Foundations of Game Theory

Game Theory · Answer Key · 8 Questions

1. Who is widely considered the co-founder of game theory for his 1944 book 'Theory of Games and Economic Behavior'?

A) John von Neumann
B) John Nash
C) Thomas Schelling
D) Robert Aumann

2. What term describes a situation where no player can benefit by changing their strategy while the other players keep theirs unchanged?

A) Zero-sum equilibrium
B) Nash equilibrium
C) Pareto efficiency
D) Minimax strategy

3. In a zero-sum game, what is the net result of the gains and losses of all players?

A) Positive
B) Negative
C) Zero
D) Variable

4. Which classic game theory scenario demonstrates why two rational individuals might not cooperate, even if it appears that it is in their best interest to do so?

A) The Ultimatum Game
B) The Dictator Game
C) The Prisoner's Dilemma
D) The Traveler's Dilemma

5. What field of mathematics provides the primary framework for analyzing strategic games?

A) Topology
B) Probability theory
C) Linear algebra
D) Calculus

6. In game theory, what is a 'dominant strategy'?

A) A strategy that is best regardless of what the other players do
B) A strategy used only by the winner
C) A strategy requiring the most resources
D) A strategy that relies on luck

7. The 'Minimax' theorem, developed by John von Neumann, is primarily applicable to which type of games?

A) Non-cooperative games
B) Infinite games
C) Two-person zero-sum games
D) Multi-player cooperative games

8. John Nash, a pioneer of game theory, was awarded the Nobel Memorial Prize in Economic Sciences in which year?

A) 1984
B) 1994
C) 2004
D) 2014