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Indian Astronaut Shubhanshu Shukla

• Indian astronaut Shubhanshu Shukla and three other crew members of Axiom-4 mission safely returned to Earth after their 18-day historic mission aboard the International Space Station. The SpaceX Dragon spacecraft splashed down in the Pacific Ocean off the coast of San Diego in California this afternoon. The crew will now undergo a seven-day rehabilitation program to adjust to Earth's gravity.



- Axiom-4 mission's space odyssey began on 25th of last month when the Falcon-9 rocket carrying the Dragon space capsule blasted off from Florida towards the International Space Station.
- Group Captain Shukla is the first Indian to visit the International Space Station (ISS) and the second Indian astronaut after Wing Commander Rakesh Sharma, who went to space in 1984. During his stay aboard the ISS, Mr Shukla conducted seven India-specific microgravity experiments. These experiments are designed to generate critical data for future planetary missions and long-duration space habitation.



- NASA's Expedition Crew organised a traditional ceremony for the Axiom-4 crew. Speaking at the farewell ceremony, Mr Shukla described his space journey as truly incredible.
- This mission, dubbed Akash Ganga, is a collaborative effort between Axiom Space, US space agency NASA, and Indian Space Research Organization.

Fauja Singh

• Fauja Singh, the world's oldest marathon runner, died at the age of 114 after being hit by an unknown vehicle on the Jalandhar-Pathankot highway in Punjab on July 14, 2025. Known as the 'Turbaned Tornado', Fauja Singh inspired people across the globe with his fitness and spirit. His sudden death has shocked the nation, and tributes are pouring in.



- Fauja Singh was out for a walk near his village, Bias, around 3:30 PM when he was struck by an unidentified vehicle. The accident happened on the Jalandhar-Pathankot highway. His death was confirmed by writer Khushwant Singh, who shared the news online after speaking with Singh's family. A police investigation into the accident is ongoing.
- Born on April 1, 1911, Fauja Singh took up running after the death of his wife and son. He ran his first marathon at the age of 89 in London in 2000. He went on to complete nine full marathons in London, New York, and Toronto. He also carried the Olympic torch for the 2004 Athens and 2012 London Olympics. He was featured in global sports campaigns with legends like Muhammad Ali and David Beckham. Singh stood out for his strong will and was a living example of fitness at any age.

Pentagon Signs \$200 Million Deal With Elon Musk

• In **US, the Pentagon has signed a 200 million US dollar** deal with Elon Musk's Al company, xAl, to use its chatbot, Grok, as part of a broader plan to bring Al into US government operations.



 The contract is part of xAl's Grok for Government program and will give federal agencies access to the latest version, Grok 4, with tools tailored for national security and classified environments.

- The Department of Defence also awarded similar 200 million US Dollars contracts to other AI companies, Anthropic, Google, and OpenAI, as part of its effort to modernise military capabilities with artificial intelligence.
- Launched in 2023, Grok is known for being a more unfiltered alternative to other chatbots and is integrated into X, formerly Twitter.

India's First Digital Nomad Village

• The village of Yakten in Sikkim's Pakyong district was declared India's first digital nomad village. This initiative was launched to create a sustainable remote work hub in the Himalayas. It aims to support local homestay owners with steady income and attract digital professionals from across India and abroad. Yakten's transformation is part of the 'Nomad Sikkim' project, a collaboration between the Pakyong district administration and NGO Sarvahitey.



• The project addresses the seasonal income gap for homestay operators, especially **during the six-month off-season from April to October**. Infrastructure upgrades include dual internet lines, village-wide Wi-Fi, and power backups to ensure uninterrupted connectivity. Plans are underway to resolve water scarcity under the Jal Jeevan Mission.



- Yakten offers a unique blend of rural life and modern work needs. Unlike urban coworking spaces, it provides broadband-ready homestays run by local families, encouraging a warm and authentic experience. The village setting includes orchards, mountain trails, and traditional meals, creating a balanced environment for work and well-being.
- This model **promotes sustainable tourism and rural development**. Internet connectivity is a priority, with two internet lines and comprehensive Wi-Fi coverage installed. Electricity supply is supported by inverters to prevent outages. **Water management solutions are planned to address scarcity**. The village is accessible via Pakyong Airport, with well-maintained roads ensuring year-round connectivity.



- Yakten's initiative provides a new income source for locals, reducing dependence on seasonal tourism. It exemplifies how rural areas can adapt to the digital economy without losing cultural identity. This model may inspire similar projects across India, supporting decentralisation of work and promoting sustainable livelihoods.
- Visitors can explore scenic trails such as the 7-km trek to Jhandi Dara View Point with views of Mt. Kanchenjunga. The village offers peaceful walks through terraced fields and community gardens. Nearby historical ruins and monasteries add cultural depth to the visitor experience. Yakten's success lies in its small scale and quality-focused approach. It is a pilot for integrating remote work with rural life and sustainable tourism. The village's example encourages rethinking workspaces beyond cities and marks the potential of India's countryside in the digital age.

India Launches First Weather Derivatives Market

India has taken a major step in climate risk management by launching its first weather derivatives market. The National Commodity and Derivatives
Exchange (NCDEX) partnered with the India Meteorological Department (IMD) to introduce these innovative financial instruments. Weather derivatives allow farmers, businesses, and financial institutions to hedge against weather-related uncertainties.



- This initiative aims to enhance resilience, improve planning, and support investment in weather-sensitive sectors. Weather derivatives are financial contracts whose value depends on specific weather variables. These variables include temperature, rainfall, snowfall, or wind speed.
- Unlike insurance, which compensates for actual asset losses, weather derivatives cover recurring risks that affect revenue or cash flow. They transfer weather risk from those exposed to it to others willing to assume it. This helps stabilise incomes and reduce uncertainty. The most common weather variables in derivatives markets are temperature and precipitation.



- Temperature is tracked using Heating Degree Days (HDD) and Cooling Degree Days (CDD), which measure deviations from a base temperature. Rainfall contracts typically use cumulative rainfall totals or deviations from long-term averages. Snowfall and wind speed derivatives are more common in advanced markets with specific exposure, such as ski resorts or wind energy projects. Weather derivatives trade numerical weather outcomes, not weather events. For example, a rainfall futures contract might pay a fixed sum if rainfall in a region falls below a set threshold. The data source, such as IMD, is agreed on before trading.
- This makes settlements transparent and verifiable. Such contracts formalise weather risk management, replacing informal and less reliable methods based on observation or prediction. Insurance covers catastrophic and asset-specific losses, such as flood damage to property.



 Weather derivatives cover frequent but less severe risks, like lower rainfall or cooler temperatures that affect revenues. While insurance compensates verified losses, derivatives provide cash flow protection by paying out based on predefined weather indices. Together, they create layered protection against climate risks. Farmers can hedge against poor monsoon rainfall, securing funds for future inputs or loan repayments.



• Businesses sensitive to weather, such as beverage companies, can protect against demand drops caused by unusual weather. Banks and NBFCs can use derivatives to safeguard loan portfolios from weather-related defaults. This risk transfer improves credit quality and encourages lending in vulnerable sectors. A robust weather derivatives market encourages proactive risk-sharing. It moves India beyond disaster relief towards risk mitigation.

• The market encourages demand for accurate and granular weather data. This stimulates investments in agritech, climate forecasting, and energy modelling. Reliable data and institutional support are essential for market success. The initiative promises improved economic stability and climate adaptation.

7th ISA Meeting

 The Seventh Regional Committee Meeting (RCM) of the International Solar Alliance (ISA) for the Asia and the Pacific Region commenced in Colombo. The formal inauguration will be done by Prime Minister Dr. Harini Amarasuriya and Director General of ISA Ashish Khanna tomorrow. Being held under the theme, "Advancing Solar Cooperation Across a Region of Diversity and Opportunity," the event brings together officials, institutions, and private sector leaders to accelerate solar energy deployment across the region.



- The meeting focuses on expanding regional platforms, de-risking solar investments, and adopting technologies like green hydrogen and energy storage. Sessions will also explore cross-border solar trade, regional STAR Centres, and the operationalisation of a solar marketplace for Small Island Developing States.
- ISA Director General Ashish Khanna called the region, central to the global energy transition and highlighted the meeting's role in shaping investment-ready, scalable solutions.

- In addition, **country-level partnerships and agreements with institutions** will be signed during the meet.
- India, which co-founded ISA in 2015, plays a key role in its leadership and continues to support the alliance's efforts to make solar energy accessible and affordable worldwide.

REVIEW QUESTIONS

- 1. India's First Digital Nomad Village Built In
- A. Kerala
- B. Sikkim
- C. Himachal Pradesh
- D. Uttarakhand ANSWER: B

2. 7th ISA Meeting Is Conducted In

- A. India
- B. Sri Lanka
- C. Indonesia
- D. France ANSWER: B
- 3. By Which Year Does India Aim To Achieve Net-zero Carbon Emissions, As Supported By New Electric Truck Subsidy Scheme
- A. 2050
- B. 2070
- C. 2065
- D. 2045

ANSWER: B

- 4. Who Won Wimbledon Men's Final On 2025, Defeating Carlos Alcaraz To Claim His First Wimbledon Title?
- A. Jannik Sinner
- B. Novak Djokovic
- C. Rafael Nadal
- D. Daniil Medvedev ANSWER: A
- 5. Who Won 2025 United Nations Population Award For Her Work Against Sexselective Abortions And Promoting Gender Equalit
- A. Varsha Deshpande
- B. Andrea M Wojnar
- C. Medha Patkar
- D. Aruna Roy ANSWER: A
- 6. Which Country Had Three Khmer Rouge Sites Added To The UNESCO World Heritage List In July 2025
- A. Vietnam
- B. Cambodia
- C. Laos
- D. Thailand **ANSWER: B**
- 7. Which Police Station Became First In India To Receive The IS/ISO 9001:2015 Certification From The Bureau Of Indian Standards
- A. Cherthala Police Station
- B. Ernakulam Range Station
- C. Arthunkal Police Station
- D. Alappuzha Central Station ANSWER: C

8. At Which ISRO Facility Were The Hot Tests Of The Gaganyaan Service Module Propulsion System Conducted

- A. Sriharikota
- B. Bengaluru
- C. Thiruvananthapuram
- D. Mahendragiri ANSWER: D
- 9. What Has Been Added To UNESCO World Heritage List From India In 2025
- A. Maratha Military Forts
- B. Ancient Buddhist Caves of Gujarat
- C. Stepwells of Rajasthan
- D. Vijayanagara Temples ANSWER: A
- 10. Name Of High-intensity Annual Security Exercise Launched By The Indian Army To Protect The Shri Amarnath Yatra In 2025
- A. Operation Shiva
- B. Operation Trident
- C. Operation Rakshak
- D. Operation Vajra ANSWER: A

11. Which State Officially Declared Sarvajanik Ganeshotsav State Festival In 2025

- A. Karnataka
- B. Gujarat
- C. Madhya Pradesh
- D. Maharashtra ANSWER: D
- 12. Who Became The First Male Cricketer In Professional Cricket History To Take Five Wickets In Five Balls
- A. Rashid Khan
- B. Pat Cummins
- C. Curtis Campher
- D. Jasprit Bumrah

ANSWER: C

13. Where Will India Host Its First Global Conference On Manuscript Heritage In September 2025

- A. Mumbai
- B. New Delhi
- C. Hyderabad
- D. Bengaluru ANSWER: B
- 14. Which Country Has Qualified For The 2026 T20 World Cup For The First Time In Its History
- A. Scotland
- B. Germany
- C. Denmark
- D. Italy

ANSWER: D

- 15. Who Was Honoured With 'Hem Bahadur Malla Award 2080' For Their Contributions To Judicial Leadership
- A. Justice Sushila Karki
- B. Chief Justice Kalyan Shrestha
- C. Justice Deepak Raj Joshee
- D. Justice Om Prakash Mishra ANSWER: B

16. Which Country Hosted The Talisman Sabre Exercise 2025

- A. Africa
- B. Europe
- C. Australia
- D. Asia

ANSWER: C

17. Patriot Air Defense Missile System Is Developed By Which Country

- A. France
- B. Russia
- C. Germany
- D. United States
 - **ANSWER: D**

18. Barak Valley, Is Located In Which State

- A. Sikkim
- B. Manipur
- C. Assam
- D. Meghalaya ANSWER: C
- 19. Which Ministry Has Launched The ADEETIE Scheme To Boost Industrial Competitiveness, Jobs, And Climate Action
- A. Ministry of Power
- B. Ministry of Science and Technology
- C. Ministry of Heavy Industries
- D. Ministry of Finance

ANSWER: A

20. Sankosh River Forms Boundary Between Which Of The Following Two States

- A. Bihar and West Bengal
- B. Assam and Arunachal Pradesh
- C. Assam and West Bengal
- D. Bihar and Jharkhand ANSWER: C