DAY 04 _DAILY PRACTICE_UPSC CSE _PRELIMS_PAPER-1_2026

Topics Covered in this Test:

- ISRO Missions (Chandrayaan, Mangalyaan, Gaganyaan, Aditya-L1, etc.)
- NASA Missions (Artemis, JWST, DART, Perseverance, etc.)
- SpaceX Technologies (Falcon, Starship, Crew Dragon, Raptor Engines, etc.)
- ESA and JAXA Collaborations
- International Space Exploration Agreements
- Satellites, Launch Vehicles, Propulsion Systems
- Scientific Goals and Discoveries of Key Missions

Note to Candidates:
Treat this as a **high-standard, concept-based test** aligned with the difficulty level of **UPSC Civil Services Preliminary GS Paper-I**, especially in the **Science & Technology** section. The questions demand conceptual clarity, application, and awareness of global developments.

1. Which of the following missions was the first to successfully demonstrate aerobraking around Mars?

A. Mars Global Surveyor
B. Mars Express
C. Mars Orbiter Mission
D. MAVEN

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2. The James Webb Space Telescope is primarily designed to observe which part of the electromagnetic spectrum?

A. Ultraviolet
B. Microwave
C. Infrared
D. Gamma rays

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3. The Gaganyaan mission by ISRO will use which escape system to ensure astronaut safety during launch?

A. Launch Escape Tower
B. Ejection Capsule System
C. Crew Module Abort Tower
D. Pad Abort System

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4. SpaceX's Starship vehicle aims to achieve fully reusable launch system. What propellant combination does Starship's Raptor engine use?

A. RP-1 / Liquid Oxygen
B. Liquid Methane / Liquid Oxygen
C. Liquid Hydrogen / Liquid Oxygen
D. UDMH / N_2O_4

5. Which ISRO satellite is designed to monitor ocean color and phytoplankton blooms using Ocean Colour Monitor (OCM)?

A. INSAT-3DR
B. RISAT-1
C. SCATSAT-1
D. Oceansat-2

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6. The BepiColombo mission to Mercury is a collaboration between which agencies?

A. NASA and ESA
B. ISRO and JAXA
C. ESA and JAXA
D. NASA and Roscosmos

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7. The Chandrayaan-3 mission used which of the following landing strategies?

A. Powered descent from lunar orbit
B. Free-fall with retrorocket braking
C. Aerobraking and parachute
D. Lunar-assisted passive glide

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8. Which NASA mission was responsible for the first powered flight on another planet?

A. Pathfinder
B. Curiosity
C. Perseverance with Ingenuity
D. Viking 1

9. The ESA's Copernicus Programme primarily serves which purpose?

A. Asteroid deflection
B. Climate and environmental monitoring
C. Deep space exploration
D. Manned Mars mission planning

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10. The term Falcon Heavy refers to:

A. A next-gen stealth satellite
B. A modular lunar rover
C. A heavy-lift reusable launch vehicle
D. A Venus probe propulsion system

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11. Which mission became the first private spacecraft to dock with the International Space Station?

A. Starliner
B. Orion
C. Crew Dragon
D. Cygnus

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12. The 'Artemis Accords' were proposed by:

A. ISRO
B. ESA
C. NASA
D. Roscosmos

13. The Indian Regional Navigation Satellite System (IRNSS) is now operationally known as:

A. NavGati
B. Gagan
C. NAVIC
D. BharatMap

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14. Which of the following NASA missions aimed to deliberately crash into an asteroid to test planetary defense?

A. OSIRIS-REx
B. New Horizons
C. DART
D. NEAR Shoemaker

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15. The primary function of ISRO's INSAT-3DR satellite is:

A. Surveillance and military ops
B. Telecommunication and GPS services
C. Meteorology and disaster warning
D. Crop mapping and agriculture

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16. What distinguishes ESA's Ariane 6 rocket from its predecessor Ariane 5?

A. Only liquid fuel used
B. Solar sail propulsion
C. Partially reusable first stage
D. Modular configuration for different payloads

17. Which mission provided conclusive proof of water ice at the Moon's south pole?

A. Apollo 17
B. Lunar Reconnaissance Orbiter
C. Chandrayaan-1
D. Artemis I

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18. Which ISRO mission planned to study the Sun and is modeled on NASA's SOHO?

A. Aditya-L1
B. SuryaNet
C. Suryayan
D. HelioSat

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19. What is the purpose of the NASA TESS mission?

A. Mapping the Moon's gravitational field
B. Solar flare prediction
C. Searching for exoplanets
D. Asteroid redirection experiments

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20. The Reusable Launch Vehicle-Technology Demonstrator (RLV-TD) tested by ISRO achieved what milestone?

A. Orbital launch and reentry
B. Autonomous runway landing
C. Satellite deployment in GTO
D. Water landing with parachute recovery