23 Mar 2022: PIB Summary for UPSC

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1. MISSION GAGANYAAN

Syllabus: GS III, Science & Technology; Awareness in the field of Space

Prelims: Gaganyaan Mission

Context

The government is encouraging the participation of private industries and start-ups in various Gaganyaan activities.

Gaganyaan Mission

- Gaganyaan is an Indian Space Research Organisation (ISRO) mission aimed at sending a three-member crew to space for a period of five to seven days by 2022.
- The space mission was first announced in 2018.
- Ahead of the manned mission, ISRO plans to send two unmanned missions to space as part of the Gaganyaan mission.
- The Gaganyaan spacecraft will be placed in a low earth orbit (LEO) of 300-400 kilometres.
- The total cost of the mission is said to be Rs.10000 crore.
- ISRO is developing the spacecraft and Russia is helping in the training of the astronauts.

Current Status

- An astronaut training facility has been set up in Bengaluru.
- The design of all systems and subsystems for Gaganyaan has been completed.
- Long duration qualification test of human-rated cryogenic engine and First phase testing of VIKAS Engine has been completed.
- The activities related to the development of microgravity experiments have now commenced.

Know more about Gaganyaan Mission.

2. Cyber Security Breach In Nuclear Plants

Syllabus: GS III, Security; Cyber security

Mains: Steps taken towards ensuring Cyber Security of Nuclear Plants

Context

The article talks about the cyber security measures undertaken by the government to prevent security breaches in nuclear power plants.

Measures taken by the government to ensure cyber security

- Indian nuclear plants have been established with stringent protocols in the design, development and operation of the systems.
- The safety and security of crucial systems are developed using hardware and software which are authenticated and validated making the systems immune to cyber security threats.
- Critical infrastructures of nuclear power plants are isolated from the Internet and access to such systems is restricted to authorized personnel and is closely monitored.
- The Department of Atomic Energy (DAE) has specialist groups like the Computer and Information Security Advisory Group (CISAG) and Taskforce for Instrumentation and Control Security (TAFICS) to look after cyber security.
    - All the systems are built based on the standards and guidelines formulated by Atomic Energy Regulatory Board and TAFICS which are in line with the standards established by the International Atomic Energy Agency (IAEA).
    - The cyber security infrastructure in the facilities follows design principles and guidelines prescribed by CISAG and India's central cyber security agencies such as CERT-IN.
- Also, measures have been undertaken for improving the Information Security in nuclear power plants like restriction on removable media, blocking of websites & IPs, etc.

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3. Ease of Doing Business

Syllabus: GS II, Governance; Government policies and interventions for development in various sectors

Mains: Interventions by various ministries to improve Ease of Doing Business in India.

Context

This article discusses initiatives by various ministries/departments that facilitate Ease of Doing business.

Initiatives by various ministries

- **Department for Promotion of Industry and Internal Trade (DPIIT)**

- Based on the World Bank's annual assessment called the Doing Business Report (DBR), DPIIT has started an exercise called the **Business Reforms Action Plan**, which ranks all the States and UTs in the country based on the implementation of designated reform parameters.
- The Plan covers various indicators such as Investment Enablers, Land administration, Construction Permits, Labour Regulation, Environment Registration, Taxes, etc.

- **The Ministry of Labour and Employment**
  - Has undertaken various measures aimed at simplification of Labour Laws for ease of doing business.
  - The Government has notified four Labour Codes, namely, the Code on Wages, 2019, the Industrial Relations Code, 2020, the Code on Social Security, 2020 and the Occupational Safety, Health and Working Conditions Code, 2020 by simplifying the provisions of 29 Central Labour Laws.
  - The Shram Suvidha Portal (SSP) also facilitates the ease of doing business by reducing the complexities in labour law compliance.
- **Department of Justice (DoJ) and Department of Legal Affairs**
  - The Commercial Courts Act, to streamline their functioning, the pecuniary value of commercial cases which can be entertained by the commercial courts has been reduced to Rs. 3 lakh from earlier Rs. 1 crore.
  - The Act mandates to complete the trial in a time-bound manner. This has resulted in the speedier resolution of commercial cases.
- **Ministry of Micro, Small and Medium Enterprises**
  - Has facilitated online registration through Udyam Registration (completely online and with no fees).
  - Set up a Review Committee to monitor the implementation of the policies and also constituted a grievance cell to redress the Grievances of MSEs.
  - Launched "MSME Sambandh Portal" to monitor the progress of procurement from MSEs.

Read about Ease of Doing Business.

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4. National Achievement Survey (NAS)

Syllabus: GS II, Education; Issues relating to development and management of Social Sector/Services relating to Education

Prelims: National Achievement Survey (NAS)

Context

The Union Government of India is implementing a programme called National Achievement Survey (NAS).

National Achievement Survey (NAS)

- NAS is a sample-based survey aimed at classes III, V, VIII and X with a cycle period of three years.
- The National Council of Educational Research and Training (NCERT) has been periodically conducting National Achievement Surveys (NAS) since 2001.

- The objective of NAS is to evaluate children's progress and learning competencies as an indicator of the health of the education system, so as to take appropriate steps for remedial actions at different levels.
- The latest round of NAS was conducted in November 2021 and has covered
    - Government Schools (Central Government and State Government);
    - Government Aided Schools;
    - Private Unaided Schools.
- The subjects covered include languages, mathematics, EVS, science and social science.
- Nearly 34 lakh students from 1.18 lakh schools both from rural and urban areas participated in NAS 2021.

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5. PLI for IT Hardware

Syllabus: GS III, Economy; Mobilization of resources, growth, development and employment.

Prelims: Facts about the PLI scheme for IT Hardware

Context

A Production Linked Incentive Scheme (PLI) for the IT Hardware sector has been notified by the government.

PLI scheme for IT Hardware

- The PLI Scheme for IT Hardware was introduced in 2021.
- The scheme aims to boost electronics manufacturing in the country and incentivize large investments in the sector.
- The scheme was announced with a total budget of Rs. 7,350 Crore.
- This Scheme extends an incentive to net incremental sales (over the base year of FY 20) of goods under target segments that are manufactured in India to eligible companies, for a period of four years (FY 22 to FY 25).
- The target IT hardware segments under the Scheme include Laptops, Tablets, All-in-One Personal Computers (PCs) and Servers.
- A total of 14 companies have been approved under the PLI Scheme.
- The scheme is expected to attract investment worth ₹ 2,500 crores to the sector.
- It also facilitates the generation of 36,066 additional direct jobs in the sector.

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6. India Semiconductor Mission

Syllabus: GS III, Economy; Mobilization of resources, growth, development and employment.

Prelims: Facts about the India Semiconductor Mission and Semicon India Programme

Mains: Key features of the India Semiconductor Mission and Semicon India Programme

Context

The Union Cabinet approved the Semicon India programme.

Semicon India programme

- The programme will help in the development of semiconductors and display manufacturing ecosystems in India.
- The programme has a total outlay of Rs. 76,000 crore.
- The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.
- This will serve to pave the way for India's growing presence in the global electronics value chains.

India Semiconductor Mission

- India Semiconductor Mission (ISM) has been established as an Independent Business Division within Digital India Corporation having administrative and financial autonomy to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.
- It will also serve as the nodal agency for efficient, coherent and smooth implementation of the schemes.
- It will formulate comprehensive long-term strategies for developing semiconductors & display manufacturing facilities and semiconductor design ecosystem in the country in consultation with industry and academia.
- It will enable a multi-fold growth of the Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools, foundry services and other suitable mechanisms for early-stage startups.
- It will also promote and facilitate indigenous Intellectual Property (IP) generation and encourage, enable and incentivize Transfer of Technologies (ToT).
- ISM will also enable collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.

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7. Sujalam 2.0 Campaign

Syllabus: GS III, Environment; Conservation

Prelims: Facts about Sujalam 2.0 campaign

Context

Union Minister of Jal Shakti launched the Sujalam 2.0 campaign for greywater management.

Sujalam Campaign

- SUJALAM is a 100-day campaign by the Ministry of Jal Shakti as part of the 'Azadi Ka Amrit Mahotsav' celebrations to create more and more **ODF+ villages** by undertaking wastewater management at the village level.
    - **ODF –** In 2016 a protocol was launched under which "a city/ward is notified as ODF city/ward if, at any point of the day, not a single person is found defecating in the open."

- **ODF+** – a city, ward or village would be declared ODF+ if, "at any point of the day, not a single person is found defecating and/or urinating in the open, and all community and public toilets are functional and well-maintained."
- **ODF++** – "faecal sludge/septage and sewage is safely managed and treated, with no discharging and/or dumping of untreated faecal sludge/septage and sewage in drains, water bodies or open areas."

To read more about the Sujalam Campaign check PIB dated Aug 25, 2021.

Sujalam 2.0 Campaign

- The theme for the year 2022 is 'Groundwater: making the invisible visible'.
- The campaign is launched to sustain the achievement made under the Swachh Bharat Mission-Gramin (SBM – G) Phase I and ensure holistic cleanliness in villages by having arrangements for solid and liquid waste management.
- The campaign focuses on the establishment of institutional level greywater management assets in Panchayat Ghars, healthcare facilities, schools, anganwadi centres (AWCs), and other government institutions.
- The creation of individual and community greywater management assets will also be encouraged.

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8. Railway KAVACH Technology

Syllabus: GS III, Infrastructure: Railways

Prelims: Facts about KAVACH Technology

Context

Indian Railway has developed indigenous Automatic Train Protection (ATP) System called Kavach.

KAVACH Technology

- KAVACH has been developed by the Research Designs & Standards Organisation (RDSO) along with three Indian vendors.
- The technology is aimed at enhancing safety and efficiency of train operations.
- The technology will aid Loco Pilot to avoid Signal Passing At Danger (SPAD) and over speeding and also help in operations during extreme weather conditions.

Key Features

- It controls the speed of the train by automatic application of brakes.
- It is a set of electronic devices and Radio Frequency Identification (RFID) devices installed in locomotives, in the signalling system as well as the tracks.
- It enables auto whistling at Level Crossing gates.
- It helps in preventing collisions by facilitating loco-to-loco communication.
- It also supports features such as emergency response mechanisms in case of any mishap.