

Entrepreneurship and the Natural World

Entrepreneurship · Practice Test · 25 Questions

1. Which social insect species is known for 'scout' behavior, where individuals prospect for new nesting sites and perform a 'waggle dance' to secure consensus, similar to stakeholder buy-in?

- A) Honey bees
- B) Common ants
- C) Termites
- D) Paper wasps

2. What concept in nature describes the 'first-mover advantage' where a species occupies a niche before competitors, effectively controlling the available resources in that area?

- A) Mutualism
- B) Ecological succession
- C) Niche preemption
- D) Parasitism

3. Beavers act as 'ecosystem engineers' by modifying their environment to create habitats. Which term describes this value-added creation that benefits the wider biodiversity of the area?

- A) Keystone species
- B) Resource extraction
- C) Market saturation
- D) Supply chain

4. In the context of 'resource allocation', which animal species practices 'hoarding' by burying thousands of seeds in distinct locations, effectively managing a distributed investment portfolio for winter survival?

- A) Eastern grey squirrel
- B) Red fox
- C) Snowshoe hare
- D) Grizzly bear

5. What is the primary 'venture capital' equivalent for a migrating bird species, which must accumulate enough fat reserves (fuel) to successfully reach its destination?

- A) Stored lipids
- B) Calcium deposits
- C) Oxygen intake
- D) Feather density

6. In plant biology, what do trees in a forest 'trade' through their interconnected mycorrhizal fungi networks, often referred to as the 'Wood Wide Web'?

- A) Carbon and nutrients
- B) Sunlight and oxygen
- C) Pollen and nectar
- D) Water and stones

7. What 'business model' do cleaner wrasse fish employ when they remove parasites from larger fish, receiving food in exchange for the health service provided?

- A) Mutualistic symbiosis
- B) Predatory exploitation
- C) Passive scavenging
- D) Vertical integration

8. Which strategy, observed in many species like salmon, involves investing heavily in one massive reproductive event (spawning) rather than smaller, recurring events?

- A) Semelparity
- B) Iteroparity
- C) Commensalism
- D) Amensalism

9. When ants 'farm' aphids by protecting them in exchange for honeydew, this is a real-world example of which economic concept?

- A) Resource management
- B) Devaluation
- C) Market crashing
- D) Monopoly

10. What is the 'opportunity cost' for a flower that produces nectar, which is a high-energy metabolic investment used to attract pollinators?

- A) Reduced energy for seeds
- B) Increased risk of drought
- C) Loss of soil nitrogen
- D) Greater vulnerability to wind

11. In the 'competitive market' of a coral reef, what determines the success of a coral colony's expansion?

- A) Access to sunlight and nutrients
- B) Size of the predator population
- C) Speed of ocean currents
- D) Volume of sand deposits

12. How do some species of 'kleptoparasite' birds exhibit a 'theft-based' economic model?

- A) Stealing food caught by other birds
- B) Building nests in abandoned burrows
- C) Migrating only in winter
- D) Eating only decaying matter

13. Which animal uses 'divestment' by discarding parts of its body, such as a tail, to ensure its survival when threatened by a predator?

- A) Blue-tailed skink
- B) Green sea turtle
- C) Common wombat
- D) Eastern brown snake

14. What biological 'supply chain' process involves termites breaking down cellulose into nutrients for the rest of the colony?

- A) Decomposition and nutrient cycling
- B) Nitrogen fixation
- C) Solar energy conversion
- D) Water desalination

15. Which marine animal is known to use 'tools' (such as rocks to crack shells), showing an investment in technology to improve efficiency?

- A) Sea otter
- B) Bottlenose dolphin
- C) Giant octopus
- D) Green sea turtle

16. In nature, 'bioaccumulation' refers to the process where toxins increase in concentration as they move up the food chain. Which economic risk does this parallel?

- A) Compounding liability
- B) Diversified debt
- C) Asset appreciation
- D) Market liquidity

17. Why do some plants exhibit 'phenotypic plasticity', allowing them to adjust their growth based on the environment, effectively 'pivoting' their business model?

- A) To optimize resource usage
- B) To change their genetic code
- C) To avoid seasonal migration
- D) To attract specific nocturnal insects

18. What is the 'overhead cost' for a bird species that migrates thousands of miles, requiring massive caloric intake before departure?

- A) Metabolic energy expenditure
- B) Time spent away from territory
- C) Increased exposure to predators
- D) Loss of nesting materials

19. The strategy of 'bet-hedging' in plants, where seeds germinate at different times rather than all at once, is a safeguard against which environmental risk?

- A) Unpredictable weather patterns
- B) Competition for pollinators
- C) Overpopulation of the area
- D) Genetic degradation

20. Which animal species is considered an 'early adopter' in the evolutionary sense, rapidly colonizing disturbed habitats after a fire or flood?

- A) Pioneer species
- B) Apex predators
- C) K-strategists
- D) Deep-sea mollusks

21. How do pack-hunting predators like wolves demonstrate the benefit of 'collaboration' over solitary hunting?

- A) Increased success rate per hunt
- B) Lower caloric needs per individual
- C) Ability to avoid all weather conditions
- D) Reduction in territorial needs

22. Which economic principle is best represented by the 'tragedy of the commons' in a pond with limited oxygen and many competing fish?

- A) Over-consumption of shared resources
- B) Inability to migrate
- C) High cost of reproduction
- D) Predatory efficiency

23. What is the 'return on investment' for a deciduous tree that drops its leaves in autumn?

- A) Conservation of water and energy
- B) Faster growth in spring
- C) Protection from heavy snow
- D) Access to nutrients from soil

24. Which strategy is used by some fungi to 'monopolize' nutrients in a tree's root system, often to the exclusion of other species?

- A) Symbiotic exclusivity
- B) Rapid spore release
- C) Toxic secretion
- D) Large scale root extension

25. What do plants gain through the 'strategic partnership' of pollination with bees?

- A) Genetic cross-pollination
- B) Increased water retention
- C) Protection from herbivores
- D) Faster leaf development