

Viral Space Missions & Pop Culture: Test Your Galactic Knowledge!

Space Exploration · Answer Key · 10 Questions

1. NASA's Perseverance rover has made significant discoveries in Jezero Crater. Which of these is NOT a key finding attributed to the rover?

- A) Discovery of volcanic rocks and evidence of ancient lake environments.
- B) Successful production of oxygen from Mars' carbon dioxide atmosphere (MOXIE experiment).
- C) Identification of ancient lakebeds with potential for past microbial life.
- D) Direct detection of living microbial organisms in Martian soil.**

2. India's ambitious Chandrayaan-4 mission, approved for a 2028 launch, has a primary objective of:

- A) Establishing the first Indian outpost on the Moon's far side.
- B) Deploying a new generation of lunar telescopes for deep space observation.
- C) Returning lunar samples to Earth for scientific analysis.**
- D) Conducting the first human landing on Mars.

3. China's Tiangong space station is undergoing expansion. What is the planned ultimate configuration for the station?

- A) A two-module station focused solely on research.
- B) A six-module structure with increased scientific and international cooperation capabilities.**
- C) A single, larger module designed for long-term crewed missions.
- D) A station designed to dock with the future International Space Station successor.

4. SpaceX's Starship program has seen numerous test flights. What is a key goal for Starship's development, particularly relevant to future lunar and Martian missions?

- A) Developing the first purely robotic lunar mining system.
- B) Achieving full reusability of both the Super Heavy booster and the Starship upper stage.**
- C) Creating a dedicated orbital manufacturing facility for space telescopes.
- D) Launching a constellation of satellites for global internet coverage.

5. NASA's Artemis program aims to return humans to the Moon. Which mission is currently targeted for the first crewed lunar landing?

- A) Artemis II
- B) Artemis III
- C) Artemis IV**
- D) Artemis V

6. The James Webb Space Telescope (JWST) has made several groundbreaking discoveries. What unusual objects has JWST recently detected in the early universe that hint at hidden supermassive black holes?

- A) Giant nebulae with unusual chemical compositions.
- B) Extremely distant, compact objects known as 'little red dots'.**
- C) Rogue planets with unexpected atmospheric conditions.
- D) Early galaxies with unusually low star formation rates.

7. The ESA's JUICE (JUperiter ICy moons Explorer) mission is en route to explore Jupiter. What is a primary scientific objective of the JUICE mission regarding Jupiter's icy moons?

- A) To search for signs of active volcanoes on Io.
- B) To study the potential for liquid water oceans beneath the icy crusts of Europa, Ganymede, and Callisto.**
- C) To map the magnetic field of Jupiter's moon Amalthea.
- D) To investigate the atmospheric composition of Jupiter's smallest moons.

8. Space tourism is rapidly evolving. Which of these companies offers suborbital flights to the edge of space, reaching approximately 50 to 60 miles above Earth?

- A) SpaceX
- B) Axiom Space
- C) Blue Origin**
- D) Virgin Galactic

9. NASA's Mars 2020 mission includes the Perseverance rover. What unique technological capability has Perseverance demonstrated on Mars, which could be crucial for future human missions?

- A) The ability to drill through solid bedrock.
- B) The generation of oxygen from the Martian atmosphere.**
- C) The deployment and operation of a Mars helicopter (Ingenuity).
- D) The collection of subsurface ice samples.

10. The International Space Station (ISS) is nearing the end of its operational life. Which nation's space station is currently being expanded and is poised to become one of the primary orbital laboratories as the ISS is retired?

- A) Russia (Mir-2)
- B) European Space Agency (Gateway)
- C) Japan (Kibo)
- D) China (Tiangong)**