian rupee by launching RuPay Cards in neighbouring countries

**2) Consider the following statements with respect to Meghalaya Integrated Transport Project (MITP)**

- It aims to improve and modernize the transport sector of the state of Meghalaya.

**2. The project was financially supported by the International Monetary Fund (IMF).**

**Which of the statement(s) given above is/are incorrect?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**3) Energy Technology Perspectives 2020 was released recently by?**

- World Bank
- World Economic Forum
- International Energy Agency
- International Atomic Energy Agency

**4) Consider the following statements with respect to G-20 troika**

- It is a three-member country committee chaired by current summit presidency of G20.
- India had recently entered the G-20 Troika.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**5) Consider the following statements with respect to UNESCO Global Geo Park**

- It is a status given for a single, unified geographical areas only for four years.
- Certain economic activities are prohibited inside the UNESCO Global Geo Park.
- India does not have any UNESCO Global Geo Park as of now.



Which of the statement(s) given above is/are correct?

- a. 2 only
- b. 3 only
- c. 1 and 2 only
- d. 2 and 3 only

## Answers

1. a

- Mission Purvodaya will drive eastern India towards self-reliance and contribute to making of an Aatmanirbhar Bharat, says Shri Dharmendra Pradhan at AGM of Merchants Chamber of Commerce and Industry.

### Mission Purvodaya

- The programme is aimed at accelerated development of eastern India through establishment of integrated steel hub.
- Through this programme, the government aims to transform logistics and utilities infrastructure which would change the socio-economic landscape in the eastern India.
- The steps, under mission, also include growth of steel industry along with employment opportunities across the entire value chain.

2. b

- The Government of India, the Government of Meghalaya and the World Bank has recently signed a \$120 million project **to improve and modernise the transport sector of state of Meghalaya.**
- This will help Meghalaya to harness its vast growth potential for high-value **agriculture and tourism.**
- The project will improve about 300 km of strategic road segments and stand-alone bridges by using innovative, climate resilient, and nature-based solutions.
- It will also support innovative solutions such as precast bridges to reduce both time and cost of construction.
- This operation will also support state government's "Restart Meghalaya Mission" to

revive and boost development activities affected due to COVID-19 pandemic.

- It will help restore transport services and generate direct employment of about 8 million person days.
- The \$120 million loan from the International Bank for Reconstruction and Development (IBRD) has a maturity of 14 years including a grace period of 6 years.

3. c

- Energy Technology Perspectives 2020, a new study of **International Energy Agency (IEA)** which focusses on the technology needs and opportunities for reaching international climate and sustainable energy goals was virtually launched recently.
- During the launch, Executive Director of IEA, Mr. Fatih Birol said that India has moved to the Centre stage of international Energy Affairs and is a role model for other major emerging economies.
- He also praised the Indian government for its efforts in providing clean energy to millions by way of schemes like *Ujjawala* and *Ujala*.
- The report lays stress, among other things, especially on how Governments have an outsized role to play in supporting transitions towards low emissions by way of effective policy toolkits towards tackling emissions from existing infrastructure and technologies ,strengthening markets for technologies at an early stage of adoption ,developing and upgrading infrastructure that enables technology deployment ,boosting support for research, development and demonstration and expanding international technology collaboration.

4. a

- Saudi Arabia has recently joined the G20 Troika.

### G20 Troika

- It is a three-member country committee chaired by current summit presidency.
- It was established to ensure that previous, current and subsequent G20 presidencies work hand-in-hand to achieve consistency and continuity of the group's agenda.

- India will enter the G-20 troika, along with Saudi Arabia, when Italy takes over the G-20 Presidency in December 2021.
- India will be the host country of G-20 to be held in 2022.

5. b

*INTACH is pushing to get recognition of a UNESCO Global Geo Park for Visakhapatnam consisting of:*

1. Erra Matti Dibbalu (red sand dunes),
2. Natural rock formations at Mangamaripeta,
3. Million-years-old Borra Caves,
4. Volcanic ash deposits in Araku Valley.

#### **UNESCO Global Geoparks**

- They are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.
- A UNESCO Global Geopark uses its geological heritage, in connection with all other aspects of the area's natural and cultural heritage, to enhance awareness and understanding of key issues.
- A UNESCO Global Geopark is given this designation for a **period of four years** after which the functioning and quality of each UNESCO Global Geopark is thoroughly re-examined during a **revalidation process**.
- UNESCO Global Geopark status **does not imply restrictions on any economic activity inside a UNESCO Global Geopark** where that activity complies with indigenous, local, regional and/or national legislation.
- UNESCO Global Geoparks give local people a sense of pride in their region and strengthen their identification with the area.
- **India does not have any UNESCO Global Geo Park as of now.**

**21-11-2020**

**1) Consider the following statements with respect to Virtual court (Traffic)**

1. It is an online court being managed by Virtual Judge, which is not a person but an algorithm, whose jurisdiction can be extended to entire state.
2. It is an initiative of E-Committee of Supreme Court along with Department of Justice.

**Which of the statement(s) given above is/are correct?**

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

**2) Why is a plant called *Roridomyces phyllostachydis* often mentioned in news?**

- a. It is a bioluminescent variety of mushroom
- b. It is a sweet banana with orange pulp growing only in Andaman
- c. It is a plant species which reduces the biodiversity in the area in which it grows
- d. None of the above

**3) Consider the following statements with respect to Global HIV Prevention Coalition (GPC)**

1. It is a global coalition of United Nations Member States, donors, civil society organizations established in the year 2017 to support global efforts to accelerate HIV prevention.
2. It seeks to achieve the targets of the 2016 UNGA commitment to end the AIDS epidemic by 2050.

**Which of the statement(s) given above is/are incorrect?**

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



4) Symbiosis in animals is a form of mutualism where different species are seen to help each other. Among these, when one organism benefits greatly and the other is not significantly helped or harmed, what do you call the relationship?

- a. Parasitism
- b. Mutualism
- c. Amensalism
- d. Commensalism

5) Which of the following is the theme for the National Newborn Week 2020?

- a. Complimentary Feeding for a healthy child
- b. Optimal Infant & Young Child Feeding Practices: Better Child Health
- c. Quality, Equity, Dignity for every newborn at every health facility and everywhere
- d. None of the above

## Answers

1. c

- The Virtual Court (traffic) and e-Challan project have been recently inaugurated in Assam by Shri Sarbananda Sonowal, the chief minister of Assam.
- The Information and Communication Technology (ICT) Committee of Gauhati High Court in association with Government of Assam and Assam Police, under the aegis of e-Committee of Supreme Court of India, are spearheading the project in the State.
- Maharashtra's 2nd virtual court called "NyayKaushal" was recently inaugurated by Shri Arvind Bobde, the Chief Justice of India and Justice D.Y. Chandrachud of the Supreme Court at Judicial Officers Training Institute in Nagpur.

### E-challan solution

- It is an initiative of the Union Ministry of Road Transport and Highways (MoRTH) whereas the software has been developed by National Informatics Centre (NIC).

- It will replace the present concept of manual challan with an electronically generated digital challan.

### Virtual court

- Virtual Court is an online court being managed by Virtual Judge (which is not a person but an algorithm) whose jurisdiction can be extended to entire state and working hours may be 24X7.
- It is an initiative of E-Committee of Supreme Court along with Department of Justice, Ministry of Law & Justice, Government of India.
- There is no brick & mortar building of the court.
- In a trial by Virtual Court, neither litigant shall come to the court nor will Judge have to sit physically in the court to adjudicate the case.
- The communication may only be in electronic form and the sentencing and further payment of fine or compensation will also be online.
- Only single process is allowed and there can be no argument.
- It may be proactive admission of guilt by the accused or proactive compliance of the cause by defendant on receipt of the summons in electronic form.
- On payment of Fine, such matters may be treated as disposed off.
- Citizen neither have to wait in lines in courts nor have to confront Traffic Police man.
- It will increase productivity of citizen as well as judicial officers.
- It will promote greater accountability and less corruption in Traffic Police Department thus bettering life of people.
- In Assam due to Virtual Court work of 10 judges will be done by only single judge thus sparing 9 Judges for judicial work.

### Virtual Courts in India

Currently there are 9 Virtual courts functioning in India

- Delhi (2 Courts)
- Haryana (Faridabad)



- Maharashtra (Pune)
- Madras
- Karnataka (Bengaluru)
- Maharashtra (Nagpur)
- Kerala (Kochi)
- Assam (Gauhati)
- **They are all dealing with Traffic Challan cases only.**

2. a

- *A mushroom documentation project in the forests of Northeast India has revealed not only 600 varieties of fungi, but also led to a new discovery: a bioluminescent — or light emitting — variety of mushroom.*
- *The new species — named **Roridomyces phyllostachydis** — was first sighted on a wet August night near a stream in Meghalaya's Mawlynnong in East Khasi Hills district and later at Krang Shuri in West Jaintia Hills district.*
- *It is now one among the 97 known species of bioluminescent fungi in the world.*

### Bioluminescent Fungi

- Bioluminescence is the property of a living organism to produce and emit light.
- Animals, plants, fungi and bacteria show bioluminescence.
- Bioluminescent organisms are usually found in the ocean environments, but they are also found on terrestrial environments.
- The colour of the light emitted by the organism depends on their chemical properties.
- In this case of fungi, the luminescence comes from the enzyme, **luciferase**.
- The [green] light emits when luciferans is catalysed by the enzyme luciferase, in the presence of oxygen.
- During the chemical reaction, several unstable intermediate products are released as excess energy that makes them visible as light.
- Such mushrooms may glow for a number of reasons, the simplest explanation could be that

bioluminescence attracts insects, which helps in dispersing spores.

- It may also be a mechanism for the organism to protect itself from frugivorous (or fruit-eating) animals.

3. b

- *Recently, the Union Minister for Health and Family Welfare digitally addressed the Ministerial meeting of the Global Prevention Coalition (GPC) for Human immunodeficiency virus (HIV) Prevention.*
- It was hosted by Joint United Nations Programme on HIV/AIDS (UNAIDS) and United Nations Population Fund (UNFPA) on behalf of the Global HIV Prevention Coalition (GPC).
- The conference this year holds significance in achieving the 2016 UNGA commitment to end AIDS by 2030.
- Member States of GPC had also agreed to reduce new adult HIV infections by 75% at the end of 2020 from 2010 levels.

### Global Prevention Coalition

- Global Prevention Coalition (GPC) is a global coalition of United Nations Member States, donors, civil society organizations which was established in the year 2017 to support global efforts to accelerate HIV prevention.
- It includes the 25 highest HIV burden countries, UNAIDS Cosponsors, donors, civil society and private sector organizations.
- It aims to strengthen and sustain political commitment for primary prevention by setting a common agenda among key policy-makers, funders and programme implementers.
- With countries and communities at the centre, it seeks to ensure accountability for delivering prevention services at scale **in order to achieve the targets of the 2016 Political Declaration on Ending AIDS**, including a 75% reduction in HIV infections towards fewer than 500 000 infections by 2020, and to ending the AIDS epidemic **by 2030**.

4. d

- Symbiosis is a close relationship between two species.

There are three basic types of symbiosis: mutualism, commensalism, and parasitism.

- **Mutualism** is a symbiotic relationship in which both species benefit.
- **Commensalism** is a symbiotic relationship in which one species benefits while the other species is not affected.
- **Parasitism** is a symbiotic relationship in which one species (the parasite) benefits while the other species (the host) is harmed.
- **Amensalism**, association between organisms of two different species in which one is inhibited or destroyed and the other is unaffected.

5. c

- Dr. Harsh Vardhan, Union Minister of Health and Family Welfare recently chaired an event to mark the National Newborn Week 2020, being observed from 15th through 21st November to reinforce the importance of newborn health as a key priority area of the health sector and to reiterate the commitment at the highest level.
- The theme of National Newborn Week this year is **'Quality, Equity, Dignity for every newborn at every health facility and everywhere'**.

**23-11-2020**

1) **SITMEX-20** is a maritime exercise between India and which of the following countries?

1. Myanmar
2. Thailand
3. Sri Lanka
4. Tajikistan
5. Singapore

Select the correct answer using the codes given below:

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

2) Consider the following statements with respect to **Chang'e-4 probe**

1. It is the Chinese National Space Administration's (CNSA) lunar sample return mission.
2. It aims to bring back samples of lunar rock from the Mons Rumker region of the moon.

Which of the statement(s) given above is/are correct?

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

3) Protests were started in July this year, seeking the removal of Prime Minister and demanding reform of the monarchy. A large inflatable yellow rubber duck has become a symbol of these protests recently.

Which one of the following countries is being referred here?

- a. Brunei
- b. Thailand
- c. Myanmar
- d. Indonesia

4) Consider the following statements with respect to **United Nations Population Award**

1. It is an annual award which honours individual/institution in recognition of outstanding contributions to population and reproductive health questions and to their solutions.
2. Indian President Ram Nath Kovind has been awarded the United Nations Population Award for the year 2020.

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only





- c. Both 1 and 2
- d. Neither 1 nor 2

### 5) Averting a lost COVID generation Report was released recently by?

- a. UNICEF
- b. UN Population
- c. World Health Organization
- d. UN Department of Economic and Social Affairs

## Answers

1. b

- Indian Navy (IN) Ships including indigenously built ASW corvette Kamorta and missile corvette Karmuk are participating in the 2nd edition of India, Singapore and Thailand Trilateral Maritime Exercise SITMEX-20, from 21 to 22 November 20 in Andaman Sea.
- The first edition of SITMEX, hosted by Indian Navy, was conducted off Port Blair in September 2019.
- The SITMEX series of exercises are conducted to enhance mutual inter-operability and imbibing best practices between IN, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN).
- The exercise, being conducted as a 'non-contact, at sea only' exercise in view of COVID-19 pandemic, highlights growing synergy, coordination and cooperation in the maritime domain between the three friendly navies and maritime neighbours.
- The two days of maritime drills will witness the three navies participate in a variety of exercises including naval manoeuvres, surface warfare exercises and weapon firings.
- Besides improving inter-operability between the friendly navies, SITMEX series of exercise also aim to strengthen mutual confidence and develop common understanding and procedures towards enhancing the overall maritime security in the region.

2. c

- On November 24, China's Chang'e-5 lunar mission will become the first probe in over four decades to bring back samples of lunar rock from a previously unexplored portion of the Moon.
- Early in 2019, China's Chang'e-4 probe had successfully transmitted images from the far side of the Moon, also referred to as the dark side.
- This was the first probe to land in this portion of the Moon.

### Chang'e-5 mission

- Chang'e-5 probe, which is named after the Chinese Moon goddess who is traditionally accompanied by a white or jade rabbit, is the Chinese National Space Administration's (CNSA) lunar sample return mission that is set to launch on November 24 from the Wenchang Space Launch Center on Hainan Island in China.
- The goal of the mission is **to land in the Mons Rumker region of the moon**, where it will operate for **one lunar day, which is two weeks long** and return a 2 kg sample of the lunar rock possibly by digging about 2 metres deep into the surface of the Moon.

3. b

- Protests were started in **Thailand** in July this year, seeking the removal of Prime Minister Prayuth Chan-ocha and demanding reform of the Thai monarchy.
- A large yellow rubber duck has now become a symbol of Thailand's protest.
- The inflatable ducks had initially been brought out onto the streets as a joke and to mock the government and the monarchy.
- But they took on a new role as the Thai government's crackdown on the protests intensified.
- The protestors had used these ducks as shields and advanced towards police lines when police forces began firing water cannons.
- Thai social media users around the world have also taken to various platforms to share content related to the protests using the hashtag #RubberDuck.

4. a



- Recently Bhutan's Queen Mother Gyalyum Sangay Choden Wangchuck has been awarded the United Nations Population Award in the individual category for 2020 for her work on sexual health and ending gender violence.
- She founded a volunteer organisation called 'Respect, Educate, Nurture and Empower Women' (RENEW).
- The awardee in the organisational category is HelpAge India that works on elder care.

### United Nations Population Award

- It is an annual award, it honours an individual and/or institution in recognition of outstanding contributions to population and reproductive health questions and to their solutions.
- It consists of a gold medal, a diploma and a monetary prize.
- The Award was established by the General Assembly in 1981, in resolution 36/201, and was first presented in 1983.
- The Committee for the United Nations Population Award is comprised of 10 UN Member States, with United Nations Secretary-General and UNFPA Executive Director serving as ex-officio members.
- Nominations for the award are accepted through 31 December of each year.

### Indian awardees

Only two Indians have been awarded in the past four decades since the award was established, they are

1. Former Prime Minister Indira Gandhi in 1983.
2. Industrialist-philanthropist J.R.D.Tata in 1992.

5. a

### Averting a lost COVID generation Report

- Recently, the United Nations Children's Fund (UNICEF) has released the report "Averting a lost Covid generation".
- It is the first UNICEF report to comprehensively outline the dire and growing consequences for children as the pandemic goes on.

- It shows that while symptoms among infected children remain mild, infections are rising and the longer-term impact on the education, nutrition and well-being of an entire generation of children and young people can be life-altering.

The report highlight are as follows

1. Children and adolescents account for 1 in 9 reported Covid-19 infections.
2. It estimated that a third of the countries analysed, witnessed a drop of at least 10% in coverage of health services and there was a 40% decline in the coverage of nutrition services for women and children across 135 countries.
3. 65 countries reported a decrease in-home visits by social workers in September 2020, compared to 2019.
4. According to ICMR 11.89% of Covid-19 cases in India are in under 20.
5. 1.5 million School closures have impacted 247 million children enrolled in elementary and secondary education and 28 million children who were attending pre-school education in Anganwadi Centres.
6. An estimated 20 million children under 5 years of age are suffering from wasting (low weight for height), over 40 million children are chronically malnourished and more than half of the Indian women aged 15-49 years are anaemic.
7. The pandemic has further exposed the fragility of children, less by the virus itself but much more by the indirect and long-term fallout.
8. Covid-19 poses a grave threat to the gains made by India in the Neonatal Mortality Rate (NMR) and Infant Mortality Rate (IMR) which saw improvements in recent years.

### 25-11-2020

1) **SIMBEX-20 is a maritime exercise between which of the following countries?**

1. India
2. Bhutan
3. Myanmar
4. Singapore

Select the correct answer using the codes given below:

- 1 and 4 only
- 1, 2 and 3 only
- 1, 3 and 4 only
- All of the above

2) Who among the following is the Chairman of National Crisis Management Committee (NCMC)?

- The Prime Minister
- Union Home Minister
- Union Defence Minister
- Union Cabinet Secretary

3) Consider the following statements with respect to Guru Tegh Bahadur

- He is the ninth Guru of Sikhism.
- He had resisted forced conversions of non-Muslims to Islam during Aurangzeb's rule.

Which of the statement(s) given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

4) Which of the following regarding Desalination Plants is incorrect?

- The cost of setting up and running a desalination plant is too high
- The most common technology used for this process is Reverse Osmosis (RO)
- The excess salts added by the disposal of brine, a byproduct of the process, back into the sea helps flourishing the local ecology
- In India, Tamil Nadu is the first state to use this technology, setting up two desalination plants near Chennai in 2010 and then 2013

5) Consider the following statements with respect to *Negative-Yield Bonds*

- These are debt instruments that offer to pay the investor, a maturity amount lower than the purchase price of the bond.
- These are generally issued by central banks or governments, and investors pay interest to the borrower to keep their money with them.

Which of the statement(s) given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

### Answers

1. a

- Indian Navy (IN) is scheduled to host the 27th edition of India - Singapore Bilateral Maritime Exercise SIMBEX-20 from 23 to 25 November 2020 in Andaman Sea.
- The SIMBEX series of exercises between IN and Republic of Singapore Navy (RSN), being conducted annually since 1994, are aimed at enhancing mutual inter-operability and imbibing best practices from each other.
- The exercise, being conducted as a '**non-contact, at sea only**' exercise in view of COVID-19 pandemic, highlights the high degree of mutual trust and confidence, synergy and cooperation in the maritime domain between the two friendly navies and maritime neighbours.

2. d

- The Union Cabinet Secretary, Shri Rajiv Gauba has recently chaired a meeting of the National Crisis Management Committee (NCMC) to review the status of impending **Cyclone Nivar** through video conferencing with the Chief Secretaries of Andhra Pradesh, Tamil Nadu and Puducherry.

### **National Crisis Management Committee (NCMC)**

- For effective implementation of relief measures in the wake of natural calamities, the Government of India has set up a Standing National Crisis Management Committee.
- It will be chaired by the **Union Cabinet Secretary**.

3. c

- *People across the country are paying homage to the Sikh Guru Tegh Bahadur on his death anniversary.*
- On November 24, 1675, Guru Tegh Bahadur was publicly executed on the orders of Aurangzeb because he had opposed religious persecution.

### **Guru Tegh Bahadur**

- He is the ninth of the ten Gurus of the Sikhism - was the youngest son of Guru Hargobind.
- Guru Tegh Bahadur had resisted forced conversions of non-Muslims to Islam during Aurangzeb's rule.
- Gurudwara Sis Ganj Sahib and Gurudwara Rakab Ganj Sahib in Delhi are the sites of his execution and cremation.
- Guru Tegh Bahadur's term as Guru ran from 1665 to 1675.
- In the Guru Granth Sahib, there are one hundred and fifteen hymns of Guru Tegh Bahadur.
- Guru Tegh Bahadur is remembered for his selfless service to people.
- He travelled across the country with the teachings of Guru Nanak - the first Sikh Guru.
- Guru Tegh Bahadur had set up community kitchens and wells for the local people wherever he went.
- Anandpur Sahib, the famous holy city and a global tourist attraction in the foothills of Himalayas, was founded by Guru Tegh Bahadur.

4. c

- *Maharashtra has recently announced the setting up of a desalination plant in Mumbai.*

- *The project is proposed to be set up on 25 to 30 acres of land at Manori and will have a capacity of 200 MLD.*

### **Desalination Plant**

- It turns salt water into water that is fit to drink.
- The most common technology used for this process is Reverse Osmosis (RO).
- These plants are mostly set up in areas that have access to sea water.

### **Limitations**

- The **cost of setting up and running a desalination plant is too high.**
- The other problem is the **disposal of the byproduct** — highly concentrated **brine** — of the desalination process.
- While in most places brine is pumped back into the sea, there have been rising complaints **that it ends up severely damaging the local ecology** around the plant.

### **Desalination Plants in India**

- Desalination has largely been limited to affluent countries in the Middle East and has recently started making inroads in parts of the United States and Australia.
- In India, **Tamil Nadu has been the pioneer in using this technology**, setting up two desalination plants near Chennai in 2010 and then 2013.
- Two more plants are expected to be set up in Chennai.
- The other states that have proposed these plants are Gujarat and Andhra Pradesh.
- Maharashtra is becoming the fourth state in the country to experiment with the idea.

### **Reverse Osmosis (RO)**

- During this process, an external pressure is applied to push solvents from an area of high-solute concentration to an area of low-solute concentration through a membrane.
- The microscopic pores in the membranes allow water molecules through but leave salt and most other impurities behind, releasing clean water from the other side.



5. c

- Republic of China had recently sold negative-yield debt for the first time, and this saw a high demand from investors across Europe.

### Negative-yield Bonds

- These are debt instruments that offer to pay the investor a maturity amount lower than the purchase price of the bond.
- These are generally issued by central banks or governments, and investors pay interest to the borrower to keep their money with them.
- Negative-yield bonds attract investments during times of stress and uncertainty as **investors look to protect their capital from significant erosion.**
- At a time when the world is battling the Covid-19 pandemic and interest rates in developed markets across Europe are much lower, investors are looking for relatively better-yielding debt instruments to safeguard their interests.

### Reason for current demand

- There was a huge demand for the 4-billion-euro bonds issued by China and this was mainly due to:

### Lower Yields in Europe

- China's 5-year bond was priced with a yield of -0.152%, and the 10-year and 15-year securities with positive yields of 0.318% and 0.664%.
- The fact that the 10-year and 15-year bonds are offering **positive returns is a big attraction at a time when interest rates in Europe have dropped significantly.**
- As against minus -0.15% yield on the 5-year bond issued by China, the yields offered in safe European bonds are much lower, between -0.5% and -0.75%.

### China's GDP

- While the majority of the large economies are facing a contraction in their GDP for 2020-21, China is one country that is set to witness positive growth in these challenging times: its GDP expanded by 4.9% in the third quarter of 2020.

### COVID-19

- While Europe, the US and other parts of the world are facing a second wave of Covid-19 cases, China has demonstrated that it has controlled the spread of the pandemic and is therefore seen as a more stable region.
- Many feel that European investors are also looking to increase their exposure in China, and hence there is a huge demand for these bonds.

**26-11-2020**

**1) Consider the following statements regarding Garima Greh, which was launched recently**

1. It is a shelter home for persons in destitution including homeless persons, persons in begging, persons with physical and mental disabilities.
2. It was launched by the Ministry of Social Justice and Empowerment.

**Which of the statement(s) given above is/are correct?**

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

**2) Consider the following statements with respect to National Portal for Transgender Persons**

1. It is a portal to help transgender persons to apply for a Certificate and Identity card digitally from anywhere in the country.
2. This portal will help Transgender persons to get certificate and Identity Cards as per their self-perceived identity which is an important provision of The Transgender Persons (Protection of Rights) Act, 2019.

**Which of the statement(s) given above is/are correct?**

- a. 1 only
- b. 2 only





- c. Both 1 and 2  
d. Neither 1 nor 2

3) Consider the following statements with respect to *National Medicinal Plants Board (NMPB)*

1. It focusses on both in-situ & ex-situ conservation and augmenting local medicinal plants and aromatic species of medical significance to meet increasing demand for medicinal plants.
2. The board works under the aegis of Ministry of AYUSH.

Which of the statement(s) given above is/are correct?

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

4) Consider the following statements with respect to *Lakshmi Devi Temple*

1. It was built by the Hoysalas in the year 1114 CE during the rule of king Vishnuvardhana.
2. The temple stand on a jagati (platform), a feature which became popular in later Hoysala temples.

Which of the statement(s) given above is/are correct?

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

5) Consider the following statements with respect to *Electronic Vaccine Intelligence Network (e-VIN)*

1. It is an indigenously developed technology which supports central government's Universal Immunization Programme (UIP).

2. It digitizes vaccine stocks and monitors the temperature of the cold chain through a smartphone application.

Which of the statement(s) given above is/are correct?

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

## Answers

1. b

- Union Minister for Social Justice & Empowerment Shri Thaawarchand Gehlot e-inaugurated a 'Garima Greh: A Shelter Home for Transgender Persons' in Vadodara, Gujarat recently.

### *Garima Greh: A Shelter Home for Transgender Persons'*

- It will be run in association with Lakshya Trust, a Community based organisation entirely run by the Transgenders.
- The purpose of the Shelter Home is to provide shelter to Transgender persons, with basic amenities like shelter, food, medical care and recreational facilities.
- Besides, it will provide support for the capacity-building/skill development of persons in the Community, which will enable them to lead a life of dignity and respect.

2. c

- Union Minister for Social Justice & Empowerment Shri Thaawarchand Gehlot e-launched a 'National Portal for Transgender Persons' recently.

### *National Portal for Transgender Persons*

- It has been developed after the recent notification of Transgender Persons (Protection of Rights) Rules, 2020.
- This highly useful Portal would help a transgender person in applying for a Certificate and Identity card digitally from anywhere in the country.



- The most important benefit is that it helps the transgender person to get the I-Card without any physical interface and without having to visit any office.
- This portal will help a lot of people from the community to come forward and get Transgender Certificate and Identity Cards as per their **self-perceived identity** which is **an important provision of The Transgender Persons (Protection of Rights) Act, 2019**.

3. c

- *Shri Shripad Yesso Naik, Minister of State (IC), for AYUSH chaired an e-event organized by the National Medicinal Plants Board (NMPB) on 24th November, 2020 to celebrate its Establishment Day.*
- On this occasion, a “Status Report of NMPB 2020” and “Ayur-veg” e-book were also released.
- The National Medicinal Plants Board (NMPB) has completed two decades of its existence.

#### **National Medicinal Plants Board (NMPB)**

- It was 24th November 2000, that the then Department of AYUSH joined hands with the Ministry of Environment and Forest, Department of Scientific and Industrial Research, Department of Biotechnology and Department of Agricultural Research and Education to form the National Medicinal Plants Board (NMPB).
- The Board, today, is an integral unit of the Ministry of AYUSH with the aforesaid Ministries and Departments offering consultations and support, and it exercises oversight on medicinal plants sector.
- NMPB's main objective is the development of medicinal plants sector through developing a strong coordination between the stakeholders i.e., farmers, traders, and manufacturers benefiting each of them.
- The endeavor would increase the income and livelihood of the farmers and tribes.

#### **Voluntary Certification Scheme for Medicinal Plants Production (VCSMP)**

- It has been an important achievement of NMPB.

- The scheme, designed with the support of the Quality Council of India, encourages good practices among farmers in the matter of cultivation, field collection and maintaining quality of the medicinal plants products.
- This certification is, in many ways, a form of quality assurance, and it has resulted in easy marketing and export of medicinal plants products.

4. a

- *Recently, a Hoysala-era idol of Goddess Kali of the Lakshmi Devi Temple at Doddagaddavalli, Karnataka has been found damaged.*

#### **Hoysala Lakshmi Devi Temple**

- Lakshmi Devi temple was built by the Hoysalas in the year 1114 CE during the rule of king Vishnuvardhana.
- The building material is Chloritic schist, more commonly known as soapstone.
- ***The temple does not stand on a jagati (platform), a feature which became popular in later Hoysala temples.***
- The temple is a Chatuskuta construction (4 shrine and tower) and the towers are in Kadamba nagara style.
- The mantapa is open and square, the reason for the square plan is the presence of shrines on all four sides of the mantapa.
- The main deity is Goddess Lakshmi whereas all Hoysala temples are dedicated to either Lord Vishnu, Lord Shiva and in some cases to Jains.
- An archaeological Survey of India (ASI) monument and is also among the monuments proposed for the UNESCO World Heritage Site.

#### **Hoysala Temple Architecture**

- It is the building style developed under the rule of the Hoysalas and is mostly concentrated in southern Karnataka.
- Hoysala temples are sometimes called hybrid or vesara as their unique style seems neither completely dravida nor nagara, but somewhere in between.



- They are easily distinguishable from other medieval temples by their highly original star-like ground-plans and a profusion of decorative carvings.
- The temples, instead of consisting of a simple inner chamber with its pillared hall, contain multiple shrines grouped around a central pillared hall and laid out in the shape of an intricately-designed star.
- The most characteristic feature of these temples is that they grow extremely complex with so many projecting angles emerging from the previously straightforward square temple.
- The plan of these temples starts looking like a star, and is thus known as a stellate-plan.

5. c

- *Union Health Minister Harsh Vardhan has recently said the digital platform eVIN used in the Universal Immunisation Programme was being repurposed to digitally track movement of stocks of COVID-19 vaccines, once available, and also trace those who will receive the shots thus ensuring last-mile vaccine delivery.*

#### **eVIN (Electronic Vaccine Intelligence Network)**

- It is an indigenously developed technology system in India that digitizes vaccine stocks and monitors the temperature of the cold chain through a smartphone application.
- The innovative eVIN was first launched across twelve states in India in 2015.
- eVIN aims to support the Government of India's Universal Immunization Programme by providing real-time information on vaccine stocks and flows, and storage temperatures across all cold chain points in these states.

**27-11-2020**

#### **1. Consider the following statements regarding "Bhavai"**

- 1. It is a traditional folk theatre art performed in Kerala**
- 2. Bhavai performers belong to a caste that came to be known as Taragala**

#### **Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

#### **2. Consider the following statements with respect to Human Resource Management System (HRMS) launched recently,**

- 1. It is a digital portal expected to create an impact on the functioning of all government employees and will make them more tech savvy.**
- 2. It is launched by Union Ministry of Human Resources Development**

#### **Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

#### **3. Consider the following statements with respect to Invest India**

- 1. It is the National Investment Promotion and Facilitation Agency of India established by DPIIT**
- 2. It focuses on sector-specific investor targeting and development of new partnerships to enable sustainable investments in India.**

#### **Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

#### **4. Consider the following statements with respect to Characteristic features of M Dwarf Stars**

1. The red dwarf stars have relatively High pressures, a low fusion rate, and a high temperature.
2. The low temperature of red dwarfs implies that they are far brighter than stars like the sun.

Which of the statement(s) given above is/are correct?

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

5. Consider the following statements with respect to Unique Document Identification Number

1. Unique Document Identification Number (UDIN) is a unique number given to documents attested by Chartered Accountants in Practice.
2. CBDT will validate Unique Document Identification Number (UDIN) at the time of upload of Tax Audit.

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

## Answers

1. b

- Bhavai, also known as Vesha or Swang, is a popular folk theatre form of western India, especially in Gujarat.
- Bhavai is believed to have originated in the 14th century, Asaita Thakar is traditionally credited for its origin.
- Bhavai is partly entertainment and partly a ritual offering made to Goddess Amba.
- It is performed in open spaces in front of the temple.
- Bhavai performers belong to a caste that came to be known as Taragala.

2. a

- Indian Railways has recently launched the digitised online Human Resource Management System (HRMS).
- It is a high thrust project for Indian Railways to leverage improved productivity & employee satisfaction.
- It enables a company to fully understand its workforce while staying compliant with changing tax laws and labour regulations.
- The Human Resource Management System (HRMS) will impact over 27 lakh families of serving Railway employees as well those who have retired.

3. c

- Invest India is the National Investment Promotion and Facilitation Agency of India.
- It was set up in 2009 as a non-profit venture under the Department for Promotion of Industry and Internal Trade (DPIIT).
- It will act as the first point of reference for investors in India.
- Invest India focuses on sector-specific investor targeting and development of new partnerships to enable sustainable investments in India.
- It actively works with several Indian states to build capacity as well as bring in global best practices in investment targeting, promotion and facilitation areas.

4. d

- The red dwarf stars have relatively low pressures, a low fusion rate, and a low temperature.
- The low temperature of red dwarfs implies that they are far dimmer than stars like the sun.
- The low temperature also means that they burn through their supply of hydrogen less rapidly.
- The red dwarf stars live for so long that not one of them has reached an advanced stage of evolution since the universe was created.

5. c



- Unique Document Identification Number (UDIN) is a unique number given to documents attested by Chartered Accountants in Practice.
- It is an 18 digits system generated unique number which shall generated separately for each document.
- Generation of UDIN from ICAI website mandatory for every kind of certificate/tax audit report and other attests made by their members as required by various regulators.
- This was introduced to curb fake certifications by non-CAs misrepresenting themselves as Chartered Accountants.
- CBDT will validate Unique Document Identification Number (UDIN) at the time of upload of Tax Audit.

**28-11-2020**

**1. The term “Devanam” recently found from a Brahmi inscription means?**

- A holy River
- Surname of God
- Title of Asoka
- Divine Food

**2. Which of the following ministries has launched the “India Climate Change Knowledge Portal”?**

- Union Ministry of Earth Sciences
- Union Ministry of Science and Technology
- Union Ministry of Environment, Forest and Climate Change
- Union Ministry of Education

**3. Consider the following statements with respect to “Bioluminescence”**

**1. It is found only in marine organisms such as jellyfish, worms, crustaceans, sea stars, fish and sharks.**

**2. Luminescence is generally higher in deep-living and planktonic organisms than in shallow species.**

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**4. Which of the following regarding the term “Climate Emergency” is incorrect?**

- Climate emergency as a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.
- The climate emergency declaration refers to the act of naming a state of emergency.
- Some of the countries that have declared a climate emergency in recent years include the UK, Portugal, Canada, France and, most recently, Japan.

**Select the correct answer using the codes given below:**

- 2 only
- 3 only
- 2 and 3 only
- None of the above

**5. Consider the following statements with respect to “Brain Electrical Oscillation Signature Profiling (BEOSP)”**

- BEOSP test is carried out via a process known as electroencephalogram.
- It is a non-invasive technique with a great degree of sensitivity and is referred to as brain fingerprinting or brain finger mapping.

**Which of the statement(s) given above is/are correct?**

- 1 only
- 2 only
- Both 1 and 2





d. Neither 1 nor 2

**6) The Department of Science and Technology (DST) is incorporating a program, borrowed from the United Kingdom (UK) called, Athena SWAN. In India, it will be called as GATI. The program is related to which of the following?**

- Developing scientific temper and promoting Science among School students
- Discouraging medical practitioners to use sex selection techniques including designer babies
- Gender equity in Science, Technology, Engineering, Mathematics, and Medicine (STEMM)
- None of the above

**7) Consider the following statements with respect to Information Management & Analysis Centre (IMAC)**

- It is the nodal centre for maritime security information collation and dissemination established in 2014.
- It is jointly operated by the Navy and the Coast Guard.

**Which of the statement(s) given above is/are incorrect?**

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**8) Striped Bubble-Nest Frog, a new genus of tree frog was recently reported in?**

- Mauritius
- Madagascar
- Galapagos Island
- Andaman Islands

**9) Which of the following is/are the grounds for the loss of citizenship in India?**

- The citizen showing disloyalty to the Constitution of India.

**2. Indian citizen voluntarily acquiring the citizenship of another country.**

**3. Declaration by the citizen to renounce his/her citizenship.**

**Select the correct answer using the code given below:**

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

**10) Which of the following writs can be issued against administrative authorities?**

- Prohibition, Certiorari and Mandamus
- Certiorari and Mandamus
- Prohibition and Mandamus
- Prohibition and Certiorari

## Answers

1. c

**Devanam**

- Recently, the researchers discovered a terracotta object containing Brahmi inscription written in Prakrit language and in characters of the 3rd century B.C.
- The inscription reads “Devanam” prefixed with a symbol of ‘Nandipada’.
- The word “devanam” suggests indicating the part of the title of Emperor Asoka of the Mauryan dynasty.
- The discovery of Brahmi script paleographically assignable to Mauryan period on the terracotta is a rare and landmark epigraphical discovery in India.

2. c

**India Climate Change Knowledge Portal**

- Recently, Ministry of Environment, Forest and Climate Change launched the India Climate Change Knowledge Portal.
- It is a comprehensive portal which has captured sector-wise adaptation and

mitigation actions being taken by the various line ministries in one place.

3. b

### **Bioluminescence**

- Bioluminescence is the property of a living organism to produce and emit light.
- It is found in many marine organisms such as bacteria, algae, jellyfish, worms, crustaceans, sea stars, fish and sharks.
- Animals, plants, fungi and bacteria show bioluminescence.
- Recently Researchers in North-East India has discovered a bioluminescent or light emitting variety of mushroom, named as *Roridomyces phyllostachydis*.
- Luminescence is generally higher in deep-living and planktonic organisms than in shallow species.

4. d

All the Statements about Climate Emergency are Correct

### **Climate Emergency**

- The government of New Zealand will decide if a climate emergency should be declared in the country or not.
- Some of the countries that have already declared climate emergency include the UK, Portugal, Canada, France and, most recently, Japan.
- In 2019, the Oxford dictionaries declared "climate emergency" to be the word of the year.
- It defines "climate emergency" as a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.
- Climate emergency reflects the ethos, mood, or preoccupations of the passing year, and have lasting potential as a term of cultural significance.

5. c

### **Brain Electrical Oscillation Signature Profiling**

- BESOP is a neuro-psychological method of interrogation in which the accused is investigated by studying their brain's response.
- The BEOSP test is carried out via a process known as electroencephalogram, conducted to study the electrical behaviour of the human brain.
- It is a non-invasive technique with a great degree of sensitivity and is referred to as brain fingerprinting or brain finger mapping.
- The BEOSP procedure does not involve a question answer session with the accused and is rather a neuro psychological study of their brain.
- In a polygraph test, the accused person's physiological indicators are taken into account which includes blood pressure, pulse rate, respiration and skin conductivity.

6. c

- *To increase the participation of women in science, the Department of Science & Technology (DST) will incorporate a **system of grading institutes depending on the enrolment of women and the advancement of the careers of women faculty and scientists.***
- The concept borrows from a programme started by the UK in 2005 called the Athena SWAN (Scientific Women's Academic Network), which is now being adopted by many countries.

### **Athena SWAN Charter**

- It is an evaluation and accreditation programme in the UK enhancing gender equity in science, technology, engineering, mathematics and medicine (STEMM).
- In India, it will be called as Gender Advancement through Transforming Institutions (GATI).

7. d

### **Information Management & Analysis Centre (IMAC)**

- To ensure the working of Indian Navy, Coast Guard and Marine Police in an integrated manner, an organization named the Information Management & Analysis Centre (IMAC) was setup in 2014.



- It is based in Gurgaon and is the nodal centre for maritime security information collation and dissemination.
- It is jointly operation by the Navy and the Coast Guard and is the corner stone of the National Command Control Communication and Intelligence Network for monitoring maritime traffic in India's area of interest.

8. d

- Recently a group of scientists has reported a new genus of tree frog from the Andaman Islands called Striped Bubble-nest frog.

### Striped Bubble-Nest Frog

- Striped Bubble-nest frog belongs to the genus of the Old World tree frog family Rhacophoridae.
- This is the first report of a tree frog species from the Andaman Islands.
- It has a small and slender body (2-3 cm long).
- It lays Light green-coloured eggs in arboreal bubble-nests, Arboreal means living in trees or related trees.
- They are also known as Asian Glass Frog or see through frogs.
- While the general background coloration of most glass frogs is primarily lime green, the abdominal skin of some members of this family is translucent (allowing light to pass through).
- The internal viscera, including the heart, liver, and gastrointestinal tract, are visible through this translucent skin, hence the common name.

9. d

10. b

1. Prohibition can be issued only against judicial and quasi-judicial authorities.
2. It is not available against administrative authorities, legislative bodies, and private individuals or bodies.

30-11-2020

### 1) Consider the following statements with respect to Giant Metrewave Radio Telescope (GMRT)

1. It is an array of 30 antennas positioned in a 'Y' fashion, centred at Pune, Maharashtra.
2. It is being operated by the TIFR – National Centre for Radio Astrophysics (NCRA).
3. It is used extensively for studying the universe in low frequency since 2000.

Which of the statements given above are correct?

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

### 2) Which of the following countries are members of Organisation of Islamic Cooperation (OIC)?

1. Iraq
2. Iran
3. Pakistan
4. Bangladesh
5. Afghanistan

Select the correct answer using the codes given below:

- a. 3 only
- b. 1, 3 and 5 only
- c. All except 1 and 2
- d. All of the above

### 3) Consider the following statements with respect to *Noctiluca Scintillans*, often seen in the news recently?

1. It is a bioluminescent species that brightens the seawater during the night.
2. It acts as both a plant and an animal.

Which of the statement(s) given above is/are correct?



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

4) A first-of-its-kind unique bridge which helps reptiles to cross busy jungle road was recently built in which of the following states?

- a. Kerala
- b. Nagaland
- c. Meghalaya
- d. Uttarakhand

5) Which of the following parameters that characterise the degradation of water quality?

1. High pH
2. High dissolved oxygen
3. Low electrical conductivity
4. High Biochemical Oxygen Demand

Select the correct answer using the codes given below:

- a. 4 only
- b. All except 2
- c. 1, 3 and 4 only
- d. All of the above

6) Consider the following statements regarding “Global Innovation & Technology Alliance”

1. Global Innovation & Technology Alliance (GITA) is a “not-for-profit” Public Private Partnership (PPP) company.
2. It is promoted jointly by the Technology Development Board (TDB), Department of Science & Technology (DST), and CSIR.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only

- c. Both 1 and 2
- d. Neither 1 nor 2

7) Consider the following statements with respect to “Mission COVID Suraksha”

1. Under the mission, health insurance will be given to vulnerable sections to meet out of pocket expenditure due to COVID infections.
2. There is also central grant component aimed at strengthening the existing immunoassay laboratories, central laboratories to develop COVID vaccines.

Select the correct answers using the codes given below

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

8) Consider the following statements with respect to “Dry Swab Testing Method”

1. It is more economical than conventional RT-PCR tests for detection of molecular detection of SARS-CoV-2.
2. It is easy to implement with no requirement of new kits and existing manpower can perform this with no additional training.

Which of the statement(s) given above is/are correct?

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

9) The term “Hualong One” recently in news is related to?

- a. A Satellite to Moon
- b. A Nuclear Reactor
- c. A Solar launch pad

d. A Launch Vehicle

**10) Which of the following statements are correct with respect to “TX2 – global Commitments”**

1. The TX2 commitment is set by Union Ministry of Environment, Forest and Climate Change with the support from World Bank.
2. TX2 Award is given to one site that has achieved remarkable and measurable increase in its tiger population since 2010.

**Which of the statement(s) given above is/are correct?**

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

## Answers

1. d

- Pune-based Giant Metre wave Radio Telescope (GMRT) has become the **third Indian scientific facility to be awarded the Institute of Electrical and Electronics Engineers (IEEE) milestone** for its novel engineering, advanced technology and scientific contributions made in the field of radio astronomy.

### **Giant Metre wave Radio Telescope (GMRT)**

- It is an array of 30 antennas positioned in a ‘Y’ fashion, centred at Khodad village in Junnar taluka of Pune district.
- Operated by the TIFR – National Centre for Radio Astrophysics (NCRA), the GMRT was the brainchild of late Govind Swarup.
- Extensively used for studying the universe in low frequency since 2000, the telescope has been instrumental in many path-breaking discoveries. Scientists from more than 40 countries are beneficiaries of data obtained from this telescope.

### **Institute of Electrical and Electronics Engineers (IEEE)**

- The IEEE is the world’s largest technical body publishing research from the fields of engineering and computing, in addition to awarding standards to institutions and organisations involved in these fields.
- J C Bose’s demonstration of generation and reception of radio waves (1895) and the discovery of the Raman Effect by C V Raman (1928) have been the only IEEE milestone winners from India, till date.
- However, their discoveries were recognised as late as 2012.
- IEEE considers an institution for the milestone on the basis of engineering, science, and computational facilities it offers for not less than 25 years.
- It seeks well-documented history and consistent contributions provided by the institute.

2. d

- India has ‘strongly’ rejected the criticism of its Kashmir policy by the Organisation of Islamic Cooperation (OIC) recently.
- The statement said “We strongly and categorically reject the factually incorrect, gratuitous and unwarranted references to India in resolutions adopted by the Organisation of Islamic Cooperation (OIC) at the 47th CFM Session in Niamey, Republic of Niger, held on 27-28 November 2020.

### **What is the issue?**

- The report of the OIC Secretary General on its activities submitted to the 47th session of the Council of Foreign Ministers referred to the situation in J&K and said, “The decision of the Indian government on 5 August 2019 towards changing the demographic and geographic composition of the territory, and the continuous blockade and restrictions together with human rights abuses, had awakened renewed efforts of the international community towards a resolution of the conflict.”

3. c

### **Sea Sparkle Bloom in Karnataka**



- The bloom of *Noctiluca Scintillans*, known as “sea sparkle” has been witnessed in the Karnataka coast for about a month.
- The bioluminescent green dinoflagellate *N. Scintillans* also brightened the sea water during night.
- It has displaced microscopic algae called diatoms (basis of the marine food chain), which has deprived food for the planktivorous fish.
- The species was found to accumulate toxic levels of ammonia.
- It is then excreted into the surrounding waters, possibly acting as the killing agent in blooms.
- *N. Scintillans* acts as both a plant and an animal.
- It grazes on other micro-organisms such as larvae, fish eggs, and diatoms.
- The phytoplankton that live inside it can photosynthesise, turning sunlight into energy.

4. d

- *The Uttarkhand Forest Department has built a first-of-its-kind ecobridge across a busy highway in Ramnagar forest division of Nainital district so that reptiles trying to cross over are not crushed under traffic.*
- The 90-foot long structure of bamboo, jute, and grasses was built across the two-lane kaladhungi-Nainital highway.
- The jungle is home to monitor lizards, snakes including pythons, rodent squirrels, and monkeys, and the crushed remains of reptiles are frequently found on the highway.

5. a

Some of the physiochemical and biological parameters that characterise the degradation of water quality are:

1. Low pH
2. Low dissolved oxygen
3. High electrical conductivity
4. High BOD [biochemical oxygen demand]
5. High concentration of ions of sulphate and other toxic metals

6. a

## GITA

- Global Innovation & Technology Alliance (GITA) is a “not-for-profit” Section-8 Public Private Partnership (PPP) company.
- It is promoted jointly by the Technology Development Board (TDB), Department of Science & Technology (DST) and the Confederation of Indian Industry (CII).
- The platform encourages industrial investments in innovative technology solutions.

7. b

## Mission COVID Suraksha

- It is an Indian COVID-19 Vaccine Development Mission with end-to-end focus from preclinical development through clinical development and manufacturing and regulatory facilitation.
- Under the mission, the grant will be provided to the Department of Biotechnology (DBT) for Research & Development of Indian COVID-19 vaccines.
- It will help accelerate development of approximately 5-6 vaccine candidates and ensure that these are brought closer to licensure and introduction in market for consideration of regulatory authorities.

8. c

## Dry Swab test

- Recently CSIR-CCMB has got the permission of the Indian Council of Medical Research (ICMR) to commercially use the dry swab RNA-extraction free testing method for the Covid-19.
- Dry swabs eluted directly into a simple buffered solution can support molecular detection of SARS-CoV-2 via endpoint RT-PCR without substantially compromising sensitivity.
- Dry swab technique does not require Viral Transport Medium (VTM) and RNA extraction process, and can be directly used for RT-PCR testing.
- It has the potential of bringing the costs and time of testing by 40-50% and the screening can also be enhanced several-fold with

immediate effect while, at the same time, making the whole process safer.

- It is easy to implement with no requirement of new kits and existing manpower can perform this with no additional training.

9. b

#### **Hualong One**

- 'Hualong One' is China's first domestically made nuclear reactor.
- It can generate 10 billion kilowatt-hours of electricity each year and cut carbon emissions by 8.16 million tons.
- It marks China breaking the monopoly of foreign nuclear power technology and officially entering the technology's first batch of advanced countries.

10. b

#### **TX2 Global Commitment**

- The TX2 goal is a global commitment to double the world's wild tigers by 2022.
- The goal has been set by the World Wildlife Fund (WWF) through the Global Tiger Initiative, Global Tiger Forum and other critical platforms.
- Tiger Conservation awards includes
  1. **TX2 Award:** It goes to one site that has achieved remarkable and measurable increase in its tiger population since 2010.
  2. **Conservation Excellence Award:** This award recognises one site that has achieved excellence in two or more of these five themes in tiger conservation