

AI and the Natural World

Artificial Intelligence · Practice Test · 20 Questions

1. Which AI application is being used to identify and track individual whales by analyzing their fluke patterns, similar to human fingerprinting?

- A) Facial Recognition
- B) Fluke Identification Algorithms
- C) Vocalization Analysis
- D) Heat Signature Detection

2. AI-powered drones equipped with cameras and machine learning are being deployed to monitor _____ populations by counting nests and identifying threats in remote areas.

- A) Coral Reef
- B) Bird
- C) Insect
- D) Mammal

3. What type of AI is instrumental in analyzing satellite imagery to detect deforestation and illegal logging in real-time, aiding conservation efforts?

- A) Natural Language Processing
- B) Computer Vision
- C) Reinforcement Learning
- D) Expert Systems

4. AI algorithms can analyze the complex patterns of _____ migration routes by processing data from GPS trackers and environmental sensors to predict and protect critical habitats.

- A) Fungal Spore
- B) Insect
- C) Avian
- D) Marine Mammal

5. Machine learning models are used to interpret acoustic data from underwater microphones to identify different species of _____ based on their unique vocalizations.

- A) Marine Invertebrates
- B) Fish
- C) Marine Mammals
- D) Algae Blooms

6. AI is being used to develop predictive models for _____ outbreaks by analyzing environmental factors like temperature, humidity, and host animal behavior.

- A) Plant Disease
- B) Wildfire
- C) Bacterial Infection
- D) Fungal Growth

7. Which AI technique helps researchers classify and identify different types of _____ found in soil samples, contributing to understanding soil health and biodiversity?

- A) Microplastics
- B) Fungi
- C) Pollutants
- D) Nutrients

8. AI-driven image recognition software is being used to identify individual _____ in camera trap images, helping researchers monitor their distribution and behavior.

- A) Amphibians
- B) Reptiles
- C) Mammals
- D) Insects

9. What role does AI play in analyzing the impact of climate change on _____ species, by processing vast datasets of historical climate data and population trends?

- A) Domesticated
- B) Endangered
- C) Invasive
- D) Commonly Found

10. AI algorithms can process aerial imagery to map and monitor _____ in marine environments, identifying areas needing protection and assessing the impact of pollution.

- A) Oil Spills
- B) Seaweed Beds
- C) Ocean Currents
- D) Fishing Nets

11. Machine learning is employed to analyze _____ patterns in the wild, helping to understand their social structures and identify individuals within a group.

- A) Insect Swarm
- B) Bird Flock
- C) Primate Social
- D) Fish School

12. AI is used to develop smart _____ systems that can detect and alert authorities to illegal fishing activities by analyzing vessel tracking data and satellite imagery.

- A) Forestry
- B) Wildlife Poaching
- C) Marine
- D) Agricultural

13. What AI capability allows for the analysis of large-scale weather patterns to predict the impact of extreme weather events on _____ ecosystems?

- A) Urban
- B) Desert
- C) Marine
- D) Forest

14. AI models are used to analyze the _____ emitted by different plant species to identify them and assess their health, contributing to precision agriculture and ecological monitoring.

- A) Sound Frequencies
- B) Infrared Signatures
- C) Odor Compounds
- D) Magnetic Fields

15. Which AI approach is being used to create digital models of _____ ecosystems, allowing scientists to simulate the effects of environmental changes and test conservation strategies?

- A) Artificial Intelligence
- B) Virtual Reality
- C) Ecological
- D) Geological

16. AI-powered sensors and algorithms are helping to monitor _____ levels in rivers and lakes, identifying pollution sources and assessing water quality for aquatic life.

- A) Temperature
- B) Turbidity
- C) Dissolved Oxygen
- D) pH

17. Machine learning can analyze _____ patterns of plants to determine optimal conditions for growth and predict potential crop failures due to environmental stressors.

- A) Root Structure
- B) Leaf Coloration
- C) Growth Rate
- D) Seed Germination

18. AI is being utilized to analyze the _____ of various species to predict their susceptibility to certain diseases and inform wildlife health management strategies.

- A) Behavioral Traits
- B) Genetic Makeup
- C) Dietary Habits
- D) Physical Strength

19. Computer vision algorithms are employed to analyze _____ images from remote sensing, helping to map and monitor the distribution of invasive plant species.

- A) Microscopic
- B) Aerial
- C) Subterranean
- D) X-ray

20. AI-driven systems can process seismic data to understand _____ activity and its potential impact on surrounding natural environments and wildlife.

- A) Oceanic
- B) Atmospheric
- C) Geological
- D) Glacial