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For the 1st Week

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December

2020

(30th November to 5th December)

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Table of Contents

1. Geography.....	1
2. History & Culture.....	5
3. Polity & Governance.....	9
4. Environment & Ecology.....	14
5. Science & Technology.....	18

1. Geography

Click [here](#) to watch the following questions on YouTube

1. Shahtoot dam, recently heard in news, is in

- A. Pakistan
- B. Afghanistan
- C. India
- D. Bhutan

Answer: B

Explanation

- India will be constructing the Shahtoot Dam on Kabul River in Afghanistan and that the Governments of two nations have recently concluded an agreement for the same.
- The dam's construction would provide safe drinking water to two million residents of Kabul city which is the Afghan capital.
- The dam would come upon the Maidan River, tributary of Kabul River.
- The conversations for construction of the Shahtoot Dam had begun in 2016.



2. Which of the following have been correctly matched?

1. Ganga - Gangotri
2. Yamuna - Yamunotri
3. Rangeet - Rathong
4. Chambal - Janapav

- A. 1, 2 and 3 only
- B. 1, 3 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

Answer: C

Explanation

- Ganga originates from DevPrayag.



3. Which of the following statements regarding cyclones are correct?

1. Tropical cyclones originate and intensify over warm tropical oceans.
2. Presence of the Coriolis force is an essential condition for cyclone formation.
3. Nivar was a tropical cyclone which brought severe impacts to portions of Indonesia and Thailand.

- A. 1 and 2 only
B. 2 and 3 only
C. 1, 2 and 3
D. 1 and 3 only

Answer: A

Explanation

- Very Severe Cyclonic Storm Nivar was a tropical cyclone which brought severe impacts to portions of Tamil Nadu and Andhra Pradesh.
- The seventh depression and fourth named storm of the 2020 North Indian Ocean cyclone season, Nivar originated from a disturbance in the Intertropical Convergence Zone.
- Tropical cyclones are violent storms that originate over oceans in tropical areas and move over to the coastal areas bringing about large scale destruction caused by violent winds, very heavy rainfall and storm surges.
- Tropical Cyclones are one of the most devastating natural calamities in the world.
- Tropical cyclones originate and intensify over warm tropical oceans. The conditions favourable for the formation and intensification of tropical storms are:
 - ✓ Large sea surface with temperature higher than 27° C.
 - ✓ Presence of the Coriolis force.
 - ✓ Small variations in the vertical wind speed.
 - ✓ A pre-existing weak low- pressure area or low-level-cyclonic circulation.
 - ✓ Upper divergence above the sea level system.

4. Which of the following statements regarding Trenches are correct?

1. Trenches are elevations in the deepest parts of the ocean.
2. These are formed when old ocean crust from one tectonic plate is pushed beneath another plate, raising mountains, causing earthquakes, and forming volcanoes on the seafloor and on land.

- A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

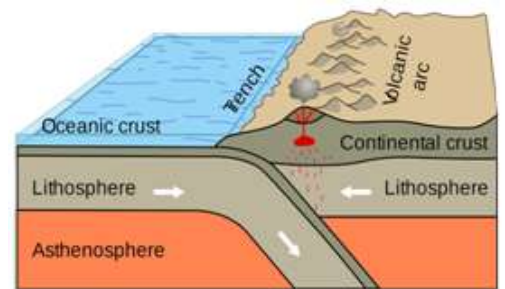
Answer: B

Explanation

- Recently China broke its own record for deepest manned dive into the world's oceans, sinking an estimated 10,909 meters (35,790 feet) into the Mariana Trench.
- Ocean trenches are steep depressions in the deepest parts of the ocean [where old ocean crust from one tectonic plate is pushed beneath another plate, raising mountains, causing earthquakes, and forming volcanoes on the seafloor and on land.
- The deepest parts of a trench, however, represent only about 1 percent or less of its total area.
- The vast submarine slopes and steep walls of trenches make up much of the hadal zone, where unique habitats extending across a range of depths are home to diverse number of species, many of which are new or still unknown to science.

How are trenches formed?

- Trenches are formed by subduction, a geophysical process in which two or more of Earth's tectonic plates converge and the older, denser plate is pushed beneath the lighter plate and deep into the mantle, causing the seafloor and outermost crust (the lithosphere) to bend and form a steep, V-shaped depression
- This process makes trenches dynamic geological features—they account for a significant part of Earth's seismic activity—and are frequently the site of large earthquakes, including some of the largest earthquakes on record.
- Subduction also generates an upwelling of molten crust that forms mountain ridges and volcanic islands parallel to the trench. Examples of these volcanic "arcs" can be seen in the Japanese Archipelago, the Aleutian Islands, and many other locations around this area called the Pacific "Ring of Fire."



5. BOGOR GOALS, recently heard in news, are related to

- A. BRICS
- B. SCO
- C. UNICEF
- D. APEC

Answer: D

Explanation

- Recently, a virtual meeting of the 21-member Asia-Pacific Economic Cooperation (APEC) forum was held.
- The meeting was hosted by Malaysia.
- New Zealand will also host next year's APEC meetings virtually due to the pandemic.
- Growth in the Asia-Pacific region expected to decline by 2.7% this year, from a 3.6% growth in 2019.

- APEC's focus was on accelerating economic recovery and developing an affordable vaccine.
- Focus Areas: Trade and investment, Digital Economy and Technology, Structural Reform, Economic and Technical Cooperation and Thematic and institutional matters.
- APEC leaders adopted the Putrajaya Vision 2040, a new 20-year growth vision to replace the Bogor Goals named after the Indonesian town where leaders agreed in 1994 to free and open trade and investment.
- Recognised the importance of a free, open, fair, non-discriminatory, transparent and predictable trade and investment environment to drive economic recovery at such a challenging time (Covid-19).
- Discussed the Free Trade Area of the Asia-Pacific (FTAAP) agenda and the APEC Internet and Digital Economy Roadmap (AIDER).

2. History & Culture

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1. Which of the following statements regarding Constitution Of India are correct?

1. The basic structure of the Indian Constitution stands on the Government of India Act, 1935.
2. The preamble of the Indian Constitution has been amended thrice so far.
3. The Constitution was published in Dehradun and photo lithographed by the Survey of India.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Explanation

- The Constitution of India has borrowed some of its features from 10 other countries, including Britain, Ireland, Japan, USA, South Africa, Germany, Australia, and Canada.
- The Constituent Assembly of India was established in 1946. It met for 166 days spread over 2 years, 11 months and 18 days.
- Dr. Rajendra Prasad, the first President of India, was elected as the President of the Constituent Assembly and Dr. B. R. Ambedkar was the head of the drafting committee.
- The word “socialist” was added to the preamble of the Indian Constitution during emergency, by the 42nd amendment act of 1976.
- The original hand-written copies of the Constitution are preserved in helium-filled cases in the Library of Parliament House.
- The basic structure of the Indian Constitution stands on the Government of India Act, 1935.
- The preamble of the Indian Constitution has been amended only once so far on December 18 December 1976, during emergency.
- The original Constitution of India was handwritten by Prem Behari Narain Raizada in a flowing italic style with beautiful calligraphy.
- The Constitution was published in Dehradun and photo lithographed by the Survey of India.

Sources	Features Borrowed
1. Government of India Act of 1935	Federal Scheme, Office of governor, Judiciary, Public Service Commissions, Emergency provisions and administrative details.
2. British Constitution	Parliamentary government, Rule of Law, legislative procedure, single citizenship, cabinet system, prerogative writs, parliamentary privileges and bicameralism.
3. US Constitution	Fundamental rights, independence of judiciary, judicial review, impeachment of the president, removal of Supreme Court and high court judges and post of vice-president.
4. Irish Constitution	Directive Principles of State Policy, nomination of members to Rajya Sabha and method of election of president.
5. Canadian Constitution	Federation with a strong Centre, vesting of residuary powers in the Centre, appointment of state governors by the Centre, and advisory jurisdiction of the Supreme Court.
6. Australian Constitution	Concurrent List, freedom of trade, commerce and intercourse, and joint sitting of the two Houses of Parliament.
7. Weimar Constitution of Germany	Suspension of Fundamental Rights during Emergency.
Soviet Constitution	Fundamental duties and the ideal of justice (social,

2. Based on the following statements identify the personality?

1. He was a social reformer during the reign of the Kalachuri-dynasty king Bijjala I in Karnataka.
2. Some of the works credited to him are Shat-sthala-vachana, Kala-jnana-vachana, Mantra-gopya, Ghatachakra-vachana and Raja-yoga-vachana.
3. He is also known as Bhaktibhandari.
4. On 14 November 2015, the Prime Minister of India inaugurated his statue along the bank of the river Thames at Lambeth in London.

- A. Basavanna
- B. Thiruvalluvar
- C. Ayyankali
- D. Chinnaswami Subramanya Bharathi

Answer: A

Explanation

- Basavanna was a 12th century poet-philosopher who was the founding saint of the Lingayat sect
- A staunch follower of Shiva, Basava is believed to have born on the third day of Vaisakha month of the Anandanama (Samvatsara) in the year 1134 A.D.
- According to believers, the birth of the prophet Basavanna heralded a new era and people refer to the year as 'Basava Era' or 'Basaveshwar Era'
- He can be best described as a 12th-century philosopher, statesman, Kannada poet in the Shiva-focussed Bhakti movement and a social reformer during the reign of the Kalachuri-dynasty king Bijjala I in Karnataka.
- Some of the works credited to Basavanna include Vachana such as the Shat-sthala-vachana, Kala-jnana-vachana, Mantra-gopya, Ghatachakra-vachana and Raja-yoga-vachana.
- Basava advocated that every human being was equal, irrespective of caste and that all forms of manual labour were equally important.
- He advocated the wearing of Ishtalinga, a necklace with a pendant that contains a small Shiva Linga.
- On 14 November 2015, the Prime Minister of India Narendra Modi, inaugurated the statue of Basavanna along the bank of the river Thames at Lambeth in London.
- Furthermore, Basavanna is the first Kannadiga in whose honour a commemorative coin has been minted in recognition of his social reforms.
- He is also known as Bhaktibhandari (literally, the treasurer of devotion), or Basaveswara (Lord Basava).

3. Which of the pairs have been correctly matched?

1. Koya- Gujrat
2. Kurukh- Bihar

3. Sugalis – Andhra Pradesh

4. Lepcha- Sikkim

- A. 1, 2 and 3 only
- B. 3 only
- C. 1 and 4 only
- D. 2, 3 and 4

Answer: D

Explanation

- Koya are an Indian tribal group found in the states of Telangana, Andhra Pradesh and Odisha. Koyas are commonly referred to as Koi, Koyalu, Koyollu, Koya Doralu, Doralu Sattam, etc.

4. The Gold coin “denarii” was first introduced in India by

- A. Kanishka
- B. Balban
- C. Bairam Khan
- D. Iltutmish

Answer: A

Explanation

- Kanishka the Kushan introduced gold coins in India.
- Roman denarii were the first gold coins to appear in India, which had only seen copper and silver coins so far, though of course, gold jewellery had been around for ages.
- Soon the Indian rulers of the day copied the idea and gold coins were minted in India for the first time
- The Kushan empire extended from southern Uzbekistan and Tajikistan, through much of present-day Afghanistan and Pakistan, most of Northern India, including Kashmir, to Pataliputra, which is now known as Patna, the state capital of Bihar.
- The Kushan-period gold coins generally depicted iconography from Indian mythology, where Shiva, Buddha and Kartikeya were the major Indian deities portrayed.
- Other icons were drawn from Greek, Mesopotamian, and Zoroastrian mythologies, demonstrating the the fusion of different religions of that period.
- Kanishka's coins from the beginning of his reign bear legends in the Greek language and script and depict Greek divinities.
- Later coins bear legends in Bactrian, the Iranian language that the Kushans spoke, and Greek divinities were replaced by the corresponding Iranian ones.



5. Thoda – A form of martial art is associated with which state?

- A. Jharkhand
- B. Kerala
- C. Madhya Pradesh
- D. Himachal Pradesh

Answer: D

Explanation

- Thoda name is derived from the round wooden piece attached to the head of an arrow to minimise its lethal potential.
- It is a mixture of martial art, sport and culture.
- It takes place during Baisakhi every year.
- This martial art relies on a player's skill of archery and can be dated back at the time of Mahabharata where bows and arrows were used in the valleys of Kullu and Manali.
- In the game, there are 2 groups of 500 people each. All of them are not archers but dancers also who came with them to boost the morale of their respective teams.
- The two teams are called Pashis and Saathis, who believed to be the descendants of Pandavas and Kauravas of Mahabharata.



3. Polity & Governance

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1. Abhyam app, recently heard in news, is related to

- A. MSME sector
- B. Women safety
- C. Drug dead diction helpline
- D. Child trafficking

Answer: B

Explanation

- Chief Minister of Andhra Pradesh recently launched “Abhayam” mobile phone application which helps women and children travelling in taxis and auto rickshaws to raise an alarm in case of any emergency.
- To start with, 1,000 auto rickshaws equipped with Internet of Things (IoT)-enabled GPS devices would be rolled out in Visakhapatnam city.
- About 5,000 vehicles would be brought on to the platform by February 1, 50,000 by July 1 and 1 lakh by November 2021 covering Vijayawada and Tirupati and other towns later.
- Launching the app the government accorded top priority to the safety of women and children and that Andhra Pradesh was the first State to bring out legislation (Disha Bill) for the security of women.
- Disha police stations were set up and steps were taken for establishing special courts and posting dedicated public prosecutors to ensure speedy disposal of cases of attack on women.
- Women police constables were being attached to every village and ward secretariat to help women in distress.

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Alert to police

- To be operated by the Transport Department, the Abhayam app would help the women in alerting the police by pressing a panic button in the event of their landing in any trouble.
- Disha app is handled by the police
- The policemen would be able to reach out to the women in need in 10 minutes by virtue of the vehicle tracking facility provided by the IoT-based system.
- Passengers have to scan QR codes displayed on the vehicles to facilitate tracking.

2. Which of the following statements about Poshan Abhiyan are correct?

1. Launched in 2018, it is the Government of India's flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers.
2. It is backed by a National Nutrition Strategy prepared by the NITI Aayog.

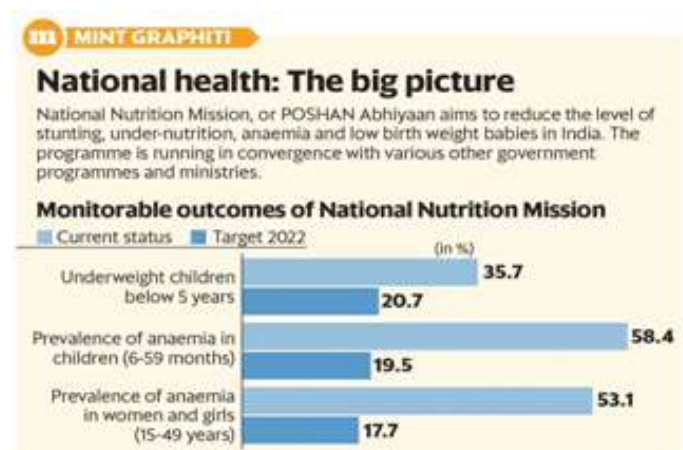
- A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Answer: C

Explanation

National Nutrition Mission

- It was Launched in 2018, it is the Government of India's flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers.
- It is backed by a National Nutrition Strategy prepared by the NITI Aayog with the goal of attaining "Kuposhan Mukt Bharat" or malnutrition-free India, by 2022.
- Recently, the NITI Aayog has released "Accelerating Progress On Nutrition In India: What Will It Take", the third progress report on the National Nutrition Mission or the Poshan Abhiyaan.

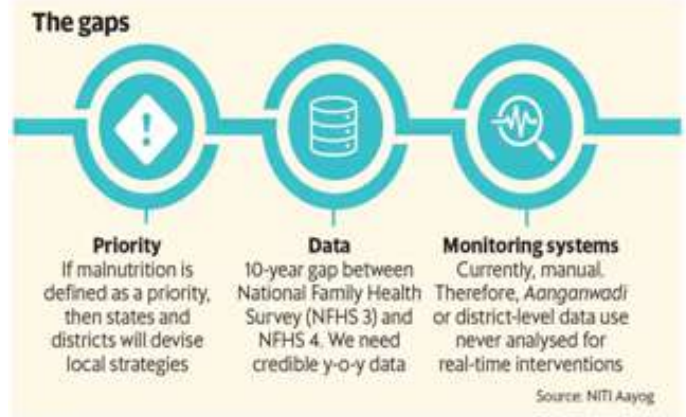


Lack of nutrition

According to NFHS-4 (2015-16), 38.4% of children under five years were stunted (low height-for-age) and 21% of them were wasted (low weight-for-height) in India

ALL FIGURES IN %

Indicator	NFHS-4 (2015-16)	NFHS-3 (2005-06)
Children under 5 years who are stunted (height-for-age)	38.4	48
Children under 5 years who are wasted (weight-for-height)	21	19.8
Children under 5 years who are severely wasted	7.5	6.4
Children under 5 years who are underweight (weight-for-age)	35.8	42.5



3. Sahkar Pragma scheme has been recently launched by

- A. Ministry of Agriculture & Farmers' Welfare
- B. Ministry of Micro, Small and Medium Enterprises
- C. Ministry of Labour and Employment
- D. Indian Ministry of Human Resource Development

Answer:

Explanation

- The Sahakar Pragma initiative is launched by the National Cooperative Development Corporation (NCDC).
- As part of the initiative, 18 regional training centres and 45 training modules for primary cooperatives were launched.
- The NCDC will run these training centres across the country, along with the Laxmanrao Inamdar National Academy for Cooperative Research and Development (LINAC).
- The training modules aim to impart knowledge and organisational skills and attempt to prepare the primary cooperative societies across the country to be able to play a big role in the government's AtmaNirbhar Bharat initiative.
- Sahakar Pragma is part of a series of initiatives taken up by NCDC to strengthen India's cooperative societies.
- Earlier, the central body had launched the Sahakar Cooptube NCDC Channel with an aim to involve youngsters in the cooperative movement.

4. Which of the following statements regarding speaker of the Lok Sabha are correct?

1. Speaker's salary is charged on the consolidated Fund of India and the same is subject to vote of Parliament.
2. He is elected from all other members by a special majority.
3. The Speaker decides whether a bill brought to the house is a money bill or not.
4. The Speaker of Lok Sabha does not leave the office just after dissolution of the assembly.

- A. 1, 2 and 3 only
- B. 2 and 3 only
- C. 3 and 4 only
- D. 1, 3 and 4 only

Answer: C

Explanation

- The chairman or the Presiding Officer of Lok Sabha is called Speaker.
 - Elected from all other members by simple majority.
 - Speaker of Lok Sabha is basically the head of the house and presides over the sittings of Parliament and controls its working.
 - The constitution has tried to ensure the independence of Speaker by charging his salary on the consolidated Fund of India and the same is not subject to vote of Parliament.
 - While debating or during general discussion on a bill, the members of the parliament have to address only to the Speaker.
 - Whenever there is a joint sitting of both houses of Parliament (Lok Sabha & Rajya Sabha) the Speaker of the Lok Sabha presides over this meeting.
 - The Speaker of Lok Sabha comes at sixth position in the Order of Precedence of Government of India.
 - In the normal circumstances the Speaker does not casts his vote over any matter in Lok Sabha. But whenever there is a tie on votes between the ruling party and opposition, the Speaker at that time can exercise his vote.
 - It is the Speaker who decides the agenda of various discussions.
 - The speaker has the power to adjourn or suspend the house/meetings if the quorum is not met.
 - The Speaker ensures the discipline and decorum of the house. If the speaker finds the behaviour and a Member of Parliament is not good, he/she can punish the unruly members by suspending.
 - The Speaker decides whether a bill brought to the house is a money bill or not. In the case Speaker decides some bill as a money bill, this decision cannot be challenged.
 - Speaker is the final and sole authority to allow different types of motions and resolutions such as No Confidence Motion, Motion of Adjournment, and Censure Motion etc.
 - The Speaker of Lok Sabha does not leave the office just after dissolution of the assembly. He continues to be in the office till the newly formed assembly takes its first meeting and elects the new Speaker.
5. Which of the following statements regarding Member of Parliament Local Area Development Scheme is correct?
1. The scheme comes under the Ministry of Rural Development
 2. It seeks to provide a mechanism for the Members of Parliament to recommend works of developmental nature for creation of durable community assets and for provision of basic

facilities including community infrastructure, based on locally felt needs.

3. The annual MPLADS fund entitlement per MP constituency is Rs. 5 crore.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: B

Explanation

- The Bombay high court recently said the Union government was within its powers to suspend the MPLAD scheme and divert such funds to combat Covid-19.
- The HC, said, "This (Covid-19) is a disaster so the so the government will have to resort to Disaster Management Act. It is within its powers to invoke the Act
- The MPLAD scheme was formulated in 1993 to enable Members of Parliament (MPs) to recommend development works in their constituencies with emphasis on the creation of durable community assets based on the locally felt need.
- Durable assets of national priorities and community need viz. drinking water, primary education, public health, sanitation and roads, etc.
- Initially, the Scheme was under the control of the Ministry of Rural Development and Planning.
- In October, 1994, the scheme was transferred to the Ministry of Statistics & Programme Implementation.
- Under this scheme, every MP is entitled to spend Rs 5 crore annually.
- Similar to MPLADS, several states have enacted schemes called Member of Legislative Assembly Local Area Development Scheme (MLALADS) where funds are given to MLAs.
- According to the 'Guidelines on Members of Parliament Local Area Development Scheme (MPLADS)' published by the Ministry of Statistics and Programme Implementation in June 2016, the MPLAD funds can also be used for implementation of the schemes such as Swachh Bharat Abhiyan, Accessible India Campaign (Sugamya Bharat Abhiyan), conservation of water through rain water harvesting and Sansad Aadarsh Gram Yojana, etc.

4. Environment & Ecology

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1. A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it is called

- A. Climate beneficiation
- B. Climate change adaptation
- C. Mitigation potential
- D. Climate Emergency

Answer: D

Explanation

- A climate emergency declaration or declaring a climate emergency is an action taken by governments and scientists to acknowledge humanity is in a climate emergency
- The first such declaration was made in December 2016.
- Since then over 1,400 local governments in 28 countries have made climate emergency declarations
- New Zealand recently promised its public sector would become carbon neutral by 2025 as it declared a climate emergency.
- Climate emergency declaration was based on the Intergovernmental Panel on Climate Change's findings that to avoid more than 1.5 degree Celsius rise in global warming, emissions would need to fall by around 45% from 2010 levels by 2023 and reach zero by around 2050.
- New Zealand has joined 32 other countries including Japan, Canada, France and Britain that have declared a climate emergency.
- New Zealand also passed Zero Carbon Bill, which sets the framework for net zero emissions by 2050 with an exemption for farming, and banned new offshore oil and gas exploration.

2. Based on the following statements identify the river?

1. The name of a missile—a joint venture between India and Russia—is derived from the names of this river and Moskva of Russia.
 2. This is geologically the youngest of the major rivers in the world.
 3. It originates in the Angsi Glacier in the Himalayas
 4. Raidak and Dhansiri are its two major tributaries.
 5. The river has to its credit the world's smallest inhabited riverine island, the Umananda Island.
- A. Penner
 - B. Brahmaputra
 - C. Brahmani
 - D. Subarnarekha

Answer: B

Explanation

- The name of the BrahMos missile—a joint venture between India and Russia—is derived from the names of two major rivers, the Brahmaputra of India and Moskva of Russia.
- The upper course of the Brahmaputra was not explored until the mid-1880s, hence it is geologically the youngest of the major rivers in the world.
- The Brahmaputra originates in the Angsi Glacier in the Himalayas, and flows through Tibet (an autonomous region of China), India, and Bangladesh, before emptying itself into the Bay of Bengal at the Ganges Delta.
- It meets River Meghna (the main distributary of the Ganges River), and River Padma in Bangladesh, where the three rivers come together to form the largest delta in the world – the Ganges Delta or Ganges-Brahmaputra Delta.
- The Brahmaputra is known by different names in different regions. It is known as the YarlungTsangpo River in Tibet, the Brahmaputra, Lohit, Siang, and Dihang in India, and the Jamuna in Bangladesh.
- The major tributaries of the Brahmaputra river are Manas (234 mi), Raidak (230 mi), Dhansiri (219 mi), Teesta (192 mi), Kameng (164 mi), Dibang (121 mi), and Jaldhaka (119 mi).
- A river is said to exhibit a tidal bore when incoming tides form waves that travel up the river against the current. These waves are known as tidal waves. The Brahmaputra is one of the few examples of rivers with a tidal bore.
- The largest riverine island in the Brahmaputra is the Majuli Island, with a total area of 163 sq mi, as per 2001 data.
- The river also has to its credit the world’s smallest inhabited riverine island, the Umananda Island—also known as Peacock Island.
- The Saraighat Bridge near Guwahati, Assam, which was opened in April 1962, was the first bridge to be built on the Brahmaputra.

3. Which of the following statements regarding Mission Covid Suraksha are correct?

- 1. It will be implemented by a dedicated Mission Implementation Unit at the Biotechnology Industry Research Assistance Council (BIRAC).**
 - 2. The mission aims at providing holistic covid test centers all over the country.**
- A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Answer: A

Explanation

- The government on Wednesday launched ‘Mission COVID Suraksha’, which will help the development

process of approximately five to six Covid-19 vaccine candidates.

- Mission Covid Suraksha entails a grant of Rs 900 crore.
- The department of biotechnology will get this grant.
 - ✓ It will be led by DBT and implemented by a dedicated Mission Implementation Unit at the Biotechnology Industry Research Assistance Council (BIRAC).
 - ✓ The existing activities under National Bio Pharma Mission (NBM) and Ind-CEPI Mission will provide complementary strengths to this Mission.
- The mission aims at providing end-to-end passage to vaccines – from preclinical stage to manufacturing.
- The Centre had announced this package during the third stimulus.
- The department is supporting the development of 10 vaccines. Five vaccine candidates are in human trials, including the Russian Vaccine Sputnik-V.
- The aim of the project is to also establish clinical trial sites and strengthen the existing immunoassay laboratories, central laboratories and suitable facilities for animal studies, production facilities and other test facilities to support Covid-19 vaccine development.

4. Mareel recently heard in news is a

- A. Newly discovered coral reef in Australia.
- B. A phenomenon in the ocean.
- C. A peacock softshell turtle (*Nilssonia hurum*) found in South Asia.
- D. An aggregation of galaxies comprising about 50 or fewer gravitationally bound members, each at least as luminous as the Milky Way.

Answer: B

Explanation

- Milky seas, also called mareel, is a luminous phenomenon in the ocean in which large areas of seawater (up to 6,000 sq mi or 16,000 km²) appear to glow translucently (in varying shades of blue).
- The phenomenon glow brightly enough at night to be seen by satellites orbiting Earth.
- It is caused by bioluminescent bacteria, billions of trillions of them that live throughout the water column from the surface to the sea floor.

5. LAOKHOWA-BURACHAPORI WILDLIFE SANCTUARY`S is located in which state?

- A. Assam
- B. West Bengal
- C. Sikkim
- D. Mizoram

Answer: A

Explanation

- The Laokhowa and Burhachapori Wildlife Sanctuaries are two centrally located Protected Areas of Assam, surrounded by many key PAs like Kaziranga National Park to the east, Orang National park and Pobitora Wildlife sanctuaries to the west, Pakke-Nameri NPs to the north and the rich reserve Forests of Karbi Anglong to the south.
- The PAs act as connecting corridor for migration of animals between Kaziranga and Orang National parks and hence, has been identified as Buffer Zones of Kaziranga Tiger Reserve.
- The mighty Brahmaputra River flows through the northern boundary of the Burhachapori Wildlife Sanctuaries creating a large number of river islands.
- The rich ecosystem of the Laokhowa Burhachapori characterized by grasslands, woodlands and numerous wetlands along with the Brahmaputra River Islands are home to numerous species of endangered mammals, reptiles and birds.

5. Science & Technology

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1. ART-PARK recently heard in news is a

- A. New Covid- 19 testing technique
- B. A new missile museum to be setup in Bangalore
- C. A collaboration of IISER and DRDO for manufacturing of defense equipment.
- D. Related to Artificial Intelligence.

Answer: D

Explanation

- An Artificial Intelligence and Robotics Technologies Park (ARTPARK), set up in Bengaluru, will promote technology innovations in AI and robotics.
- The government expects it will lead to a positive societal impact by executing ambitious mission-mode research and development (R&D) projects in healthcare, education, mobility, infrastructure, agriculture, retail, and cyber security, focusing on problems specific to India.
- ARTPARK is a not-for-profit foundation established by the Indian Institute of Science (IISc), Bengaluru with support from AI Foundry in a public-private model.
- With seed funding of US\$ 22 million from the Department of Science & Technology (DST), under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), it will bring about a collaborative consortium of partners from industry, academia, and government bodies.
- This will lead to cutting-edge innovations in technologies, standards, products, services, and intellectual properties.
- ARTPARK will develop AI and robotics facilities to support technology innovations and capacity building through the advanced skills training of students and professionals in these areas.
- Some of these facilities will be key enablers for whole new sets of technologies, products, and services.
- It will develop DataSetu, which will enable confidentiality and a privacy-preserving framework to share data and run analytics spurring the data-sharing ecosystem and create a data marketplace, boosting AI applications and solutions.
- Another service will be BhashaSetu, which will enable real-time Indic language translation, of both speech-to-speech and speech-to-text.
- This will further unlock the economic potential of the country, allowing all Indian citizens to equitably participate in the economic progress, regardless of their language, the press release claimed.
- The National Mission ICPS with its 25 Hubs has a unique architecture that envisages a strong collaboration and co-ownership among the triple helix of industry, academia, and government with full flexibility.

- ARTPARK will also run a novel ARTPARK Venture Studio that will mentor technopreneurs who will take the outputs of the mission-mode projects to launch new startups.

2. Which of the following statements regarding Madras Atomic Power Station are correct?

1. It is country's first indigenously developed 500-megawatt (mw) prototype fast breeder reactor.
2. It uses thorium, to breed new fissile material, in a sodium-cooled fast reactor design.
3. Bharatiya Nabhikiya Vidyut Nigam (Bhavini), a public sector company under DAE, has been given the responsibility to build the fast breeder reactors in the country.

- A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Answer: C

Explanation

● **Context**

- Madras Atomic Power Station (MAPS) at Kalpakkam, 70 km away from Chennai on the east coast, is braced to face the Cyclone Nivar in the Bay of Bengal.
- The cyclone protection machinery of MAPS was activated and all the preparedness measures including placing sandbags on the coastal side, clearing of storm drains, and inspection of plant buildings and structures was done.
- Station authorities were on high alert, closely monitoring the weather bulletins and ready to take necessary actions when required.

About the plant

- It is country's first indigenously developed 500-megawatt (mw) prototype fast breeder reactor at Kalpakkam in Tamil Nadu.
- The indigenously developed prototype fast breeder reactor of 500 mw is now undergoing sodium commissioning.
- Achieving criticality means that the reactor is fully operational and safe.

About Prototype Fast Breeder Reactor (PFBR)

- The Kalpakkam PFBR is using uranium-238 not thorium, to breed new fissile material, in a sodium-cooled fast reactor design.
- The power island of this project is being engineered by Bharat Heavy Electricals Limited, largest power equipment utility of India.
- The surplus plutonium (or uranium-233 for thorium reactors) from each fast reactor can be used to set up more such reactors and grow the nuclear capacity in tune with India's needs for power.
- India has the capability to use thorium cycle based processes to extract nuclear fuel.

- This is of special significance to the Indian nuclear power generation strategy as India has one of the world's largest reserves of thorium, which could provide power for more than 10,000 year.
- Bharatiya Nabhikiya Vidyut Nigam (Bhavini), a public sector company under DAE, has been given the responsibility to build the fast breeder reactors in the country.

3. Sanitation and hygiene fund was recently launched by

- A. United Nations
- B. Blue Planet Network
- C. World Bank – Water and Sanitation Program
- D. World Vision

Answer: A

Explanation

- The United Nations earlier this month launched the Sanitation and Hygiene Fund to provide accelerated funding to countries with the heaviest burden of diseases stemming from lack of sanitation services and have the least ability to respond to them.
- It also aims to raise \$2 billion over the next five years for these countries.
- The novel coronavirus disease (COVID-19) pandemic has blown the lid off poor sanitation and hygiene practices.
- The key to keeping the virus at bay is hand-washing – a facility inaccessible to three billion people across the globe.
- The fund is hosted by the UN Office for Project Services, which provides technical advice and project implementation to the UN and its partners.
- The objectives of the Fund are:
 - ✓ Expanding household sanitation
 - ✓ Ensuring menstrual health and hygiene
 - ✓ Providing sanitation and hygiene in schools and healthcare facilities
 - ✓ Supporting innovative sanitation solutions

4. Which of the following statements are correct about National Medicinal Plant Board?

1. Its mandate is to promote the medicinal plant's sector by developing a suitable mechanism which will support policies and programs for the cultivation and export of medicinal plants.
 2. It works under Ministry of AYUSH.
- A. 1 only
 - B. 2 only
 - C. Both 1 and 2
 - D. Neither 1 nor 2

Answer: C

Explanation

- The National Medicinal Plants Board was established by the Government of India in 24th November 2000.
- Its mandate is to promote the medicinal plant's sector by developing a suitable mechanism which will support policies and programs for the cultivation and export of medicinal plants.
- The growing demand for medicinal plants is met by the NMBP's focus on conservation and augmentation of local medicinal plants and spices of significance.
- The NMPB encourages research and development, capacity building through training and promotion of activities such as the creation of herbal gardens at the home and school levels.
- The board also supports programs for quality assurance, which institute a credible mechanism for the certification of quality raw drugs, seed and planting material.
- Functions of the NMPB:
 - ✓ Advice concerned Ministries and State/ Union Territory Governments on policy matters relating to schemes and programs for the development of medicinal plants.
 - ✓ Identification, Inventorisation and Quantification of medicinal plants.
 - ✓ Promotion of co-operative efforts among collectors and growers and assisting them to store, transport and market their products effectively.
 - ✓ Setting up of data-base system for incentivisation, dissemination of information and facilitating the prevention of Patents being obtained for medicinal use of plants which is in the public domain.
 - ✓ Undertaking and awarding Scientific, Technological research and cost-effectiveness studies.
 - ✓ Development of protocols for cultivation and quality control.
 - ✓ Encouraging the protection of Intellectual Property Rights.

5. National Portal for transgender persons comes under

- A. Ministry of Home Affairs
- B. Ministry of Social Justice and Empowerment
- C. Ministry of Women & Child Development
- D. Ministry of Minority Affairs

Answer: B

Explanation

- The Social Justice and Empowerment Ministry launched a national portal for transgender persons to apply for certificates and identity cards.
- The portal had been developed within two months of the Ministry notifying the Transgender Persons (Protection of Rights) Rules, 2020.



- The portal would help transpersons in applying for certificate and ID cards digitally without having to visit any government office.
- Through the portal, they can monitor the status of their application that ensures transparency in the process.
- The issuing authorities are also bound by strict timelines to process the applications and issue certificates and identity cards without any necessary delays.
- Once the certificate and I-card are issued, the applicant can download them from the portal itself.
- Under the Transgender Persons (Protection of Rights) Act, 2019, trans-persons can apply for an ID card based on their self-perceived identity.
- The portal – transgender.dosje.gov.in – would enable the applicant to track their application and register their grievances in case of delays.