

FORTUNE Prelims Precise

SEPTEMBER 2023



INDEX

History & Culture _____ 1

1. Adi Shankaracharya _____	1
2. Mitakshara School of Hindu Law _____	1
3. Operation Polo _____	1
4. Santiniketan _____	2
5. The Sacred Ensembles of the Hoysala _____	2
6. Sammakka Saralamma Jatara _____	3
7. Safdarjung tomb _____	3
8. Sarna Religious Code _____	4

Polity & Governance _____ 4

9. Animal Welfare Board of India _____	4
10. PM Vishwakarma Scheme _____	4
11. Constitution (106th Amendment) Act 2023 _____	5
12. TTPS-based Cybercrime Investigation Framework _____	5
13. The Competition Commission of India (CCI) _____	5
14. The Mediation Act, 2023 _____	6
15. IGMS 2.0 _____	6
16. PM Ujjwala yojana (PMUY) _____	6
17. Swachh Bharat Mission- Gramin (SBM-G) _____	6
18. Mission Indradhanush _____	7
19. CDSCO _____	7
20. Coal India Limited (CIL) _____	7
21. Legal Services Authority _____	8
22. National Green Tribunal (NGT) _____	8
23. Question Hour _____	8
24. FSSAI _____	8
25. All India Kisan Sabha _____	9

Economy _____ 9

26. Impossible Trinity _____	9
27. Overnight Index Swap (OIS) _____	9
28. Minimum public shareholding rule _____	10
29. National Investment and Infrastructure Fund (NIIF) _____	10
30. Alternative Investment Fund (AIFs) _____	10
31. Surety Bonds _____	10
32. Forex reserves _____	11
33. Anti- Dumping Duty _____	11
34. Tea Board _____	11

International Relations _____ 12

35. ASEAN _____	12
36. OILM _____	12
37. Gender Snapshot 2023 _____	13
38. Asian Premium _____	13
39. Commonwealth of Independent States (CIS) _____	13
40. IMEC _____	13
41. L69 Group _____	14
42. Abraham Accords _____	14
43. Gujarat Declaration _____	14
44. Asian Development Bank (ADB) _____	14
45. West Bank Conflict _____	15
46. Oslo Accords _____	15
47. UN Sanctions Committee _____	15
48. Africa Climate Summit _____	15
49. IBSA _____	16
50. Rajghat consensus _____	16

Environment & Ecology _____ 17

51. National Carbon Registry _____	17
------------------------------------	----

52. Artificial Light at Night (ALAN) _____	17
53. Ecocide _____	17
54. Permal Rice (PR 126) _____	17
55. Kashmiri saffron _____	17
56. Invasive Alien Species Report _____	18
57. Staghorn Corals _____	18
58. Anamudi Shola National Park _____	19
59. Operation Kachchhap _____	19

Geography _____ 20

60. Super Blue Moon _____	20
61. Atlantification _____	20
62. Arunachal yak churpi _____	20
63. Omega Blocking _____	21
64. Hurricane Lee _____	21

Science & Technology _____ 22

65. Tidal Locking _____	22
66. Galactic Tides _____	22
67. Aditya-L1 Mission _____	22
68. NanoPtA _____	23
69. Preeclampsia _____	23
70. Nipah _____	23
71. Vagus nerve _____	23
72. C-295 Aircraft _____	24
73. BSL-3 LABS _____	24
74. Cookies _____	24
75. Gravity battery _____	25
76. ISTRAC & MOX _____	25
77. OSIRIS REx mission _____	25
78. Sonobouys _____	26
79. Human Embryo Development _____	26
80. Phosphorus shortage in India _____	27

Miscellaneous _____ 28

81. Advanced Landing Ground (ALG) _____	28
82. DIKSHA _____	28
83. International Translation Day _____	28
84. Global Innovation Index 2023 _____	28
85. Yashobhoomi _____	29
86. Defense Acquisition Council (DAC) _____	29
87. UN Climate Ambition Summit 2023 _____	29
88. Global Stocktake Report _____	29
89. Central Board of Film Certification (CBFC) _____	30
90. Drop In India's Coffee Production _____	30
91. Indian Knowledge Systems (IKS) Initiative _____	30

Places in News _____ 31

92. Gurez Valley _____	31
93. Oasis of peace _____	31
94. Lampedusa _____	31
95. Kalambo River _____	32
96. Lough Neagh _____	32

Species in News _____ 33

97. Armageddon Reedtail _____	33
98. Conocarpus Tree _____	33
99. Fish Mint _____	33
100. Manis Mysteria _____	34

FORTUNE IAS

Toppers in Top 100



History & Culture

Adi Shankaracharya



- » Madhya Pradesh Chief Minister recently unveiled a 108-foot-tall '**Statue of Oneness**' dedicated to **Adi Shankaracharya** in **Omkareshwar, Madhya Pradesh**.
- Adi Shankara aka Adi Shankaracharya was an 8th century CE **Indian Vedic scholar and teacher**.
- He was born in **Kalady village** on the bank of the **River Periyar** in **Kerala's Ernakulam district**
- He was a **Nirguna Bhakti saint** and propounded the **Doctrine of Advaita (Monism)** and wrote many commentaries on the **Vedic canon (Upanishads, Brahma Sutras and Bhagavad Gita)** in Sanskrit.
- **Advaita Vedanta** refers to the idea that **Brahman alone is ultimately real**, while the **transient phenomenal world is an illusory appearance (maya) of Brahman**.
- The fundamental thrust of Advaita Vedanta lies in the **unity of atman or individual consciousness, and brahman or the ultimate reality**.

Mitakshara School of Hindu Law

- » The Supreme Court held that a child born of a void or voidable marriage can inherit the parent's share in a joint Hindu family property governed by the **Mitakshara law**.
- There are mainly two types of schools which govern the **Hindu Undivided Family-Mitakshara and Dayabhaga**.
- **Mitakshara law** applies to the whole of India except **West Bengal and Assam** and originates from a commentary written by **Vijnaneswara** in the **12th century** on the **Yajnavalkya Smriti**.
- According to the Mitakshara law, **ancestral property is owned jointly by all male family members**, who share equal rights to it. Mitakshara law **prohibits women from joining the coparcenary**
- It also mentions that a **wife cannot demand partition but has the right to a share in any partition** between her husband and her sons.

Operation Polo



- » 13th September marks the **75th anniversary** of Operation Polo.
- It is the **military action launched by the Indian Army** in 1948, to integrate the princely state of **Hyderabad** to the India Union.
- The Nizam of Hyderabad did not accede to India before **15th August 1947**.
- He was influenced by Pakistan and native peoples, to stay as an independent power and to resist integration.
- The Indian Army initiated Operation Polo on the grounds that the **law and order situation** in Hyderabad **threatened the peace of South India**.
- The army met with resistance by the **Razakars - the private army of the Nizam**.
- After the integration, the **Nizam was retained as the head of state** similar to the other princes who acceded to India.

Santiniketan



- » Recently, Santiniketan became India's **41st World Heritage Site** to join the **UNESCO** list.
- Santiniketan is a renowned **cultural and heritage place** located in **Birbhum District, West Bengal**.
- It was the home of **Rabindranath Tagore**, where he lived and composed many of his literary works, including songs, poems, and novels.
- The place is a home for many sculptures, frescoes, murals, and paintings created by renowned artists such as **Rabindranath Tagore, Nandalal Bose, Ramkinkar, Binodbehari Mukhopadhyay** etc.
- Special cultural events are held during **Bengali New Year and Rabindra Janmotsav**.
- **Poush Mela** is an annual fair and festival held in Santiniketan.

The Sacred Ensembles of the Hoysala

- » Recently, the Hoysala temples of **Belur, Halebidu and Somanathapura** in Karnataka were declared **UNESCO World Heritage Sites**.

Chennakeshava Temple (Belur, Karnataka)



- It was built around 1117 AD during the period of **king Vishnuvardhana**.

- Deity: **Lord Vishnu (Chennakesava)**
- “Chenna” means **beautiful**, “Keshava” means **Vishnu**.
- Richly sculptured exterior depicting scenes from lord Vishnu's life, epics, and some representations of lord Shiva.
- It follows a **stellate plan** with a raised platform.

Hoysaleswara Temple (Halebidu, Karnataka)



- It was built around 1121 AD during the period of **king Vishnuvardhana**.
- Deity: **Lord Shiva (Hoysaleswara)**
- The temple is known for more than **240 wall sculptures** with various themes.
- It has a walled complex with **3 Jaina temples** and a stepped well.

Keshava Temple (Somanathapura, Karnataka)



- It was built around 1268 AD during the period of **king Narasimha III**.
- Deity: **Lord Vishnu**
- It is a **Trikuta Temple** dedicated to Lord Krishna (**Lord Vishnu's incarnation**) in three forms: **Janardhana, Keshava, and Venugopala**.

Sammakka Saralamma Jatara



- » The Union cabinet approved a **tribal university for Telangana** – the **Sammakka Sarakka Central Tribal University**, which will come up in Mulugu district.
- **Sammakka and Saralamma** (also called Sarakka) are a mother and daughter duo who are believed to have fought against an unjust law brought by the Kakatiya rulers. They are believed to have died and became Goddess and daughter.
- A tribal festival Sammakka Saralamma Jatara or **Medaram Jatara** is celebrated in the state of Telangana once in **every 2 years (biennial)**. People offer bangaram (jaggery) to the Tribal goddesses.
- It is the **largest tribal fair in the country and second largest fair after Kumbha mela** and has seen participation of over a crore people since 2012.
- It is celebrated by **Koya tribes** for a period of 4 days in the month of Magha (January or February)
- Medaram village lies in the **Eturnagaram Wildlife Sanctuary**, a part of Dandakaranya, the largest surviving forest belt in the Deccan.

Koya tribes

- Found in the states of **Telangana, Andhra Pradesh, Odisha and Chattisgarh**.
- They speak the **Koya language** which belongs to the **Dravidian language family**.
- They practise the **Podu** form of shifting cultivation.

Safdarjung tomb



- » Recently, restoration works have resumed at Safdarjung tomb after a delay of 2 years.
- The Safdarjung tomb was the last monumental tomb garden of the Mughals. It was planned and built in line with the **style of Humayun's tomb**.
- It is a **square double-storeyed structure** built on a raised terrace and surmounted by a **bulbous dome** of marble.
- It is enclosed within a large garden and divided into squares on the **'charbagh pattern'**, with tanks and fountains along the central pathway.
- **Red and buff sandstone** has been used in its facing and a large proportion of them were stripped off from **Abdul Rahim Khan-i-Khanan** ("Rahim Das"-One of the navratnas of Akbar's court) **tomb**.
- It has several smaller pavilions with evocative names like **Jangli Mahal** (Palace in the woods), **Moti Mahal** (Pearl Palace) and **Badshah Pasand** (King's favourite).

Who is Safdarjung?

- **Abul Mansur Mirza Muqim Khan**, given the title Safdarjung, was the **Nawab of Awadh** under the Mughal ruler **Muhammad Shah**.
- He was an able administrator and managed to render valuable assistance to the weakened Emperor Muhammad Shah. He was soon given **governorship of Kashmir** as well, and became a central figure at the Delhi court.
- When Ahmed Shah ascended the throne in 1748, Safdarjung was made the **prime minister of the Mughal Empire (Wazir ul-Mamlak-i-Hindustan)**
- After his death in 1754, his son Nawab Shujaud Daula pleaded with the Mughal Emperor to permit him to erect a tomb for his father in Delhi.

Sarna Religious Code

- » Jharkhand CM wrote to PM, seeking recognition of a **separate** Sarna religious code for tribals.
- Followers of Sarna faith regard themselves as **belonging to a distinct religious group, and are nature worshippers**. The holy grail of the Sarna faith is “**Jal (water), Jungle (forest), Zameen (land)**” and its followers pray to the trees and hills while believing in protecting the forest areas.
- Believers of Sarna faith **do not practise idol worship**, nor do they adhere to the concept of the Varna system, heaven-hell, etc.
- Several surveys and reports have indicated that over 50 lakhs tribal people in the entire country put their religion as ‘Sarna’ in the 2011 census, although it was not a code.
- The followers are largely concentrated in the **tribal belt states of Odisha, Jharkhand, Bihar, West Bengal, and Assam**.
- Recognition as a separate religious community will enable better protection of their language and history.

Polity & Governance

Animal Welfare Board of India

- » The Delhi High Court directed Animal Welfare Board of India in Delhi to ensure strict compliance of Animal Birth Control Rules, 2023 regarding the capture and release of street dogs.
- Animal Welfare Board of India is a **statutory advisory body** established in **1962** under the **Union Ministry of Fisheries, Animal Husbandry and Dairying**.
- It derives its legal structure from the **Prevention of Cruelty to Animals Act, 1960**.
- It frames rules on how animals ought to be humanely treated everywhere.
- The **Board consists of 28 Members including 6 Members of Parliament (2 Members of Parliament from Rajya Sabha and 4 Members of Parliament from Lok Sabha)**.
- The term of office of Members is for a **period of 3 years**.

Animal Birth Control Rules, 2023

- The government announced the **new Animal Birth Control Rules 2023**, which aim to address the stray dog menace in the country.
- It requires **stray dogs to be caught, vaccinated, neutered, and released back**.
- This approach aims to control the dog population without cruelty.
- It provides guidelines for the sterilisation and immunisation of stray dogs through Animal Birth Control (ABC) programmes.
- These programmes should be conducted by the local bodies, municipalities, municipal corporations, and panchayats.

PM Vishwakarma Scheme

- » The PM Vishwakarma Scheme was launched on **17th September 2023** by the Prime Minister.

PRELIMS CUM MAINS (PCM) PROGRAM

Meera K, IAS



“Fortune IAS Academy played a pivotal role in my UPSC preparation. Special thanks to Muni sir, Sylesh sir and Jeevan sir for supporting me through my highs and lows. Thank you team Fortune!

Meera K, IAS secured All India Rank 06

Scan QR Code
to know more
about PCM



Our PCM Students in Top 100 Ranks



Meera K, IAS



Sreelakshmi R, IAS



Arya V M, IAS



Hari Kallickat, IAS



Akhil V M, IAS

- It is a **Central Sector Scheme** under the **Ministry of Micro, Small and Medium Enterprises**, aimed at providing **end-to-end support to artisans and craftspeople**.
- The scheme covers **artisans and craftspeople engaged in 18 trades** such as **carpenter, boat maker, blacksmith, garland maker and fishing net maker** among others.

Key Benefits under the scheme

- 👉 Recognition through **PM Vishwakarma certificate and ID card**.
- 👉 **Basic training of 5-7 days and advanced training of 15 days** with **stipend of Rs. 500 per day**.
- 👉 **A toolkit incentive of upto Rs.15000** in the form of e-vouchers.
- 👉 **Concessional collateral free 'Enterprise Development Loans'** of upto Rs. 3 lakh.
- 👉 **Marketing support** in the form of **quality certification, branding, onboarding on e-commerce platforms** etc.
- **Enrolment of beneficiaries** shall be done through **Common Service Centres with Aadhaar-based biometric authentication on PM Vishwakarma portal**.

Constitution (106th Amendment) Act 2023

- » President Droupadi Murmu has given her assent to the **women's reservation Bill**.
- The **Constitution (106th Amendment) Act 2023** (also called the **Nari Shakti Vandan Abhiniyam**) provides **33% reservation to women in the Lok Sabha and State Legislative Assemblies**.
- The **seats already reserved for Scheduled Castes and Scheduled Tribes** will also come within the purview of women's reservation.
- It will be **implemented after the next census and the subsequent delimitation exercise**.
- The quota will **continue for 15 years** further extendable by Parliament.
- Data show that currently **women MPs account for nearly 15% of the Lok Sabha strength** while their **representation is below 10% in many State Assemblies**.

TTPS-based Cybercrime Investigation Framework

- » Recently, the I-hub NTIHAC foundation, located at **IIT Kanpur**, with support from the **Department of Science and Technology (DST)** developed a tool to track cyberattacks targeting humans, like insurance fraud, online matrimonial fraud and so on.
- The tool called **TTPs (tactics, techniques and procedures)-based cybercrime investigation framework** can help in tracking and classifying cybercrimes, identifying chains of evidence required to solve the case and in mapping evidence onto the framework to convict criminals.

- The framework aids in **tracking and categorising cybercrimes**.
- The technology can create an **approximate crime execution path** and suggest a crime path based on a user-derived set of keywords.
- It can also **compare modus operandi used in different crimes**, and manage user roles and track activity for crime paths.
- It identifies the **chain of evidence required** to solve a case and maps evidence onto the framework to convict criminals.

The Competition Commission of India (CCI)

- » The Competition Commission of India (CCI) approved the merger of Vistara with Air India.
- Competition is the best means of ensuring that everyone has access to the broadest range of goods and services at the most competitive prices.
- CCI aims to provide a **'level playing field'** to the producers and make the markets work for the welfare of the consumers.
- The **Competition Act, 2002** prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and M&A), which causes or likely to cause an appreciable adverse effect on competition within India.

- CCI falls under the **Ministry Of Corporate Affairs**.
- CCI consists of a **Chairperson and 6 Members appointed by the Central Government**.

The Mediation Act, 2023

- » The Mediation Act, 2023 was passed last month.
- It aims **to foster a link between the mediation and the arbitration of commercial disputes**, thus **reducing the burden on Indian courts**.
- Mediation is a kind of **Alternative Dispute Resolution (ADR)** used to resolve differences amicably, without the intervention of courts.
- The Act **permits parties to settle civil or commercial disputes voluntarily** and mutually at a pre-litigation stage at the courts.
- It recognizes online, community and institutional mediations in India.
- Mediation proceedings must be **completed within a period of 120 days** from the date of the first appearance before the mediator, which **may be extended for a maximum period of 60 days**.
- The act provides for the **Mediation Council of India**. Its functions will include registering mediators, recognizing mediation service providers and mediation institutes.
- The areas excluded from mediation **include serious allegations of fraud**, criminal offences, **environmental matters** reserved for the National Green Tribunal, and matters relating to **competition**, telecom, securities and electricity law and land acquisition.
- Unless otherwise agreed by the parties, **all costs of mediation will be borne equally by the parties**.
- The settlement agreement will be **final and binding** upon the parties.

IGMS 2.0

- » Recently, **Intelligent Grievance Monitoring System (IGMS) 2.0** was launched by the **Department of Administrative Reforms and Public Grievances (DARPG)** and has been developed by IIT Kanpur.

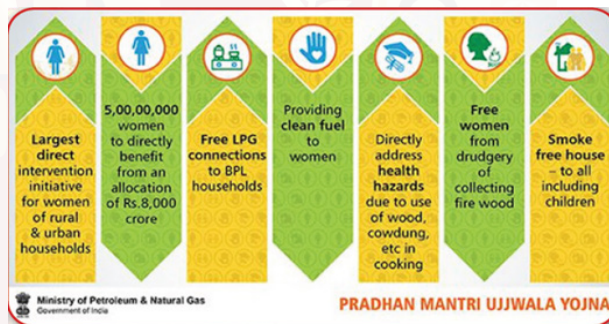
- Adoption of **AI/ Emerging Technologies for Effective Grievance Redressal** is seen as a major upgradation of Centralised Public Grievance Redress and Monitoring System (CPGRAMS).
- A **decline of almost 50% in the average disposal time of grievances** for Central Ministries/Departments from 32 days in 2021 to 18 days in 2023.
- The upgraded **IGMS portal will assist the DARPG** with the creation of a draft letter for the selected scheme/ministry and expedite the grievance redressal process by the concerned ministry/department.

PM Ujjwala yojana (PMUY)

- » Recently, Centre **hiked the LPG subsidy** for Ujjwala beneficiaries to ₹300 per cylinder. The decision was taken by the **Cabinet Committee on Economic Affairs (CCEA)**.

PMUY

- The scheme was launched on 1st May 2016 in **Ballia, Uttar Pradesh**.
- **Ujjwala 2.0**: Aimed at additional allocation of 1.6 Crore LPG Connections with special facility **to migrant households**.
- The scheme was launched in **Mahoba, Uttar Pradesh**.



Swachh Bharat Mission – Gramin (SBM-G)

- » A recent World Bank paper showed a **declining trend of regular toilet use** in rural India since 2018. The **largest drop was seen among Scheduled Caste and Scheduled Tribes**.

- The paper was based on various recent surveys that disputed the Central government's claim of 2019 that all Indian villages are open defecation-free (ODF). It included the National Statistical Office (NSO) survey 2018, the National Annual Rural Sanitation Survey (NARSS 2019-2020) and the National Family Health Survey-5 (NFHS-5) 2019-21.
- As per the **National Family Health Survey (NFHS)** lack of cleanliness, insufficient water, malfunctioning of the toilet, lack of privacy or safety, and personal preferences are some reasons for decline of toilet use.

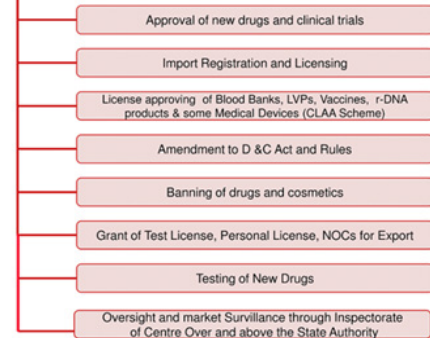
Mission Indradhanush

- » The recently introduced **vaccine wheel in Uttar Pradesh** helps ASHA workers track newborn immunisation.
- The immunisation wheel, called a **teekakaran chakra**, is a simple tool consisting of two discs, one with vaccine details and the other with a calendar.
- This helps the ASHA workers with greater efficiency **to calculate vaccination dates** for newborns.
- To strengthen routine immunization planning and delivery mechanism, the **Ministry of Health and Family Welfare** launched its **flagship programme** "Mission Indradhanush" in 2014.

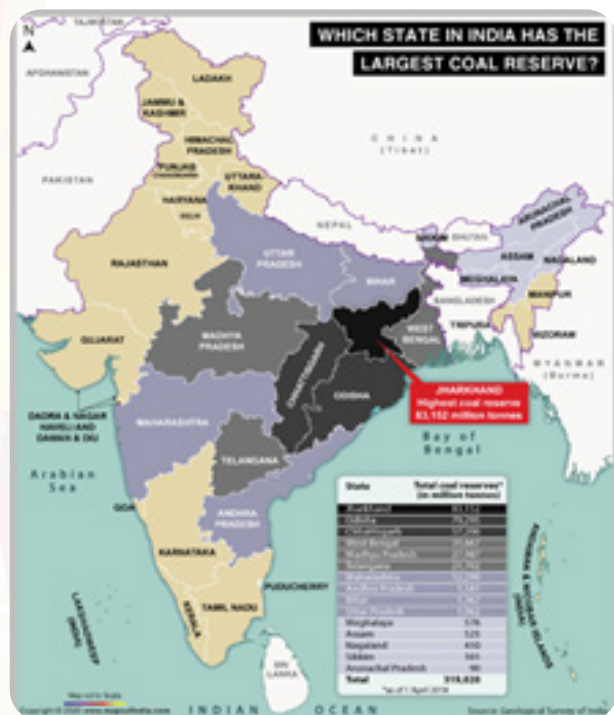
Central Drugs Standard Control Organisation (CDSCO)

- » The Drugs Controller General of India has advised patients and healthcare professionals to stop using **Digene gel**, a popular antacid, due to safety concerns.
- CDSCO is the Central Drug Authority responsible for discharging functions assigned under the Drugs and Cosmetics Act of 1940.
- It works under the **Ministry of Health & Family Welfare** CDSCO is the **National Regulatory Authority (NRA) of India**.
- Drugs Controller General of India (DCGI)** is the head of the department of the CDSCO responsible for approval of licences of specified categories of drugs such as blood and blood products, IV fluids, vaccines in India.
- DCGI also sets standards for the manufacturing, sales, import, and distribution of drugs in India.

Functions of CDSCO



Coal India Limited (CIL)



- » Coal India Limited (CIL) has planned a capital investment of about Rs. 24,750 crore in the next few years on **61 First Mile Connectivity (FMC) projects**.

First Mile Connectivity (FMC)

- FMC projects involve **transportation of coal in mechanised piped conveyors** from production point to coal handling plants with rapid loading system where coal is loaded directly into rail wagons. This aims to **ease load on roadways**.

Coal India Limited (CIL)

- It is an Indian **Public Sector Undertaking** under the ownership of the **Ministry of Coal**, Government of India that came into being in **1975**.

- It is a **Maharatna company** and the **largest government owned coal producer in the world**.
- It operates under the **Coal Mines (Nationalisation) Act of 1973**.
- **CIL was a fully government owned entity until its disinvestment in 2010.**

Legal Services Authority

- » The **Manipur** government has **allowed compensation applications** (for women victims and survivors of sexual assault and other crimes), ranging from ₹1 lakh to ₹10 lakh, to be filed physically before the State Legal Services Authority or the District Legal Services Authority or online from anywhere in the country.
- The **National Legal Services Authority (NALSA)** has been **constituted under the Legal Services Authorities Act, 1987** to provide **free legal services** to the weaker sections of the society, organise **Lok Adalats** for amicable settlement of disputes and organise **legal awareness** camps in the rural areas.
- **Article 39A** of the Constitution of India **provides for free legal aid to the poor and weaker** sections of the society and ensures justice for all.
- **Articles 14 and 22(1)** of the Constitution also make it obligatory for the State to ensure equality before law.
- The **Chief Justice of India is the Patron-in-Chief** of NALSA. The State Legal Services Authority is headed by the Chief Justice of the respective High Court.

National Green Tribunal (NGT)

- » The central bench of National Green Tribunal (NGT) has banned the operation of the cruise boat in Upper Lake and other **wetland sites of MP**. It further banned construction within the **“no development zone” i.e. “buffer zone”** as provided in the Wetland Rules, 2017.
- The ban is due to **solid and liquid waste generation**, noise pollution exceeding the limits prescribed under Noise Pollution Rules, 2000 and the path of cruise was quite close to **Van Vihar NP** which falls under **“silent zone”**.

- The Tribunal was formed under the NGT Act of 2010 by replacing the National Environment Appellate Authority as a **specialised body for handling any environmental disputes**.
- India is the **third country after Australia and New Zealand** for setting up a specialised environmental tribunal.

Question Hour

- » Parliament's Special Session this month will not have a question hour.
- The **initial hour** of every parliamentary sitting is allocated for asking questions.
- The Members of Parliament (MPs) ask questions to ministers and hold them accountable for the functioning of their ministries.
- Questions can also be asked to the private members.
- There are mainly **three types** of questions asked:
 - ★ **Starred question** (denoted by an asterisk)- These types of questions require an oral answer and hence supplementary questions are allowed.
 - ★ **Unstarred question**-These questions require a written answer and hence, supplementary questions cannot follow.
 - ★ **Short notice questions** - They are asked by giving a notice of less than ten days. It is answered orally
- The **presiding officers** of the both Houses are the final authority with respect to the conduct of Question Hour.
- **Zero Hour** is an Indian parliamentary innovation, where MPs can raise matters without any prior notice and it follows the question hour..

FSSAI

- » Recently, the **Eat Right Mela** was organised by FSSAI
- It is organised to make citizens aware of the health and nutrition benefits of different types of food.
- **Food Safety and Standards Authority of India** is an autonomous statutory body that maintains **food safety** and standards in India.

- FSSAI is administered by the **Ministry of Health & Family Welfare**.
- The Body is functional as per the **Food Safety and Standards Act, 2006**.

Economy

All India Kisan Sabha

- Rubber farmers from Kerala, Tripura, Tamil Nadu and Karnataka, affiliated to the All India Kisan Sabha (AIKS), demanded a fair remunerative price of at least ₹300 for a kilogram of natural rubber. They recently held a protest in New Delhi against the Centre and alleged that the policies of the government are in favour of multinational tyre manufacturers.

All India Kisan Sabha

- The Kisan Sabha movement started in Bihar.
- In 1929, Sahajanand Saraswati formed Bihar Provincial Kisan Sabha (BPKS).
- AIKS was formed in 1936 at Indian National Congress session at Lucknow as All India Kisan Congress.
- Sahajanand Saraswati was the first President of the All India Kisan Sabha.
- The motives were abolition of the Zamindari system, reduction of land revenue, and institutionalisation of credit.

Rubber Board

- The Rubber Board is a statutory body constituted under the **Rubber Act 1947**.
- It was created for the overall development of the rubber industry in the country and it comes under the Ministry of Commerce & Industry, Government of India.
- **Headquarters: Kottayam, Kerala**
- India is the fourth largest producer and consumer of Rubber in the World.
- In India, Kerala is the largest producer followed by Tripura and Karnataka.

Impossible Trinity

- » The Reserve Bank of India (RBI) and Indian investors are facing a challenge in overcoming the “impossible trinity”.
- The **impossible trinity, or the trilemma**, refers to the idea that an **economy cannot pursue independent monetary policy, maintain a fixed exchange rate, and allow the free flow of capital across its borders all at the same time**.
- The idea was proposed by **Canadian economist Robert Mundell and British economist Marcus Fleming** in the early 1960s.
- An able policymaker **at best can achieve two of these three objectives at any given time**.
- It describes the inherent challenges countries face when trying to simultaneously achieve three specific policy objectives related to their exchange rate and capital flows.

Overnight Index Swap (OIS)

- » Recently, Indian **overnight index swap (OIS)** rates rose to their highest levels in 10 months.
- An **interest rate swap** is an **agreement between two parties to exchange or swap** for an agreed time period, a **series of fixed interest rate payments for a series of variable (or floating) interest payments** or vice versa.
- An OIS is a special type of interest rate swap in two respects;
 - ✍ **OIS contracts** involve the exchange of obligations for relatively **short periods**.
 - ✍ **The floating rate in the OIS is the overnight rate** (rate at which banks and other financial institutions lend money to each other overnight).
- In an OIS transaction, the **counterparties agree to exchange the difference between the interest accrued on the fixed rate and the compounded floating amount** at the conclusion of the contract.

- OIS can be used to **hedge against the risk of interest rates rising or falling** because if the interest rates rise unexpectedly, the floating rate of the OIS will also rise, providing investors with a hedge against the higher interest rates.

Minimum public shareholding rule

- » The union government recently eased the Minimum public shareholding rule for **privatised state-run companies**.
- Listed state-run companies including banks will not need to comply with the rule requiring a **minimum public shareholding of 25%** even after their privatisation, if the government decides so **“in public interest”**.
- The rule requires that **at least 25% of the total shares** of the company should be held by public shareholders, which include individual investors, institutional investors, and other non-promoter entities.
- This rule was implemented after the amendment of **Securities Contracts Regulation Rules by SEBI in 2010**.
- Companies are expected to comply with this requirement within a **specified time frame** from the date of listing. In case a company does not meet the minimum public shareholding criteria, it may be required to take necessary steps to achieve compliance.
- Failure to comply with SEBI’s regulations can lead to **penalties and other regulatory actions**.

National Investment and Infrastructure Fund (NIIF)

- » The NIIF has entered into a collaboration with Japan Bank for International Cooperation (JBIC) to unveil a \$600 million **India-Japan Fund**.
- **India-Japan Fund** aims on investing in **environmental sustainability and low carbon emission strategies**.
- It also aims to play the role of being a **‘partner of choice’** to further enhance Japanese investments into India.
- The announcement marks NIIF’s **first bilateral fund**, with GoI contributing 49% of the target corpus and the remaining 51% contributed by JBIC.

NIIF

- » It is India’s **first sovereign fund** set up in 2015 for enhancing infrastructure financing by investing in **greenfield (new), brownfield (existing) and stalled projects**.
- » It aims to invest in areas such as **energy, transportation, housing, water, waste management** and other infrastructure related sectors in India.
- » India-Japan Fund is the **4th Fund under NIIF**. The other three funds with distinct strategies are –
 - **Master Fund:** Invests in operating assets in core infrastructure sectors, such as roads, ports, airports, power etc.
 - **Fund of Funds:** focuses on anchoring and investing in credible and reputed third-party managers with a strong track record across diversified sectors within infrastructure services and allied sectors like green energy, social infrastructure, mid-income and affordable housing, technology.
 - **Strategic Opportunities Fund:** invests primarily in equity and equity-linked instruments and is registered as an Alternative Investment Fund II under the Securities and Exchange Board of India (SEBI).

Alternative Investment Fund (AIFs)

- » AIFs refer to any **privately pooled investment fund**, (Indian or foreign sources), in the form of a trust or a company or a body corporate or a Limited Liability Partnership (LLP).
- It falls under **Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012**.
- AIFs are private funds which are otherwise **not coming under the jurisdiction of any regulatory agency** in India and any other regulations of SEBI.

Surety Bonds

- » The ambitious plan of the government to launch the **Surety Insurance Bonds market – an alternative to bank guarantees in infrastructure projects** — has **failed to take off** in the last three years due to technical and financial impediments.

- Surety Bonds are a **type of insurance policy** protecting parties involved in a transaction or contract from potential financial losses due to a breach of contract or other types of non-performance.
- **The issuing insurer provides guarantee**, for a premium, in the case of a default in execution of a project.
- For Ex:- If a construction company fails to complete a project as agreed, the surety bond compensates the client for the losses.
- They serve as a **risk mitigation tool** for **maintaining integrity, quality, and adherence** to contractual terms, ultimately contributing to the smooth functioning of projects especially in the infrastructure sector and fostering a **healthy business environment**.

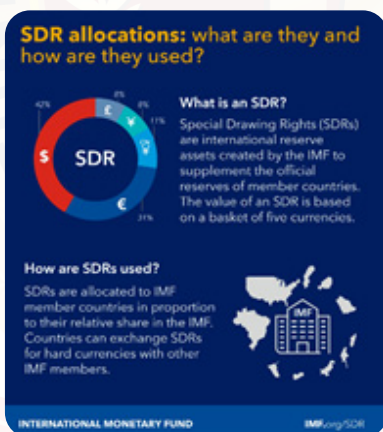
Forex reserves

- » India's foreign exchange reserves decreased by **\$4.992 billion to \$ 593.904 billion** for the week ending September 8, says the latest data by the Reserve Bank of India (RBI).
- It refers to **important assets held by the central bank in foreign currencies** as reserves to support exchange rate and set monetary policy.

India's forex reserves include:

- ✦ **Foreign Currency Assets (FCAs)** - \$526.43 billion
- ✦ **Special Drawing Rights (SDRs)** - \$18.06 billion
- ✦ **Gold Reserves**- \$44.38 billion
- ✦ **Reserve tranche position** with the International Monetary Fund- \$5.034 billion.

As of September 15th 2023 Indian forex reserve is at \$593.90 billion which was \$598.897 billion.



Significance of Forex reserves

- » Helps to **reduce vulnerability** due to sudden disturbances in foreign capital flows from crises.
- » Allows **easier currency conversions**.
- » A good forex reserve helps in **attracting foreign trade**.
- » Rising forex reserves contribute to **appreciation of the domestic currency**.

Anti - Dumping Duty

- » India clamps down on Chinese steel, enacts 5-year anti-dumping duty as import rises 62%.
- Anti-dumping duty is a **trade levy** and a **protectionist tariff** that is imposed by a government on foreign imported products that are perceived to be priced below fair market price.
- The **Directorate General of Trade Remedies (DGTR)**, Ministry of Commerce and Industry recommends the anti-dumping duty and the Department of Revenue in the Finance Ministry acts upon the recommendation within three months and imposes such duties.

WTO Mandate:

- ✦ The Agreement on Implementation of Article VI of the **General Agreement on Tariffs and Trade 1994 (the "AD Agreement")** governs the application of anti-dumping measures by Members of the WTO.
- ✦ An anti-dumping duty is valid for a period of **five years** from the date of imposition unless revoked earlier and as per **Sunset Review** it can be extended for a further period of five years through a sunset or expiry review investigation.

Tea Board

- » The Tea Board India has decided to revert to the **old English auction system**, after adopting the **Bharat auction model**. In the latter, the bids are entered before the lots offered go live, while in the former, the bids can be made till a lot is sold.

- The Tea Board was set up under section 4 of the **Tea Act, 1953** in 1954 and falls under the **Ministry of Commerce and Industry**. The Board is constituted of 31 members.
- Major functions include **rendering financial and technical assistance** for cultivation, research, labour welfare and data collection.
- Its **head office is located in Kolkata**, the board has 23 offices and **1 foreign office (Moscow)**.

International Relations

ASEAN

- » Recently, the **Prime Minister (PM) of India attended the 20th Association of Southeast Asian Nations (ASEAN)-India Summit** in Jakarta, Indonesia.
- ASEAN was established with the signing of the **ASEAN Declaration (Bangkok Declaration)** in 1967.
- It is a regional organisation which was created to **promote political and social stability** amid rising tensions among the **Asia-Pacific's post-colonial states**.
- **Motto** - "One Vision, One Identity, One Community".
- It is **headquartered in Jakarta**, with **10 permanent members**: Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia
- India and ASEAN already have **25 years of Dialogue Partnership**, **15 years of Summit Level interaction** and **5 years of Strategic Partnership**.
- **India-ASEAN Free Trade Agreement** in goods was signed in 2010 and services in 2014.

International Organisation of Legal Metrology (OIML)

- » Recently, the Union Ministry of Consumer Affairs secretary said that India has become an OIML certificate-issuing authority.
- The **International Organisation of Legal Metrology** was established in **1955** as an **international standard-setting body**.
- It develops model regulations, standards, and related documents for use by legal metrology authorities and industry.
- **India** became a **member of the OIML in 1956**. In the same year, India **signed the Metric convention**.

FORTUNE PRELIMS TEST SERIES (PTS)



Safna Nazarudeen, IAS

"I joined Fortune IAS Academy immediately after my graduation and did my entire civil services preparation there. My heartfelt thanks to Sherin sir, Anton sir, Muni sir, Sylesh sir, Nitin sir, Anand sir & everyone at Fortune for being my guiding light and instilling the confidence in me that I will clear the exam.

Safna Nazarudeen, IAS secured All India Rank 45, in her first attempt, at the young age of 23.

Scan QR Code
to know more
about PTS



OIML certificate

- OIML certificate is a **system for issuing, registering and using OIML certificates and their associated OIML-type evaluation/test reports** for instruments like digital balances, clinical thermometers, etc.
- Currently there are **13 countries that can issue the certificates: Australia, Switzerland, China, Czech Republic, Germany, Denmark, France, United Kingdom, Japan, Netherlands, Sweden, Slovakia & India.**
- Indian domestic manufacturers can now export their weighing and measuring instruments worldwide without incurring additional testing fees, resulting in significant cost savings.

Gender Snapshot 2023

- » The report, titled “**The Gender Snapshot 2023**” stated that **the goal of achieving gender equality by 2030**, as set by the U.N, is **unlikely to be realised** due to deeply ingrained biases against women in various sectors such as health, education, employment, and politics.
- The Progress on the Sustainable Development Goals: The Gender Snapshot 2023 is **released by the UN Women and United Nations Department of Economic and Social Affairs (UNDESA).**
- The report notes that **one in every ten women today, or 10.3%, lives in extreme poverty, defined as having less than \$2.15 a day.**
- It estimates that **\$6.4 trillion per year is required across 48 developing countries to achieve gender equality** in various key areas by 2030.

Asian Premium

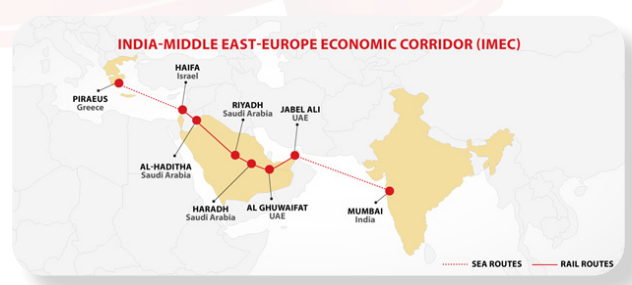
- » **Saudi Arabia**, world’s second largest oil producer, recently slashed the Asian premium charged on exports to India, citing India’s bulk sourcing from Russia.
- **Asian Premium** is an **extra amount levied by the Organization of the Petroleum Exporting Countries (OPEC)** from **Asian countries** above the actual selling price.

- They **typically charge around \$1-\$2 per barrel higher than prices** for Europe and the U.S.
- The premium is **determined** in large part **by the official selling prices (OSPs) set by Saudi Arabia, Iran, Iraq, and Kuwait**, which supply about 15 percent of the world’s crude among them.
- They set **differential prices against benchmarks on a monthly basis**, adjusting them to account for regional variations.

Commonwealth of Independent States (CIS)

- » Russian President Vladimir Putin is scheduled to attend the **summit of Commonwealth of Independent States Heads in Kyrgyzstan Capital: Bishkek.**
- The Commonwealth of Independent States (CIS) is an **intergovernmental organisation** formed in **1991 by former Soviet Union nations.**
- It promotes cooperation in various domains, including politics, economics, environment, humanitarian, culture, and more.
- The Commonwealth of Independent States (CIS) has the following countries as its members:
 1. **3 Founding members:** Russia, Belarus & Ukraine
 2. **9 other members:** Armenia, Kazakhstan, Georgia, Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Moldova and Kyrgyzstan.
- Meetings are held **periodically on a rotating basis** at the CIS country’s capitals.
- Forums include the Council of Heads of State, the Council of Prime Ministers, and the Council of Foreign Ministers.

India-Middle East-Europe Economic Corridor (IMEC)



» **India-Middle East-Europe Economic Corridor (IMEC)** Project was signed at the **G20 Summit** in New Delhi, which holds significant geopolitical and economic implications for India.

• It is an initiative comprising two economic corridors:

1. **Eastern Corridor** connecting **India to the Gulf region**.

2. **Northern Corridor** connecting the **Gulf region to Europe**.

• The corridor will comprise a **railway and ship-rail transit network** and **road transport routes**.

• The MoU on IMEC was signed by **India, USA, Saudi Arabia, UAE, European Union, Italy, France and Germany**.

• **IMEC** would promote **economic integration of India with Europe**.

L69 Group

» The External Affairs Minister met with members of the L69 group on the sidelines of the UN General Assembly summit.

• **L69** is a **grouping of 32 developing countries** from **Africa, Latin America, Caribbean, Pacific Island States and Asia**, including India.

• They form a major bloc that is united by the common cause of **achieving the lasting and comprehensive reform of the United Nations Security Council**.

• The Group derives its name from the **draft document number "L.69"** that the Group had tabled in 2007-08, which led to the **initiation of the intergovernmental negotiation process**.

Abraham Accords

» September 2023 marks **3 years** since the signing of the Abraham Accords.

• It refers to the agreement reached between **Israel, Bahrain and the UAE** to normalise relations between the three nations in 2020.

• It was **mediated by the USA**.

• After **Egypt in 1979 and Jordan in 1994**, the UAE became the third Arab country to agree to formally normalise relations with Israel, as well as the first Persian Gulf country to do so.

• As a part of the deal, Israel agreed to put on hold plans to annex parts of the West Bank.

• The UAE and Bahrain will **create embassies and swap ambassadors**, according to the accords, and will **cooperate with Israel**.

Gujarat Declaration

» The **WHO Traditional Medicine Global Summit 2023** in Gujarat, concluded with the Gujarat Declaration.

• The summit was a platform to exchange views and experiences on **how to integrate traditional medicine into global health strategies and policies**.

• The objective of the summit was to promote the **recognition, regulation and research of traditional medicine** as a valuable resource for health and well-being.

Features of the Declaration:

1. It recognizes the **value and potential of traditional medicines** for health and well-being, and calls for increased collaboration, research, and regulation of indigenous knowledge, biodiversity, and **traditional, complementary, and integrative medicine (TCIM)** practices and products.

2. It **also urges the protection and promotion of the rights and interests of indigenous peoples** and local communities, who are the custodians of TCIM knowledge and resources.

Asian Development Bank (ADB)

» The ADB lowered its growth forecast for **India's economy to 6.3%** for this year, from 6.4% estimated earlier, citing the impact of falling exports and erratic rainfall patterns.

• The ADB is a **multilateral development bank**, which seeks to help its developing member countries to reduce poverty and improve their people's quality of life through **inclusive economic growth**, environmentally sustainable growth and regional integration.

• From 31 members at its establishment in **1966**, ADB has grown to encompass 68 members—of which 49 of them are from within Asia and the Pacific and 19 outside.

- **Headquartered in Mandaluyong, Philippines**, the largest shareholders are Japan and the USA. China is the largest borrowing shareholder, followed by India.
- **India is a founding member** of the ADB.

Oslo Accords

- » Recently, the Israeli government celebrated the 3rd anniversary of signing the Oslo Accords, it was signed on September 13, 1993.
- Oslo Accords are a **series of agreements** between Israel and the Palestinians signed in the 1990s.
- Oslo I (1993) is formally known as the **Declaration of Principles (DOP)**. The pact established a timetable for the Middle East peace process. It planned for an interim Palestinian government in Gaza and Jericho in the West Bank.
- **Oslo II** is officially called the **Israeli-Palestinian Interim Agreement on the West Bank and Gaza (1995)**, expanded on Oslo I.
- The **two-state solution** refers to an arrangement where Israeli and Palestinian states co-exist in the region. It was born out of the Oslo Accords.

West Bank Conflict

- » Recently, Israeli troops killed a Palestinian militant during an army raid in the West Bank.
- **West Bank is a landlocked territory** in West Asia. It also contains a significant section of the western **Dead Sea**.
- It was captured by Jordan after the **Arab-Israeli War (1948)** but Israel snatched it back during the Six-Day War of 1967 and has occupied it ever since.
- The West Bank is sandwiched between **Israel and Jordan**.
- **Six-Day War** was a brief, but bloody conflict fought in June **1967** between Israel and the Arab states of Egypt, Syria and Jordan.
- Israel seized the **Sinai Peninsula** and the Gaza Strip from Egypt, the West Bank and East Jerusalem from Jordan, and the Golan Heights from Syria.

- Even though Israel returned the **Sinai Peninsula to Egypt in 1982** and withdrew from Gaza in 2005, the status of the Golan Heights and the West Bank continues to be a stumbling block in **Arab-Israeli peace negotiations**.

UN Sanctions Committee

- » Recently, India has told the UN Security Council that blocking evidence-based proposals to blacklist globally sanctioned terrorists without providing justifications is uncalled for and **“smacks of doublespeak”**.
- In June, China blocked a proposal by India and the US to designate **Lashkar-e-Taiba terrorist Sajid Mir**, wanted for his involvement in the 26/11 Mumbai terrorist attacks, **as a global terrorist**.
- Sanctions committee is made up of UNSC members and decisions taken on consensus.
- The latest proposal by **India and the US** was under the **1267 sanctions** committee Al Qaeda Sanctions Committee to designate Lashkar-e-Taiba terrorist Sajid Mir.
- Once an entity or an individual is included in the list it gets designated as the **“Global Terrorist”** and member states are required to:
 - Freeze funds and financial assets of that individual/entity,
 - Enforce a travel ban, and
 - **Cut off access to arms and related materials.**

Africa Climate Summit

- » African leaders met in Nairobi, Kenya to discuss the effects and potential of climate change in the continent.
- The **first African Climate Summit** noted a change in perspective from Africa being a victim of climate change to its potential to monetarily capitalise its carbon sinks, with a stress on **equitable climate financing**.

Suggestions include

- implementing global taxes,
- eliminating fossil fuel subsidies and
- **carbon border adjustment mechanisms.**

- Some representatives have linked conflicts over resources to climate change. **Droughts in the Horn of Africa** have become more intense, while new conflicts have emerged in west and central Africa. Gabon, a leader in environmental conservation, is facing political uncertainty.
- This is the **first time that African leaders** have reached a joint position on the question of climate change. The consensus, termed the **Nairobi Declaration**, claimed that Africa was **disproportionately affected** by rising extreme weather events. The Declaration is aimed to provide a stronger, common voice to African countries in **COP 28** in November.

IBSA

- » The Ministers of External Affairs of **India, Brazil and South Africa** met for the 11th IBSA Trilateral Ministerial Commission on 22 September 2023, in **New York**.
- Brazil assumed the **rotating presidency** in March 2023.
- The **IBSA Dialogue Forum** was formalised in Brasilia in 2003 through the **Brasilia Declaration**.
- The Ministers agreed to strengthen and expand the **IBSA Fund**, an internationally recognized initiative of **South-South cooperation**, with 42 projects in 37 countries.
- The three countries will make up the **G20 “troika” in 2024**, providing further opportunities for concerted actions and cooperation in several areas.

Cooperation in IBSA is on three fronts:

- Coordination** on global and regional political issues.
- Collaboration** on concrete areas/projects, through fourteen working groups and six People-to-People Forums, for the common benefit of three countries.
- Assisting other developing countries** by taking up projects in the latter through **IBSA Fund**.

Rajghat consensus

- Recently, G20 members after signing the **New Delhi G20 Declaration** accepted yet another agreement on **Gandhian values** on Oct 2nd 2023.
- The Rajghat Consensus **acknowledges that Mahatma Gandhi’s values matter in 2023**, more than 150 years after he was born.
- Although these values are universal, there is also a **unique, distinct Indian-ness** about them.

Mahatma’s moral compass can solve the following issues

- The ways we must work **to spread prosperity**.
- The tension between fundamental rights and duties.
- Ways to balance our need to consume versus the need to conserve and our responsibility to the future.
- To reduce our greed **to ensure climate security** and biodiversity.
- To respect those who don’t pray to the same God or speak the same language.
- To blend modernity and ancient ethos.

FORTUNE PRELIMS TEST SERIES

52+ DIRECT HITS FROM FORTUNE TEST SERIES IN PRELIMS 2023

ONE OF THE HIGHEST IN THE NATION

Scan here to register for Prelims Test Series 2024

28 FIRST ATTEMPTERS CLEARED FROM THE PCM BATCH

184 STUDENTS OVERALL CLEARED THE PRELIMS FROM FORTUNE

enquiries@fortuneias.com | www.fortuneias.com
 +91 94950 15888 | +91 81389 40888
 @fortuneias @fortune_ias_academy

Environment & Ecology

Circadian rhythm is the 24 hour internal clock in the brain that regulates cycles of alertness and sleeping by responding to light changes in the environment.

National Carbon Registry

- » Recently, the **United Nations Development Programme** (UNDP) has developed open-source software that allows countries to effectively manage national data and processes for trading carbon credits.
- The National Carbon Registry is an **innovative digital platform** developed by the **United Nations Development Programme** (UNDP) to **enhance global climate action** efforts.
- It is the result of ongoing collaboration within the **Digital4Climate (D4C) Working Group**, comprising **UNDP, the World Bank, UNFCCC, EBRD, and others**.
- It has been accredited as a **Digital Public Good (DPG) as an open-source software designed to facilitate the management of carbon credits** and revolutionising the carbon credit ecosystem.
- It is designed as an interoperable digital system integrating with **national measurement, reporting, and verification (MRV)**.

Artificial Light at Night (ALAN)

- » According to a study by Journal Aquatic Conservation **marine light pollution threatens coastal marine systems**.
- ALAN is a major form of **anthropogenic pollution** that affects **terrestrial life forms from birds and moths to humans**.
- Researchers found that even at low levels, **ALAN can disturb communities of species, as well as entire ecosystems**.

Impacts of ALAN

- ★ Exposure to ALAN can disrupt the **circadian rhythms** leading to **sleep problems, fatigue and other health issues**.
- ★ Long term exposure to ALAN leads to an **increased risk of breast and prostate cancer**.
- ★ It can disorient and **disrupt the behaviours of many animals** that rely on darkness for activities like **foraging and reproduction**.

Ecocide

- » Ukraine has accused Russia of ecocide in its military campaign.
- Ecocide in Greek and Latin means '**killing one's home/environment**'.
- It refers to **actions or processes that cause widespread harm to ecosystems, biodiversity, and the natural environment** on a scale that significantly disrupts the balance of nature and poses a threat to life on Earth.
- The idea behind "ecocide" is to acknowledge and criminalise acts that cause severe and lasting harm to the environment.
- Currently, ecocide is a crime in 11 countries including **Russia and Ukraine**.

Permal Rice (PR 126)

- » PR126 paddy variant has **replaced** the once dominant **PUSA44** developed by Indian Agricultural Research Institute which has shrunk from once covering 70% of area under paddy in Punjab to 15-22% this season.
- Introduced in **2016**, it was developed to address **Punjab's shrinking water table**, shows quick growth and harvest and gives farmers two additional months to grow additional crops.
- PR126 offered farmers **an escape from the paddy-wheat regime** besides entailing low cost, comparative yield and low pest risk.

Kashmiri saffron



- » Kashmiri saffron, selling now at ₹3.25 lakh per kg is costlier than precious metals.
- Jammu and Kashmir is the **second largest saffron producing area in the world (second to Iran)**.
- **Pampore region**, commonly known as **Saffron bowl of Kashmir**, is the main contributor to saffron production.
- It was **introduced in Kashmir by Central Asian immigrants** around 1st Century BCE. In ancient Sanskrit literature, it is referred to as **'bahukam'**.
- Saffron is a **labour intensive crop**. It takes 40 hours of labour to produce one kg of saffron.
- Four main kinds of saffron are **lacha, mongra, androciam and perianth**. The best variety of saffron is known as **'red gold'**.
- It is renowned globally as a **spice**. It rejuvenates health and is used in cosmetics and for medicinal purposes. It has been associated with **traditional Kashmiri cuisine**.
- **Threats** are conversion of land to orchards and housing complexes and pollution from the proliferation of cement factories in Pulwama.
- **Saffron Bowl Project** – By North East Centre for Technology Application and Reach (NECTAR) has identified few locations in **Arunachal Pradesh and Meghalaya** for saffron cultivation.
- **National Saffron Mission (2010)** – Was applicable in the state of J&K only, which came under the governance of the **Ministry of Science and Technology**.

Invasive Alien Species Report

5 main drivers of species loss



- » The **Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)** Assessment Report on Invasive Alien Species and their Control (known as the "Invasive Alien Species Report").
- Target 6 of the **Kunming-Montreal Global Biodiversity Framework** (CoP 15 of UN Convention on Biological Diversity) is to **"eliminate, minimise, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services"**.
- The report finds that more than **37,000 alien species** have been introduced by many human activities across the world. Among these, over 3,500 are invasive alien species, responsible for **60%** of global plant and animal extinctions.

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES):

- » It is an **independent intergovernmental body** and there are **143 members**.
- » It is **not a United Nations body**, but the **United Nations Environment Programme (UNEP)** provides secretariat services to IPBES.
- » **All States Members of the United Nations are eligible for IPBES membership.**
- » **India has been a member since 2012.**

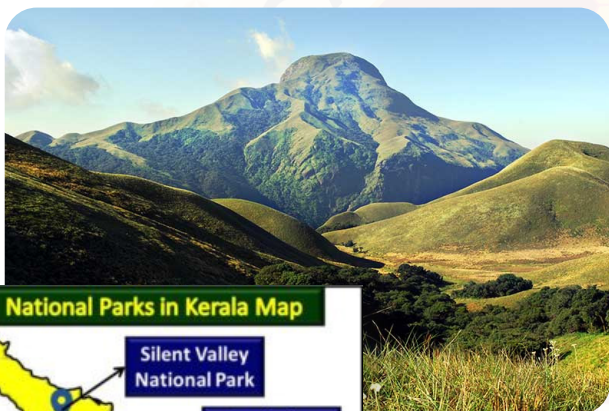
Staghorn Corals



- » A **genomewide survey** was done on **staghorn coral in the Caribbean** to help in resilience against white band disease.
- **White band disease** is an **emerging infectious disease responsible for killing up to 95% of Caribbean Acropora species**, including staghorn corals (*A. cervicornis*).

- Staghorn Coral is a **Critically Endangered species** in IUCN highly vulnerable to bleaching
- It is typically **found in clear, shallow water** (15–60 feet) on coral reefs throughout the Bahamas, Florida, and the Caribbean.
- They have **golden tan or pale brown** with white tips and get their colour from the algae that live within their tissue.
- Staghorn corals have **antler-like branches and typically stem out from a central trunk** and angle upward.
- Staghorn coral **get food from photosynthetic algae that live inside the coral's cells**.
- They also feed by **capturing plankton** with their polyps' tentacles.
- The species have declined by **> 80%** over the last 30 years due to reasons like diseases and Climate change, etc.

Anamudi Shola National Park



- » **The Eco-restoration project to cover Anamudi Shola national park area in Munnar with natural grasslands was successful.**
- Munnar Wildlife Division has **converted a park filled with exotic species of wattle trees** into 50 hectares of forest grassland land.
- This encouraged wildlife presence and food and water for animals in an anticipatory step towards **curbing human-animal conflict**. After the restoration, natural streams in the area were also revived.

- The project was implemented through the **United Nations Development Programme (UNDP)**. It was started in 2019 and completed in 2022.
- Anamudi Shola National Park is a **protected area** located along the Western Ghats of Idukki district in Kerala state.
- A critical wildlife corridor connecting nearby protected areas like **Eravikulam N.P, pampadum shola N.P and kurinji mala sanctuary**.

Operation Kachchhap

- » **Directorate of Revenue Intelligence (DRI)** saves 955 live baby Gangetic turtles in a crackdown on illegal wildlife trade in multicity **Operation "Kachchhap"**.
- It is a part of DRI's ongoing aim **to combat illegal wildlife trafficking and protect India's flora and Fauna**.
- **Directorate of Revenue Intelligence** is the **apex anti-smuggling agency of India**, working under the **Central Board of Indirect Taxes & Customs, Ministry of Finance**.
- They are tasked with **detecting and curbing smuggling of contraband**, including drug trafficking and illicit international **trade in wildlife** and environmentally sensitive items, as well as combating **commercial frauds** related to international trade and evasion of Customs duty.

MAINS MENTORSHIP PROGRAM

Malini S, IFS
AIR 81, 2023



Malini S (AIR 81) scored 450 marks in General Studies after attending Fortune Mains Mentorship Program

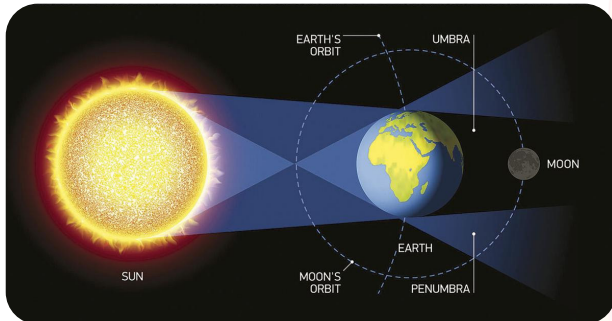
Scan QR Code
to know more
about MMP



Malini S (Rank 81) sharing tips on how she scored 450 marks in General Studies.

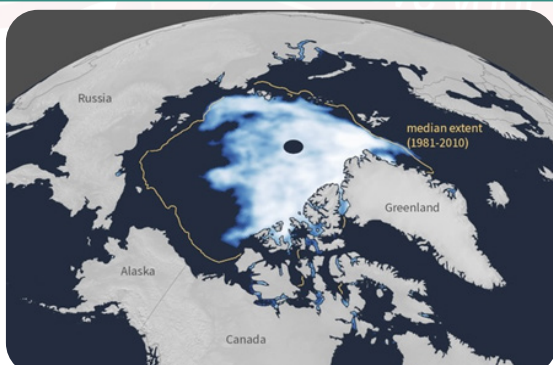
In the daily **QIP (Quality Improvement Program)** sessions, students get to interact with senior faculties and toppers who will personally provide valuable guidance and insights to enhance their knowledge and skills.

Super Blue Moon



- » A rare astronomical phenomenon known as the "Super Blue Moon" was observed recently.
- A super blue moon is a **rare lunar event that occurs when a full moon, a supermoon, and a blue moon happen at the same time**
- A **super moon** occurs when the moon is **near its perigee** (closest point to Earth) during a full moon.
- The **moon's illuminated side is fully visible during a full moon**, creating a bright circle in the sky.
- A **blue moon** is the **second full moon** in a month.
- Despite its name, a **blue moon isn't blue but only a traditional name**.
- According to NASA, Super Blue Moons are a very rare phenomenon; these moons often **only appear once every ten years** due to astronomical conditions.
- But occasionally, the **interval between blue supermoons can be as long as twenty years**.

Atlantification



- » Recently, Scientists have discovered **hotspots** where some **parts of the Barents sea** have **started to closely resemble the Atlantic**.
- **Atlantification** is the **increasing influence of Atlantic water in the Arctic** due to **global climate change**.
- The **north-flowing ocean currents** transport the **warm waters of the Atlantic** into the **Arctic ocean** through the **Barents sea** and as a result the **Arctic ocean is becoming warmer and saltier** and **sea ice is disappearing**.

Consequences of atlantification

- » The exceptional warming of the Arctic could lead to **more extreme weather in North America, Europe and Asia**.
- » As the Arctic region warms, the **sea ice melts** and exposes the ocean surface below
- » The rapid warming of the Arctic region has already thrown up weird weather such as the **first recorded rainfall at the Summit Station of Greenland in 2021**.
- » **Storms and lightning strikes** which were once rare in the region have increased by eight times in the last decade.
- » The warming resulted in the **decrease in the abundance of Arctic fish species**.

Arunachal yak churpi

- » **First ever yak milk product**, Arunachal Pradesh Yak Churpi, **gets GI tag**.
- Churpi is prepared from the milk of Arunachali yak, which is a unique yak breed found in **West Kameng and Tawang districts** of Arunachal Pradesh.
- Yak Churpi, a **naturally fermented milk** product made from yak milk.
- Serves as an excellent **source of proteins** and is frequently used as a substitute for vegetables by tribal yak herders in the vegetation-starved cold and hilly mountainous regions of the state.

Arunachali yak (VU)

breed is reared by tribal yak pastoralists known as **Brokpas** who migrate along with their yaks to higher reaches (at an altitude of 10,000 ft and higher) during summers and descent to mid-altitude mountainous regions during winters.

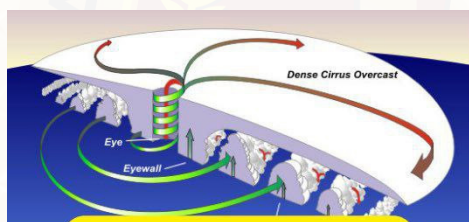


Omega Blocking

- » As per latest studies, the recent floods in the **Mediterranean regions** were caused by low pressure systems forming around an Omega Block in the Netherlands.
- Omega blocking is a meteorological phenomenon that occurs when a **high-pressure system gets trapped between two low-pressure systems**
- It resembles the Greek letter Ω on a weather map.
- It can cause extreme weather events, such as **heat waves, droughts, and floods**, depending on the location and season.
- Omega-blocking events have also been linked to other extreme weather events in the past, including floods in Pakistan (2011, 2019), heatwaves in France and Germany.

Hurricane Lee

- » Recently, Hurricane Lee swept over **Nova Scotia in Canada** and **Maine in the US** after making landfall bringing **ferocious winds and heavy rainfall**.
- This is the **3rd episode of natural disaster** to occur in Nova Scotia this year after a Wildfire in May and massive Floods in July.



TROPICAL CYCLONE

Tropical cyclones typically form over large bodies of relatively warm water.

Confined to 10-30 degree N-S of the equator.

They form only on seas with temperatures more than 26-27 degree C. They dissipate on reaching the land.

Wind velocity of tropical cyclones is much greater (100-250 kmph) (200-1200 kmph in upper troposphere) Greater destruction due to winds, storm surges and torrential rains

Tropical cyclones are elliptical in shape. generally move from east to west.



TEMPERATE CYCLONE

They are formed due to interaction of warm and cold air masses.

Confined to 35-65 degree N-S of the equator. More pronounced in the Northern hemisphere due to greater temperature contrast owing to large expanse of landmass.

Cyclone formation by frontogenesis, on both land and sea

Velocity Typical range: 30-150 kmph. Less destruction due to winds but more due to flooding.

Shape: 'inverted V' & usually move from west to east.

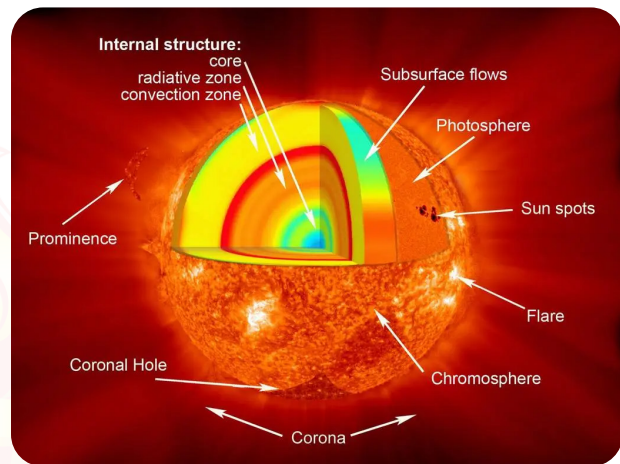
Tidal Locking

- » As the sun rises on the Moon, ISRO is trying to wake up rover Pragyan and lander Vikram which were put to sleep to survive the lunar night.
- Tidal Locking **refers to the synchronisation between the Moon's rotation around its axis (with respect to the Sun) and its orbit around the Earth.**
- It happens due to the **gravitational force exerted by both the Moon and the Earth on each other.**
- Tidal locking **does influence the planets by slowing down the spin** of our planet.

Galactic Tides

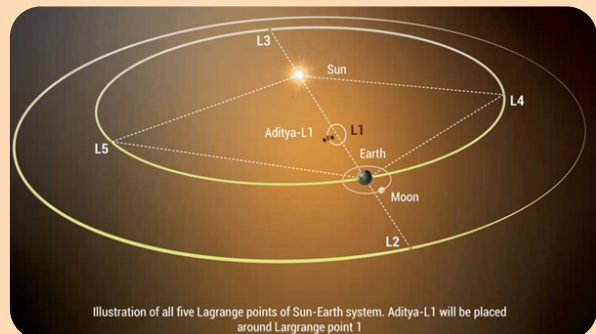
- » Researchers have observed that like the earth's oceans at their shores, the **universe's galaxies also experience tides**, but on a much larger scale.
- **Galactic tides are caused by gravitational forces within a galaxy**, arising in the **interactions between celestial objects** like stars and gas clouds.
- These tidal forces **influence various aspects of a galaxy's evolution**. They can **reshape a galaxy structure by promoting star formation, and disrupting smaller star systems.**
- Galactic tides also **affect the supermassive black holes at galaxy centres**, leading to events that change the ways in which these **cosmic beasts interact with nearby stars.**
- In astronomy, understanding galactic tides is crucial to **understand the complex dynamics and evolution of galaxies over cosmological time.**

Aditya-L1 Mission



- » Recently, the Indian Space Research Organisation (ISRO) launched Aditya L-1.
- It is the first Indian mission to study the sun.
- It will be launched by the **PSLV-XL** launch vehicle.
- It will be placed in the **Lagrange point 1 (L1)** orbit.
- Aditya-L1 Mission will carry **seven payloads** to observe the photosphere, chromosphere and the outermost layers of the Sun (corona)
- It uses electromagnetic and magnetic field detectors.

Lagrange Points are positions in space where the gravitational forces of a two body system like the Sun and the Earth produce enhanced regions of attraction and repulsion. These can be used by spacecraft to reduce fuel consumption needed to remain in position.



NanoPtA

- » Scientists at the **Materials Research Centre (MRC)**, Indian Institute of Science (**IISc**), have developed **a new type of enzyme** (nanozymes) mimetic that can **degrade toxic chemicals in industrial wastewater** effectively **in the presence of sunlight**.
- **Enzymes are proteins** that catalyse a majority of biological reactions in living systems.
- Mass producing these enzymes is an expensive and time-consuming process.
- Moreover, most of the natural enzymes are temperature-sensitive and require storage at cooler temperatures, often **as low as -20°C**.
- **Nanoenzymes overcome these difficulties**. They can live up to 75 days at room temperature.

Preeclampsia

- » A liquid-biopsy approach that measures DNAmethylation levels in the blood may improve the detection of pregnancies at risk of developing preeclampsia at early stages, a study published in Nature Medicine shows.
- Preeclampsia is a serious medical condition that can occur about **midway through pregnancy** (after 20 weeks).
- People with preeclampsia often have high blood pressure (**hypertension**) and high levels of protein in their urine (**proteinuria**).

Complications of preeclampsia may include;

- 👉 The **blood supply** to the placenta might be **decreased** in preeclampsia which can lead to slow growth known as **foetal growth restriction**.
- 👉 It may lead to **preterm birth** (delivery before 37 weeks).
- 👉 This can lead to a condition where the placenta separates from the inner wall of the uterus before delivery.
- 👉 It may result in damage to kidneys, liver, lung, heart and may cause a stroke or other brain injury.

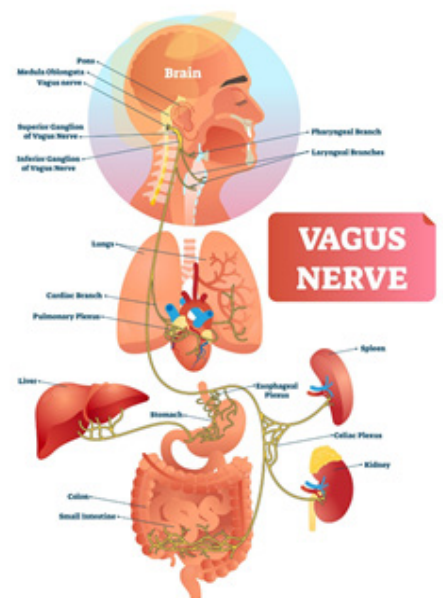
Nipah

- » Kerala to study population samples to figure out the cause of repeated Nipah virus outbreaks.
- It is a **zoonotic virus** i.e, transmitted from animals to humans.
- The **fatality rate is estimated at 40% to 75%**.
- It first appeared in **domestic pigs** and has been found among several species of domestic animals including dogs, cats, goats etc
- The organism which causes Nipah Virus encephalitis is an **RNA or Ribonucleic acid virus of the family Paramyxoviridae**.
- The disease spreads through **fruit bats** or **'flying foxes,'** who are natural reservoir hosts of the Nipah and Hendra viruses.
- The virus is **transmitted to people from animals** and can also be passed on through contaminated food or **directly from person to person**.

Hendra Virus

- Hendra virus (HeV) infection is a **rare emerging zoonosis** that causes severe and often fatal disease in both infected horses and humans.
- The natural host of the virus has been identified as being **fruit bats**.

Vagus nerve



- » As per a recent study, symptoms connected to post-COVID syndrome (also known as long COVID) could be linked to the **effect of the virus on the vagus nerve** – one of the most important multi-functional nerves in the body.
- The vagus nerve **extends from the brain down into the heart, lungs, and intestines**, as well as several muscles including those involved in swallowing.
- This nerve is responsible for a **wide variety of bodily functions** including controlling heart rate, speech, transferring food from the mouth to the stomach, sweating, and many others.
- Scientists propose that SARS-CoV-2-mediated vagus nerve dysfunction (VND) could explain some long COVID symptoms, including **dysphonia** (persistent voice problems), **dysphagia** (difficulty in swallowing), dizziness, **tachycardia** (abnormally high heart rate), **orthostatic hypotension** (low blood pressure) and diarrhoea.

C-295 Aircraft



- » The Indian Air Force (IAF) inducted the first C-295 transport aircraft in a formal ceremony, days after it received the delivery of the aircraft at the Airbus facility in Seville, Spain. It will **replace the IAF's ageing Avro-748 planes**, which entered service in the early 1960s.
- **C295MW is a transport aircraft** with 5 to 10-tonne capacity and a maximum speed of 480 km/h. It has a rear **ramp door for quick reaction and para-dropping** of troops and cargo.
- As it is capable of **Short Take-off and Landing (STOL)**, it can be used a **tactical transport aircraft**, the C295 can carry troops and logistical supplies from main airfields to forward operating airfields of the country.

- First 16 aircraft will be delivered in **'fly-away'** condition and remaining 40 aircrafts will be **manufactured by Tata Advanced Systems Ltd (TASL) in India** as part of an industrial partnership.
- All 56 aircraft will be fitted with an **indigenous electronic warfare suite** to be developed by **Bharat Electronics Ltd and Bharat Dynamics Limited**.
- **Indigenous content** in the plane will be the highest ever in India (**96%**).

BSL-3 LABS

- » **The Kerala government** has deployed a **mobile biosafety level-3 (BSL-3) laboratory** at **Kozhikode** to curtail the **spread of the deadly Nipah viral infection**.
- A BSL-3 lab is designed to study **highly infectious and potentially lethal pathogens** that can be transmitted through air.
- The systems are designed in a way to ensure these **pathogens do not accidentally escape through the ventilation system** or with the scientists working inside.
- Biosafety levels (BSL) are **used to identify the protective measures** needed in a laboratory setting to protect workers, the environment, and the public. The levels are defined in Biosafety in Biomedical Laboratories (the BMBL), authored by the US Health Department.
- Four biosafety levels are BSL-1, BSL-2, BSL-3, and BSL-4, with **BSL-4 being the highest (maximum) level of containment**.

Cookies

- » A cookie is **a piece of data from a website** that is **stored within a web browser** that the website can retrieve at a later time.

Uses of Cookies

- 👉 They act as **digital ID cards**, aiding in user authentication by **allowing websites to recognise** and keep you logged in during your visit.
- 👉 They foster a **sense of personalisation**, recalling your preferences such as language choice or website theme.

- They function as the digital equivalent of a persistent shopping cart, **ensuring that items you have added online remain there when you return.**
- They facilitate website owners in gathering invaluable analytics data about user interactions, enabling them to make enhancements and customise content.
- They play a pivotal role in **targeted advertising**, as advertisers use them to display ads that align with your interests and browsing history, making online shopping more enticing.

Challenges of Cookies

- 🔊 **Privacy concerns** arise as cookies could track your online behaviour, which can sometimes encroach upon your digital privacy.
- 🔊 **Security risks** loom when cookies are inadequately secured, opening doors for cybercriminals to pilfer your personal information.
- 🔊 **Third-party cookies** have sparked debates, prompting many web browsers to curb their usage to safeguard user privacy.
- 🔊 **Data deluge** generated by the multitude of cookies can potentially clog your browser, leading to a **sluggish web experience.**

Gravity battery



- A gravity battery is a type of **storage device that stores gravitational energy.**
- Gravitational energy is the energy stored in an object due to a **change in height due to gravity**, also called **potential energy.**
- The device uses surplus energy (usually from sustainable sources) to raise mass **to produce gravitational potential energy**, which is then lowered to convert the potential energy into **electricity through a generator.**

ISRO Telemetry Tracking and Command Network (ISTRAC) & MOX

- » Indian Space Research Organisation's Telemetry, Tracking and Command centre in **Bengaluru** will receive data from the Chandrayaan-3 spacecraft and communicate commands to it. **Mission Operations Complex (MOX)** is the centre from where scientists will monitor the mission.

ISTRAC

- 🔊 The ISTRAC centre provides telemetry, tracking and command services from the time a rocket **launches** with a satellite or spacecraft to injection of the satellite into orbit and **through the lifespan** of the satellite.
- 🔊 ISTRAC has a **network of ground stations** at Bengaluru, Lucknow, Mauritius, Sriharikota, Port Blair, Thiruvananthapuram, Brunei and Biak (Indonesia) and Deep Space Network stations.
- 🔊 **Indian Deep Space Network (IDSN)** is a network of large antennas and communication facilities operated by the ISRO to support the interplanetary spacecraft missions of India. Its hub is located at Byalalu, Karnataka.

Mission Operations Complex (MOX)

- 🔊 MOX consists of a **Mission Control Room** and a **Mission Analysis Room** which monitor a spacecraft 24×7.
- 🔊 The health and other flight parameters of Chandrayaan-3 have been controlled from MOX.
- 🔊 It performs all mission operations related to **remote-sensing**, science and exploration missions of ISRO.

OSIRIS REX mission

- » NASA's first asteroid samples fetched from deep space parachuted into the Utah desert on Sunday to cap a seven-year journey.
- Launched on Sept. 8, 2016, the **Origins, Spectral Interpretation, Resource Identification, and Security-Regolith Explorer**, or OSIRIS-REx spacecraft travelled to a near-Earth asteroid named **Bennu** (formerly 1999 RQ36) and collected a **sample of rocks and dust from the surface.**

- The spacecraft delivered the sample to Earth on Sept. 24, 2023. It released the capsule holding pieces of Bennu over Earth's atmosphere.
- The capsule parachuted to the Department of Defense's Utah Test and Training Range, where the OSIRIS-REx team was waiting to retrieve it.
- This mission will help scientists investigate how planets formed and how life began, as well as improve our understanding of asteroids that could impact Earth.
- OSIRIS-REx is the **third mission in NASA's New Frontiers Program**. Others are New Horizons, Juno and Dragonfly.



Asteroid Bennu

- Bennu is a **carbon-rich asteroid** that is about half a km wide at its equator.
- It likely formed in the **main asteroid belt between Mars and Jupiter**, and has **drifted much closer to Earth** since then.
- Because its materials are so old, **Bennu may contain organic molecules** similar to those that could have been involved with the start of life on Earth.
- Bennu's average orbital distance from the Sun is about 168 million km, which is only slightly farther than Earth's average orbital distance of 149 million km
- NASA predicts the possibility of Bennu colliding with Earth after 159 Years with a force equalling 22 atomic bombs

Sonobouys

- » Indian Navy plans to equip the **MQ-9B Sea Guardian medium altitude long-endurance (MALE) drones**, which it is procuring from the United States, with sonobuoys, enhancing their ability to detect and track Chinese submarines lurking in the **Indian Ocean Region (IOR)**.



- Sonobuoys are a device used to **detect and identify objects moving in the water**, they are small and expendable and are dropped from ships and aircrafts.
- They sink to a **predetermined depth** and begin listening for acoustic signals, helping pin-point potential submarine threats.
- **Multiple sonobuoys** can be deployed in a pattern to **determine the exact location of a target**.

Three types of sonobuoys:

- 🔊 **Passive Sonobuoys** quietly listen for and record sounds without emitting any signals. It uses a hydrophone to listen for sound energy from a target.
- 🔊 **Active Sonobuoys** emit a sound pulse and analyze the return signals (echoes) to detect and locate targets. It uses a transducer to send an acoustic signal.
- 🔊 **Special Purpose buoys** provide information about the environment, such as water temperature, ambient noise level, etc

Human Embryo Development

- » Israeli scientists developed a complete model of a 14-day old human embryo without sperm or egg

- The technique used a mix of **stem cells** — early cells that have the ability to differentiate into other types of cells — that were able to spontaneously assemble into an embryo-like structure, mimicking molecular characteristics of an early embryo.
- It is generally accepted and legally supported that these embryo models will be **destroyed after studying the first 14 days** (i.e. when cells start becoming an “individual” and naturally finish implantation).
- Attempts to artificially implant are not allowed. Also, a lab-based model that mimics the properties of early embryos is still far from an actual embryo that can implant to the lining of the womb.
- **Ethical research** of early stages of development (crucial for understanding **miscarriages, birth defects, genetic and inherited diseases, improving IVF success rates**) is not feasible as it is difficult to study the embryo after it implants in the uterus. Scientists currently study these initial changes in various lab models or donated embryos.
- Cadmium presence will lead to a **public health crisis** while its removal will lead to expensive fertiliser.
- The solution lies in the **Circular water economy** - Mining urban sewage to produce high quality phosphorus is an example.
- **Sludge-mining from Sewage Treatment Plants (STPs)** to recover nutrients.
- Source separating toilets can help generate a local fertiliser source as almost two thirds of the phosphorus we consume leaves in our urine and the rest in faeces

Phosphorus shortage in India

- » As per recent studies the shortage of phosphorus can be addressed by **efficient processing of sewage in India.**
- India is **deficient in Apatite** (group of phosphate minerals) & Rock Phosphate availability.
- According to **Indian Minerals Yearbook 2018**, in case of apatite, the country is fully dependent upon imports, while the Rock Phosphate production is only from two states namely, Rajasthan and Madhya Pradesh.
- The **world's largest reserves are in Morocco** and the Western Sahara region.
- The phosphorus here coexists with cadmium, a heavy metal that can accumulate in animal and human kidneys when ingested. Removing cadmium is an expensive process.
- India, **the world's largest importer**, gets it from the cadmium-laden deposits of West Africa.
- Not all crops absorb cadmium at the same rate, but paddy, a staple crop in India, is particularly susceptible. Phosphorus Overuse **leads to algal blooms and eutrophication.**

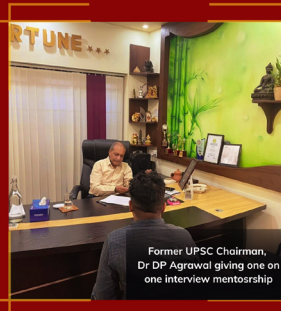
INTERVIEW MENTORSHIP PROGRAM



Ramit Chennithala, IRS

Ramit Chennithala, All india Interview Topper
scored 206 marks in
Personality Test after attending
Fortune Interview Mentorship Program

Scan QR Code
to know more
about IMP



Former UPSC Chairman,
Dr DP Agrawal giving one on
one interview mentorship

The Mock interview panels at Fortune IAS are known for their uniqueness and presence of eminent personalities like



Shri. Wajihah Habibullah (IAS Rtd, First Chief Information Commissioner, Former Director, LBSNAA)



Shri TKA Nair (IAS Rtd, Former Principal Secretary to the Prime Minister of India),



Shri Sanjay Kumar Srivastava (IAS Rtd, Former Secretary, Ministry of Coal) etc.

Miscellaneous

Advanced Landing Ground (ALG)

- » The **Ministry of Defence** this week initiated work on expanding the **Nyoma Advanced Landing Ground (ALG)** in eastern Ladakh into a full-fledged operating base from where fighter aircraft can take off.
- **ALGs were temporary airfields** established during World War II for rapid air support to ground troops.
- They are **strategically placed near battlefronts**, reducing aircraft response time and enabling rapid support.
- They have basic facilities like runways and parking, using simple construction methods like gravel runways and steel matting.
- Other major ALGs in India include **Daulat Beg-Oldie (DBO) ALG & Fukche ALG** in Ladakh.

Importance of Nyoma ALG

- **Nyoma ALG**, built in 1962, is strategically important as it lies closest to the **Line of Actual Control** in eastern Ladakh.
- It lay unused and re-started operations since 2009. In 2022, forest clearance was given to **Nyoma ALG** to expand into **Changthang Wildlife Sanctuary**.
- The **Indian Air Force's Chinook and Apache helicopters** are operating at the base non-stop to assist soldiers deployed at the China border
- Nyoma is home to the **world's highest Air Traffic Control system** located at an altitude of about 13,700 feet and close to the south Bank of Pangong Tso .

Digital Infrastructure for Knowledge Sharing(DIKSHA)

- » The **National e-Governance Division (NeGD) of the Ministry of Electronics and Information Technology (MeitY)** in India is planning to integrate **Personalised Adaptive Learning (PAL)** into the DIKSHA platform.

- It is a digital platform initiative of **National Council for Education, Research and Training(NCERT)**,under the aegis of the **Ministry of Education**.
- It provides quality e-content for school education in states/union territories and QR coded textbooks for all grades.
- DIKSHA has been declared as “**One Nation, One Digital Platform**”.
- It can be accessed by both learners and teachers across the countries and currently supports **36 Indian languages**.
- During the pandemic, the massive teacher's professional development programme **NISHTHA 1.0** (National Initiatives for School Heads and Teacher's Holistic Advancement) for Elementary grades was launched online through DIKSHA.
- It will help teachers to create training content, profile, in-class resources, assessment aids, news and announcements and connect with the teacher community.

International Translation Day

- International Translation Day is being celebrated on 30 September.
- » Celebrated on the anniversary of **St Jerome**, who translated the bible and is known as the **patron saint of translators**.
- **UNGA passed a resolution recognizing** the day in 2017 and is celebrated for upholding the **importance of languages**.

Global Innovation Index 2023

- » India jumped to **40th rank from 46th in 2022 out of 132** economies in the Global Innovation Index 2023.
- The GII is published by the **World Intellectual Property Organisation (WIPO)**.
- **Switzerland secured the top position** followed by Sweden, the United States, the United Kingdom, and Singapore.
- India made it to the **top most innovative lower middle-income economy** in the world, overtaking Vietnam.

The GII is computed by taking an average of scores from two sub-indices:

- ★ The Innovation Input Index and
- ★ The Innovation Output Index.

World Intellectual Property Organization (WIPO)

- A specialised agency of the UN aimed at protection of both industrial property (inventions, trademarks, and designs) and copyrighted materials (literary, musical, photographic, and other artistic works).
- The organisation began operations in 1970 and is headquartered in **Geneva**.

Yashobhoomi

- » Mr. Modi inaugurated the first phase of the ₹5,400 crore state-of-the-art India International Convention and Expo Centre, named 'Yashobhoomi', at Dwarka in New Delhi.
- Total project area of over 8.9 lakh square metres and a total built-up area of more than 1.8 lakh square metres, 'Yashobhoomi' will find its place among the **world's largest MICE (Meetings, Incentives, Conferences, and Exhibitions)** facilities.
- 'Yashobhoomi' also offers one of the largest Exhibition halls in the world.

Defense Acquisition Council (DAC)

- » The Defence Procurement Board discusses the Navy's proposal for a second Vikrant-like aircraft carrier. It will be sent for final approval by the Defence Acquisition Council.
- The DAC is the **highest decision-making body** in the **Defence Ministry** for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- The **Minister of Defence** is the Chairman of the Council. It was formed, after the Group of Ministers recommendation on 'Reforming the **National Security System**', in 2001, post Kargil War (1999).

Services Procurement Board (SPB)	chaired by Chief of Integrated Defence Staff (CISC) for cases upto Rs. 300 crore
Defence Procurement Board (DPB)	chaired by Defence Secretary for cases having value more than Rs. 300 crore and upto Rs. 500 crore
Defence Acquisition Council (DAC)	chaired by Defence Minister for cases having value more than Rs. 500 crore

UN Climate Ambition Summit 2023

- » The Climate Ambition Summit (CAS), part of the **United Nations General Assembly** recently concluded in **New York** as a prelude to the 28th Conference of Parties (**COP28**) to UNFCCC.
- Major carbon emitters like China, United States and India (account for about 42% GHG emissions) were **all absent from CAS**.
- This "**Summit of Hope**" aimed to showcase "**first mover and doer**" leaders from government, private and civil society who came with credible actions, policies and plans and **not just pledges**. The central aim of the CAS is to uphold the Paris Agreement's 1.5°C temperature limit.
- **Acceleration Agenda**, 2023 was adopted with three "distinct but interrelated tracks".
- **Ambition:** Governments are expected to present updated **pre-2030 Nationally Determined Contributions (NDCs) and net-zero targets**. Pledge to the Green Climate Fund and provide plans for adaptation and resilience.
- **Credibility:** Leaders were expected to align their transition plans with the UN-backed credibility standard outlined in the UN net-zero emission expert committee's "Integrity Matters" report.
- **Implementation:** Partnerships that either **accelerate de-carbonization** in high-emitting sectors or deliver progress on climate justice in areas such as **early warning systems and adaptation financing**.

Global Stocktake Report

- » The **UNFCCC secretariat (UN Climate Change)** published a 'synthesis report' on the progress made by countries in achieving the goals of the **2015 Paris Agreement**.
- The report summarises the technical phase findings of the **first 'global stocktake' exercise**.

- Established under **Article 14 of the Paris Agreement**, the Global Stocktake is designed “to assess the collective progress towards achieving the purpose of [the Paris] Agreement and its long term goals”. It is meant for updating countries’ climate actions and also informing their **Nationally Determined Contributions (NDCs)**.
- The Global Stocktake is to be completed **every 5 years** (next exercise to be concluded in 2028 and so on). It is meant to be an **inclusive and transparent** process taking place over a period of 2 years. It starts with data collection and technical assessment phases and culminates with a high level political phase.
- The 45-page synthesis **report outlines 17 ‘key findings’**, which broadly state that the **world is not on track to achieve Paris Agreement targets**, though there was still a “**rapidly narrowing**” window for improvement. It is expected to significantly influence discussions in November for the **28th UN Climate Conference of Parties (COP) in Dubai**, where the first global stocktake will be concluded.

Central Board of Film Certification (CBFC)

- » The Central Bureau of Investigation (CBI) has **filed an FIR** against officials of the Central Board of Film Certification (CBFC) regarding **allegations of corruption** to obtain a certificate for the film “**Mark Antony**”.
- CBFC also called **Censor Board** consists of a **chairperson and 12 to 25 members** who certify a film as fit for public display.
- It makes sure that the **Cinematograph Act of 1952** is followed when movies are shown in public.
- The Shyam Benegal Committee** was established by the Government of India in 2016 to analyse practices from around the world and establish film certification standards.

Drop In India’s Coffee Production

- » Recently, Deficit monsoon have adversely affected India’s coffee production
- India’s coffee production witnessed a **20% drop so far this year** due to **delayed blossom showers in Karnataka** where 70 % of India’s coffee is produced. The precipitation matched only 50% of the expected rains.

- However, disruptions in coffee production in **Brazil (largest coffee producer)** have helped increase Indian coffee prices. Also, the rise in **specialty coffee** (highest coffee grade) consumption domestically has encouraged Indian coffee growers to shift to this segment.

Indian Knowledge Systems (IKS) Initiative

- » **Sarp-Rajju** and five other indoor games have been developed by **Indian Knowledge Systems (IKS)** to promote interdisciplinary research on aspects of indigenous knowledge.
- IKS is an innovation cell founded at the **All India Council for Technical Education (AICTE)** in 2020, under the **Union Ministry of Education**.
- It is established to promote **interdisciplinary research** on all aspects of indigenous knowledge and preserve and disseminate it for further research and societal applications.
- It will actively engage in spreading the **rich heritage** of our country and traditional knowledge in the field of arts, literature, agriculture, basic sciences, engineering and technology, management, economy etc.

Places in News

Gurez Valley



- » The **Dard community**, one of Jammu and Kashmir's oldest tribes, gets **its own museum** in Gurez Valley.
- **Shinon Meeras** is the **first cultural centre dedicated to the Dard community** who speaks **shina language**.
- The **Gurez Valley is close to the Line of Control (LoC)** with the **Kishanganga River** demarcating the line in several parts.
- The Gurez valley is one of few habitations in Kashmir where villages with **only log houses exist**, with no intervention of urban concrete materials.
- **Shina, the mother of Dardic languages**, is primarily spoken in Gilgit-Baltistan, Dah Hanu, Gurez and Dras in India.
- Shina language exists **only in spoken form without any proper orthography** (conventional spelling system of a language).

Oasis of peace

- In a world stricken with fear and war, a **small village where Jews and Arabs have chosen to live side by side**, share power and imagine a more hopeful future. But even here, the agonies of the conflict can't be escaped entirely.

- Known by the Hebrew - Arabic bilingual name: **Neve shalom or Wahat al Salam** (NSWAS).
- Founded by **Bruno hussar**, a monk to build a place where christians, jews and muslims could live together.
- It is a small village off the main highway **between Tel Aviv and Jerusalem**.
- Home to some 70 families - all citizens of Israel who have moved here from across the country with the intention of creating a shared life side by side.
- Here, children learn both Arabic and Hebrew in school and the villagers celebrate all the 3 festivals - **Hanukkah, Ramadan and Christmas**.

Lampedusa



- » European Commission President Ursula von der Leyen on Sunday visited the Italian island of Lampedusa, which is struggling with a surge in migrant arrivals, and promised a 10-point EU action plan to help Italy deal with the situation.
- Nearly 1,26,000 migrants have arrived in Italy so far this year, almost double the figure by the same date in 2022. The small island of Lampedusa has recently seen a sharp rise in the number of people arriving by boat, **with more than 7,000 landing this week, more than the island's permanent population**.
- Lampedusa is the largest of the **Italian Pelagie Islands** in the Mediterranean Sea.
- It has been part of **Italy since 1860**.

Kalambo River



- » Recently, scientists discovered **wooden structures** dating approximately 4,76,000 years, belonging to a **species Homo heidelbergensis** preceeding our own.
- A method called **luminescence dating**, measuring the amount of energy an object has trapped since it was buried was used.
- Kalambo Falls (**UNESCO World Heritage site**) in **Zambia**, part of Kalambo river, is Africa's **second highest falls** after **South Africa's** **tugela falls**.

Lough Neagh



- » Recently, a public meeting was held to discuss the algal blooms in Lough Neagh.
- Lough Neagh is the **largest freshwater lake in the UK, Ramsar site since 2005**.
- Hit by recorded levels of potentially **toxic blue-green algae** (Cyanobacteria) that regional agencies say have not been seen since the **1970s**.
- **Lough Neagh eels** have been awarded the **highly prestigious PGI [Protected Geographical Indication] status**. One of the last remaining sites of commercial wild eel in Europe

Water temperatures have risen due to:-

- » **Eutrophication** - farmland runoffs and sewage disposal
- » **Invasive species**- zebra mussels

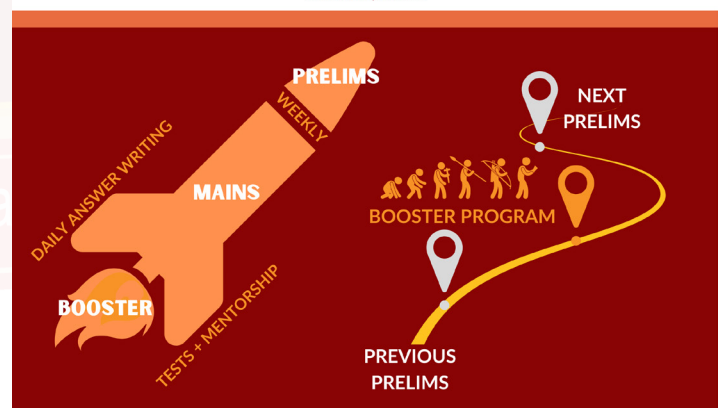
FORTUNE BOOSTER PROGRAM

Arya V M, IAS
AIR 36, 2023



Arya V M secured All India Rank 36 after attending the Booster Program in her second attempt

Scan QR Code to know more about the program



Armageddon Reedtail



- » Recently, Pune researchers discovered new **damselfly species** (Armageddon Reedtail – Protosticta Armageddonia) in **southwestern ghats of Kerala**, putting spotlight on **urgent need for climate action**.
- The newly-found species exhibits a **captivating dark brown to black body** with vibrant greenish-blue eyes.
- It has delicate pale blue markings on half of its eight abdominal segments.
- It inhabits primary montane streams, where it thrives beneath a dense canopy cover.

Conocarpus Tree



- » Recently, the Gujarat government has **banned the planting of ornamental Conocarpus trees** “in forest or non-forest areas”, citing their “**adverse impacts on environment and human health**”. **Telangana too had banned the plant species.**

- **Fast-growing exotic invasive mangrove species**, had been a popular choice for increasing the green cover in Gujarat in recent years.
- It has been used by various public authorities in India as **landscaping** for road medians, along roads, and in public gardens.
- **Countries in the Arabian Peninsula** have used the plant to **block sand from desert storms and to control pollution**.
- It is **very adaptive** and could grow even in areas with **extreme salinity**.
- It **absorbs more water** from soil than other species and is a **threat to groundwater**.

Fish Mint

- » Fish Mint, a herb with beautiful **white flowers and broad, heart-shaped leaves** and has a **fish-like taste and smell** has caught the attention of scientists due to its **health effects**.

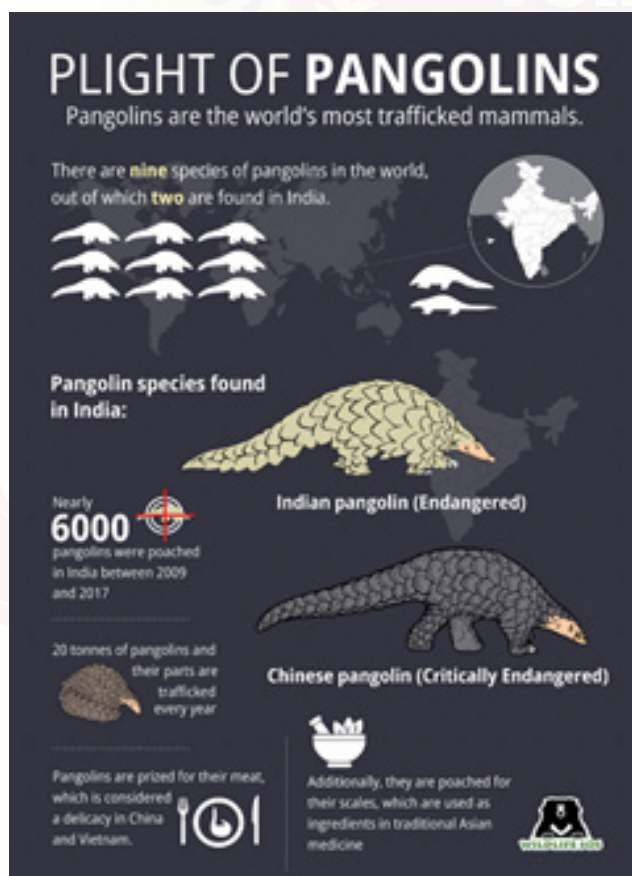


- **Medicinal properties** documented in ancient texts of traditional **Chinese and Japanese medicine**, as well as **Ayurveda and Siddha**.
- It grows in **Southeast Asia**, thriving in **moist soils and resisting flooding**.
- Fish mint is used in the Northeastern states and is known by different names
 - » **Meghalaya - ja mardoh**
 - » **Manipur - tokhning-khok**
 - » **Assam - masunduri**
- It helps to alleviate symptoms of **jaundice, pneumonia or simple stomach infections, asthma**.

Manis Mysteria



- » Scientists discovered a new pangolin species named Manis Mysteria.
- Manis mysteria becomes the **9th variety of the world's most trafficked mammal**.
- Pangolin scales are coveted for use in **traditional medicine**, despite being made of keratin, just like fingernails, and the **diminutive creature** is also **hunted for its meat**.
- Pangolins are **nocturnal and live in hollow trees or burrows**, depending on the species.
- They are called **scaly anteaters** because of their preferred diet (ants and termites), which they capture using **their long tongues**.



ONLINE WORKING PROFESSIONALS PROGRAM

Kiran P B, IPS

Kiran P B, achieved an outstanding feat by securing All India Rank 100 in the UPSC Civil Service Exam while actively working as a full-time IT professional. As an online working professionals student at Fortune IAS Academy, he could balance his professional commitments and academic pursuits effectively.

Scan QR Code to know more about the program



Marina Victor, shattered all barriers to clear the prestigious UPSC Civil Service Exam while being a dedicated mother. She was an online working professionals student at Fortune IAS Academy.



Marina Victor, IRS
CSE-2023