





# SROTHAS

A Monthly Magazine for UPSC Civil Service Examination



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### 1. ENVIRONMENT & ECOLOGY

### 1. Tropical forest biome

- Closed canopy forests growing within 28 degrees north or south of the equator
- Winter is absent, and only two seasons are present (rainy and dry).
- Temperature is on average 20- 25° C and varies littlethroughout the year:
- Very wet places, receiving more than 200 cm rainfall per year
- Soils are relatively poor in nutrients.; Soils contain less organic matter than temperate forests
- Constant warmth and moisture promote rapid decay of organic matter

### 2. Black Liquor

• Biofuel created as a byproduct of paper and pulp industry

### 3. IndiGen initiative

- By the CSIR-Institute of Genomics and Integrative Biology(IGIB) Delhi and CSIR-Centre for Cellular and Molecular Biology (CCMB) Hyderabad
- The wet disposal of Fly ash results in leaching of toxic heavy metals in ground watersystem
- Maharashtra is the first state to adopt fly ash utilization policy.

# **4.International Treaty of Plant Genetic Resources for Food and Agriculture (ITPGRFA)**

- Adopted by the Thirty-First Session of the Conference of the Food and Agriculture Organization
- Known as the Seed Treaty; Recognizes farmers' rights, subject to national laws.
- Facilitates access to the genetic materials of the 64 crops in the Multilateral System forresearch, breeding, and trainingfor food and agriculture.
- Creates a legally binding obligation
  - India passed Protection of Plant
  - Plants which are adapted to arid and semi arid conditions like cacti, baobab.

### 5. Ozone depletion potential (ODP)

- Relative amount of degradation to the ozone layer it can cause
- Trichlorofluoromethane (CFC- 11) being fixed at an ODP of 1.0.
- Brominated substances have usually higher ODPs in range 5-15
- Hydrochlorofluorocarbons have ODPs mostly in range 0.005 0.2
- Hydrofluorocarbons (HFC)have no chlorine content, so their ODP is essentially zero.
- HFC, Ammonia and Carbon dioxide do not cause depletion of Ozone. So they have zero ODP

### 6. Tundra biome

- Coldest of the biomes;Receives low amounts of precipitation, making the tundra similar to a desert.
- Winters are long, dark, and cold, with mean temperatures below 0°C for six to 10 months
- no trees; Reptiles and amphibians are few or absent.
- Mosses, sedges, and lichens are common, while few trees grow in the tundra.
- Precipitation in the tundra totals 150 to 250 mm.

### 7. Sea ranching

 earing strategy in which fish is reared in a controlled laboratory environment and let into the sea when they are of a certain size.

### 8. Bioventing

• Supply of air and nutrients through wells to contaminated soil to stimulate the growth of indigenous bacteria.

### 9. Biosparging

 Injection of air under pressure below the water table to increase groundwater oxygen concentrations and enhance the rate of biological degradation of contaminants by naturally occurring bacteria.

### 10. Bioaugmentation

- Micro-organism are imported to a contaminated site to enhance the degradationprocess.
- Secondary pollutantformed in the atmosphere as a result of the chemical or the physical interactions between the primary pollutants themselves or between

- the primary pollutants and other atmospheric components.
- Ground Level Ozone, photochemical Smog and POPs ,Peroxyacetyl Nitrate(PAN)

### 11. Primary pollutant

- Air pollutant emitted from a source directly into the atmosphere.
- Oxides of Sulphur, Oxides of Nitrogen,Oxides of Carbon, Particulate Matter, Methane, Ammonia, Chlorofluorocarbons

#### 12. Littoral zone

- Shallow water zone of the lake which supports rooted vegetation.
- Shore area of the lake; Topmost zone near the shores

### 13. Limnetic zone

- Ideal location for the growth of phytoplanktons.
- Open water area of the lake

### 14. Euphotic Zone

- Portion of the limnetic zone near the surface of the water
- Receives sunlight; Algae and other aquatic plants thrive

### 15. Profundal zone

- Zone which does not receive any light.
- Below the euphotic zone; sunlight does not penetrate
- Lower fish populations because of the lack of oxygen

### 16. Benthic Zone

• Bottom of the pond or lake and consists of organic sediments and soil.

# 17.Apex Committee for the Implementation of the Paris Agreement

- Under the chairmanship of Secretary, MoEFCC
- Under Environment Protection Act, 1986.
- National authority to regulate carbon markets in India

### 18.Vernalization

• Induction of a plant's flowering process by exposure to the prolonged cold of winter, or by an artificial equivalent.

### 19. Poly Metallic Nodules

- Are formed by the precipitation of metals from seawater over several million years.
- Red clay is an accumulation of volcanic dust blown out from volcanoes during volcanic eruptions.

### 20. Elephant corridors

- narrow strips of land that connect two large habitats.
- identified by states and notify them under either the Wild Life (Protection)Act WLPA, 1972, or the Environment Protection Act (EPA), 1986.

### 21. Alpha diversity

- Describes the species diversity within a community at a small scale or local scale, generally the size of one ecosystem
- When we casually speak of diversity in an area, more often than not it refers to alpha diversity.

### 22. Beta diversity

• Describes the species diversity

between two communities or ecosystems.

### 23. Gamma diversity

- Studied at a very large scale—abiome
- The most common feature of all wetlands is that the water table is very near to the soil surface

#### 24. Marsh

• poorly drained mineral soils and by plant life dominated by grasses.

### 25.Swamp

- mineral soils with poor drainage and by plant life dominated by trees.
- largest swamp in the world is the Amazon River floodplain
- Both marshes and swamps may be freshwater or saltwater.

### **26. Bog**

 Poorly drained acidic soil receiving water exclusively from rainfall

### **27.Fen**

 Alkaline rather than acid areas receiving water mostly from surface and ground water sources.

### 28.Gogabeel

- Community reserve
- Ox-bow lake in Bihar; Also been notified as both Community Reserve and a conservation reserve.
- Formed from the flow of the rivers Mahananda and Kankhar in the north.

# 29. National Bioenergy Programme (NBP)

- Ministry of New and Renewable Energy (MNRE)
- Waste to Energy Programme, Biomass Programme, and Biogas Programme.

• Implementing agency: Indian Renewable Energy Development Agency (IREDA)

# **30.GRIHA (Green Rating for Integrated Habitat Assessment)**

- Developed by TERI
- Evaluates environmental performance of a building

### 31. Cloud Forests

- Mountain tropical forests generally found at the river headstreams and mostly covered with clouds.
- These forests serve as the storage of clean water; Cloud Forest 25 (CF25) an Investment Initiative

# 32. Sustainable Cities integrated approach pilot (sciap) project

- Implemented by: UNIDO and UN-Habitat in partnership with the Ministry of Housing and Urban Affairs
- 5 pilot cities; infuse sustainability strategies into urban planning and management at the city level
- Adding sustainability strategies to citylevel urban planning and management
- Developing Urban Sustainability
   Assessments for Land Use Planning in India (USAF)

# 33. The Intergovernmental Science -Policy Platform on Biodiversity and Ecosystem

• An independent intergovernmental body;to strengthen the research,

- evidence-based policy making for the conservation and sustainable use of biodiversity.
- All UN members can join;UNEP provides secretariat services

### 34. Aceclofenac

- Aceclofenac is a veterinary painkiller.
- It metabolises into diclofenac in water buffaloes and cows which eventually threatens vulture populations in the country.

### 35. Animal Welfare Board of India

- Statutory body (HQ: Ballabhgarh, Haryana) established in 1962 under Prevention of Cruelty to Animal Act, 1960 (PCA Act).
- Prevent infliction of unnecessary pain or suffering on animals
- Acts as an advisory body to Central Government and State Government.

### 36. Cryomesh

- to freeze and store coral larvae
- Will help in building reefs threatened by climate change.
- Mesh technology will help to store coral larvae at -196 C

# 37. Island Protection Zone (IPZ) 2019

- For Andaman and Nicobar; It allows ecotourism projects 20 meters from the high tide line (HTL) in smaller islands
- In case of larger islands, 50 meters from the HTL is permitted.

 It allows for eco-tourism activities like mangrove walks, tree huts and nature trails in island coastal regulation zone(ICRZ) IA

### 38. Wuhan Declaration

- 14th Conference of the Parties (COP14)
   to Ramsar Convention on Wetlands
   adopted the Wuhan Declaration
- Calls for practical actions to promote conservation, restoration, management and sustainable use of wetlands worldwide.

### 39. Vanikaran project

- Kerala forest department; It is an afforestation project to root out invasive plants, especially Senna spectabilis
- It is being executed in Sulthan Bathery forest range of Wayanad Wildlife Sanctuary (WWS).

### 40. Tiger Reserve

- Notified under: Wildlife (Protection) Act. 1972.
- Governed by: Project Tiger, administrated by the National Tiger Conservation Authority (NTCA).
- Consists of a 'Core' or 'Critical Tiger Habitat'.

### 41. Conservation Reserves

- Notified by: State Government after consulting with the central government and the local communities.
- An inhabited area which typically act as buffer zone to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India
- Parts of the land in this area are privately owned.

### 42. Elephant reserves

- under centrally sponsored scheme
   Project Elephant.
- 33 elephant reserves
- Tamil Nadu and Assam have the highest number of ERs (5 each) followed by Kerala (4) and Odisha (3).
- Mysore ER in Karnataka is the largest ER.

## 43.Wild Life (Protection) Amendment Act (WLPA), 2022

- Reduced to 4 schedules
- Schedule 1:Highest protection;Schedule2:lesser level of protection
- Schedule 3:Protected plant species;Schedule 4:specimens listed in appendices under CITES
- Wild animals will be declared as Vermin by Central Government by the way of notification for any area and for a specified period.

- Transfer or transport of live elephants allowed for a religious or any other purpose
- Any person having a certificate of ownership for captive animals or animal products, can voluntarily surrender them to the Chief Wild Life Warden; such items and the items will become the property of the State Government.
- Central government empowered to regulate or prohibit the import, trade, possession or proliferation of invasive alien species.
- No renewal of any arms licences to be granted to any person residing within 10 kilometres of a sanctuary except under the intimation to the Chief Wild Life Warden

# **44.COP15** Convention on Biological Diversity

- Chaired by China and hosted by Canada.
- To adopt a global biodiversity framework (GBF), which will replace the Aichi Biodiversity Targets that expired in 2020.
- GBF not legally binding; Adoption of the Gender Plan of Action
- UN Decade on Ecosystem Restoration declared first 10 World Restoration Flagships at the side-lines of COP15 of CBD.
- Namami Gange among it

- the International Union for Conservation of Nature (IUCN) launched its first Restoration Barometer Report.UN
   Decade on Ecosystem Restoration
- 2021 to 2030 has been declared by the United Nations General Assembly
- Led by: UN Environment Programme and the Food and Agriculture Organization

### 45.E-WASTE (MANAGEMENT) RULES 2022

- Ministry of Environment, Forest and Climate Change (MoEF&CC)
- Environment (Protection) Act, 1986.
- Entities not covered:waste battery,Packaging plastic,Micro enterprises,radioactive waste
- Battery covered in Battery waste management rules 2022
- Packaging plastic in Plastic waste management rules 2016
- Compulsory Registration of manufacturer, producer, refurbisher, or recycler of the eproducts with Central Pollution Control Board (CPCB).
- Introduction of Extended Producer
   Responsibility (EPR) Certificates

### 2.SCIENCE AND TECHNOLOGY

### 1. Supercapacitors

- Electronic devices which are used to store extremely large amounts of electrical charge.
- High power density, long durability, and ultrafast charging characteristic as compared to lithium-ionbatteries.

### 2. Deep Learning

- A machine learning technique in which computers learn by examples.
- Technology behind driverless cars; Voice recognition; Language translation

### 3. Sunspots

- Relatively cool because they form at areas where magnet fields are particularly strong.
- These magnetic fields are so strongthat they keep some of the heat within the Sun from reaching the surface.
- The number of sunspots is directly proportional to solar activity

### 4. Evacuation System Assembly

- To be deployed just by a single astronaut in lunar gravity to rescue an incapacitated crew mate.
- By European space agency; It is world's 1st device aimed to help future incapacitated astronauts.

# 5. Robotic Mission Extension Vehicle-1 (MEV-1)

• For servicing satelites; Russia

### 6. Fiber-optic Communication

- The signal transmitted in optical fiber is converted from the electrical signal into light and at the receiving end, it is converted back into the electrical signal from the light.
- Don't have any electromagnetic interference resulting in no data loss due to interference.

# 7. Technology and Innovation Report 2021

- by the United Nations Conference on Trade and Development (UNCTAD).
- India was the biggest \_overperformer'
  in frontier technologies than the
  country's per capita Gross Domestic
  Products

### 8. Geosynchronous Orbit (GEO)

• Takes a satellite around the Earth at a rate of once per day, keeping it roughly in the same area over the ground.

### 9. Geostationary Orbit (GSO)

• Is a geosynchronous orbit with an inclination of zero, meaning, it lies on the equator.

### 10.PSLV-C51

• First dedicated mission of its

- commercial arm, NewSpace India Ltd.
- Amazonia-1 among the satelites; Amazonia-1 is the first fully Brazilian-made satellite, which would help to monitor the Amazon forests. (sun-synchronous polar orbit.)

### 11. **GSLV**

- Developed to launch the heavier INSAT class of geosynchronous satellites into orbit.
- Third and final stage, GSLV uses the indigenously developed cryogenic upper stage.

### 12. NAVIC

- Navigation with Indian Constellation (NavIC) is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland.
- Standard Positioning Service (SPS) which is provided to all the users.
- Restricted Service (RS), which is an encrypted service provided only to the authorised users.
- It is powered by eight IRNSS satellites, of which one provides messaging services.
- Three of these will be geostationary over the Indian Ocean; Four will be geosynchronous

### 13. Gaganyaan mission

- Indian crewed orbital spacecraft; GSLV Mk III.
- Training of astraunauts by russia, french; Vyommitra, a Female Robot who will accompany other astronauts in the mission.

# 14.International Liquid Mirror Telescope

- By canada, belgium, India
- Worlds first liquid mirror telescope commissioned forastronomy.
- A dish containing a reflecting liquid metal essentiallymercury.
- Set up at nainital, Uttarakhand

### 15. NISAR

- NASA and ISRO;Primary goalsinclude tracking subtle changes in the Earth's surface, spotting warning signs of imminent volcanic eruptions, helping to monitor groundwater supplies and tracking the rate at which ice sheets are melting.
- NISAR is short for NASA- ISRO-SAR.;SAR- synthetic aperture radar that NASA will use to measure changes in the surface of the Earth.
- Radar can penetrate clouds and darkness, which means that it can collect data day and night in any weather

### 16. Parker Solar Probe

• NASA; Will travel through the sun's atmosphere, closer to the surface than any spacecraft before it, facing brutal heat and radiation conditions —and ultimately providing humanity with the closest-everobservations of a star.

### 17. Solar Orbiter Mission

- ESA and NASA; The first mediumclass mission of ESA's Cosmic Vision 2015- 2025 Programme.
- First mission that will provide images of the sun's north and south poles.

### 18. Asteroids

- Are rocky objects that orbit the Sun, much smaller than planets.
- Asteroid belt between Mars and Jupiter
- Trojans, which are asteroids that share an orbit with a larger planet.
- Near-Earth Asteroids (NEA), which have orbits that pass close by the Earth. Those that cross the Earth's orbit are called Earth-crossers.

### 19. Sandalwood spike disease

- Caused by bacterial parasites and transmitted by insects.
- There is no cure as of now for the infection.

### 20. Cyanobacteria

- Lack a membrane-bound nucleus,mitochondria, Golgi apparatus, chloroplasts, and endoplasmic reticulum.
- Also called Blue green algae.

### 21.Chitin

- Fungi cell-walls made of this tough complex sugar.
- Sold in supplement form, it has antiinflammatory properties that can lower cholesterol, reduce weight, and control blood pressure.

### 22. Biomolecule

- The four main types of biomolecules are carbohydrates, lipids, nucleic acids and proteins.
- Nucleic acids, DNA and RNA, have the unique function of storing an organism's genetic code.

### 23.Plasma

- It constitutes about 55% of total blood; Contains 91% to 92% of water and 8% to 9% of solids.
- It is formed from water and salts absorbed through the digestive tract.

### 24. CRISPR technology

- Clustered Regularly Interspaced Short Palindromic Repeats(CRISPR) is a technology that can be used to edit genes..
- Adapted from the natural defense mechanisms of bacteria and archaea.
- It does not involve the introduction of new genes from outside. Its mechanism is often compared to the "cut-copypaste" or "find-and-replace" functions of ordinary computer programs.

### 25. KEYTRUDA

- It treats cancers like skin cancer, lung cancer, bladder and urinary tract cancer, etc.
- It is an immunotherapy and it works with your immune system to help fight cancer.
- Can cause your immune system to attack normal organs and tissues in any area of your body and can affect the way they work.

### 26.Carbon Quantum Dots (CQD)

- CQDs are carbon-based nanomaterials whose size is less than 10 nm, or nanometre.
- Used as diagnostic tools for bio-imaging, especially in detecting cancer cells, Sensing of Metal Ions, Bioimaging, Drug Delivery Systems, as photocatalyst etc

### 27. Mitosis and meiosis

- Mitosis involves the division of somatic cells, while meiosis involves the division of gamete cells.
- Two daughter cells are produced after mitosis while four daughter cells are produced after meiosis.

• Daughter cells resulting from mitosis are diploid, while those resulting from meiosis are haploid.

### 28. Organic Photovoltaic (OPV) cells

- uses carbon-based materials and organic electronics instead of silicon as a semiconductor to produce electricity from the sun.
- can be made using polymers.
- less efficient than silicon based solar cells
- result in flexible solar panels that can be installed on curved surfaces.

#### 29. Eternal Blue

 is an exploit that allows cyber threat actors to remotely execute arbitrary code and gain access to a network by sending specially crafted packets

### 30. Microwave weapons

- Type of direct energy weapon which aim at highly focused energy in the form of sonic and laser.
- high-frequency electromagnetic radiation to heat the water in the human target skin.

## 31.Narrow Band-Internet of Things (NB-IoT)

 a wireless communication standard for small data volume infrequently transmitted.

- significantly improves the power consumption of user devices.
- BSNL has launched the world's first satellite-based NB-IoT network in India.

### 32. National Centre for Polar and Ocean Research

- established as an autonomous Research and Development Institution of the Ministry of Earth Sciences in 1998.
- responsible for the maintenance of the Indian stations in Antarctica (Maitri & Bharati) and the Arctic (Himadri).
- exploration of gas hydrate occurrences within the EEZ as well as Multi-metal hydrothermal mineralization in the Indian ridge area.

### 33.Optical Ground Wire (OPGW) Network

- Dual-use wire network which can be used both as an earth wire and optical fibre for telecommunication.
- Power Grid Corporation of India Limited is the only utility having overhead optic fibre network using it on power transmission lines.

### 34. Pervasive Computing

 growing trend of embedding computation capability into everyday objects to make them effectively communicate and perform useful tasks in a way that minimises the end user's need to interact with computers.

### 35. Virtual Private Networking

 extends a private network across a public network and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network

### 36.Three-parent baby

- Replacing the dysfunctional mitochondria carried by a woman who wishes to conceive a child with the healthy mitochondria of a donor.
- Egg is then fertilized with partner's sperm through In Vitro Fertilization

### 37.Phytorid Technology

- Self-sustainable technology for wastewater treatment that works on the principle of natural wetland.
- CSIR-NEERI

### 38. End-to-End Encryption

- the act of applying encryption to messages on one device such that only the device to which it is sent can decrypt it.
- The message travels all the way from the sender to the recipient in encrypted form.

• data sent over Short Messaging Services are not end-to-end encrypted

### 39. Hypoxia

- is a condition wherein there is not enough oxygen available to the blood and body tissues
- In 'silent' or 'happy' hypoxia, patients appear to be less in distress.

### 40. National Internet Exchange of India

- not-for-profit organization (section 8 of the Companies Act 2013) working since 2003 for spreading the internet infrastructure to the citizens of India
- Internet Exchanges through which the internet data is exchanged amongst ISP's, Data Centers and CDNs.
- IN Registry, managing and operation of .IN country code domain and .l'ΦŃdIDN domain for India.

# 41.Integrated Guided Missile Development Program

- Conceived by Dr. A.P.J. Abdul Kalam to enable India attain self-sufficiency in the field of missile technology
- The 5 missiles (P-A-T-N-A) developed under this program are:
- Prithvi: Short range surface to surface ballistic missile.
- Agni: Ballistic missiles with different ranges, i.e. Agni (1,2,3,4,5)

- Trishul: Short range low level surface to air missile.
- Nag: 3rd generation anti-tank missile.

# 42. Chemical Weapons Convention (CWC)

- Is an arms control treaty prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by States Parties
- India is a signatory and party to the Convention.

### 3. SCHEMES IN NEWS

# 1. Horticulture Cluster Development Programme

LaunchYear:2021;Implemented

By:National Horticulture Board(NHB)

- Ministry of Agriculture and Farmers Welfare
- grow and develop identified horticulture clusters to make them globally

competitive; Central sector programme

 Address issues in preproduction, production, post-harvest

### 2. Seed Minikit Programme

- Launch Year: 2021; Ministry of Agriculture and Farmers Welfare
- Major tool for introducing new and high yielding varieties of seeds in the farmers' fields.
- Mini kits are provided by National Seeds Corporation (NCS), National Agricultural Cooperative Marketing Federation of India Ltd (NAFED)
- Fully funded by the Central Government through the National Food Security Mission.

### 3. Swadesh Darshan Yojana

- launch year 2014-15; Ministry of tourism.
- central sector scheme; To develop theme based tourist circuits.
- 15 thematic circuits have been identified; circuits developed on the basis

of,high tourist value,competitivenes,sustainabi lity

# 4. Pradhan Mantri Mudra Yojana (PMMY)

- Provide loans up to 10 lakh to non-corporate, non-farm, small/micro enterprises.
- 3 types of loans
- O Shishu: covering loansupto Rs. 50,000
- Kishor: covering loans above Rs. 50,000 andupto 5 lakhs
- Tarun: covering loans above Rs. 5 lakh and up to 10 lakhs
- Creation of a Fund called
   -Credit Guarantee Fund for Micro Unitsl(CGFMU)
- Scheme is being managed by National Credit Guarantee Trustee Company Ltd. (NCGTC)
- No processing fee; No collateral

### 5. Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)

- launch year 2020; Nodal Ministry is the Ministry of Finance.
- Implemented by Dept of food and public distribution
- Providing each person who is covered under the NFSA (National Food Security Act 2013) with an additional 5 kg grains (wheat or rice) for free, in addition to the 5 kg of subsidized food grain already provided through the Public Distribution System (PDS).

- Families belonging to the Below Poverty Line - Antyodaya Anna Yojana (AAY) and Priority Households (PHH) categories will be eligible for the scheme.
- PHH are to be identified by State Governments/Union Territory; covers 80 crores ration card holders

### 6. Pradhan Mantri Gram Sadak Yojana (PMGSY)

- Provide good all-weather road connectivity to unconnected villages
- To the eligible unconnected Habitations in the rural areas with a population of 500persons and above in Plainareas.
- Launch Year: 2000; Ministry of Rural Development
- World Bank supports; Managed by the National Rural Roads Development Agency (NRRDA)
- Unit for this Programme is a Habitation and not a Revenue village or a Panchayath

# 7. Ayushman Bharat Digital Mission

- Launch Year: 2020; Ministry of Health and Family Welfare (MoHFW)
- Provide a digital health ID to people which will contain their health records
- core building blocks
- health ID;DigiDoctor;Health Facility
   Registry
- Every Indian will get a Health ID card that will store all medical details of the person including prescriptions, treatment, diagnostic reports and discharge summaries.

- Health ID is a randomly generated 14 digit number; Voluntary and free of cost.
- Implementing Agency: National Health Authority

# 8. Prime Minister's Employment Generation Programme (PMEGP)

- Launch Year:credit-linked subsidy programme launched in 2008 after merging two schemes namely Prime Minister's Rojgar Yojana (PMRY) and Rural Employment Generation Programme (REGP)
- Ministry of Micro, Small and Medium Enterprises; Central Sector Scheme.
- Eligibility Criteria
- o Individuals with age of 18 years or more
- Institutions registered under Societies
   Registration Act- 1860
- Production based co-operative societies
- Self-help groups and charitable trust
- Scheme is implemented by Khadi and Village Industries Commission (KVIC)

# 9. Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme

- Ministry of Food Processing Industries (MoFPI); Centrally Sponsored scheme
- Empower the unorganized Micro Enterprises to fulfill the aim of formalizing the food processing sector in India.

- beneficiaries
- Existing micro food processing enterprises
- FPOs/SHGs/ producer cooperatives

### 10. Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM -JAY)

- World's largest health insurance/ assurance scheme fully financed by the government.
- · Centrally sponsered scheme
- Covers up to 3 days of pre hospitalization upto 15 days of post hospitalization.
- National Health Authority (NHA) implement it.
- Entitlement-based scheme that targets the beneficiaries as identified by latest\_Socio-Economic Caste Census (SECC) data.
- Offers a sum insured of Rs.5 lakh per family for secondary care (which doesn't involve a super specialist) as well as tertiary care (which involves a super specialist).

### 11. Pradhan Mantri Kisan Samman Nidhi (PM KISAN)

- · Ministry of agriculture and family welfare
- · central sector scheme
- Eligibility Criteria
- All landholding farmer families in the country irrespective of the size of their landholdings.

- Family comprises of husband, wife and minor children who own cultivable land
- Exclusion
- Retired pensioners with a monthly pension of over Rs 10,000.
- All Institutional Land holders.
- All Persons who paid Income Tax in last assessment year
- An amount of Rs 6000 per year in three equal installments of Rs 2,000 every four months is released by the Central Government online directly into the bank accounts.
- The entire responsibility of identification of beneficiary farmer families' rests with the State / UT Governments.
- Funds are not allocated and sanctioned State-wise. eKYC is mandatory for PMKISAN registered farmers. All PM-KISAN beneficiaries will be given the Kisan Credit Cards

### 4. Protected Areas in News

### 1. Dibru-Saikhowa National Park

- Biosphere Reserve; Assam.
- bounded by the Brahmaputra and Lohit Rivers in the north and Dibru river in the south.
- Moist mixed semi-evergreen forests, moist mixed deciduous forests
- Identified Important Bird Area (IBA)

### 2. Namdapha National Park

- Lies at the international border between India and Myanmar; Arunachal Pradesh.
- Only park in the World to have the four Feline species of big cat namely the Tiger (Panthera Tigris), Leopard (Panthera Pardus), Snow Leopard (Panthera Uncia) and Clouded Leopard (Neofelis Nebulosa).
- Hoolock Gibbons, the only 'ape' species found in India is found in this National Park.
- Succession from tropic rainforest grassland-temperate decidious forest and paleoarctic environment

### 3. Nokrek Biosphere Reserve

 Nokrek is the highest peak of the Garo hills.;Meghalaya;significant red panda population

- Recognized under the Man and Biosphere Reserve program of UNESCO.
- Citrus indica or wild orange is found at this place;Part of meghalaya plateauu
- undulating hills;17% area under shifting cultivation;90% is evergreen rainforest
- garo tribe;Part of this declared as gene sanctuary of citrus family(only one in India)(in garo hills)

#### 4. Manas National Park

- UNESCO Natural World Heritage site
- Project Tiger reserve; Elephant reserve
- Biosphere reserve in Assam
- Combination of Sub-Himalayan Bhabar
   Terai formation
- Pygmy hogs were released in Manas National Park by the Pygmy Hog Conservation Programme (PHCP)
- Golden languars

### 5. Kaziranga National Park

- UNESCO World Heritage Site; Tiger Reserve; Assam; biggest habitat of onehorned rhinos.
- Land of big 5-rhino,swamp deer(barasingha),elephant,tiger,wild buffalo;70 % of the total population rhinos here;important bird area

 At the edge of eastern himalaya biodiversity hotspot; First in the country to use satellite phones

### **6.** Pobitora Wildlife Sanctuary

- Situated in the flood plains river Brahmaputra and Assam
- Highest density of one-horned rhinos in the world.
- Other mammals found are Leopard cat,
   Fishing cat, Jungle cat
- One of the 'important bird areas' declared by Birdlife International
- Second highest concentration of Rhino in Assam after Kaziranga National Park.

### 7. Nilgiri Biosphere Reserve

- First biosphere reserve in India
- Located in the Western Ghats
- Tamil Nadu, Kerala and Karnataka.
- Nilgiri tahr, Nilgiri langur, slender loris,
   blackbuck, tiger, gaur, Indian elephant.
- Comprises of
- Mudumalai Wildlife Sanctuary,
- Wayanad Wildlife Sanctuary,
- o Bandipur National Park
- Nagarhole National Park,
- Mukurthi National Park and
- Silent Valley inside this reserve

# 8. Nagarjunasagar Srisailam Tiger Reserve

- Largest tiger reserve; Andhra Pradesh
- Nallamala Hills.;Multipurpose reservoirs- Srisailam and Nagarjunasagar
- Krishna river cuts the basin of this reserve; Dry decidious

### 9. Pilibhit Tiger Reserve

- Uttar Pradesh;2020, it bagged international award TX2 for doubling up the number of tigers in the past four years.
- Northern edge of the reserve lies along the Indo-Nepal border while the southern boundary is marked by the river Sharada and Khakra.
- Part of Terai Arc Landscape in the upper Gangetic Plain.;tiger,swamp deer, bengal florican, leopard

### 5. Indices and Reports

## 1. Human Development Report 2021-22

- Published by the Human Development Report Office for the United Nations Development Programme (UNDP).
- Human Development Index:India's position in the Human Development Index: 130 in 2020 and 132 in 2022; global life expectancy has decreased from 72.8 years in 2019 to 71.4 years in 2021; Sri Lanka has become the performing country the in Indian subcontinent.
- Four indicators of HDI index:Life expectancy at birth;Expected years of schooling;Mean years of schooling;Gross national income (GNI).
- 3 Dimensions:Long and Healthy LIfe;Knowlegde;Decent standard of living.

### 2. Human Capital Index

- by the World Bank;India has ranked 116th;Part of Human Capital Project
- 3 pillars namely:survival <5 years mortality;squantity and quality education;Health

# 3. Programme for International Student Assessment (PISA)

- By OECD in member and non-member nations.
- A global exercise where students from different countries take a two-hour test to measure their skills and knowledge; mainly in science, reading and mathematics.

- Students aged between 15 and 16 years; India last participated in 2009.
- Triennial Survey.

# 4. Global Report on Food Crises 2022

- Launched by the Global Network Against Food Crises (GNAFC).
- Facilitated by the Food Security Information Network (FSIN).

### 5. Food Security Information Network

- by FAO, World Food Programme (WFP) and International Food Policy Research Institute (IFPRI)
- Strengthen food and nutrition security information systems to generate reliable and accurate data to guide analysis and decision-making.

# 6. Global Network Against Food Crises (GNAFC).

- Founded by the European Union, FAO and WFP in 2016.
- An alliance of humanitarian and development actors working together to prevent, prepare for and respond to food crises and support the Sustainable Development Goal (SDG 2) to end hunger.

### 7. World Uncertainty Index

- by the International Monetary Fund.
- Covers economy, policies, and politics of each country.

### 8. Special 301 Report 2022

- by: Office of the United States Trade Representative (USTR)
- Identify business partners that do not effectively protect and enforce

intellectual property (IP) rights or otherwise deny market access to U.S. innovators and creators.

• India in Priority Watch List Countries.

### 9. LEADS Report 2022

- Ministry of Commerce and Industry
- Logistics Ease Across Different States (LEADS)
- Maharashtra tops amongst the "Achievers" states.

### 10. Services Trade Restrictiveness Index (STRI)

• By OECD; Provides information on regulations affecting trade.

# 11.World Economic Situation and Prospects 2023

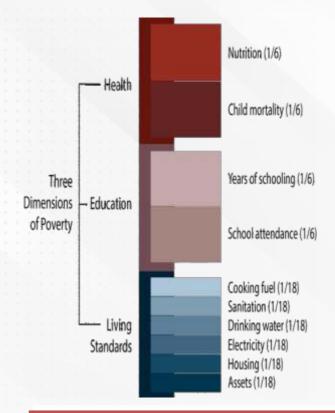
 By UNCTAD, UNDESA and 5 UN Regional Economic Commissions

## 12.Global Food Security Index 2022

- By Economist Intelligence Unit.
- India:68th in 2022;71 in 2021
- Parameters used:Affordability;Availability ;Quality and Safety ;Natural Resources and Resilience.

## 13. Global Multidimensional Poverty Index 2022

- By UNDP and Oxford Poverty and Human Development Initiative (OPHI).
- India has by far the largest number of poor people worldwide



### 14. Financial Stability Report (FSR)

By RBI; published twice each year.

• It presents an assessment of the health of the financial system.

### 15. Financial Inclusion Index

• By RBI;3 parameters:Access (35%), Usage (45%), and Quality (20%)

# 16. State Energy and Climate Index (SECI) 2022

- NITI Aayog;
- 6 parameters:Discoms' Performance; Access;Affordability and Reliability of Energy Clean Energy; Initiatives Energy Efficiency;;Environmental Sustainability; NewInitiatives

### 17. Global Hunger Index 2022

- By Concern Worldwide and Welthunger Life; India ranked 107(2022).
- Indicators:Undernourishment;Child Wasting;Child Stunting;Child Mortality.

# 18.HENLEY PASSPORT INDEX 2023

- The index ranks passports "by the number of destinations their holders can enter without a prior visa".
- The strongest passport (Japan) allows visa-free travel to 193 countries.
- India ranked at 85 with 59 destinations.

### 6. Economics

### 1. Minimum Wage

• Lowest wage to maintain a worker and family at minimum level of subsistence; includes the bare needs of life like food, shelter, and clothing.

### 2. Living Wage

• Bare needs+education+health+insurance etc

### 3. Fair Wage

- Above Minimum wage and below Living wage
- Depends on labour productivity,national income,capacity of industry etc

### 4. Starvation Wage

• The salary is not enough to meet the needs of normal life.

### 5. Food Safety and Standards Authority of India (FSSAI)

- Established under the Food Safety and Standards Act, 2006 (FSS Act).
- Ministry of Health & Family Welfare
- It sets standards for food safety and organic foods, and regulates food advertising.

### 6. Veblen Goods

- An increase in prices encourages people to buy more.
- Designer jewelry, luxury watches and luxury cars are examples

### 7. High Powered Money

 Currency (notes and coins in circulation with the public and cash in commercial bank vaults) + deposits held by the Indian government and commercial banks in the RBI.

## 8. Economic Intelligence Council

- Chairmanship-Finance Minister
- Fight against the generation of black money and money laundering by gathering intelligence on matters related to economic security,
- Inter-agency coordination and effective treatment of economic crime.
- 30 Regional Economic Intelligence Committees (REIC).

# 9. National Strategy for Financial Inclusion for India 2019-2024

 by RBI; Aims to provide access to formal financial services affordably, broadening & deepening financial inclusion and promoting financial literacy & consumer protection.

### 10.Willful defaulter

- A person who fails to meet their repayment obligations despite being able to repay the loan.
- Misappropriation of funds by companies for purposes other than those for which they were borrowed.
- A person who sells property purchased with borrower's funds without notifying the bank.

### 11. Negotiable instrument

• Is a document which gives the right to a sum of money and which can be

- transferred from one person to another by simple delivery or by endorsement and delivery.
- Negotiable instruments governed by the Negotiable Instruments Act 1881
- Promissory notes
- Bills of exchange
- Checks

# 12. Credit Information Companies

- Companies that collect data on individuals regarding their debt repayments and history and make this information available to financial institutions.
- Credit Reporting Activities Regulations by Credit Reporting Companies (Regulation) Act 2005 (CICRA).

# 13. Domestic Systemically Important Bank (D-SIB)

- Recognized by RBI
- Banks become systemically important due to their size, cross-jurisdictional operations, complexity and lack of substitution and interconnection.
- Assets exceeding 2% of GDP
- Recognition of RBI, HDFC Bank (Private Sector), ICICI (Private Sector) and SBI (Public Sector) in the D-SIB category.

### 14. Participatory Note

- Derivatives issued against Indian securities in foreign jurisdictions - An Indian security can be a stock, a debt, a derivative or even an index.
- Issued by Registered Foreign Institutional Investors (FIIs) to foreign investors who wish to invest in the

- Indian stock market but are not registered with SEBI
- Regulated by SEBI.
- Also known as Overseas Derivatives
- Indian regulators cannot ban issuance of PN.

# 15. Development Financial Institution (DFI)

- Institutions recognized or supported by the Government of India primarily providing development/project finance for one or more sectors
- DFIs can be classified into four categories of institutions based on their functions
- National Development Banks e.g. IDBI, SIDBI, ICICI, IFCI, IRBI, IDFC
- Sector-specific financial institutions e.g.
   TFCI, EXIM Bank, NABARD, HDFC,
   NHB
- Investment Institutions e.g. LIC, GIC, and UTI
- State-level Institutions e.g. State Finance corporations and SIDCs

### 16.Quaternary sector:

- It includes all industries concerned with the creation and dissemination of knowledge.
- Ex: Research and development, Education etc

### 17.Non-Convertible Debentures (NCD)

- Debt instruments with a fixed maturity in which the person who invests periodically pays interest at a certain rate.
- Not convertible to stock
- NCD can be secured or unsecured.

• Secured NCD backed by the assets of the issuing company to meet debt obligations.

### 18. Countervailing duty

- Implemented to offset the negative effects of export subsidies to protect domestic producers.
- It is a tariff imposed on imported goods to compensate for the subsidies granted by exporting countries to the producers of these goods.

# 19. Voluntary Retention Route (VRR)

- Channel introduced by the Reserve Bank of India (RBI) to enable FPIs to invest in debt markets in India
- All the investments made through this channel are free of the macro-prudential and other regulatory prescriptions applicable to Foreign Portfolio investors (FPI).

### 20.Bombay Stock Exchange

- Founded in 1875, it was Asia's first stock exchange.
- BSE joined the United Nations Initiative for Sustainable Stock Exchanges in 2012.
- The government officially recognized it under the Securities Contracts Regulation Act in August 1957.

### 21. Indigenous bankers

- Individuals or private companies who take deposits and make loans and thus act as banks
- IBs accept both deposits and loans.

• Totally unsupervised and uregulated lending activity

### 22. Rights offering

• A group of rights granted to existing shareholders to purchase additional shares (called warrants) in proportion to their existing holdings.

### 23. Brown Label ATMs (BLAs)

- Property of a third party (non-banking company).
- The bank concerned only manages part of the process for the "cash handling" and "backend server" connections.
- They carry the "sign" of a bank that outsources their services
- Carried out every five years
- Collection of data on the structure of operational holdings by different size classes and social groups.
- Central Sector Scheme ;Department of Agriculture and Farmers Welfare.
- First agricultural census 1970-71.

# 25. National Financial Reporting Authority (NFRA)

- In accordance with Section 132(1) of the Companies Act 2013 ;May conduct investigations of designated listed companies with insurance companies and banking companies.
- CAG is responsible for auditing the accounts of NFRA.

### 7. Places in NEWS

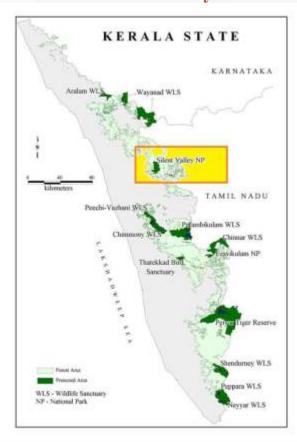
### 1. Solomon Islands



### 2. Senkaku islands



### Silent Valley



### 8. Polity and Governance

### 1. District judges

- Appointments and promotions to be made by the Governor in consultation with the High Court.
- He/She should not have served the central or state government.
- The High Court must provide a recommendation for the appointment.

# 2.69th Constitutional Amendment Act of 1991

- Gave the Union Territory of Delhi special status
- Redesignated it as the National Capital Territory of Delhi
- A legislative assembly and a council of ministers were established for Delhi, and the Lieutenant (Lt) Governor was designated as the city's administrator.
- Articles 239AA and 239AB were also inserted.

# 3.Central Electricity Regulatory Commission (CERC)

- Electricity Regulatory Commissions (ERC)
  Act, 1998 estb it.
- Central Commission for the purposes of the Electricity Act, 2003
- Regulates electricity prices for generation companies owned or controlled by the central government.

 Regulates the transmission of electricity between states

# 4. Salaries and Allowances of Officers of Parliament Act, 1953

- Deciding the salaries and allowances of the Speaker and Chairman of Lok sabha and Rajya sabha respectively.
- Charged on the Consolidated Fund of India.

# **5.National Investigation Agency** (NIA)

- Under the National Investigation Agency (NIA) Act following the 26/11 terrorist attack in Mumbai in 2008.
- Central Counter Terrorism Law Enforcement Agency of India which functions under the Ministry of Home Affairs.
- The NIA (Amendment) 2019 empowers the agency to investigate crimes committed outside India.
- NIA takes suo motu identification and file cases for terrorist activities occurring in any part of India, enters any state without the permission of the state government and starts an investigation.

# **6.National Medical Commission** (NMC)

• Statutory body which is constituted under Section 32 of the National Medical Commission (NMC) Act 2019.

- Replaced the Medical Council
- Consist of 32 persons which are to be appointed by the Central Government.

# 7.News Broadcasting Standards Authority (NBSA)

- Independent body set up by the News Broadcasters Association.
- Laid down the Code of Ethics and Broadcasting Standards
- Membership is voluntary; Only has jurisdiction over broadcasters that are members.

# 8.The Election Symbols (Reservation and Allotment) order

- Authorizes the Electoral Commission to prescribe "the regulation, conservation, selection and distribution of emblems during legislative and parliamentary elections and for the recognition of political parties"
- The Electoral Commission decides on the distribution of symbols when a recognized political party split.
- ECI resolves conflicts related to political parties and allocation of electoral emblems.

### 9. Tribes advisory council

- The Fifth Schedule to the Constitution establishes the basis.
- Advice on the welfare and advancement of the tribes concerned.

• Consists of 20 members, three-quarters of whom are representatives of registered tribes in the state legislature.

### 10.Drug Controller General of India

- Responsible for approving licenses for specific classes of drugs such as blood and blood products, IV fluids, vaccines and serums in India.
- Head of department of the Central Drugs Standard Control Organization.
- Sets the standards and quality for the manufacture, sale, import and distribution of pharmaceuticals in India.
- Comes under the Ministry of Health & Family Welfare.

#### 11. National Crime Records Bureau

- Acts as a repository of crime and offender information to help investigators link crimes to perpetrators.
- Serves as the national repository for fingerprint records (FP) of convicted persons, including FP records for foreign offenders.
- Setup based on the recommendations of the National Police Commission (1977-1981)
- Attached to the office of Ministry of Home Affairs.

# 12.Government Instant Messaging System

 An Indian messaging platform for intra- and inter-organizational communication by central and state government departments and organizations. • Designed and developed by the National Informatics Center (NIC).

### 13.Digi Locker initiative

- An initiative of Ministry of Electronics and Information Technology based on a secure cloud- based platform for storage, sharing and verification of documents and certificates.
- Provides a storage space of up to 1GB to each account holder.
- On user's death, all documents uploaded on digilocker would not be accessible by his kin and would automatically pass on to government.

### 14.Doctrine of Eclipse

- This means that if a law is incompatible with fundamental rights, it does not die definitively but becomes inactive.
- As soon as this fundamental right is removed from the Constitution, the inactive right is restored
- The right simply lapses but continues to exist.
- Eclipse removed when another (possibly higher) court strengthens the law or passes legislation to change it

### 15.Assam Rifles

- Central Paramilitary Force under the Ministry of Home Affairs.
- The oldest paramilitary force was formed in British India in 1835
- Raised as a militia formed to protect British tea plantations and their settlements from

- raids by NE tribes, the force was originally known as Cachar Levy.
- Reorganized later as Assam Frontier Force as its role was expanded to conduct punitive operations beyond Assam borders.
- Operational control is with the Indian Army,
   which is under the Ministry of Defence.

#### **16.CrPC**

- Is the main legislation on procedure for administration of substantive criminal law in India.
- It was enacted in 1973, though initially created in 1882.
- Provides the machinery and procedure for the investigation of crime
- Provides for the powers of the courts and Magistrate

### 17. Child Welfare Committee (CWC)

- It is a committee that ensures care, protection and rehabilitation of children.
- States must form 1 or more CWC/s for each district under the JJ Act..
- It must include a chairperson and 4 other members.

### 18. Social Security Agreement (SSA)

- Bilateral agreement between India and a foreign country designed to protect the interests of cross border workers.
- agreement provides for avoidance of 'double coverage'

### 9. MISCELLANEOUS

# • ASK Private Wealth Hurun India Future Unicorn Index 2022

- India will have 122 new unicorns in the next two to four years
- Bengaluru remains top with existing 33 unicorns
- E-commerce, Financial technology (FinTech), and Software-as-a- Service (SaaS) comprise
- 43 % of the Future Unicorn Index 2022.
- Classification Of Startups by The Report
- Unicorns— Startups valued at USD 1 billion that were created after the year 2000.
- Gazelles— Startups most likely tobecome unicornsin the next 2 years.
- Cheetahs—Startups that could go Unicorn in the next 4 years.

### Coalition for Disaster Resilient Infrastructure (CDRI)

- Set up in 2019;Based in New Delhi
- Launched by Indian PM during the United Nations (UN) Climate Action Summit
- Aims to promote the resilience of infrastructure systems to climate and disaster risks, there by ensuring sustainable development.
- Cabinet has approved the categorization of the Coalition for

Disaster Resilient Infrastructure (CDRI) as an International Organization'.

### "Project Surya"

 ReNew Power Limited & UNEP & Self-Employed Women's Association of India

### • (SEWA)

- Aims to train 1,000 low- income women salt-pan workers to work in the renewable industry.
- Project kicks off in Gujarat

### • T-Hub 2.0

- World's largest innovation campus in Hyderabad.
- Providing them with access to 6Ms –
   Mentors, Market, Motivation,
   Manpower, Money, Methodologies

### • Udyami Bharat

- Continuous commitment of the government to work towards the empowerment of MSMEs.
- National Capital Region Transport Corporation (NCRTC)
- Joint venture company of the Govt. of India and four states (Delhi, Haryana, up, Rajasthan)
- Ministry of Housing and Urban Affairs (MoHUA).
- Mandated to implement the Regional Rapid Transit System (RRTS) project across NCR.

# • Foreign Contribution (Regulation) Amendment Rules, 2022

- Allow Indians to receive up to Rs 10 lakh in a year from relatives staying abroad without informing the authorities.
- Foreign Contribution (Regulation) Act (FCRA)was first enacted in 1976.
- Ambit of FCRA
- The FCRA covers all of India and is also applicable to Indian nationals living abroad.
- All associations, groups, and Non-Governmental Organizations (NGOs) that wish to accept foreign donations.
- Registered associations can receive foreign contributions for social, educational, religious, economic and cultural purposes.

### Universal Service Obligation Fund (USOF).

- A Rs 55,000-crore strong reserve meant to provide connectivity in India's rural and remote areas.
- Under the Indian Telegraph (Amendment) Act 2003;non-lapsable Fund.
- The Levy amount is credited to the Consolidated Fund ofIndia.

### Hyderabad Declaration

 Inter-State Declaration of Intent to Work in Collaboration to Combat Human Trafficking was signed by Andhra Pradesh, Karnataka, Kerala, Odisha, Tamil Nadu, and Telangana.

### • e200

India's first flying taxi
ully electric, human-piloted,
2-seater vehicle

### • Climate Neutral Now (CNN)

- Launched in 2015 by the UNFCCC
- Aims to contribute to limiting the raise of the temperature by proposing an immediate set ofactions
- Achieve a climate neutral world by 2050 as per the Paris Agreement.

## • Har Ghar Dastak campaign 2.0

- Ministry of Health and Family Welfare; Door todoor campaign.
- Accelerate the pace and coverage of COVID19vaccination across alleligible age groups across States and Union territories (UTs) ofIndia(first dose and second)

# • Lifestyle for the Environment (LiFE) Movement

- By Narendra Modi
- Introduced by him duringthe 26th United Nations Climate Change (UNCC) Conference of the Parties (COP26) in Glasgow, Scotland in 2021.
- Envisages the replacement of the prevalent economy of
- <u>useand-dispose</u> with a circular economy of
- \_ReduceReuse andRecycle'.
- People opting this lifestyle are regarded as Pro-Planet People (P3).

### • Save Soil Movement

- Aims to raise awareness about declining soil health and to encourage people to take action to restore it.
- By Sadguru
- National Conference on Cyber-Safety and National Security, 2022
- Theme: Cyber Apradh seAzadi Azadi ka Amrit Mahotsay
- Organized by: Ministry of Home Affairs
- Intensified Diarrhoea Control Fortnight (IDCF)- 2022
- Min of Health and Family Welfare
- To attain 0 child deaths due to childhooddiarrhea.

### ñ Covovax

- Subunit of the vaccine developed by U.S. based Novavax and the Coalition for Epidemic Preparedness Innovations (CEPI).
- In India, Covovax is manufactured & marketed by Serum Institute of India (SII).
- has an efficacy of 90%.
- For children aged 7-11 years.

### Monkeypox

- Zoonotic viral infection that originated in rodents and primates and transmitted to people.
- Fever, rash and swollen lymph nodes
- COVAX (Covid-19 Vaccine Access initiative)
- Facilitated access to affordable

vaccines for lower income countries to reduce inequalities.

### • Leaders in Climate Change Management Program

- By UNEP,World resources institute,National institute of urban affairs
- To build capacity among urban professionals to lead climate action across sectors
- Capacitating 5000 professionals by 2027

### • Government e Marketplace

- 2016 by the Ministry of Commerce and Industry
- Create an open and transparent procurement platform of goods and services for Government buyers.
- Special Purpose Vehicle (SPV) by the name of Government eMarketplace (GeM SPV) was set up as the National Public Procurement Portal.
- Not available for use by private sector buyers.
- Suppliers (sellers) can be from across all segments:government or private.

# Google for Startups Accelerator - India Women Founders

- Google's first women- founder focused programme in India.
- to help women founders address challenges that are unique to their experience, including fundraising, hiring andmany others.

• inaugural batch of the programme will support 20 women-founded / co-founded startups in India, through a three-monthprogram.

# • Going Online As Leaders (GOAL) program.

- Joint initiative of the Ministry of Tribal Affairs and Meta (Facebook).
- Empowering youth and women from tribal and indigenous communities to harness the fullpotential of digital platforms and enhancing their leadership skills for drivingcommunity development
- Digitally upskill 10 lakh youth
- National Education Society for Tribal Students (NESTS)
- Min of tribal affairs
- Provide high quality education to tribal students

# • National Achievement Survey (NAS)

- To evaluate children's progress and learning competencies as an indicator of the health of the education system.
- by the Ministry of Education.
- Conducting Authority: CBSE
- NCERT designed an assessment framework and tools for NAS-2021.

### India's National Knowledge Network

- multi gigabite national research and education network
- Managed by National informatics centre

 provide uniform high speed network backbone to education and research institutions

### • National Dam Safety Authority

- Min of jal shakti
- objectives
- Resolving issues between State Dam Safety Organisations (SDSOs) between an SDSO and any dam owner in that state
- Specifying regulations for inspection and investigation of dams.
- Came to force in feb 2022.

# • National Judicial Infrastructure Authority of India

- PROPOSED BY G V Ramana
- to be led by CJI as patron in chief

### • Indian Antarctic Act 2022

- Extended the jurisdiction of Indian courts to Antarctica, for crimes on the continent by Indian citizens, or foreign citizens who are a part of Indian expeditions.
- Prohibits drilling, dredging, excavation or collection of mineral resources or even doing anything to identify where such mineral deposits occur.
- Prohibits introduction of non native animals, birds, plants or microscopic organisms to Antarctica.

# • Criminal Procedure (Identification) Act, 2022

- Biological samples can only be compulsorily taken from people arrested for a crime against women or children, or if the crime is punishable by at least 7 years in prison.
- Destroy the records of people who are acquitted after all appeals or released without trial.
- Central agency to maintain the records:
   The National Crime Records Bureau (NCRB)
- Collected data will be retained in digital or electronic form for 75 years.

# • Trilateral Development Corporation (TDC)

- Min of external affairs
- Alternative to BRI of china
- Involve private sector with state support for big projects in INdo pacific
- Fund:by Global innovation partnership

### • Eat Smart Cities Challenge

- By MoHUA in collaboration with FSSAI in April, 2021.
- Challenge has been opened in all smart cities of India, Also in cities with a population of more than 5 lakh.
- Recognise the efforts that scale up various initiatives under Eat Right India.

### • Kanya Shiksha Pravesh Utsav

- 2022
- To bring back 4 lakh out-of-school adolescent girls in the 11-14 years age group into the education system.
- Campaign is being steered by the Ministry of Women And Child Development in partnership with the Ministry of Education and UNICEF.
- Implemented as part of the BBBP project,

### 'Health Star' rating system' for packaged foods

- FSSAI
- Packaged foods will display the health star rating on the front of the pack.
- The number of stars will indicate whether the item is healthy or unhealthy.
- The health star rating will be provided based on the fats, sugar and salt content in the food item.

# Model Code of Conduct (MCC)

- Issued by the Election Commission of India before elections.
- Not legally binding in nature
- Remain operational from the date on which election schedule is announced until the date of result announcement

### Total Polar Compounds (TPC)

- Formed on repeated frying
- FSSAI has fixed a limit for Total Polar Compounds at 25 percent beyond which the vegetable oil shall not be used

### • Shunga Empire

- Ancient Indian dynasty from Magadha
- 187 to 78 BCE;Pushyamitra Shunga established after the fall of the Maurya Empire
- Its capital was Pataliputra.

#### • UN Women

- The United Nations Entity for Gender Equality and the Empowerment of Women
- The United Nations General Assembly created UN Women

# • International Religious Freedom Alliance

- by United States;27 nations;India is not a member
- Adopt a collective approach in protecting and preserving religious freedom across the world

### • Danakil Depression

- Northeastern Ethiopia; World's hottest places
- Lowest, at 100 metres below sea level
- Active and naturally occurring life including extremophile microbes cannot be sustained at Danakil

### Permanent Missions to the United Nations

- diplomatic mission that every member state deputes to the United Nations.
- It is headed by a Permanent Representative, who is also referred to as the "UN ambassador".

### • Chenchu Tribe

- Scheduled Tribe in the Indian states of Andhra Pradesh, Telangana, Karnataka, and Odisha.
- Many Chenchus live in the dense Nallamala forest of Andhra Pradesh.
- Aboriginal tribe whose traditional way of life has been based on hunting and gathering.
- The Chenchus speak the Chenchu language, a member of the Dravidian language family.

# • Information Technology Agreement (ITA)

- first and most significant tariff liberalization arrangement negotiated in the WTO after its establishment in 1995
- All the signatories are members WTO
- All the signatories have to "eliminate and bind customs duties at zero for all products specified".
- It led to the elimination of import duties on specified IT products;India is a signatory

### Vijayanagara Empire

- Based in the Deccan Plateau
- established in 1336 by the brothers
   Harihara I and Bukka Raya I of the
   Sangama dynasty
- lasted until 1646, although its power declined after a major military defeat in the Battle of Talikota in 1565.

### • Sufi Movement

- Sufi orders are broadly divided into two
- Ba-shara Those who followed the Islamic Law and
- Be-shara—Those who were not bound by the Islamic Law.
- Of the Bashara movements, only Chisthi silsilah and suharwardi silsilah gained significant influence in India
- Beshara were also called 'mast kalandar'.
   They comprised of wandering monks who were also called Baba. They did not leave any written accounts.

### • Pala Empire

- Gopala founded the Pala dynasty in 750
   AD
- trade with Southeast Asia was very profitable and added greatly to the prosperity of the Pala Empire and led to the incursion of gold and silver from these countries into Bengal
- Dharmapala revived the Nalanda
   University and founded the Vikramshila

University which later evolved into a great learning center of Buddhism.

### • Mysore paintings

- Patronised by the rulers of the Mysore province and continued in the British period too.
- Major theme of the Mysore paintings is the depiction of Hindu gods and goddesses
- Unique part of these paintings is that they
  had two or more figures in each painting
  and one figure predominate all the others
  in size and colour.
- Use the 'gesso paste', which is a mixture of zinc oxide and Arabic gum

### • Qawwali music tradition

- Associated with the sama', spiritual concert, of the Chishti Sufi Order.
- It functions as a way to bring members of the order into a trance-like state that makes them more aware of their relationship with God.
- Credited to Amir Khusraw (1244-1325), called the "Nightingaleof India" for his contribution to South Asian music and literature.
- composed in a single raga and is generally written in Urdu, Punjabi or Hindi.

### • Budapest Convention

- Council of Europe's (CoE) Cybercrime Convention
- only legally binding international multilateral treaty on cybercrime.
- supplemented by a Protocol on Xenophobia and Racism committed through computer systems.
- Countries like India and Brazil have not adopted the convention because they did not participate in its drafting.

### • Sitanavasal paintings

- Associated with Jainism.
- Sittanavasal Cave also known as Arivar Koil is a Jain complex of caves in the Sittanavasal village of Tamil Nadu
- rock-cut architecture based on Jain thoughts and ideologies
- Most paintings date to the Pandyan period i.e. 9th century AD.

# • Global Innovation & Technology Alliance (GITA)

Not-for-profit Public-Private Partnership
 (PPP) company promoted jointly by the
 Technology Development Board
 (TDB),Department of Science &
 Technology (DST), Government of India
 and the Confederation of Indian Industry
 (CII).

encourages industrial investments in innovative technology

#### • Bimbisara

- Contemporary of both Buddha and Mahavira.
- Three-pronged policy, namely, matrimonial alliances, friendship with strong rulers and conquest of weak neighbours to expand the empire.
- Bimbisara's made Girivraja (Rajgir) as the capital whereas his son Ajatashatru founded the city of Pataliputra in the 5th century BCE
- It was, Udaya (Udayin), the son of Ajatashatru, who made it the capital of Magadha

### • Pulayar COMMUNITY

- Kerala, Karnataka and in historical Tamil
   Nadu or Tamilakam.
- Mahatma Ayyankali (1863- 1941) was called as Pulaya King.
- noted for their music, craftsmanship, Mudi-āttam or hairdance.

- **1.** Consider the following statements regarding crop rotation.
- 1. Crop rotation is the practice of growing two or more crops in proximity.
- 2. Crop rotation helps to conserve soil fertility as different crops require different nutrients from the soil.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **2.** With reference to the Rand Murder of 1897, which one of the following statements is *incorrect?* 
  - (a) It is regarded as the first political murder of a British official in India, post the Revolt of 1857.
  - (b) It was committed by the Chapekar brothers Damodar and Balakrishna.
  - (c) The target of attack was Mr. Ayerst, President of the Plague Committee at Poona, but Lieutenant Rand was shot accidently.
  - (d) The provocation was the tyranny of the Plague Committee on sending soldiers to inspect houses of civilians for plague-afflicted persons.

- **3.** Consider the following statements with reference to endocrine system:
- **1.** The pituitary hormones regulate the growth and development of somatic tissues.
- **2.** Thyroid gland secretes melatonin, which plays a very important role in the regulation of 24-hour (diurnal) rhythms of our body.
- **3.** Progesterone plays a major role in the maintenance of pregnancy as well as in mammary gland development & lactation.

Which of the above statements is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- **4.** Consider the following statements regarding the Jawaharlal Nehru National Solar Mission:
- 1. The scheme was launched as part of the National Action Plan on Climate Change.
- 2. Its target is to create 1000 gigawatt of solar power capacity by 2025.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

- **5.** Consider the following statements regarding resource efficiency.
- 1. Resource efficiency or resource productivity is the ratio between a given benefit or result and the natural resource use required for it.
- 2. Resource efficiency is a strategy to achieve the maximum possible benefit with most possible resource input.

Which of the above statement(s) is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **6.** With reference to Bhagat Singh, consider the following statements:
- 1. Towards the mid-1920s, the revolutionaries led by Bhagat Singh started to move away from individual heroic action in favor of organizing a popular broad-based movement.
- 2. Bhagat Singh established the Punjab Naujawan Bharat Sabha to carry out political work among the masses.
- 3. Bhagat Singh advocated for a close association with religious bodies in order to reach the masses.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**7.** Consider the following pairs with reference to acids present in different food:

Source	Acid
Curd	Acetic Acid
Tomato	Ascorbic Acid
Unripe grapes	Tartaric Acid
Spinach	oxalic Acid

How many of the following pairs are correctly matched?

- (a) Only two pairs
- (b) Only three pairs
- (c) All four pairs
- (d) None of the above
- **8.** The Central Pollution Control Board (CPCB) of India was established under:
  - (a) Water (Prevention and Control of Pollution) Act, 1974
  - (b) Air (Prevention and Control of Pollution) Act, 1981
  - (c) Environment (Protection) Act, 1986
  - (d) Factories Act, 1948

- **9.** Consider the following statements about Tribes Onge;
- 1. The Onge are an Andamanese ethnic group, indigenous to the Nicobar Islands.
- 2. They are traditionally hunter-gatherers and fishers, but also practice plant cultivation.
- 3. The Onge survived the tsunami catastrophe caused by the 2004 Indian Ocean earthquake by taking shelter in the highlands.

Which of the above statements are correct?

- (a) 1 Only
- (b) 1 and 2 Only
  - (c) 2 and 3 only
  - $(d\ )$  All of the above

- **10.** Pingtan island was recently seen in the news. Where is it located?
  - (a) Taiwan strait
  - (b) Palk strait
  - (c) Black sea
  - (d) Western indian ocean.

### **Answerkey**

- 1. B
- 2. C
- 3. B
- 4. A
- 5. A
- 6. A 7. D
- 8. A
- 9. C
- 10. A