

AI and ML Historical Milestones

Artificial Intelligence History · Answer Key · 15 Questions

1. Who published the 1943 paper 'A Logical Calculus of the Ideas Immanent in Nervous Activity', which introduced the first mathematical model of a biological neuron?

- A) Warren McCulloch and Walter Pitts**
- B) Alan Turing and John von Neumann
- C) Marvin Minsky and Seymour Papert
- D) Claude Shannon and John McCarthy

2. What was the name of the first neural network-based hardware computer, built in 1951 by Marvin Minsky and Dean Edmonds?

- A) Perceptron
- B) SNARC**
- C) Mark I
- D) Logic Theorist

3. In 1956, the Dartmouth Summer Research Project on Artificial Intelligence was held. Who is credited with coining the term 'Artificial Intelligence' for this workshop?

- A) Herbert Simon
- B) Allen Newell
- C) John McCarthy**
- D) Arthur Samuel

4. Frank Rosenblatt developed the Perceptron in 1957. What specific limitation did Minsky and Papert expose in their 1969 book that led to the 'AI Winter'?

- A) Inability to perform backpropagation
- B) Inability to solve the XOR problem**
- C) High computational latency
- D) Lack of training data

5. What is the name of the expert system developed at Stanford in the 1970s, designed to identify bacteria causing severe infections?

- A) DENDRAL
- B) MYCIN**
- C) XCON
- D) R1

6. Arthur Samuel, a pioneer in machine learning, created a program that famously defeated a human master at which game in 1962?

- A) Chess
- B) Go
- C) Checkers**
- D) Backgammon

7. The backpropagation algorithm, essential for training deep neural networks, was popularized in the scientific community by a 1986 paper written by which researchers?

- A) Rumelhart, Hinton, and Williams**
- B) Bengio, LeCun, and Schmidhuber
- C) Silver, Hassabis, and Legg
- D) Goodfellow, Pouget-Abadie, and Mirza

8. In 1997, IBM's Deep Blue became the first computer to beat a reigning world chess champion. Who was the champion defeated?

- A) Anatoly Karpov
- B) Viswanathan Anand
- C) Garry Kasparov**
- D) Vladimir Kramnik

9. What was the first official 'AI' program, presented at the Dartmouth Conference, capable of proving mathematical theorems?

- A) General Problem Solver
- B) Logic Theorist**
- C) ELIZA
- D) SHRDLU

10. Who invented the 'ELIZA' chatbot in the mid-1960s, which simulated a Rogerian psychotherapist?

- A) Joseph Weizenbaum**
- B) Terry Winograd
- C) John Searle
- D) Hubert Dreyfus

11. In the context of reinforcement learning, who introduced the Q-learning algorithm in 1989?

- A) Richard Sutton
- B) Christopher Watkins**
- C) Andrew Barto
- D) Geoffrey Hinton

12. What was the first system to demonstrate the ability to learn a strategy to play Atari 2600 games directly from raw pixel inputs using Deep Q-Networks?

- A) DeepMind**
- B) OpenAI
- C) Google Brain
- D) Baidu Research

13. Which algorithm, introduced in 1995, became the standard for handling non-linear classification tasks in machine learning before the deep learning resurgence?

- A) Random Forest
- B) Gradient Boosting
- C) Support Vector Machines**
- D) Naive Bayes

14. In 2012, the AlexNet architecture achieved a breakthrough in the ImageNet challenge. Who were the primary authors of this paper?

- A) Krizhevsky, Sutskever, and Hinton**
- B) LeCun, Bengio, and Hinton
- C) Silver and Hassabis
- D) Schmidhuber and Hochreiter

15. The term 'Deep Learning' was popularized to describe the multi-layer perceptron advancements. Which researcher is widely credited with the invention of the Long Short-Term Memory (LSTM) network in 1997?

- A) Sepp Hochreiter**
- B) Yann LeCun
- C) Yoshua Bengio
- D) Ian Goodfellow