

Fundamentals of Space Exploration

Space Exploration · Answer Key · 8 Questions

1. Which chemical element is primarily used as the fuel for the Space Shuttle's main engines?

- A) Liquid Methane
- B) Liquid Hydrogen**
- C) RP-1 Kerosene
- D) Solid Aluminum Powder

2. What is the name of the boundary line, approximately 100 kilometers above sea level, that is commonly used to define the beginning of space?

- A) The Van Allen Limit
- B) The Heliosphere
- C) The Karman Line**
- D) The Exobase

3. Which space probe was the first human-made object to exit our solar system and enter interstellar space?

- A) Voyager 1**
- B) Pioneer 10
- C) New Horizons
- D) Cassini

4. In orbital mechanics, what is the term for the point in an orbit where a satellite is closest to the Earth?

- A) Apogee
- B) Perihelion
- C) Perigee**
- D) Ascending Node

5. Which nation successfully launched the first artificial satellite, Sputnik 1, into orbit in 1957?

- A) United States
- B) China
- C) Soviet Union**
- D) United Kingdom

6. What type of engine provides high efficiency but low thrust, making it ideal for long-duration deep space missions?

A) Ion thruster

B) Solid-fuel rocket

C) Nuclear thermal rocket

D) Liquid-propellant ramjet

7. What is the primary function of the 'Canadarm' robotic systems used on the Space Shuttle and the International Space Station?

A) Navigation of the spacecraft

B) Payload deployment and maintenance

C) Communication relay

D) Life support monitoring

8. Which planet's atmosphere was the primary target for the Huygens probe, which successfully landed there in 2005?

A) Mars

B) Venus

C) Titan (Moon of Saturn)

D) Europa (Moon of Jupiter)