



**An Institute for Civil Services**

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**16<sup>th</sup> - 31<sup>st</sup> JANUARY, 2021**



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# TESTIMONIALS

“ Being in job of IRS, time management was extremely challenging. I express my immense gratefulness towards GS Score and Manoj Jha Sir for providing me best possible support in my success journey



**Pratibha Verma**  
Rank 3

“ I am highly obliged towards GS SCORE for its best evaluation and assessment mechanism which helped me to crack UPSC in first attempt.



**Mandar Patki**  
Rank 22

“ Answer writing is always considered as a vital part for success in UPSC. GS Score helped me in building a strong and solid foundation for development of answer writing skills. Thank You!



**Hinanshu Gupta**  
Rank 27

“ Cracking UPSC was my childhood dream and I am highly thankful towards GS Score for guiding me in this journey. And special thanks to Manoj Jha Sir



**Chandarjyoti Singh**  
Rank 28

“ I am very much Thankful to GS Score for building my capacity of Answer Writing Skills. Value addition, mentoring and personal evaluation by Piyush Choubey Sir did help a lot.



**Pari Bishnoi**  
Rank 30

“ Managing sincere attempt while being in service of IPS was very tedious job. But GS Score helped me a lot in my smart preparation. I will always be thankful to Manoj Jha Sir for his mentoring.



**Dipankar Chaudhary**  
Rank 42

“ History Optional was not an easy nut to crack. I express my sincere gratitude towards GS SCORE and Piyush Yadav Sir who helped me to sail through the rough water of UPSC.



**Ashutosh Kulkarni**  
Rank 44

“ Being from family of Civil Servants, UPSC was a childhood dream for me. I express my humble gratitude towards Manoj Jha Sir for building my confidence in Ethics Paper.



**Aranyak Saikia**  
Rank 59

“ UPSC style mock papers coupled with evaluation by faculty members of GS SCORE themselves enhanced my confidence to write answers as per the demand. I am



**Chandrima Attri**  
Rank 72

“ I would always find lack of substance to fill my pages in Ethics and Essay. Manoj Jha Sir squarely took care of this. Thank you Sir!



**Madhumita**  
Rank 86

“ Cracking UPSC in first attempt is considered as achievement within achievements. Thank You GS SCORE for the right guidance at right time.



**Muskan Jindal**  
Rank 87

“ I am extremely grateful to GS SCORE for the guidance in improving my MCQs solving temperament which helped me to crack UPSC in my first attempt.



**Shikhar Choudhary**  
Rank 97

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## 1 'Dekho Apna Desh' for "Exploring Buddhist Circuit by Train"

### CONTEXT

- Ministry of Tourism organised 'Dekho Apna Desh' Webinar on "Exploring Buddhist Circuit by Train".

### ABOUT

- Focus areas:** The Webinar focused on promoting and showcasing the rich Buddhist Heritage in India and highlighted the major destinations visited by Buddha personally across the country besides showcasing the Buddhist Heritage left behind by his disciples including the modern monasteries.
- Further, the Webinar also focused on providing first-hand information to the viewers on arrangements for travel (Especially by Train) & accommodation to the Buddhist Sites in India.
- Buddhist tourism in India has tremendous potential to draw the 500 million strong Buddhists across the world to "India -The Land of Buddha".

### Buddhism in India

- India has a rich ancient Buddhist Heritage with several important sites associated with the life of Lord Buddha, such as **Bodh Gaya, Sarnath, and Nalanda**.
- The Indian Buddhist Heritage is of great interest to the followers of Buddhism the world over.
- Buddhism has remained a vital force, an inspiration and above all, guidance to our traditions and customs.
- In sum, its unique contributions in the various fields of culture has greatly enriched Indian cultural heritage, apart from adding to the religious diversity of the land.

## 2 Parakram Diwas

### CONTEXT

- Government announced 23rd January to be celebrated as "PARAKRAM DIWAS" every year.

### ABOUT

- 23<sup>rd</sup> January is chosen as this year, it will be the 125<sup>th</sup> Birth Anniversary year of Netaji Subhas Chandra Bose.
- The day aims to inspire people of the country, especially the youth, to act with fortitude in the face of adversity as Netaji did, and to infuse in them a spirit of patriotic fervour.

### Important facts on Netaji Subhash Chandra Bose

- **Birth:** Netaji Subhash Chandra Bose was born in **Cuttack** (present-day Odisha) on 23rd January to Janakinath Bose and Prabhavati Dutt.
- **INC:** Bose was an active part of the youth wing of **Indian National Congress** before becoming the **Congress President back in 1938**.
- **Fall out with Gandhi:** After a fallout with top leaders in Congress, Netaji went to Germany in 1941.
  - Netaji used to give inspirational addresses on **Free India Radio** which he set up with the help of the Germans.

- Bose travelled to **Nazi Germany, the Soviet Union and Imperial Germany** when the **Second World War** broke out in order to find a way through which he could free India from British rule.
- **Inspiration:** Bose was heavily inspired by Swami Vivekananda and his ideals.
- **Beliefs:** Bose believed in religion and followed the teachings of **Hinduism**. However, all religious discriminations and bigotries were completely discarded by the visionary leader.
- Netaji's demise still remains a mystery. Government records suggest that he died due to third-degree burns he sustained during a plane crash in Taiwan but there have been a number of theories about how Netaji faked his death in order to work secretly.

## 3

**Prarambh: Startup India International Summit****CONTEXT:**

- The two day 'Prarambh', Startup India International Summit was conducted recently, with members of **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) countries**.

**ABOUT**

- **Organized by:** The Summit is being organizing by Department for Promotion of Industry and Internal Trade, M/o Commerce & Industry, as a follow up of the announcement made by the Prime Minister Narendra Modi at the **4th BIMSTEC Summit** held in Kathmandu in August, 2018.
- With participation from over 25 countries and more than 200 global speakers, the Summit is the largest Start-up India International Summit organized by the Government of India since the launch of the Start-up India Initiative in 2016.

**Indian start-up ecosystem**

- Indian start-up ecosystem has made big progress in the last five years since the launch of Start-up India.
- Partnership among the BIMSTEC countries in the sector will take start-ups to the forefront of new India, new world, and new neighbourhood in the new normal.
- The hope that India along with all the BIMSTEC countries will certainly experience unprecedented growth in the post Covid pandemic world and start a global area of development.
- Skill development is another important area which would play a very important role in boosting the entrepreneurship spirit and giving confidence to our entrepreneurs.
- India has over 41,000 start-ups registered with the Government but there are many more that are working at the grassroots level and doing a good work.

**Start-up India**

- It is a flagship initiative of the Government of India, intended to build a strong ecosystem that is conducive for the growth of start-up businesses, to drive sustainable economic growth and generate large scale employment opportunities. The Government through this initiative aims to empower start-ups to grow through innovation and design.

- ▶ The benefits provided to recognized start-ups under the Start-up India initiative are:
  - **Self-Certification:** Self-certify and comply under 3 Environmental & 6 Labour Laws
  - **Tax Exemption:** Income Tax exemption for a period of 3 consecutive years and exemption on capital and investments above Fair Market Value
  - **Easy Winding of Company:** In 90 days under Insolvency & Bankruptcy Code, 2016
  - **Start-up Patent Application & IPR Protection:** Fast track patent application with up to 80% rebate in filing patents
  - **Easier Public Procurement Norms:** Exemption from requirement of earnest money deposit, prior turnover and experience requirements in government tenders
  - **SIDBI Fund of Funds:** Funds for investment into startups through Alternate Investment Funds.

### Significance of the Summit

- This Summit is a demonstration of neighbourhood first policy which will booster partnership among the member countries.
- This will usher in a new beginning, showcasing various aspects of the start-up world.

4

## SKOCH Challenger Award

### CONTEXT

- SKOCH Challenger Award to **Ministry of Panchayati Raj** for **Transparency in Governance**.

### ABOUT

- Skoch Challenger Awards, instituted in 2003, salute people, projects and institutions that went the extra mile to make India a better nation.
- They are the highest independently instituted civilian honours.
- They have been conferred, the mighty and the ordinary have shared this platform for their extraordinary achievements in contributing to the society.
- **Coverage:** The best of efforts in the area of digital, financial and social inclusion.
- They encompass the best of governance; look at excellence in academics, change management, inclusive growth, citizen services delivery, capacity building, empowerment and other such softer issues that get normally lost in the glamour and the glitz of industry-sponsored or advertising focused jamborees.

### About Ministry of Panchayati Raj

- The Ministry of Panchayati Raj was set up to give an impetus to strengthening of the Panchayati Raj Institutions.
- It was formed in May 2004.
- The Ministry deals with all matters relating to Panchayati Raj and Panchayati Raj institutions.
- This ministry is headed by a minister of cabinet rank.



**eGram Swaraj:**

To strengthen e-Governance in Panchayati Raj Institutions (PRIs) across the country, Ministry of Panchayati Raj (MoPR) has launched eGram Swaraj, a user friendly web-based portal. eGram Swaraj aims to bring in better transparency in the decentralised planning, progress reporting and work-based accounting.

**5****'SAKSHAM' Campaign****CONTEXT**

- With a view to create awareness among the consumers of fossil fuels, Petroleum Conservation Research Association (PCRA), Ministry of Petroleum and Natural Gas launched 'SAKSHAM', a month long campaign, highlighting the adverse health and environmental impacts of increasing carbon footprints.

**ABOUT**

- SAKSHAM 2021 aims at highlighting the adverse health and environmental impacts of increasing carbon footprints and convince consumers to switch to cleaner fuels.
- As a part of the campaign, various activities such as cyclothon, farmer workshops, seminars, painting competitions, CNG vehicle driving contests, etc are held across India to spread awareness among the masses about the advantages of using clean fuels.
- The campaign will also spread awareness about 7 key drivers to move towards cleaner energy. The key drivers include
  - moving towards a gas-based economy
  - cleaner use of fossil fuels
  - greater reliance on domestic sources to drive bio-fuels
  - achieving renewable targets with the set deadlines
  - increased use of electric vehicles to decarbonise mobility
  - increased use of cleaner fuels like Hydrogen, and digital innovation across all energy systems

**6****Indo-French Exercise Desert Knight-21****CONTEXT**

- Indian Air Force and French Air and Space Force will conduct a bilateral Air exercise, Ex Desert Knight-21 at Air Force Station Jodhpur.

**ABOUT**

- It is an **Indo-French Exercise**.
- **Participating aircrafts:**
  - French side will participate with Rafale, Airbus A-330 Multi-Role Tanker Transport (MRTT), A-400M Tactical Transport aircraft and approximately 175 personnel.



- The Indian Air Force aircraft participating in the exercise will include Mirage 2000, Su-30 MKI, Rafale, IL-78 Flight Refuelling Aircraft, AWACS and AEW&C aircraft.
- The exercise marks an important milestone in the series of engagements between the two Air forces.
- As part of Indo-French defence cooperation, Indian Air Force and French Air and Space Force have held six editions of Air Exercises named 'Garuda', the latest being in 2019 at Air Force Base Mont-de-Marsan, France.
- The exercise is unique as it includes fielding of Rafale aircraft by both sides and is indicative of the growing interaction between the two premier Air Forces.

### Other similar exercises

- ▶ Defence Exercises between India and France:
  - Varuna – Naval exercise
  - Garuda – Air exercise
  - Shakti – Army exercise
- ▶ Gagan Shakti: is conducted by the Indian Air Force to showcase its air dominance over the entire extended area of the Indian Ocean Region.
- ▶ Garuda Shakti: is the joint military exercise between India and Indonesia.
- ▶ Mitra Shakti: is the joint military exercise between India and Sri Lanka.

## 7 India Innovation Index 2020

### CONTEXT

- India Innovation Index 2020 has been released by NITI Aayog.

### ABOUT

- The India Innovation Index aims to create an extensive framework for a continual evaluation of India's innovation environment.
- The index aims to rank States and UTs based on their scores, recognise opportunities and challenges, and assist in tailoring government policies to foster innovation.
- The first edition of the index was launched in October 2019.

### Key-findings of the Index

- Karnataka has retained its position. Maharashtra grabbed the second position in the index, followed by Tamil Nadu.
- Other States in the top 10 are Telangana, Kerala, Haryana, Andhra Pradesh, Gujarat, Uttar Pradesh and Punjab. Barring Maharashtra, all other States in the top five are in the south.
- Jharkhand, Chhattisgarh and Bihar scored the lowest on the index, which put them at the bottom in the "major States" category.

Best performers		
Four of the five highest scoring major States in the India Innovation Index are from the south		
Rank	Major States	Score
1	Karnataka	42.5
2	Maharashtra	38.03
3	Tamil Nadu	37.91
4	Telangana	33.23
5	Kerala	30.58
6	Haryana	25.81
7	Andhra Pradesh	24.19
8	Gujarat	23.63
9	Uttar Pradesh	22.85
10	Punjab	22.54

- Delhi topped among Union Territories, and Himachal Pradesh among North-Eastern and Hill States.

## 8

**Shramshakti****CONTEXT**

- Ministry of Tribal Affairs virtually launched “Shramshakti” Digital Data Solution for Migrant Workers.

**ABOUT**

- It is a National Migration Support Portal.
- It included launch of a tribal migration cell, a tribal museum at Goa and “ShramSaathi”, a training manual for migrant workers.
- The cell would address multiple needs of migrants – legal support, skill development, job linkages, access to public services health, and insurance, financial inclusion.
- The need
- Migrants all over the country had to face after lockdown was announced due to the pandemic caused by corona virus.
- The migration of tribal population is distress-driven and the migrants are exposed to difficult and unsafe conditions.
- Lack of real time data of migrants was the biggest challenge for state and national governments in formulating effective strategies and policy decisions for welfare of migrant workers at both source and destination states
- Significance of the Portal
- It would effectively help in the smooth formulation of state and national level programs for migrant workers.

**Government efforts for Migrant Workers**

- ▶ Gareeb Kalyan Rozgar Abhiyaan
- ▶ Atma Nirbhar Uttar Pradesh Rozgar Abhiyan
- ▶ Atma Nirbhar Gujarat Sahay Yojana
- ▶ Atal Pension Yojana
- ▶ Pradhan Mantri Jeevan Jyoti Bima Yojana and Pradhan Mantri Suraksha Bima Yojana
- ▶ Pradhan Mantri Jan Arogya Yojana

## 9

**“AYU SAMVAD” Campaign****CONTEXT**

- All India Institute of Ayurveda organized online Training of Trainers program on AYUSH Ministry AVCC platform.

**ABOUT**

- AYU SAMVAD (My Health My Responsibility) is one of the largest public awareness campaign programs on AYURVEDA and COVID 19 Pandemic.
- **Organized by:** All India Institute of Ayurveda New Delhi, as envisioned & supported by **Ministry of AYUSH.**

### OBJECTIVE:

- The main objective of the campaign is to create awareness through Lecture series to make common people aware about the theme "Ayurveda for COVID 19 Pandemic".
- **Focus area:** Role of Preventive, Promotive, Curative and Rehabilitation in Management of COVID 19 through Ayurveda.

### Ministry of AYUSH

- ▶ The Ministry of AYUSH was formed in 2014 to ensure the optimal development and propagation of AYUSH systems of health care.
- ▶ Earlier it was known as the **Department of Indian System of Medicine and Homeopathy (ISM&H)** which was created in March 1995 and renamed as **Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)** in November 2003, with focused attention for development of Education and Research in Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy.

## 10 Kala Utsav 2020

### CONTEXT

- Kala Utsav National Level Online Competition was held recently.

### ABOUT

- Kala Utsav is an initiative of the Ministry of Human Resource Development (MHRD) under **Rashtriya Madhyamik Shiksha Abhiyan**.
- It aims to promote arts in education by nurturing and showcasing the artistic talent of school students at the secondary stage in the country.
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA) recognises the importance of aesthetics and artistic experiences for secondary-level students, which play a major role in creating awareness of India's rich cultural heritage and its vibrant diversity.
- A total of 35 teams have participated in Kala Utsav 2020, from different states, union territories, Kendriya Vidyalaya Sangathan and Navodaya Vidyalaya Samiti schools where 576 students demonstrated their talent.
- In the competitions of Kala Utsav 2020 organised, a total of nine art forms, namely:
  1. Classical singing
  2. Traditional folk song
  3. Classical instruments
  4. Traditional/folk instruments
  5. Classical dance
  6. Folk dance
  7. Visual Arts (Two-dimensional)
  8. Visual Arts (Three-dimensional)
  9. Local games-toys are included.
- Earlier there were only four art forms in Kala Utsav, now another five art forms have been added in it.

## 11 73<sup>rd</sup> Army Day celebrated

### CONTEXT

- Indian Army celebrated its 73rd Army Day

### ABOUT

#### • What is Indian Army Day?

- Army Day is celebrated on January 15 every year to honor the soldiers of the country, who have set the greatest example of selfless service and brotherhood and more than anything the love for the country.
- Army Day is celebrated every year at all Army Command headquarters.
- On the occasion of the 73rd Indian Army Day, the Indian Arm organised a marathon 'Vijay Run' to commemorate **Swarnim Vijay Varsh** celebrations of India's resounding victory over Pakistan in 1971.
- The Indian Army also carried out a live demonstration of Drone Swarming capability using 75 indigenously designed and developed drones which executed an array of Artificial Intelligence (AI) enabled simulated offensive missions and close support tasks.

#### UAV of India

- ▶ Nishant: Nishant is a multi mission Unmanned Aerial Vehicle with Day/Night capability used for battlefield surveillance and reconnaissance, target tracking & localization, and artillery fire correction.
- ▶ Rustom: Rustom (Warrior) is a Medium Altitude Long Endurance unmanned combat air vehicle (UCAV) being developed by Defence Research and Development Organisation.
- ▶ UAV Panchi: It is the wheeled version of unmanned aerial vehicle (UAV) Nishant, capable of taking-off and landing by using small airstrips. Panchi UAV has autonomous flight capabilities and is controlled from a user friendly Ground Control Station (GCS).
- ▶ AURA: AURA is stealth UCAV, capable of releasing missiles, bombs and precision-guided munitions.

### Historical background

- On January 15, 1949, the Indian Army got its first army chief Lieutenant **General KM Cariappa**.
- General (later Field Marshal) KM Cariappa was appointed as **Commander-in-Chief of Indian Army** on January 15, 1949.
- He was the first Indian to be appointed as **Commander-in-Chief**.
- He took over the reins of the Indian Army from **General Sir Francis Butcher**, the **last British Commander-in-Chief of India**.
- He adopted the slogan 'Jai Hind' which means 'Victory of India'.

## 12 Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

### CONTEXT

- In a bid to empower India's youth with employable skills, the Ministry of Skill Development and Entrepreneurship (MSDE) launched **Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 3.0**, in nearly 600 districts making 300+ skill courses available to the youth, making skill development more demand-driven and decentralised in its approach.

### ABOUT

- Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by National Skill Development Corporation.
- The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood.
- Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL).
- Social and community mobilisation is extremely critical for the success of PMKVY. Active participation of the community ensures transparency and accountability and helps in leveraging the cumulative knowledge of the community for better functioning.

## 13 Alternative anti-cancer therapy using transgenic zebra fish

### CONTEXT

- Scientists are exploring an alternative anti-cancer therapy that involves targeting tumour generated the formation of new blood vessels which allow the delivery of oxygen and nutrients to the body's tissues, technically called angiogenesis.

### ABOUT

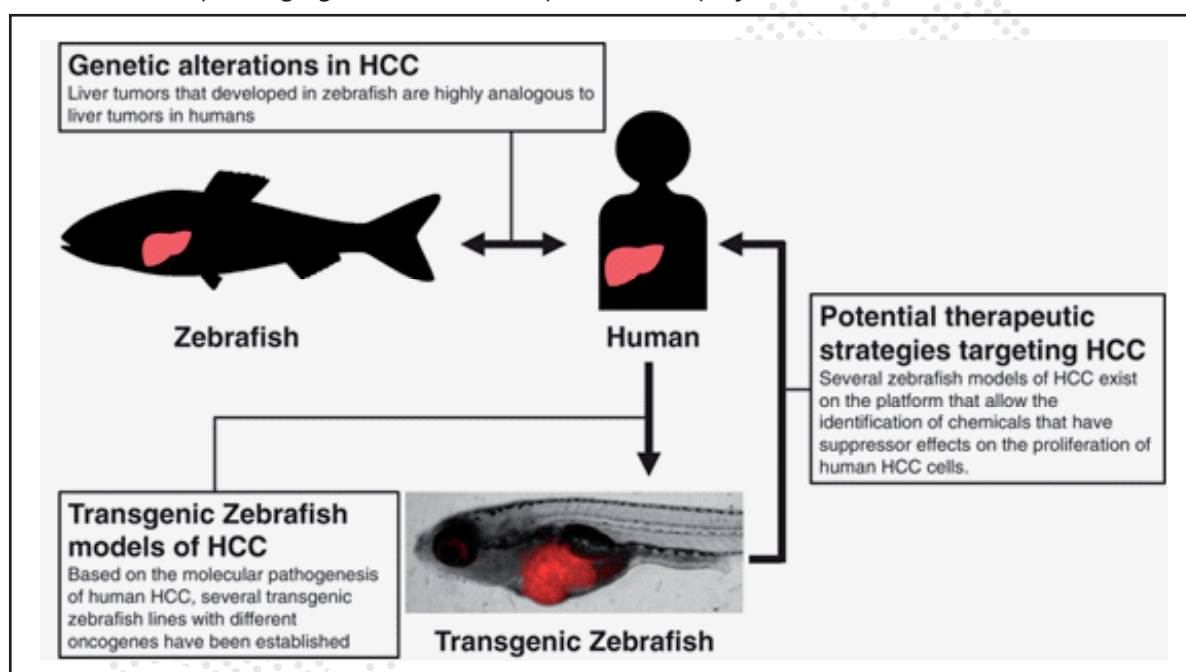
- **What is Angiogenesis?**
  - Angiogenesis is critical in the growth of cancer because tumours need a blood supply to grow.
  - Tumours trigger the growth of blood cells by giving off chemical signals that stimulate angiogenesis.
  - Deregulation of angiogenesis is the main reason for tumour growth and progression.

### What is the need of an alternative anti-cancer therapy?

- Inhibition of tumour angiogenesis has become a popular anti-cancer strategy after chemotherapy.
- However, the clinically approved anti-angiogenic drugs are ineffective due to parallel activation of various compensatory mechanisms involving a cascade of molecules, which aids tumour angiogenesis and investigation of these mechanisms are essential for developing anti-angiogenic therapies.

## The new method

- Using the INSPIRE Faculty program, scientists are working to develop **transgenic zebrafish** (which have exogenous genes added to their genome) model by use of the **CRISPR/Cas9 gene-editing** tool to further study the compensatory angiogenesis mechanism in the tumour microenvironment.
- Differential expression of biomolecules between two types of angiogenesis (sprouting angiogenesis and intussusceptive angiogenesis) and their molecular mechanism will be analysed using transgenic zebrafish models in the tumour microenvironment.
- The transgenic or **CRISPR/Cas9 edited Zebrafish platform (TZP)** can be used for studying the efficacy of a drug as anti or pro-angiogenesis in the next phase of the project.
- The transgenic zebrafish model has been selected for the **intussusceptive angiogenesis** study because of its rapid development, optically transparent, high yield in offspring, and easy techniques for forward and reverse gene manipulation.
- The CRISPR/Cas9 edited zebrafish platform will also be used for studying the efficacy of a drug as anti or pro-angiogenesis in the next phase of the project.



## 14

## Rare UV-bright Stars

### CONTEXT

- AstroSat's Ultraviolet Imaging Telescope spots rare ultraviolet-bright stars in a massive intriguing cosmic dinosaur in the Milky Way.

### ABOUT

- What is AstroSat?**
- AstroSat is the first dedicated Indian astronomy mission aimed at studying celestial sources in X-ray, optical and UV spectral bands simultaneously.



- The payloads cover the energy bands of Ultraviolet (Near and Far), limited optical and X-ray regime.
- One of the unique features of AstroSat mission is that it enables the simultaneous multi-wavelength observations of various astronomical objects with a single satellite.

### Objectives:

- To understand high energy processes in binary star systems containing neutron stars and black holes;
- Estimate magnetic fields of neutron stars;
- Study star birth regions and high energy processes in star systems lying beyond our galaxy;
- Detect new briefly bright X-ray sources in the sky;
- Perform a limited deep field survey of the Universe in the Ultraviolet region.

### Key-findings

- One of the UV-bright stars was found to be about 3000 times brighter than the Sun with a surface temperature of about 100,000 K.
- The properties of these stars were then used to place them on what astronomers call the **Hertzsprung-Russel (HR) diagram** along with theoretical models to throw light on the characteristics of their parent stars and to predict their future evolution.
- Most of the stars were found to have evolved from a solar stage called the horizontal branch stars with hardly any outer envelope.
- Thus they were bound to skip the last major phase of life called the asymptotic giant phase and directly become dead remnants or white dwarfs.
- Such UV-bright stars are speculated to be the reason for the ultraviolet radiation coming from old stellar systems such as elliptical galaxies which are devoid of young blue stars.
- Hence, it is all the more important to observe more such stars to understand their properties.

## 15 Smart Anti Airfield Weapon

### CONTEXT

- DRDO successfully conducted captive and release trial of indigenously developed **Smart Anti-Airfield Weapon (SAAW)** from **Hawk-I** of **Hindustan Aeronautics Limited (HAL)** off the Odisha coast.

### ABOUT

#### • What is SAAW?

- SAAW is indigenously designed and developed by DRDO's Research Centre Imarat (RCI) Hyderabad.
- This is a 125-kilogram class smart weapon, capable of engaging ground enemy airfield assets such as radars, bunkers, taxi tracks, and runways, up to a range of 100 kilometres.
- The high precision guided bomb is lightweight compared to weapon system of the same class.
- The smart weapon was successfully test fired from Indian **Hawk-Mk132** of HAL. This was the 9th successful mission of SAAW conducted by DRDO till now.



**Hawk-i**

The Hawk-i is HAL's internally funded program offering the Indian Armed Forces an upgrade and combat capability for the Hawk, transforming it into an Advanced Jet Trainer providing training on sensors and weapons in peacetime into a potent combat platform during conflict.

**16 New ant species discovered from Kerala****CONTEXT**

- In a latest development, two new species of a rare ant genus have been discovered in India. These ants are named after JNCASR researcher, evolutionary biologist Prof. Amitabh Joshi.

**ABOUT**

- The new species have been named as *O. decamera* and *O. joshii*, where O represents the genus *Ooceraea*.
- The species of the ant genus *Ooceraea* add to the diversity of this rare genus.
- They differ from others of the same genus on the basis of the number of antennal segments.
- The newly discovered ant species with ten segmented antennae discovered, establish an old world lineage that contains a species emerging as the only model organism among the ant subfamily.

**Ooceraea**

- The genus is currently represented by 14 species of which eight possess nine-segmented antennae, while five possess 11-segmented antennae and one species has recently been reported with eight-segmented antennae.
- In India, only two species of this rare genus had been identified before, which include nine- and eleven-segmented antennae ants.
- Common geographic locations: Australia, Oceania, Oriental region, Palearctic region, Southeast Asia, the Pacific islands, Madagascar and the Caribbean islands.

**Significance of the ants for the ecosystem**

- These tiny creatures play a significant ecological role by acting as decomposers and aerating the soil. Overall there are 12,000 identified species of terrestrial ants, whose single colony can have as many as 20 million ants.
- Though small in size, an ant routinely lifts heavy objects that are up to 20 times more than its body weight.

**17 Pulse Polio Programme for 2021****CONTEXT**

- President of India launched countrywide Pulse Polio Programme for 2021.

## ABOUT

### • What is Pulse Polio Immunization Programme?

- It is an immunisation campaign to eliminate poliomyelitis (polio) in India by vaccinating all children under the age of five years against the polio virus.
- With the global initiative of eradication of polio in 1988 following World Health Assembly resolution in 1988, the programme was launched in India in 1995.
- Children in the age group of 0-5 years administered polio drops during National and Sub-national immunization rounds (in high risk areas) every year.

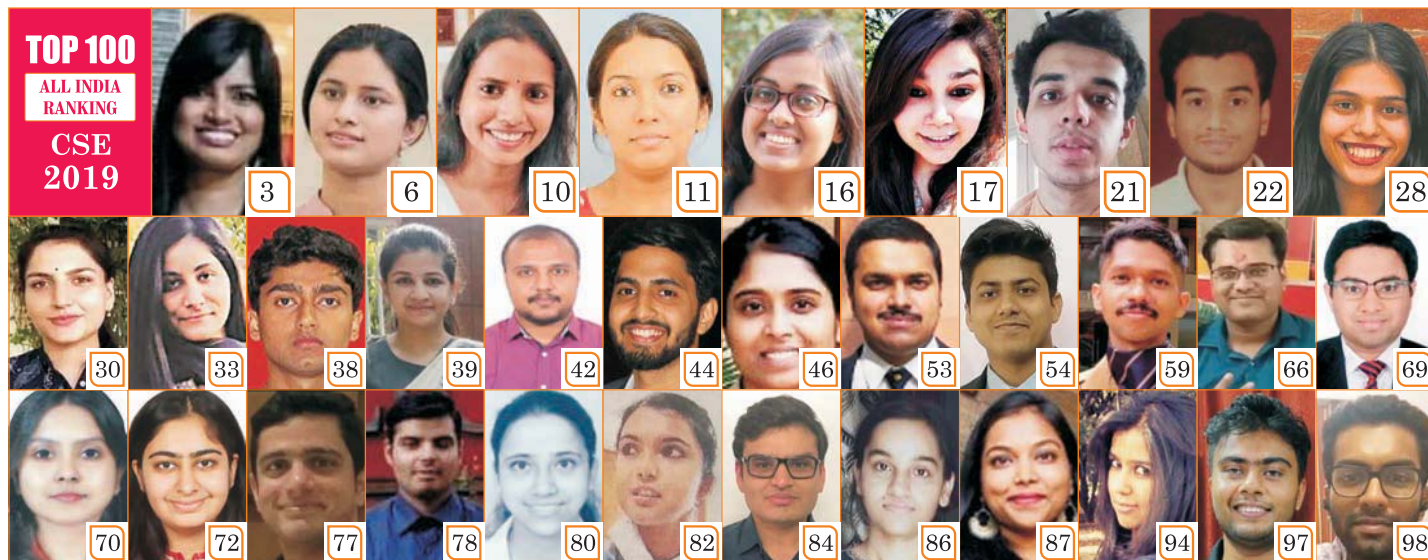
### When India became Polio free?

- The last polio case in the country was reported from Howrah district of West Bengal with date of onset 13th January 2011. Thereafter no polio case has been reported in the country (25th May 2012).
- The World Health Organization (WHO) on 24th February 2012 removed India from the list of countries with active endemic wild polio virus transmission.
- As of today, two countries — Pakistan and Afghanistan — still have circulating polio. And the poliovirus can cross borders easily through adults who show no symptoms.

### About Polio

- ▶ Polio, or poliomyelitis, is a disabling and life-threatening disease caused by the poliovirus.
- ▶ The virus spreads from person to person and can infect a person's spinal cord, causing paralysis (can't move parts of the body).
- ▶ **Type:** The poliovirus consists of an RNA genome enclosed in a protein shell called a **capsid**. There are three serotypes of wild poliovirus type 1, type 2, and type 3 each with a slightly different **capsid protein**.
  - It is type 2, which is the first one to get eliminated, followed by type 3 & then type 1 Polio Virus from the human environment.
- ▶ **Transmission:** Poliovirus is very contagious and spreads through person-to-person contact. Humans are the only reservoir / Carrier of Polio Virus called Wild Polio Virus.

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# SUCCESS IS A PRACTICE WE DO!

