

AI and Machine Learning Adventures

AI And ML · Answer Key · 25 Questions

1. What does 'AI' stand for in the world of computers?

- A) Automated Intelligence
- B) Artificial Intelligence**
- C) Advanced Information
- D) Algorithm Integration

2. Machine Learning is a type of AI that allows computers to learn without being directly programmed for every single task. What is one way computers learn in ML?

- A) By reading storybooks
- B) By playing video games
- C) By analyzing large amounts of data**
- D) By watching cartoons

3. Which of these is an example of AI that you might use in your everyday life?

- A) A toaster
- B) A calculator
- C) A smartphone's voice assistant (like Siri or Google Assistant)**
- D) A bicycle

4. Imagine a computer program that can tell the difference between a picture of a cat and a picture of a dog. This is an example of which AI capability?

- A) Robotics
- B) Natural Language Processing
- C) Computer Vision**
- D) Robotic Process Automation

5. What is a 'model' in Machine Learning?

- A) A toy car
- B) A blueprint for building a robot
- C) A program that has learned from data and can make predictions**
- D) A person who trains the computer

6. When a computer learns to recognize spam emails, it is using Machine Learning to do what?

- A) Write poems
- B) Categorize or classify emails**
- C) Play chess
- D) Translate languages

7. Which technology helps AI understand and respond to human language, like when you talk to a smart speaker?

A) Robotics

B) Natural Language Processing (NLP)

C) Computer Vision

D) Machine Vision

8. What is 'data' in the context of Machine Learning?

A) Instructions for a computer

B) Information or facts that the computer learns from

C) A type of computer game

D) A list of commands

9. When a self-driving car uses sensors to see the road and other cars, what AI concept is it using?

A) Natural Language Processing

B) Robotics

C) Computer Vision

D) Expert Systems

10. What is the goal of 'training' a Machine Learning model?

A) To make the computer tired

B) To teach the computer to recognize patterns and make accurate predictions

C) To give the computer a break

D) To erase all its memory

11. Which of these is a common type of data used to train AI systems?

A) Stories

B) Pictures

C) Music

D) All of the above

12. What is 'deep learning'?

A) A type of AI that uses multiple layers of artificial neural networks to learn complex patterns

B) A way to make AI models run faster

C) A new programming language

D) A method to store AI models

13. AI can be used to help doctors diagnose illnesses by analyzing medical images like X-rays. This is an example of AI in which field?

- A) Entertainment
- B) Agriculture
- C) Healthcare**
- D) Construction

14. When a streaming service recommends movies you might like, it's using AI to do what?

- A) Translate languages
- B) Generate music
- C) Personalize recommendations**
- D) Control robots

15. What is a 'neural network' in AI?

- A) A type of computer virus
- B) A network of neurons inspired by the human brain, used for learning**
- C) A way to connect computers together
- D) A new type of internet

16. AI systems that help write text or create art are using a type of Machine Learning called?

- A) Supervised Learning
- B) Unsupervised Learning
- C) Generative AI**
- D) Reinforcement Learning

17. What does it mean for an AI to be 'biased'?

- A) It only understands one language
- B) It has unfair preferences or prejudices due to the data it was trained on**
- C) It makes mistakes
- D) It runs very slowly

18. Which of these is a common application of AI in sports?

- A) Predicting weather
- B) Analyzing player performance**
- C) Designing buildings
- D) Managing finances

19. When a robot learns to walk or pick up objects, it's often using an AI technique that rewards good actions and punishes bad ones. This is known as:

- A) Supervised Learning
- B) Unsupervised Learning
- C) Reinforcement Learning**
- D) Transfer Learning

20. What is the main benefit of AI learning from data rather than being explicitly programmed for every situation?

- A) It makes computers slower
- B) It allows AI to handle new and unexpected situations**
- C) It requires less energy
- D) It makes computers simpler

21. What are 'algorithms' in the context of AI and ML?

- A) Physical machines
- B) Sets of rules or instructions that computers follow to solve problems or learn**
- C) Types of computer screens
- D) Human emotions

22. When AI is used to create realistic-looking fake images or videos, it's sometimes called:

- A) Deepfake**
- B) Artificial Reality
- C) Virtual Vision
- D) Digital Dream

23. What is the role of a 'dataset' in Machine Learning?

- A) A collection of answers
- B) A collection of information used to train the ML model**
- C) A type of computer code
- D) A list of questions

24. AI can help design new medicines by simulating how different molecules might interact. This is an example of AI in:

- A) Art
- B) Music
- C) Science and research**
- D) Sports

25. What is the primary difference between AI and Machine Learning?

- A) AI is a subset of Machine Learning
- B) Machine Learning is a subset of AI**
- C) They are completely different fields
- D) AI is older than Machine Learning