

## Padma Awards

### ❖ Context

- Recently, the government announced one **Padma Vibhushan** and **25 Padma Shri** awards.

### About Padma Award:

- The Padma Awards are India's **highest civilian honours after the Bharat Ratna**.
- It recognizes **achievements in all fields** of activities or disciplines where an element of public service is involved.
- **The History of Padma Awards.**
  - Two awards, the Bharat Ratna and Padma Vibhushan were **first instituted in 1954 as India's highest civilian honours**.
  - **Padma Vibhushan had three classes:**
    - Pahela Varg (1st Class).
    - Dusra Varg (Second Class).
    - Tisra Varg (Third Class).
  - In 1955, these were subsequently named as Padma Vibhushan, Padma Bhushan and Padma Shri respectively.
- The Bharat Ratna is treated as an exceptional award with **only 45 Bharat Ratnas being handed over till date**.
- The Padma Awards are annually conferred to deserving civilians.
  - Except for **interruptions in 1978, 1979 and between 1993 and 1997**, every year the names of the recipients are announced on Republic Day eve.
- The first ever Padma Vibhushan awardees in 1954 were scientist Satyendra Nath Bose, artist Nandalal Bose, educationist and politician Zakir Hussain, social worker and politician Balasaheb Gangadhar Kher, and diplomat and academic V.K. Krishna Menon.
- The first ever **non-Indian Padma Vibhushan awardee was Bhutanese king Jigme Dorji Wangchuk**, who also received the award in 1954.

### Padma Awards Entailment:

- The awards are presented by the President of India, typically at the Rashtrapati Bhavan.
- The awardees **do not get any cash reward**.
- They get a certificate signed by the President apart from a medallion which they can wear at public and government functions.
- The awards are, however, not a conferment of title and the awardees are expected to **not use them as prefix or suffix to their names**.
- While a Padma awardee can be given a higher award (i.e. a Padma Shri awardee can receive a Padma Bhushan or Vibhushan).
  - This can only happen after five years of the conferment of the previous award.

### The Eligibility for Padma Awards:

- All persons without distinction of race, occupation, position or sex are eligible for these awards.
- Government servants including those working with PSUs, except doctors and scientists, are not eligible for these awards.
- The award seeks to recognise works of distinction and is given for distinguished and exceptional achievements or service in all fields of activities and disciplines.

### Selection Process:

- All nominations are to be done online where a form is to be filled along with details of the person or the organisation being nominated.
- All nominations received for Padma awards are placed before the Padma Awards Committee.
- The **Padma Awards Committee** is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members.
- The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.

## ISRO's Aditya-L1

### ❖ Context

- After Covid delay, **first solar mission** set to launch by July.

### What's Aditya-L1?

- **Aditya-L1 is India's first space-based** Indian mission to study the Sun. As per the Indian Space Research Organisation (ISRO).
- The spacecraft will **be placed in a halo orbit** around the first Lagrange (L1) point of the Sun-Earth system, which is about **1.5-million-km from Earth**.
- **A satellite placed in the halo** orbit around the L1 point has the major advantage of continuously viewing the Sun without any occultation/eclipses.
- **This will provide** a greater advantage of observing the solar activities and its effect on space weather in real time.

### What Are The Science Objectives?

- The major science objectives of the mission are to study.

- The solar upper atmosphere (chromosphere and corona).
- Dynamics chromospheric and **coronal heating**.
- Physics of the partially **ionised plasma**.
- Initiation of the **coronal mass ejections**, and flares.
- Observe in-situ particle and plasma environment providing data for the study of **particle dynamics from the Sun**.
- **Physics of solar corona** and its heating mechanism.
- **Diagnostics** of the coronal and coronal loops plasma.
- Temperature, velocity and density Development.
- Dynamics and **origin of CMEs** (coronal mass ejections).

## Face to Face Centres

- Identify sequence of processes that occur at multiple layers (chromosphere, base and extended corona) which eventually leads to solar eruptive events.

- Magnetic field topology** and magnetic field measurements in the solar corona and drivers for space weather (origin, composition and dynamics of solar wind).

## News in Between the Lines

### Veer Guardian 2023



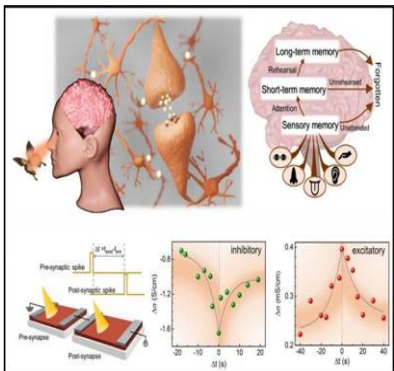
#### ❖ Context

- Air defence exercise, 'Veer Guardian 2023' concludes.

#### ❖ About 'Veer Guardian 2023':

- The inaugural edition of the bilateral air exercise 'Veer Guardian 2023' between the Indian Air Force (IAF) and Japan Air Self Defence Force (JASDF) concluded in Japan.
- The JASDF participated in the exercise with its **F-2 and F-15 aircraft**, while the IAF contingent participated with the **Su-30 MKI aircraft**.
- Two Air Forces engaged in complex and comprehensive **aerial manoeuvres in multiple simulated operational scenarios**.
- IAF and JASDF engaged in air combat manoeuvring, interception and air defence missions, both in **Visual and Beyond Visual Range settings**.

### Brain-Like Computing



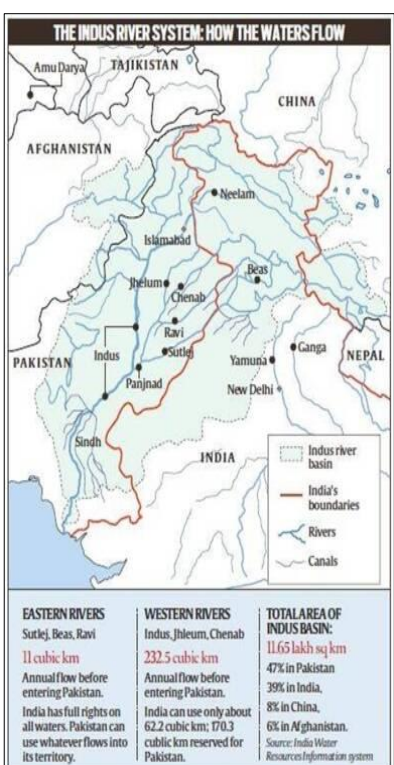
#### ❖ Context

- Artificial synapse developed for brain-like computing with industry-compatible Nitride Semiconductors.

#### ❖ Key Highlights:

- It was developed by a team of scientists at Bengaluru's Jawaharlal Nehru Centre for Advanced Scientific Research (**JNCASR**), an autonomous institute of the Department of Science and Technology.
- They were working on **nitride-based materials** and used the background for developing hardware for neuromorphic computing.
- They used **ScN** to develop a device mimicking a synapse that controls the signal transmission as well as remembers the signal.
- This work can mimic **synaptic functionalities** like short-term memory, long-term memory, the transition from short-term to long-term memory, learning-forgetting, frequency selective optical filtering, frequency-dependent potentiation and depression, Hebbian learning, and logic-gate operations.

### Indus Waters Treaty (IWT)



#### ❖ Context

- Recently, New Delhi has issued notice to Islamabad seeking modification of the more than six-decade-old Indus Waters Treaty (IWT) in view of Pakistan's "intransigence" in implementing it.

#### ❖ Key Highlights:

- The notice, sent on January 25 through the Commissioner for Indus Waters, will open the process of making changes to the treaty.
- Dispute**
  - India is constructing **two hydroelectric power projects (HEPs)** — the **Kishenganga HEP** on the Kishenganga, a tributary of the Jhelum — and the **Ratle HEP on the Chenab**.
  - Pakistan has objected to these projects.

#### ❖ Indus Waters Treaty:

- The IWT was signed on September 19, 1960, by Prime Minister Jawaharlal Nehru and Pakistan's President Mohammed Ayub Khan in Karachi after nine years of World Bank-brokered negotiations between India and Pakistan.
- The treaty defines the water-sharing arrangement for six rivers of the Indus basin that flow through both India and Pakistan.
- It has 12 Articles and 8 Annexures (from A to H).
- As per the treaty's provisions, India can make "unrestricted use" of all the water of the "Eastern Rivers" — Sutlej, Beas, and Ravi — while Pakistan shall get water from the "Western Rivers", **Indus, Jhelum, and Chenab**.

## Face to Face Centres





## Green Railway Station Certification



### ❖ Context

- Visakhapatnam railway station receives 'Green Railway Station Certification' with highest Platinum rating.

### ❖ Key Highlights:

- Visakhapatnam is one of the few railway stations to get this prestigious certificate. It secured **82 out of 100 points** in six environmental categories.
- It was **awarded by the Indian Green Building Council (IGBC)** for adopting green concepts thereby reducing the adverse environmental impact.

### ❖ Indian Green Building Council:

- **The Indian Green Building Council (IGBC)**, part of the Confederation of Indian Industry (CII) was formed in the year 2001.
- Vision of the council, "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025".
- **The council offers a wide array of services** which include developing new green building rating programmes, certification services and green building training programmes.
- **The council** also organises Green Building Congress, its annual flagship event on green buildings.

## Ideal Train Profile



### ❖ Context

- The Indian Railways has concluded the trial of an Artificial Intelligence (AI) program it built to **fix a perennial issue of long waiting lists for tickets.**

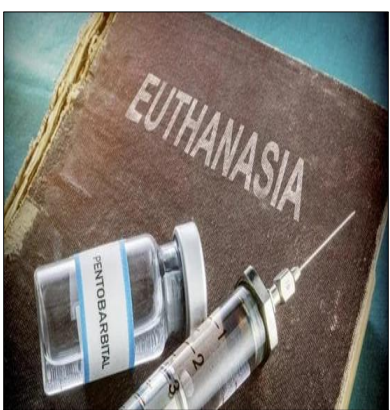
### ❖ Key Highlights:

- The AI-driven program has, **for the first time**, allocated vacant berths in over 200 trains in such a way that fewer people need to turn away without a confirmed ticket.

### ❖ About Ideal Train Profile:

- **It is made by** Railways' in-house software arm Centre for Railway Information Systems (CRIS).
- **It was fed with information** like how millions of passengers booked tickets on these trains, which origin-destination pairs were a hit and which were flops at what time of the year, which seats remained vacant for what portion of a journey, etc.
- The AI does data-driven remote location selection, **completely automates** the process of quota distribution, and suggests optimal quota for different ticket combinations based on historical demand.

## Euthanasia



### ❖ Context

- Recently, a **five-judge Bench of the Supreme Court agreed to significantly ease the procedure for passive euthanasia** in the country by altering the existing guidelines for 'living wills'.
- It was laid down in its 2018 judgment in **Common Cause vs. Union of India & Anr**, which allowed passive euthanasia.

### ❖ Euthanasia:

- Euthanasia refers to the **practice of an individual deliberately ending their life**, oftentimes to get relief from an incurable condition, or intolerable pain and suffering.
- Euthanasia, which can be administered only by a physician, can be either 'active' or 'passive'.
- **Active Euthanasia**
  - It involves an active intervention to end a person's life with substances or external force, such as administering a lethal injection.
- **Passive Euthanasia**
  - It refers to withdrawing life support or treatment that is essential to keep a terminally ill person alive.
- **SC Rule**
  - The Supreme Court **allowed passive euthanasia** while recognising the living wills of terminally-ill patients who could go into a permanent vegetative state, and issued guidelines regulating this procedure.

## Face to Face Centres



## Mandatory Minimum Sentencing



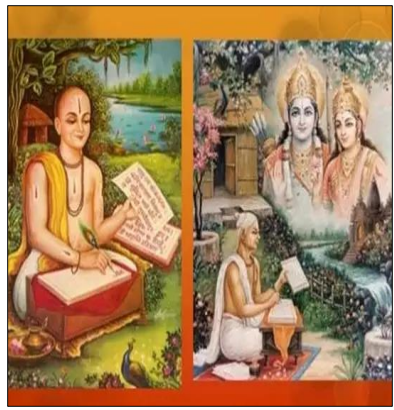
### ❖ Context

- Recently, a CJI Chandrachud-led bench of the Supreme Court decided to examine a petition **challenging the constitutional validity of Section 376 DB of the Indian Penal Code.**
- This section **describes the punishment for gangrape of a minor** under 12 years of age, to the extent that it prescribes a 'minimum mandatory sentence' of life imprisonment for the remainder of the convict's life and even death.

### ❖ Mandatory Minimum Sentencing:

- The concept of mandatory minimum sentencing refers to **"a sentence which must be imposed without leaving any discretion to the court.**
- It means a quantum of punishment which cannot be reduced below the period fixed," the Apex court held in its 2016 ruling in 'Mohd Hashim vs State Of UP And Others'.
- Essentially, this predetermines the **minimum punishment or sentence for certain offenses** which are considered to be more serious than others.
- It aims to ensure justice and not let the perpetrator of such an offense go unpunished.

## Ramcharitmanas



### ❖ Context

- Recently, Bihar Education Minister said the **Ramcharitmanas "spreads hatred in society"**, and that Goswami Tulsidas's epic poem — along with the Manusmriti and M S Golwalkar's Bunch of Thoughts — should be burned.

### ❖ The Ramcharitmanas:

- The poem was **written in the 16th century in the Awadhi dialect.**
  - Awadhi dialect is mainly spoken in the areas that are today's Lucknow, Prayagraj, and Ayodhya districts.
- It is **divided into seven chapters (Kand)** that tell the story of Lord Ram from birth to his becoming King of Ayodhya.
- The Ramcharitmanas is based on the Ramayana, sage Valmiki's great epic.
- It is the holiest book of the Indo-Gangetic region, & among the world's most read holy book.

### ❖ Goswami Tulsidas:

- Tulsidas, a Brahmin whose **original name was Ram Bola Dubey**, is believed to have been born in Rajapur by the Yamuna in today's Banda district.
- He was a great **Hindu poet as well as saint, reformer, and philosopher** who composed various popular books.
- Tulsidas lived in the time of Emperor Akbar.
- Apart from the Ramcharitmanas, there are the five major works of the Tulsidas which are:
  - Dohavali, Kavitali, Gitavali, Krishna Gitavali or Krishnavali, Vinaya Patrika.

## Etikoppaka Toys



### ❖ Context

- An Etikoppaka toy craftsman is one among the seven persons from Andhra Pradesh who have been selected for this year's Padma Awards.

### ❖ About Etikoppaka Toys:

- **Etikoppaka is a small village on the banks of Varaha River** at a distance of 64 Kms away from Visakhapatnam district of Andhra Pradesh.
- The **toys are made with lacquer color** and are traditionally known as Etikoppaka toys or **Etikoppaka Bommalu.**
- The **toys are also called as lacquer toys** because of application of lacquer coating.
- The wood used to make the toys is soft in nature and the art of toy making is also known as Turned wood Lacquer craft.
- While making the Etikoppaka toys, lac, a colourless resinous secretion of numerous insects, is used.
- The already prepared vegetable dyes are further mixed to the lac, during the process of oxidation.
- After this process, the end product obtained is rich and colored lacquer.
- Etikoppaka Toys **have obtained their GI tag under Handicrafts category in the state of Andhra Pradesh.**