27 May 2022: PIB Summary for UPSC

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1. Bharat Drone Mahotsav 2022

Syllabus: GS III, Science and Technology; Indigenization of technology and developing new technology.

Prelims: About Bharat Drone Mahotsav 2022

Mains: Significance of drone technology in governance

Context

The Prime Minister of India inaugurated Bharat Drone Mahotsav 2022.

Bharat Drone Mahotsav 2022

- Bharat Drone Mahotsav 2022 is touted to be India's biggest Drone Festival and is held in New Delhi.
- It is a two-day event which will see the participation of over 1600 delegates, consisting of government officials, armed forces, central armed police forces, Public Sector Units (PSUs), foreign diplomats, private companies, drone startups, etc.
- The PM interacted with Kisan drone pilots and startups in the drone exhibition centre.
- The festival will also see the presentation of virtual awards of drone pilot certificates, product launches, a display of a 'Made in India' Drone Taxi prototype and demonstrations.

Significance of drone technology in governance

- The drone sector in recent years has unlocked great opportunities and is becoming a major sector for employment generation in India.
- Drone technology is playing a significant role in advancing the government's vision of good governance and ease of living.
- Drone technology has played a key role in PM Swamitva Yojana wherein every property in the villages of India is being digitally mapped for the first time and digital property cards are distributed.
- Drone technology has already become an important part of sectors such as defence, disaster management, agriculture, tourism, and entertainment.
- Drone technology has revolutionised agriculture in terms of empowering farmers and modernising agriculture as it has become an effective tool to address issues associated with land records, floods and drought.

Read about [Draft Drone Rules, 2021](#)

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2. Coal Gasification

Syllabus: GS III, Environment; Conservation, environmental pollution and degradation

Prelims: Coal Gasification technology

Mains: Critical evaluation of Coal Gasification technology

Context

The Government of India has set a target to achieve 100 Million Tonnes of Coal Gasification by 2030.

Coal Gasification

- Gasification is a process of converting carbonaceous materials like coal, petroleum, or biomass into synthesis gas, or syngas which is composed of carbon monoxide, hydrogen and carbon dioxide.
- Through the Coal gasification process, coal can be converted to useful gasses in situ without the need for mining. The resultant syngas can be used to produce heat, generate power or synthesize a variety of chemical products.
- **Process of Coal Gasification**: involves the circulation of gasification agents such as air, oxygen or water into a coal seam and the product gasses are transported to the surface for processing and subsequent utilisation.
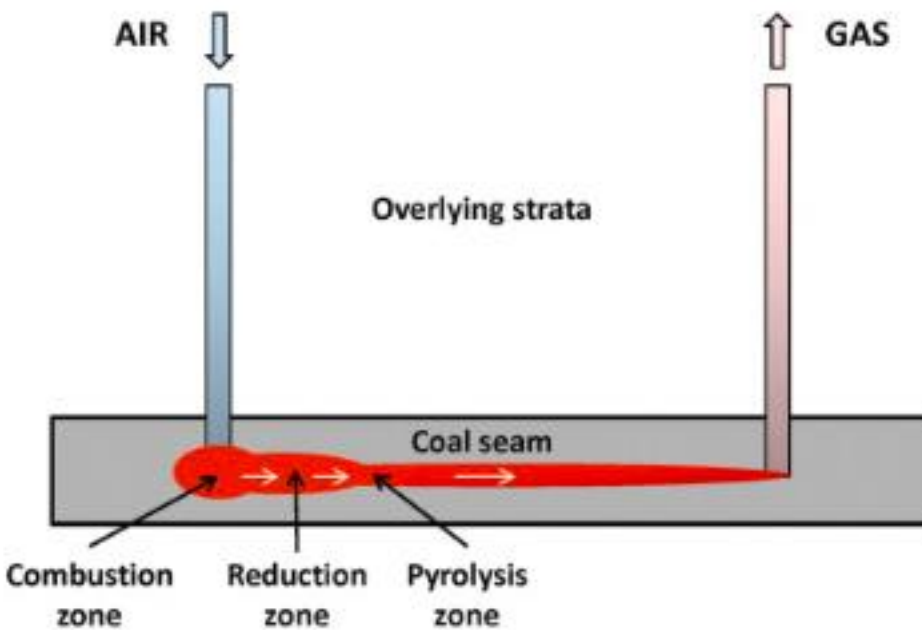
AIR ⬇   ⬆ GAS

Overlying strata

Coal seam

Combustion zone   Reduction zone   Pyrolysis zone

Image Source: ScienceDirect

Advantages of Coal Gasification

- Coal gasification is considered to be an efficient way to generate electricity compared to conventional coal-fired power plants.
- Coal gasification eliminates the process of mining and addresses challenges with coal transportation.
- This method is said to be cost-effective as it requires minimum start-up capital and operating costs and the time taken to construct the plant is also less.
- Coal gasification helps reduce the need for landfill space, methane emissions and the use of fossil fuels.
- Gasification also facilitates the effective utilisation of all the chemical properties of coal.

Challenges associated with coal gasification

- Coal gasification in reality produces more carbon-di-oxide compared to a traditional coal plant.
- Also, Ammonia produced from coal gasification has a carbon footprint that is 1.8 times greater than that produced from the conventional process using natural gas.

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3. Indian Business Portal

Syllabus: GS III, Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

Prelims: About Indian Business Portal

Context

Union Minister of State for Commerce & Industry launched the Indian Business Portal.

Indian Business Portal

- Indian Business Portal is an international trade hub for Indian exporters and foreign buyers.
- It has been developed by the Federation of Indian Export Organisations (FIEO) in partnership with GlobalLinker
  - FIEO is the apex trade promotion organisation in India set up by the Ministry of Commerce and the private trade and industry sector in 1965.
- It is a Business-to-Business (B2B) digital marketplace set up to facilitate SME exporters, artisans and farmers to identify new markets for their products and increase their sales globally.
- Indian Business Portal is the only such marketplace in India that is exclusive for exporters.

Objectives of the Indian Business Portal

- Digitising Indian Exporters and assisting them to increase their visibility online
- Promoting exports from across the country
- Showcasing India's strength in a wide range of Products & Services
- Encouraging virtual meetings between buyers and sellers
- Providing a trusted platform for Indian Exporters and Foreign Buyers
- There has been a focus on empowering Indian artisans, farmers, and producers working in about 370 Indian Geographical Indication (GI) Categories
- The portal helps them by digitising their catalogues and showcasing their unique offerings globally.

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4. C3iVazra

Syllabus: GS III, Internal Security; Challenges to internal security through communication networks and cyber security

Prelims: About C3iVazra

Context

A Security Operation Centre (SoC) called C3iVazra has protected the computers and monitored highways across the country.

C3iVazra

- C3iVazra is a Security Operation Centre (SoC) installed in 2021.
- A security operations centre (SOC) is a facility that is composed of an information security team responsible for monitoring and analysing an organisation's security status.

- The SoC is the first in the country and was set up based on fully open-source components and integration.
- C3iVazra was developed by the cyber-physical systems Technology Innovation Hub (TIH) or C3iHub set up at IIT Kanpur which is an R&D centre on cybersecurity in the country.
- C3iVazra has provided advanced monitoring support by gathering real-time events, and log feeds from the endpoints, packet data from the network and the internet, and by processing these feeds to generate threat intelligence and ensure network security of the organization.
- C3iVazra has increased efficiency in incident response, reduced the impact of security breaches, and has provided better reporting, log analysis, and retention facilities.

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5. INS Khanderi

Syllabus: GS III, Security; Various Security forces and agencies and their mandate.

Prelims: INS Khanderi

Context

The Defence Minister conducted a sea sortie on 'INS Khanderi'.

INS Khanderi

- INS Khanderi is the Indian Navy's second of six Scorpene-class attack submarines built in India as a part of Project-75.
- INS Khanderi was commissioned in September 2019.
- INS Khanderi is a diesel-electric attack submarine designed by French naval defence and energy company DCNS and is manufactured at Mazagon Dock Limited in Mumbai.
- The name Khanderi is inspired by the dreaded 'Sword Tooth Fish', a deadly fish known to hunt whilst swimming close to the bottom of the ocean. Khanderi is also the name of an island fort built by the great Maratha ruler Chhatrapati Shivaji Maharaj.
- INS Khanderi has been equipped with advanced Exocet SM39 anti-ship missile.
- It is also equipped with a sonar suite that enables long-range detection and classification of targets.

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6. Railway Protection Force

Syllabus: GS III, Security; Various Security forces and agencies and their mandate.

Prelims: Railway Protection Force

Context

The Railway Minister honoured meritorious, distinguished & gallant members of the Railway Protection Force.

Railway Protection Force

- Railway Protection Force is a security agency working under the ownership of Indian Railways, Ministry of Railways.
- Railway Protection Force was established by the Railway Protection Force Act, 1957.
- The Railway Protection Force has the authority to search, arrest, investigate, and prosecute offenses committed under Railway Property (Unlawful Possession) Act, 1966 and the Railways Act, 1989

Know more about [Railway Protection Force.](#)