

FIVE **RYDAY CURRENT AFFAIRS-October**

TAMIL NADU

- **On October 8, a new high-speed diesel (HSD) oil-fired steam locomotive - arrived at the Mettupalayam Railway Station in Coimbatore district**



- ✓ This is the first HSD oil-fired steam locomotive made by Golden Rock Workshop in Tiruchirappalli
- ✓ It will be used by the Nilgiri Mountain Railway, which runs between Udhagamandalam (Ooty) and Mettupalayam.
- ✓ The 45.88 km long railway line lies partly in Coimbatore District and partly in Nilgiris District, on the eastern slopes of the Western Ghats.
- ✓ The 'X' class steam locomotive has the distinction of being the first HSD oil-fired steam locomotive manufactured in the country.
- ✓ Southern Railway general manager B G Mallya recently flagged off the new engine, X-37401, at Golden Rock Workshop on September 27.
- ✓ The new engine measures 10.38 metres in length and 50.3 tonnes in weight
- ✓ It is fitted with two oil tanks with a total capacity of 2,325 litres and has rack and pinion arrangements to travel in the hilly terrain.

COMMITTEES

- **The Ministry of Environment, Forest and Climate Change - has constituted a nine-member task force for monitoring cheetah's introduction in Kuno National Park, Madhya Pradesh**
- ✓ The members of the task force include Principal Secretary (Forests), Principal Secretary (Tourism), Principal Chief Conservator of Forests & Head of Forest Force and Principal Chief Conservator of Forests Wildlife & Chief Wildlife Warden, Madhya Pradesh
- ✓ Dr. Amit Mallick, Inspector General, NTCA; Alok Kumar, Retd. Principal Chief Conservator of Forest (Wildlife) & Chief Wildlife Warden; Dr Vishnu Priya, scientist, Wildlife Institute of India; Abhilash Khandekar, MP SBWL, Bhopal and Subhoranjan Sen, APCCF-Wildlife are the other members of the task force
- ✓ The National Tiger Conservation Authority (NTCA) would facilitate the working of the task force and render all necessary help to it.
- ✓ The task force is mandated to monitor the health status of Cheetahs, upkeep of the quarantine and soft release enclosure, protection status of the entire area and adherence to the defined protocols.
- ✓ It will also monitor hunting skills and adaptation of Cheetahs to the new habitat.
- ✓ The taskforce will also suggest development of tourism infrastructure in the fringe areas of Kuno National Park and other Protected Areas.
- ✓ The members of the taskforce will be interacting with Cheetah Mitras and local communities to raise awareness about their conservation in particular and an area in general.
- ✓ Over 400 Cheetah Mitras from 51 villages have been trained by the forest officials for this purpose
- ✓ The task force will be in-force for a period of two years and will hold at least one meeting every month to review the work done
- ✓ It may appoint a subcommittee to regularly visit the Cheetah introduction area as and when decided by them
- ✓ The Cheetah project for restoration of original cheetah habitats and their biodiversity was revived by the NTCA in 2017.
- ✓ In 2020, the Supreme Court allowed the project “on an experimental basis” under a three-member committee.

CONFERENCES & SUMMITS

- **Union minister for petroleum and natural gas, Hardeep Singh Puri and US Secretary of Energy Jennifer Granholm – co-chaired a ministerial dialogue on US-India Strategic Clean Energy Partnership (USISCEP) on October 7, 2022**
- ✓ The dialogue is part of an official and business delegation visit, led by the Minister, to Washington DC and Houston, USA, from October 6 to 11, 2022

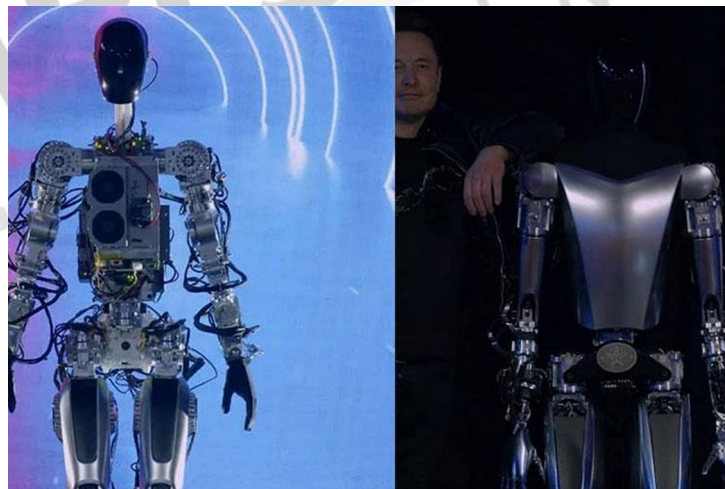


- ✓ The updated USISCEP has launched in 2021 following the announcement of US-India Climate and Clean Energy Agenda 2030 partnership
- ✓ India's Prime Minister Narendra Modi and President of the United States Joe Biden launched the initiative at the Leaders Summit on Climate held in April 2021.
- ✓ The Agenda 2030 partnership focuses on 5 pillars – responsible oil and gas pillar, power and energy efficiency pillar, renewable energy pillar, sustainable growth pillar and emerging fuels and technologies pillar
- ✓ It includes two tracks of engagement - climate action & finance mobilisation dialogue and Strategic Clean Energy Partnership (SCEP)
- ✓ Strategic Clean Energy Partnership focuses on advancing energy security and innovation with greater importance on electrification and decarbonisation of processes and end uses.
- ✓ SCEP supports India in achieving its goal of installing 450GW of renewable energy capacity by the year 2030.
- ✓ During the visit, the union minister also interacted with World Bank officials on Climate Resilient Urban Infrastructure
- ✓ Besides, Puri participated in the two executive round tables with the USA-India Business Council in Washington DC and another one with the USA-India Strategic partnership forum in Houston

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **The European Parliament – recently approved new rules for introducing a single charging port for mobile phones, tablets and cameras by 2024 and for laptops by 2026 in the European Union (EU)**
- ✓ EU lawmakers supported the reform with a thumping majority, with 602 votes in favour and only 13 against.
- ✓ The new rules, announced on October 4, would make 'USB-C connectors' used by Android-based devices as the common EU standard for the gadgets
- ✓ The deal also covers e-readers, ear buds and other technologies

- ✓ Among big providers of electronic devices to European customers, Apple is expected to be among the most affected.
 - ✓ The new measure will push Apple to drop its outdated 'Lightning port' on its iPhones and adopt the USB-C one already used by many of its competitors.
 - ✓ The world's second-biggest seller of smartphones after Samsung, Apple already uses USB-C charging ports on its iPads and laptops.
 - ✓ The European Commission has estimated that the single charger would save about EUR 250 million (roughly Rs. 2016 crore) for consumers.
 - ✓ USB-C ports can charge at up to 100 Watts, transfer data up to 40 gigabits per second, and can be connected with external displays.
 - ✓ In Europe, roughly about 50% of the chargers sold with mobile phones in 2018 had a USB micro-USB connector, while 29% had a USB Type-C connector and 21% had a Lightning connector, which is used by Apple
 - ✓ In October 2021, the European Commission had proposed USB-C as a common charging port to allow consumers to charge their devices with the same USB-C charger, regardless of the device brand.
 - ✓ It also proposed unbundling the sale of chargers from the sale of electronic devices to limit the number of "unwanted chargers" purchased or left unused.
- **Elon Musk, the CEO of Tesla - recently unveiled a humanoid robot prototype called "Optimus" at the annual Tesla AI Day presentation in Palo Alto, California**



- ✓ During the event, Musk has announced that the robots will be mass-produced, costing less than \$ 20,000 and will be available in three to five years.
- ✓ He also presented a video of Optimus performing simple tasks, such as watering plants, carrying boxes and lifting metal bars
- ✓ The robot shares AI software and sensors with Tesla cars' Autopilot driver assistance features.
- ✓ It has uniquely designed actuators – a complex set of gears, motors, sensors and controls that act like human muscles.

- ✓ The robot carries a 2.3kWh battery pack, runs on a Tesla SoC, and contains Wi-Fi and LTE connectivity.
- ✓ The Optimus series robots will be initially put to the test by working in Tesla's assembly factories
- ✓ They will be trained by a custom data centre supercomputer technology called Dojo, which is under development by Tesla
- ✓ Tesla's plans for humanoid robots were first revealed by Elon Musk at the company's AI day in August last year

DEFENCE

- **The centre - has approved the creation of a new Weapon Systems branch in the Indian Air Force.**
- ✓ Indian Air Force chief Air Chief Marshal Vivek Ram Chaudhari announced the creation of the new branch for officers in the air force on October 8 during the 90th anniversary celebrations of the Indian Air Force at the Air Force Day parade in Chandigarh.
- ✓ The theme for this year's anniversary celebrations was 'IAF: Transforming for the Future'
- ✓ The first lot of new officers for this new branch in the IAF will be inducted by end-2023
- ✓ Earlier, the PM-led cabinet committee on security cleared the new branch on October 6
- ✓ The branch will enhance the war-fighting capability of the Indian Air Force and involves unification of all weapon system operators under one entity
- ✓ It will induct a separate specialised cadre of officers to handle advanced missiles, space-based systems, surveillance and combat unmanned aerial vehicles (UAVs).
- ✓ The branch will be headed by an Air Marshal rank (equivalent to Lt-General in Army) director general of weapon systems.
- ✓ It would encompass operators in four specialised streams namely Surface-to-Surface missiles, Surface-to-Air missiles, Remotely Piloted Aircraft, and Weapon System Operators in twin-multi-crew aircraft
- ✓ This is the first time since Independence that a new operational branch has been created.
- ✓ The new branch will result in a saving of more than Rs.3,400 crore due to reduced expenditure on flying training
- ✓ The WSB will have the four sub-branches - flying (weapon systems operators in twin-seat fighters like Sukhoi-30MKI fighters), remote (operational crews for RPAs and drones), intelligence (information warfare, image and signals intelligence specialists) and surface (mission commanders and operators for missiles, guided and close-in weapons).

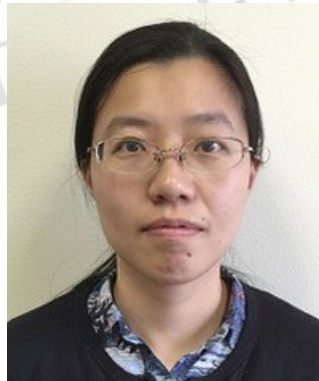
- ✓ The existing branches in the air force include the flying branch, engineers, administration, accounts, logistics, meteorology and education.

ECONOMY

- **The World Bank's private sector arm, International Finance Corp (IFC) - launched the 'Global Food Security Platform' to address global food crisis**
- ✓ The \$6 million financing facility aims to strengthen private sector's ability to respond to the crisis and help support food production.
- ✓ A core part of the financing will support sustainable production and delivery of food stocks to countries affected by food instability.
- ✓ The long term action plan under the initiative includes investing in increasing efficient crop production, improving access to fertilizers, greening fertilizer production and use, reducing crop loss and food waste, improving supply chain efficiency, and reducing infrastructure bottlenecks.
- ✓ The funding will be used in the fields of agribusiness, manufacturing, infrastructure, and technology, as well as the financial sector and trade finance.
- ✓ The platform will supplement the World Bank's commitment of US\$30 billion in response to the food crisis.

AWARDS

- **The SASTRA Ramanujan Prize for 2022 – will be awarded to Yunqing Tang, Assistant Professor with the University of California, Berkeley, U.S.A.**



- ✓ The award recognises and acknowledges the works of Tang in arithmetic and geometry of modular curves and Shimura varieties.
- ✓ Tang, a Chinese-born American Professor, was recently involved in a joint research on modular equation in collaboration with Frank Calegari and Vesselin Dimitrov
- ✓ She completed her B.Sc in Peking University in 2011 and received her PhD in Harvard in 2016 under the guidance of Mark Kisin.
- ✓ The award will be conferred to Tang at the International Conference on Number Theory, which will be held from December 20 to 22 this year at SASTRA University

- ✓ The prestigious award, which includes a cash prize of \$10,000, was instituted by the Shanmugha Arts, Science, Technology & Research Academy (SASTRA) in the year 2005.
- ✓ It is conferred on individuals aging 32 and below who have made significant contributions in the field of mathematics in areas broadly influenced by the legendary mathematician, Srinivasa Ramanujan.
- ✓ The first to receive this award was Manjul Bhargava and Kannan Soundararajan.

SPORTS

- **On October 8, India's leading billiards player, Pankaj Advani - claimed his 25th world title in the 150 up billiards final at the 2022 IBSF World Championships in Kuala Lumpur**



- ✓ Advani defeated compatriot Sourav Kothari 4-9 to bag the world title
- ✓ During the event, Advani scored the tournament's highest break of 153 in the third frame.
- ✓ In the final, Kothari earned a total of 72 points, while Advani accumulated almost 600 points to successfully defend his championship for the sixth consecutive year.
- ✓ With the win, Advani completed a billiards National-Asian-World golden victories in the same calendar year for a record fifth time.
- ✓ With 25 world titles, Advani has extended his record-breaking success as India's winner of the most gold medals in world championships across all sports.
- ✓ Due to the pandemic, the event last took place in 2019 and got revived after a three-year gap.
- ✓ Advani's last world title came over 12 months ago in Qatar where he won the IBSF 6-Red Snooker World Cup

INTERNATIONAL DAY

- **World Space Week - October 4 to 10**



- ✓ The week is observed every year to raise awareness about space activities, use of space for 'peace' and build international cooperation in space outreach and education.
- ✓ Theme 2022 - Space and Sustainability
- ✓ According to the United Nations, this World Space Week will focus on "achieving sustainability in space and achieving sustainability from space"
- ✓ In 1999, the United Nations General Assembly declared October 4-10 to be celebrated as World Space Week
- ✓ The event is coordinated between the United Nations and the World Space Week Association (WSWA).
- ✓ The dates chosen for the week commemorate the launch of Sputnik-1 - earth's first artificial satellite - on October 4, 1957 and the signing of the historical treaty for "peaceful use of outer space" on October 10, 1967.
- ✓ The ever World Space Week was celebrated in 2000 with the theme - "Launching the Space Millennium."
- ✓ Chris Boshuizen - co-Founder of Planet Labs and one of the four passengers on the Blue Origins' New Shepard in October last year - will be the spokesperson this year, encouraging global support for the week-long celebration.
- ✓ In 2021, more than 6,000 events were organized in over 96 countries under the theme "Women in Space".

