The Economics of Outer Space

Space Economics · Answer Key · 15 Questions

1. What is the primary economic motivation behind current commercial interest in asteroid mining?

A) Tourism

B) Precious metals

C) Atmospheric gas

D) Solar energy

2. Which decade saw the highest percentage of the United States federal budget allocated to NASA during the Apollo program?

A) 1950s

B) 1960s

C) 1970s

D) 1980s

3. The 'Outer Space Treaty' of 1967 primarily deals with which economic and legal concept?

A) Trade tariffs

B) Non-appropriation of celestial bodies

C) Mining taxation

D) Copyright law

4. Which company became the first private entity to successfully launch, orbit, and recover a spacecraft?

A) Blue Origin

B) SpaceX

C) Rocket Lab

D) Virgin Galactic

5. What does 'LEO' stand for in the context of the growing space-based satellite economy?

A) Lunar Economic Orbit

B) Low Earth Orbit

C) Launch Energy Output

D) Limited Earth Operation

6. The cost per kilogram to launch payloads into orbit has significantly decreased due to which economic shift?

A) Government monopoly
B) Reusable rocket technology
C) Increased fuel subsidies
D) Space labor unions

7. Which country established the first dedicated space agency, marking the beginning of state-funded space economics?

A) United States
B) Soviet Union
C) France
D) China

8. What is the economic purpose of a 'Space Situational Awareness' (SSA) program?

A) Finding alien life
B) Protecting orbital assets from debris
C) Increasing rocket speed
D) Lowering insurance costs

9. Which resource found in lunar polar regions is considered a potential 'space fuel' for future deep-space economic hubs?

A) Gold
B) Water ice
C) Helium-3
D) Iron

10. The 'Kessler Syndrome' is an economic risk factor related to what phenomenon?

A) Planetary cooling
B) Accumulation of orbital debris
C) Market inflation
D) Solar flare damage

11. Which global economic sector has been most significantly transformed by the GPS satellite network?

A) Logistics and transportation
B) Textile manufacturing
C) Public education
D) Fisheries

12. What is the term for the economic sector involving the manufacture and operation of satellites?

A) Terrestrial industry
B) Space industry
C) Atmospheric industry
D) Orbital logistics

13. The European Space Agency (ESA) operates on which economic principle regarding member contributions?

A) Geographical return
B) Flat tax
C) Donation only
D) Ticket sales

14. Which planet has an atmosphere that could theoretically be mined for 'Helium-3' to power fusion reactors?

A) Venus
B) Jupiter
C) Mars
D) Saturn

15. What constitutes the largest market share of the global 'space economy' as of 2023?

A) Satellite services
B) Launch services
C) Ground equipment
D) Human spaceflight