

Answers

1) C

Kandla SEZ (KASEZ) was awarded IGBC Platinum Rating recently. It is the First Green SEZ to achieve the IGBC Green Cities Platinum Rating for Existing Cities.

IGBC Platinum rating has been awarded for 'Green master planning, policy initiatives and implementation of green infrastructure' by CII's Indian Green Building Council (IGBC). The recognition is set to pave way for all the other SEZs in the country to emulate the green initiative and efforts of Kandla SEZ.

2) B

The Uttarakhand government announced that it will initiate valuation of its natural resources in the form of 'Gross Environment Product' (GEP), said to be along the lines of Gross Domestic Product (GDP). Uttarakhand is the first State in India to introduce the Gross Environment Product (GEP).

Gross Environment Product (GEP)

Gross Environment Product (GEP) is an assessment system to measure the ecosystem services of any area. It reflects the aggregated annual value of goods and services provided by ecosystems (forests, water bodies, oceans, etc.) to people in a given region, such as at district levels, state, and country.

It entails the establishment of a natural capital accounting framework by integrating ecological benefits into common measures of economic growth such as GDP. It summarizes the value of ecosystem services in a single monetary metric.

3) D

Russia's space agency Roscosmos had recently launched the Nauka module. Nauka was launched from the Baikonur Cosmodrome in Kazakhstan using a Proton rocket, is scheduled to be integrated with the ISS.

Pirs, a Russian module on the International Space Station (ISS) used as a docking port for spacecraft and as a door for cosmonauts to go out on spacewalks. It was detached recently and in its place, Nauka will serve as the country's main research facility on the space station.

Nauka — meaning "science" in Russian — is the biggest space laboratory Russia has launched to date, and will primarily serve as a research facility.

It is also bringing to the ISS another oxygen generator, a spare bed, another toilet, and a robotic cargo crane built by the European Space Agency (ESA). The ISS is a path breaking collaborative effort between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe) and CSA (Canada).

4) D

Union Ministry of Environment, Forest & Climate Change has recently released a report titled “Status of Leopards, Co-predators and Megaherbivores in India, 2018” on Global Tiger Day 2021.

Highlights of the report

- Panna Tiger Reserve in Madhya Pradesh had the largest leopard population in India at about 273 leopards followed by Sariska (at about 231 leopards).
- Buxa and Palamau which recorded no presence of tigers during 2018 estimation, had sizeable populations of leopards.
- Srivilliputhur Grizzled Squirrel Wildlife Sanctuary had the highest leopard density of 20.43 in the entire Western Ghats landscape.

Indian Leopard

- Indian Leopard was listed as Vulnerable under the IUCN Red List of Threatened Species.
- It is also listed in Appendix I of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) and in Schedule I of the Wildlife (Protection) Act 1972 in India providing it with the highest level of protection.

5) B

Union Minister of State (Independent Charge) Science & Technology, Dr Jitendra Singh has recently released “Biotech-PRIDE (Promotion of Research and Innovation through Data Exchange) Guidelines”. It has been developed by Department of Biotechnology (DBT), Ministry of Science and Technology. The Minister also launched the website of Indian Biological Data Centre, IBDC.

Biotech PRIDE Guidelines

- The guidelines will enable exchange of information to promote research and innovation in different research groups across the country.
- It aims at providing a well-defined framework and guiding principle to facilitate and enable sharing and exchange of biological knowledge, information and data.

- It is specifically applicable to high-throughput, high-volume data generated by research groups across the country.
- These guidelines do not deal with generation of biological data per se but an enabling mechanism to share and exchange information and knowledge generated as per the existing laws, rules, regulations and guidelines of the country.
- Initially, these Guidelines will be implemented through Indian Biological Data Centre (IBDC) at Regional Centre for Biotechnology supported by Department of Biotechnology.
- Other existing datasets/ data centres will be bridged to this IBDC which will be called Bio-Grid.
- This Bio-Grid will be a National Repository for biological knowledge, information and data and will be responsible for enabling its exchange, developing measures for safety, standards and quality for datasets and establishing detailed modalities for accessing data.

6) B

Kendu Leaf

- Kendu leaf is called the green gold of Odisha, It is a nationalised product like bamboo and sal seed.
- It is one of the most important non-wood forest products in Odisha.
- The leaves are used to wrap bidis, a popular smoke among the locals.
- The states producing bidi leaves in India comprises mainly Madhya Pradesh, Chhattisgarh, Odisha, Andhra Pradesh, Jharkhand, Gujarat and Maharashtra.
- Odisha is the third-largest producer of kendu leaf, after Madhya Pradesh and Chhattisgarh.
- The Uniqueness of Odisha's Tendu (kendu) leaf is in processed form whereas the rest of the states in India produce in Phal Form.

7) C

Near-Surface Shear Layer (NSSL)

- Apart from differentiation rotation between equator and poles, the helioseismology has revealed that the Sun has a Near-Surface Shear Layer (NSSL).
- Helioseismology is a technique of using sound waves to peek inside the Sun.
- The NSSL is the region very close to the visible solar surface, where there is a change in the rotation profile of the Sun.
- This layer exists very close to the solar surface, within which the angular velocity decreases rapidly with radius.

- This NSSL is thought to play a significant role in defining the nature of large-scale convective patterns that drive the Sun's magnetism.
- Recently, Indian astronomers from Aryabhata Research Institute of Observational Sciences (ARIES), and Indian Institute of Science, Bangalore, have for the first time given the theoretical explanation of the existence of a near-surface shear layer (NSSL) in the Sun.

8) C

ISRO has realised a geo-imaging satellite, "EOS-03", for Earth Observation from Geostationary Orbit. It is scheduled for launch in the third quarter (Q3) of 2021.

EOS-03

It is capable of imaging the whole country four-five times daily and would enable near real-time monitoring of natural disasters like floods and cyclones. In addition to natural disasters, EOS-03 would also enable monitoring of water bodies, crops, vegetation condition, and forest cover changes.

9) C

I-MESA Scheme

- Social audit is an audit of a scheme jointly by the Government and the people, especially by those who are affected by the scheme or its beneficiaries.
- Information-Monitoring, Evaluation and Social Audit (I-MESA) in FY 2021-22 is launched by Ministry of Social Justice and Empowerment.
- The social audits will be done through Social Audit Units (SAU) of the States and National Institute for Rural Development and Panchayati Raj.

10) B

11) B

12) A

Indian Naval Ship Talwar is participating in a multinational training Exercise named "Cutlass Express 2021". It is being conducted along the East Coast of Africa. About Exercise Cutlass Express:

Exercise Cutlass Express is an annual maritime exercise, conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.

The exercise is designed to assess and improve combined maritime law enforcement capacity, promote national and regional security and increase interoperability between the regional navies.

13) B

NISHTHA stands for National Initiative for School Heads and Teachers Holistic Advancement. It is a capacity building program for Improving Quality of School Education through Integrated Teacher Training.

This training is being organized by constituting National Resource Groups (NRGs) and State Resource Groups (SRGs) at the National and the State level who will be training 42 lakhs teachers subsequently

14) A

ICOMOS is an Advisory Body of the World Heritage Committee for the implementation of the World Heritage Convention of UNESCO. As such, it reviews the nominations of cultural world heritage and ensures the conservation status of properties.

ICOMOS works for the conservation and protection of cultural heritage places. It is the only global non-government organisation of this kind, which is dedicated to promoting the application of theory, methodology, and scientific techniques to the conservation of the architectural and archaeological heritage.

15) A

- I-STEM was launched in 2020. It is a National Web portal for sharing R&D (Research and Development) facilities.
- Purpose: The portal is the gateway for researchers to locate the specific facility (ies) they need for their R&D work and identify the one that is either located closest to them or available the soonest.
- The Portal is an initiative of the Office of the Principal Scientific Adviser to the Government of India under the aegis of Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission.

16) A

The 12th Edition of Indo-Russia joint military Exercise INDRA will be held at Volgograd, Russia in August 2021. Military exercise - Participating country

- Indra - Russia

- Shakti - France
- Ekuverin - Maldives
- Surya Kiran - Nepal

17) A

Recently, a group of astronomers have detected a very short, powerful burst of high-energy radiation also known as Gamma-Ray Bursts (GRBs) that lasted for about a second. It was detected by National Aeronautics and Space Administration's (NASA's) Fermi Gamma-ray Space Telescope. About Gamma Rays

- They are the highest-energy light in the universe. They can have over a billion times the energy of the type of light visible to our eyes.
- They are produced by the hottest and most energetic objects in the universe, such as neutron stars and pulsars, supernova explosions, and regions around black holes.
- On Earth, gamma rays are generated by nuclear explosions, lightning, and the less dramatic activity of radioactive decay.
- Gamma rays are so energetic that they are harmful to life on Earth.

18) C

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) has inscribed the Ramappa Temple as a UNESCO 'World Heritage Site'. About Ramappa Temple:
- Ramappa (Rudreswara) Temple is also known as the Ramalingeswara (Lord Siva) temple.
- Location: The temple is located in the Palampet village of Venkatapur Mandal in Telangana's Mulugu (old Warangal) district.
- Built by: The temple was constructed in 1213 AD during the reign of the Kakatiya Empire by Recherla Rudra, a general of Kakatiya king Ganapati Deva.
- Presiding Deity: The presiding deity of the temple is Ramalingeswara Swamy. The temple is known as the Ramappa temple after the sculptor who executed the work in the temple for 40 years.

19) C

AgriStack is a proposed collection of technologies and digital databases focusing on farmers and the agricultural sector.

The database will create a unified platform for farmers to provide them end-to-end services across the agriculture food value chain.

Under the program, each farmer will have a unique digital identification (farmers' ID) which will be linked to their Aadhaar number.

Data to be collected by AgriStack may include personal details, the profile of land held, production details, and financial details.

20) A

- Black carbon is a short-lived pollutant. It is found worldwide but its presence and impact are particularly strong in Asia.
- PM2.5 consists of black carbon, often called soot, and polycyclic aromatic hydrocarbons, among others.
- A study in Italy correlated the incidence of coronavirus cases with increase in PM2.5 levels.
- Another recent study concluded that the COVID-19 virus piggybacks only black carbon emitted during biomass burning, and not all PM2.5 particles.
- It also found that the concentration of black carbon directly corresponds to the speed at which infections spread after the onset of winter and stubble burning period and then reduced with a declining trend in BC with reduction in stubble fire counts.

