Ecological Economics and Natural Resource Dynamics

Basic Economics · Answer Key · 18 Questions

1. What term describes the market failure where the cost of environmental degradation (such as ocean acidification) is not reflected in the price of CO_2-emitting industrial goods?

A) Negative Externality
B) Opportunity Cost
C) Diminishing Returns
D) Capital Depreciation

2. In the context of wildlife conservation, what is the 'Safe Minimum Standard' approach to resource management?

A) Maximizing profit from pelt trade
B) Extinction prevention regardless of cost-benefit analysis
C) Allowing market forces to determine species survival
D) Limiting harvest to replenish only after 100 years

3. Which economic concept explains why 'Common Pool Resources' like international fish stocks are often over-exploited?

A) The Law of Increasing Costs
B) The Tragedy of the Commons
C) Comparative Advantage
D) Perfect Competition

4. In environmental economics, what does the 'Hotelling Rule' dictate regarding the extraction of non-renewable resources like coal?

A) Extraction should be random
B) Prices must remain static
C) The net price of the resource must rise at the rate of interest
D) Supply must exceed global demand

5. What is the primary economic criticism of using 'Gross Domestic Product' (GDP) to measure national welfare in forest-rich countries?

A) It overestimates the value of standing timber
B) It ignores the depletion of natural capital like old-growth forests
C) It focuses only on secondary industries
D) It mandates international carbon taxes

6. What does the 'Environmental Kuznets Curve' hypothesize about the relationship between economic growth and environmental degradation?

A) Pollution increases indefinitely with wealth

B) Pollution initially rises with industrialization but then falls as an economy matures

C) Economic growth has no impact on the environment

D) Only planned economies reduce pollution

7. Which principle defines the economic valuation of a species solely for its existence, independent of its potential use for medicine or tourism?

A) Existence Value

B) Option Value

C) Bequest Value

D) Direct Use Value

8. Why is 'Biodiversity' considered a form of 'Natural Capital' in neoclassical economics?

A) It provides ecosystem services that generate economic value

B) It is a man-made financial instrument

C) It has a fixed, non-fluctuating market price

D) It is traded exclusively on the London Stock Exchange

9. What is the 'Maximum Sustainable Yield' (MSY) in fisheries economics?

A) The point of total population collapse

B) The largest average catch that can be taken over time without depleting the stock

C) The minimum catch required to turn a profit

D) The total biomass of the ocean

10. In the context of land use, what is an 'Opportunity Cost' of designating an area as a strictly protected national park?

A) The price of park entrance fees

B) The value of the next-best alternative use, such as logging or agriculture

C) The cost of trail maintenance

D) The total carbon sequestration value

11. What is the purpose of a 'Pigouvian Tax' applied to industrial pollution?

A) To increase corporate profits

B) To bring the private cost of production in line with the social cost

C) To ban all chemical manufacturing

D) To subsidize green technology research

12. Which economic measure is defined as the total value of all ecosystem services provided by nature per year?

A) Gross Global Product
B) Natural Gross Product
C) Global Gross Ecosystem Product
D) Resource Rent

13. How do economists describe the 'User Cost' of extracting a unit of a non-renewable natural resource?

A) The labor cost of extraction
B) The present value of future profits lost due to depletion today
C) The total tax paid per barrel
D) The market value of refined goods

14. What concept describes the 'irreversibility' of species extinction in economic decision-making?

A) The Quasi-Option Value
B) The Law of Diminishing Marginal Utility
C) The Substitution Effect
D) The Income Effect

15. What is 'Ecological Debt' in global economic terms?

A) Debt incurred by purchasing hybrid cars
B) The cumulative impact of wealthy nations consuming resources from developing nations beyond sustainable limits
C) The cost of cleaning up local trash
D) National debt used to build zoos

16. Why are bees considered to provide a 'Positive Externality' to the agricultural sector?

A) They are bought and sold at market rates
B) Their pollination services increase crop yields without a direct payment from the farmer
C) They are subsidized by the government
D) They provide honey for export

17. What is a 'Cap-and-Trade' system in the context of environmental regulation?

A) A system where governments set a limit on emissions and issue tradable permits
B) A tax on all imported animal products
C) A voluntary agreement to reduce plastic use
D) A restriction on the total number of species in a park

18. In economics, why is the 'Discount Rate' crucial when valuing long-term environmental projects like climate change mitigation?

A) It determines the weight given to future benefits relative to present costs
B) It is used to calculate species diversity
C) It measures the inflation of oxygen prices
D) It calculates the tax on solar panels