



MADE EASY

India's Best Institute for IES, GATE & PSUs

**MADE EASY
WEEKLY
CURRENT AFFAIRS**

WEEK-3

15th May - 21st May, 2021

TARGETED EXAMINATIONS

**CSE, ESE, PSUs, State Exams,
SSC and Banking Exams**

15th MAY 2021

DSR (Direct Seeding of Rice) Technique

- The Punjab government has decided to deploy direct seeding of rice (DSR) technique instead of the traditional transplantation of paddy this year due to the shortfall of agricultural labourers.

About DSR Technique:

- In DSR, the pre-germinated seeds are directly drilled into the field by a tractor-powered machine.
- There is no nursery preparation or transplantation involved in this method.
- Farmers have to only level their land and give one pre-sowing irrigation
- There is no nursery preparation in DSR technique.

Benefits

- The technique reduces cost by Rs 6000 per acre. It uses 30% less water. This is because, during transplantation, the field has to be kept irrigated almost daily maintaining a water depth of 4-5 centimetres.

Notified Diseases

- Black Fungus has been categorised as a notified disease in Haryana, making it imperative that government authorities be informed about each case. This will allow for the tracking and management of any outbreak.
- It will help authorities to collect information of the spread of the disease, monitor the disease and set off early warnings.

About Notified disease:

- A notifiable disease is any disease that is required by law to be reported to government authorities. The collation of information allows the authorities to monitor the disease, and provides early warning of possible outbreaks. The World Health Organization's

International Health Regulations, 1969 require disease reporting to the WHO in order to help with its global surveillance and advisory role.

- Making a disease legally notifiable by doctors and health professionals allows for intervention to control the spread of highly infectious diseases.

Notified Diseases in India:

- AIDS, Hepatitis B, Dengue Fever, Malaria, Whooping cough, Anaemia, Measles, Rabies, Vitamin A deficiency, typhoid, scarlet fever, polio, cerebro spinal fever, leprosy, hepatitis, Cholera, Iodine deficiency, malnutrition, tuberculosis, smallpox, plague, measles, influenza, diphtheria, chicken pox.

Tianwen-1: Chinese Rover lands on Mars

- China landed a spacecraft on Mars carrying its first Mars rover in a big boost to its space ambitions.

Key Points:

- It will lift off on a Long March 5 rocket, from the Wenchang launch centre.
- It will carry 13 payloads (seven orbiters and six rovers) that will explore the planet. It is an all-in-one orbiter, lander and rover system.
- It landed in the Utopia Planitia region. However, when the lander entered the Martian atmosphere, the spacecraft endured "Seven Minutes of Terror" as that of the Mars Perseverance rover of NASA.

Objectives:

- Create a geological map of Mars.
- Explore the characteristics of the Martian soil and potentially locate water-ice deposits.
- Analyze the surface material composition.
- Investigate the Martian atmosphere and climate at the surface.
- Understand the electromagnetic and gravitational fields of the planet.

16th MAY 2021

Winchcombe Meteorite

- A piece of Winchcombe meteorite will be displayed at the National History Museum, Gloucestershire (UK). The meteorite touched the UK soil in February 2021.

About the Meteorite:

- The Winchcombe meteorite is 103 grams in weight. It is a fragment of black rock resembling coal. It was founded by a team from the University of Glasgow.
- On February 28, 2021, around hundreds of people spotted a fireball blazing across the sky. The flash of light lasted for six seconds.
- It is named after the place, where it fell down i.e. the town of Winchcombe in Gloucestershire in the UK. Furthermore, its weight is 103 grams, and it resembles coal in looks

NOTE:

The Meteoroids are objects that range in size from dust grains to small asteroids. When these meteoroids enter the earth's atmosphere, they are called meteors. When the meteors hit the ground, they are called meteorites.

Cyclone Tauktae

- According to IMD Tauktae cyclone categorised as a severe cyclonic storm and then later into a Very Severe Cyclonic storm.

Key Points:

- It is the first cyclonic storm of 2021 that emerged from the Arabian Sea. It hit southern Gujarat on 17 May 2021 and is classified as a Very Severe Cyclonic Storm (VSCS).
- It is a tropical cyclone, named for Myanmar. It means 'gecko', a highly vocal lizard, in the Burmese language.

- Typically, tropical cyclones in the North Indian Ocean region (Bay of Bengal and Arabian Sea) develop during the pre-monsoon (April to June) and post-monsoon (October to December) periods.

About Tropical Cyclone:

- A tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A characteristic feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called hurricanes in the North Atlantic and eastern Pacific and typhoons in SouthEast Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in north-western Australia.

Okeanos Explorer

- The Okeanos Explorer is a ship built by the National Oceanic and Atmospheric Administration (NOAA). It departed from the Port Canaveral in Florida on May 14, 2021.

Okeanos Explorer:

- NOAA Ship Okeanos Explorer is the only federal vessel dedicated to exploring our largely unknown ocean for the purpose of discovery and the advancement of knowledge about the deep ocean.
- The Okeanos Explorer is the only NOAA ship to have a dedicated ROV. Although ROVs have been used on other NOAA ships, they are typically removed at the end of a mission. Having a permanent ROV makes it easier to deploy at any time.
- During the expedition, scientists reveal that the deepwater biodiversity in the Coral Triangle is comparable to that of its shallower waters. Up to 50 new species are discovered during the mission.

Orpheus:

- Usually, a large high power location finding equipment such as Sonar will be required to navigate in the dark sea bed. Unlike such equipment, Orpheus uses a low power system of cameras and lights, along with advanced software. It is lighter than the deep-sea submersibles.
- It weighs around 250 kilograms.
- It is designed to be nimble (quick and light movement), move easily in a rugged (broken or uneven rocky surface) environment. This kind of environment is usually inaccessible to most of the deep-sea vehicles.

17th MAY 2021

JUICE: Jupiter Icy Moon Explorer

- The Jupiter Icy Moon Explorer of the European Space Agency recently entered into a critical sequence of tests.

About Jupiter Icy Moon Explorer:

- The Jupiter Icy Moons Explorer (JUICE) is an interplanetary spacecraft in development by the European Space Agency (ESA) with Airbus Defence and Space as the main contractor.
- The mission will study three of Jupiter's Galilean moons: Ganymede, Callisto, and Europa all of which are thought to have significant bodies of liquid water beneath their surfaces, making them potentially habitable environments.
- The spacecraft is set for launch in June 2022 and will reach Jupiter in October 2029 after five gravity assists and 88 months of travel.
- It will reach Jupiter after five gravity assists. Gravity Assists is the use of the gravity of other planet or astronomical objects to increase speed of a spacecraft or to alter its path. This is done to save the propellant and reduce expenses.

Doomsday Surfing or Doomsday Scrolling

- As Covid-19 has struck back to ravage our surroundings, most of us find ourselves continuously scrolling through pandemic-related news and social media feed — almost compulsively. That is what is called “doomscrolling” or “doomsday scrolling”.

Key Points:

- The tendency to endlessly scroll or surf through the bad news even if it is saddening or depressing is known as Doomsday surfing.
- The ongoing COVID-19 pandemic has exacerbated this tendency as most of us continuously read news related to it without being able to stop, sometimes even sacrificing our sleep or working hours.
- This is done by almost every human being on the earth. People in the age group of 15 years to 30 years are surfing to seek help.
- It has become a behavioural addiction. As people become more and more addictive, the social media algorithms designed to feed to the addictions serve up fulfilling the interests. This becomes a vicious cycle.

Zeolites used in Oxygen Production

- National carrier Air India has begun the first of its “zeolite cargo flights” with the government of India having commenced the process of importing zeolite from across the world for use in medical oxygen plants.

Key Points:

- Zeolites are aluminosilicate minerals. They are microporous materials that are used as adsorbents and catalysts.
- The Zeolites are naturally formed when the volcanic rocks react with alkaline groundwater. They also crystallize in marine basins for thousands to millions of years.

- Under the Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund, the DRDO is to set up these medical oxygen plants. The technology being developed by the DRDO uses the pressure swing adsorption process and molecular sieve zeolite in oxygen generation.

Pressure swing adsorption (PSA)

- Pressure swing adsorption (PSA) is a technology used to separate some gas species from a mixture of gases under pressure according to the species' molecular characteristics and affinity for an adsorbent material.
- It operates at near-ambient temperatures and differs significantly from cryogenic distillation techniques of gas separation.
- Specific adsorbent materials (e.g., zeolites, activated carbon, molecular sieves, etc.) are used as a trap, preferentially adsorbing the target gas species at high pressure.

18th MAY 2021

2-DG- DRDO's Anti-Covid Drug

- The DRDO recently released the first batch of 2-DG drugs. The 2-DG was developed by the Defence Research Development Organisation for Emergency Use. 2-DG is 2-Deoxy – D – Glucose.
- It was developed in collaboration with Dr Reddy's Laboratories.

About 2-DG drug

- 2-DG has been developed by the Institute of Nuclear Medicine and Allied Sciences (INMAS), New Delhi, a lab of the DRDO in collaboration with Hyderabad-based pharma company Dr Reddy's Laboratories (DRL).
- The 2-DG anti-Covid drug is expected to reduce dependence on medical oxygen in Covid-19 infected patients.

- The pseudo glucose molecule in the drug stops the virus in the tracts.
- Hence, it has been prescribed for Coronavirus infected patients requiring critical medical oxygen.
- The DGCI has granted permission for emergency use of the drug in moderate to severe COVID-19 patients.
- 2-DG is a generic molecule and thus can be easily produced and made available in plenty in the country.

Jal Jeevan Mission

- The Government of India released funds to implement the Jal Jeevan Mission. The funds were released to fifteen states. This is the first instalment of the four to be released in 2021-22.
- It complements the Jal Jeevan Mission (Rural) which envisages supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024.

About Jal Jeevan Mission:

- The Mission was announced in August 2019. The chief objective of the Mission is to provide piped water supply (Har Ghar Jal) to all rural households by 2024.
- It aims to create local infrastructure for rainwater harvesting, groundwater recharge and management of household wastewater for reuse in agriculture.
- The Jal Jeevan Mission is set to be based on various water conservation efforts like point recharge, desilting of minor irrigation tanks, use of greywater for agriculture and source sustainability.
- The Jal Jeevan Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country.
- In order to promote Public private partnership, it has been mandated for cities having millions plus population to take up PPP projects worth a minimum of 10% of their total project fund allocation.

SAMVEDNA

- With the objective of providing psychological first-aid and emotional support to children affected during the COVID-19 Pandemic, the National Commission for Protection of Child Rights (NCPCR) is providing Tele-Counselling to children through SAMVEDNA.
- It is a toll-free helpline through which children affected during COVID-19 pandemic are provided counselling.

Key Points:

- SAMVEDNA is Sensitizing Action on Mental Health Vulnerability through Emotional Development and Necessary Acceptance.
- It is a Toll-Free Helpline launched to provide psycho-social mental support for Children affected during COVID 19 Pandemic.
- The National Commission for Protection of Child Rights (NCPCR) is providing Tele-Counselling to children through SAMVEDNA.
- The tele-counselling is being provided through a network of qualified Experts/Counselors/Psychologists.
- It is for psychological support to children to address their stress, anxiety, fear and other issues during the Pandemic.
- The tele counselling is provided to the children under three categories:
 - Children who are in Quarantine/isolation/COVID Care centers;
 - Children who have COVID positive parents or family members and near ones; and
 - Children who have lost their parents due to Covid-19 Pandemic

19th MAY 2021

India's first Agriculture Export Facilitation Centre

- Maharashtra Chamber of Commerce Industries and Agriculture (MCCIA), in association with the National

Bank for Agriculture and Rural Development (NABARD), launched India's first Agriculture Export Facilitation Center (AEFC).

About the Centre

- The Center would guide the prospective exporters on various relevant aspects of the 'farm-to-fork chain of agro-exports through its experts.
- It would organize awareness programs, training programs and workshops on the related aspects, organise visits to export houses for getting practical guidance, organise buyer-seller meetings etc.
- It will provide guidance in areas such as Minimum residue level, orchard management, branding and marketing, country-wise protocols, special export treatments and government export schemes.
- Also, the centre will organise awareness programmes, workshops and training programmes.

Simorgh Supercomputer

- Iran has launched its Supercomputer, and they named it 'Simorgh'. The supercomputer Simorgh is 100 times more quick and powerful than the previous Supercomputer of Iran.
- Simorgh is developed by Tehran's Amirkabir University of Technology (AUT). At present, the Iranian supercomputer Simorgh is at the High Performance Computing Research Centre of Iran.

About the Simorgh Supercomputer

- The Supercomputer has been named after the phoenix-like bird called the Simorgh.
- The Simorgh Supercomputer was developed by the Amirkabir University of Technology in Tehran, the capital of Iran.
- It is located at the Iranian High Performance Computing Research Centre.
- The performance capacity of the simorgh Supercomputer is 0.56 petaflops. It is to reach 1 petaflops in two months. In its subsequent levels it is to reach a speed of 10 petaflops.

- It comprises 42 racks in an area of 250 square metres. In future this is to be upgraded to 400 square metres.

Breakthrough Infection

- The public health experts recently announced that the increase in “breakthrough infections” in the country may be due to the mutant varieties.

Key Points:

- There have been several cases of Covid-19 vaccinated people, even those who have received both doses, testing positive for the virus.
- Such cases are referred to as “breakthrough” infections, indicating that the virus has been able to break through the defences created by the vaccine.
- Such cases have led to some doubts being expressed about the effectiveness of the vaccine, and contributed to the already prevailing vaccine hesitancy.
- However, vaccines protect not against the infection, but against moderate or severe disease and hospitalisation.

NOTE:

- The CDC guidelines on breakthrough infections state that all such reported rates are an undercount.
- This surveillance system is passive and relies on voluntary reporting from state health departments which may not be complete.

20th MAY 2021

Atlas V Rocket

- The United Launch Alliance launched the Atlas V rocket from Cape Canaveral Space Force Station, Florida. The Atlas V rocket carried SBRIS Geo-5 Missile Warning Satellite.
- The full form of SBRIS is the Space-Based Infrared System. It is designed for missile warning, missile battlespace and defence characterization.

- SBRIS is basically a Space Tracking and Surveillance System. SBRIS was designed to meet the Infrared Space Surveillance of the United States Space Force System. In 2020 alone, the SBRIS satellites detected more than a thousand missiles.

About SBRIS Geo-5 Missile Warning Satellite

- The satellite will provide key capabilities in missile warning, battle space, and missile defence. It weighs 4,850 kilograms. As of 2018, ten SBRIS satellites were launched.

NOTE:

Atlas V is a two-stage rocket. It is fueled with rocket grade kerosene and liquid oxygen in its first stage and hydrogen and liquid oxygen in the second stage. The rocket put SBRIS at a height of 35,753 kilo metres.

Customs Amendment Rules, 2021

- The Central Government has brought changes in the existing Customs (Imports of Goods at Concessional Rate of Duty) Rules, IGCR 2017 in order to boost trade facilitation.
- The changes were introduced by the Central Board of Indirect Taxes and Customs through the Customs (Imports of Goods at Concessional Rate of Duty) Amendment Rules, 2021.

Key Highlights:

- Changes have been introduced by the Central Board of Indirect Taxes and Customs.
- One major change is that the imported goods have been permitted to be sent out for job work. Importers can now get the final goods manufactured entirely on a job work basis.
- The absence of this facility had earlier constrained the industry, especially the Micro, Small and Medium Enterprises sector, which did not have the complete manufacturing capability in-house.
- However, some sectors such as gold, jewellery, precious stones and metals have been excluded.

- Another major change is to allow those who import capital goods at a concessional Customs duty to clear/re-sell them in the domestic market on payment of duty and interest, at a depreciated value.
- This was not allowed earlier and manufacturers were stuck with the imported capital goods after having used them as they could not be easily re-exported.

■ NOTE:

IGCR rules, 2017 are for the importers who can avail the benefit of exemption notification issued under Section 25 of Customs Act, 1962. The act empowers the Union Government of India to grant exemptions from payment of customs duties.

SPOT (Scalable and Portable Testing)

- The U.S. The Food and Drug Administration (FDA) has invented a new COVID-19 Saliva Testing method called SPOT. SPOT is Scalable and Portable Testing.

About SPOT

- SPOT was invented by a research team from the Carle Illinois College of Medicine. The SPOT gives COVID-19 test results in thirty minutes. The test uses a new method of processing saliva samples for testing coronavirus infection.
- The test, called SalivaDirect, has high sensitivity, according to a preprint posted on medRxiv on August 4. According to the preprint, SalivaDirect test can detect when the number of virus copies in the saliva sample is as low as six-12 copies per microliter.
- In contrast, testing nasopharyngeal swabs leads to false negative test results due to errors at the time of sample collection. The sensitivity was about 93%.
- The test is very much similar to that of the RT-PCR. But it uses Reverse Transcriptase Loop Mediated Isothermal Amplification (RT-LAMP). However, it does not need complex machinery or expertise. It can be completed quickly and is more accurate.

■ NOTE:

RT-LAMP is a one step nucleic acid amplification method. It is used to multiply specific sequences of RNA. This technology is considered as an alternative to RT-PCR as it is much cheaper and easier..

21st MAY 2021

Six Heritage Sites added to India's UNESCO World Heritage sites Tentative List

- Six Indian sites, including the temples of Kanchipuram in Tamil Nadu, the Ganga ghats in Varanasi, and the Satpura Tiger Reserve in Madhya Pradesh, have been added to the tentative list of UNESCO's world heritage sites.

Key Points:

- The six sites are namely:
 - Satpura Tiger Reserve
 - Iconic riverfront of the historic city of Varanasi
 - Megalithic site of Hire Benkal
 - Maratha Military Architecture in Maharashtra
 - Bhedaghat-Lametaghat in Narmada Valley- Jabalpur
- Temples of Kanchipuram.
- With this, the total number of sites in the UNESCO World Heritage Sites Tentative list has increased to 48.

About World Heritage site

- A World Heritage site is classified as a natural or man-made area or a structure that is of international importance, and a space which requires special protection.
- These sites are officially recognised by the UN and the United Nations Educational Scientific and Cultural Organisation, also known as UNESCO.
- UNESCO believes that the sites classified as World Heritage are important for humanity, and they hold cultural and physical significance.

A-76: World's largest iceberg breaks

- A huge ice block has broken off from western Antarctica into the Weddell Sea, becoming the largest iceberg in the world and earning the name A-76.
- The newly calved berg 'A-76' was spotted in recent satellite images captured by the Copernicus Sentinel-1 mission. Sentinel-1 is one of the missions of the European Space Agency (ESA) under Copernicus initiative (an earth observation programme).

About the IceBerg

- A-76 is the latest in a series of large ice blocks to dislodge in a region acutely vulnerable to climate change, although scientists said in this case it appeared to be part of a natural polar cycle.
- The iceberg, measuring around 170 km long and 25 km wide, with an area of 4,320 sq km is now floating in the Weddell Sea.
- Slightly larger than the Spanish island of Majorca, A-76 had been monitored by scientists since it began to separate from the Ronne Ice Shelf.
- Every time an iceberg calves out from Antarctica, it adds up to the rising sea levels. However, in this case, the ice shelf from which this berg carved out was already floating on water.

