

The Economics of the Cosmos

Space Economics · Practice Test · 12 Questions

1. Which economic principle explains the rapidly decreasing cost of launching payloads into Low Earth Orbit due to technological maturity and reusable rocket systems?

- A) Economies of scale
- B) Diminishing marginal utility
- C) Gresham's Law
- D) The Laffer Curve

2. In the context of the 1967 Outer Space Treaty, what is the legal economic status of celestial bodies like the Moon and Mars?

- A) Private property
- B) Common heritage of mankind
- C) State-owned monopolies
- D) Publicly traded assets

3. What is the primary economic barrier to the commercial asteroid mining of Platinum Group Metals?

- A) Lack of supply on Earth
- B) High capital expenditure for delta-v requirements
- C) Global bans on precious metal extraction
- D) Monopolization by the International Space Station

4. The 'Kessler Syndrome' represents an economic negative externality. What does it describe?

- A) The depreciation of satellite assets
- B) The cost of deep-space telecommunications
- C) A cascade of orbital debris increasing insurance and operational costs
- D) The taxation of extra-atmospheric mining operations

5. Which economic model is often cited regarding the high upfront investment and long-term societal payoff of NASA's Apollo program?

- A) Public Good Theory
- B) Keynesian Multiplier
- C) Malthusian Trap
- D) Comparative Advantage

6. When considering the exploitation of Helium-3 on the Moon, what economic term describes the transition from non-renewable energy sources to this potential fusion fuel?

- A) Energy substitution
- B) Deflationary spiral
- C) Liquidity preference
- D) Structural unemployment

7. What is the economic classification of GPS data provided by the United States government, given that it is non-excludable and non-rivalrous?

- A) Private good
- B) Club good
- C) Public good
- D) Common-pool resource

8. SpaceX's pricing strategy for the Falcon 9 launch vehicle is intended to capture market share by undercutting established launch providers. What is this practice called?

- A) Predatory pricing
- B) Cost-plus pricing
- C) Price discrimination
- D) Limit pricing

9. Regarding the 'Space Economy', which sector currently constitutes the largest portion of global space-related revenue?

- A) Human spaceflight
- B) Deep space exploration
- C) Satellite telecommunications services
- D) Planetary defense systems

10. The economic concept of 'scarcity' applied to orbital slots is managed by which international body to prevent signal interference?

- A) International Telecommunication Union (ITU)
- B) United Nations Office for Outer Space Affairs (UNOOSA)
- C) Federal Communications Commission (FCC)
- D) European Space Agency (ESA)

11. What economic phenomenon occurs when the fixed costs of maintaining a permanent human presence on Mars are spread across a larger population over time?

- A) Average cost reduction
- B) Inflationary pressure
- C) Market saturation
- D) Supply-side shock

12. In the 'Space Race' of the 1960s, the economic competition between the US and USSR functioned as a catalyst for which type of technological development?

- A) Dual-use technology
- B) Open-source software
- C) Market-driven consumer electronics
- D) Regulated utility infrastructure