

India's Advanced Space Agenda: Chandrayaan-4, Gaganyaan, NISAR & Mars L

Space Exploration · Answer Key · 6 Questions

1. What is the primary objective of India's Chandrayaan-4 mission, slated for launch around 2028?

- A) To establish a permanent lunar base at the north pole.
- B) To deploy a large telescope on the far side of the Moon.
- C) To collect lunar samples from the south pole and return them to Earth.**
- D) To conduct atmospheric studies of the Moon's exosphere.

2. Which Indian astronaut participated in the Axiom Mission 4 to the International Space Station (ISS) in June 2025, gaining experience for future ISRO human spaceflight missions?

- A) Rakesh Sharma
- B) Kalpana Chawla
- C) Shubhanshu Shukla**
- D) Sunita Williams

3. The joint NASA-ISRO Synthetic Aperture Radar (NISAR) mission, designed for Earth observation, faced launch window constraints between late 2024 and early 2025. What was the specific reason for this delay?

- A) Unforeseen software glitches in the S-band radar.
- B) Logistical challenges in transporting the L-band payload to India.
- C) Periods of alternating sunlight and shadows affecting boom and antenna deployment.**
- D) An unexpected technical fault in ISRO's GSLV launch vehicle.

4. What is the target year for the launch of the first module of India's planned orbital space station, the Bharatiya Antariksh Station (BAS)?

- A) 2030
- B) 2028**
- C) 2035
- D) 2027

5. Mission Drishti, India's largest privately built Earth observation satellite, launched in May 2026. Which unique technology does it employ to capture high-resolution images in all weather and lighting conditions?

- A) Quantum entanglement imaging.
- B) OptoSAR (Optical and Synthetic Aperture Radar).**
- C) Hyperspectral infrared scanning.
- D) Gravitational lensing photography.

6. India's ambitious Mangalyaan-2, or Mars Lander Mission, planned for 2030, is set to include which advanced components?

A) An atmospheric probe and a balloon.

B) An orbiter, a lander, and a helicopter-like rover.

C) A subterranean drilling unit and a seismometer.

D) A sample return capsule and a space telescope.