

# Practice Quiz: Artificial Intelligence and Machine Learning

Practice Quiz: Artificial Intelligence and Machine Learning  
Practice Assignment • 5 min

Your grade: 100%  
Your latest: 100% • Your highest: 100% • To pass you need at least 80%. We keep your highest score.

Next Item →

1. (True/False) Machine Learning is a subset of Artificial Intelligence 1 / 1 point  
☐ False  
☒ True  
Correct!
2. (True/False) Deep Learning is a subset of Machine Learning 1 / 1 point  
☐ False  
☒ True  
Correct!
3. (True/False) Machine Learning consists in programming computers to learn from real-time human interactions 1 / 1 point  
☒ False  
Correct!  
☐ True

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# Practice Quiz: Modern AI Applications and Workflows

Practice Quiz: Modern AI Applications and Workflows  
Practice Assignment • 5 min

Your grade: 100%  
Your latest: 100% • Your highest: 100% • To pass you need at least 80%. We keep your highest score.

Next Item →

1. (True/False) AI Winters happened mostly due to the lack of understanding behind the theory of neural networks 1 / 1 point  
☐ True  
☒ False  
Correct! AI Winters were mostly due to scalability issues related to data size and computing power. Please review the Modern AI lesson.
2. Most modern applications that use computer vision, use models that were trained using this discipline: 1 / 1 point  
☐ Machine Learning  
☐ Artificial Intelligence  
☒ Deep Learning  
Correct!
3. In the Machine Learning Workflow, the main goal of the Data Exploration and Preprocessing step is to: 1 / 1 point  
☐ Identify what data that is best suited to find a solution to your business problem  
☒ Determine how to clean your data such that you can use it to train a model  
Correct!

# Graded Quiz: Module 1 - Modern AI and its Applications

## Your grade: 100%

Your latest: 100% • Your highest: 100% • To pass you need at least 70%. We keep your highest score.

Next item →

1. What is the goal of supervised learning? 1 / 1 point

- ☒ Predict the labels.
- ☐ Find the target.
- ☐ Predict the features.
- ☐ Find an underlying structure of the dataset without any labels.

☒ Correct  
The goal for supervised learning is to be able to predict the label.

2. What is deep learning? 1 / 1 point

- ☒ Deep learning is machine learning that involves deep neural networks.
- ☐ Deep learning is another name for artificial intelligence.
- ☐ Deep learning includes artificial intelligence and machine learning.
- ☐ None of the above are correct.

☒ Correct  
Deep learning is machine learning that involves using very complicated models called deep neural networks. Deep learning is a subset of machine learning.

3. When is a standard machine learning algorithm usually a better choice than using deep learning to get the job done? 1 / 1 point

- ☒ When working with small data sets.
- ☐ When the data is steady over time.
- ☐ When working with large data sets.
- ☐ None of the above are correct.

☒ Correct  
A standard machine learning algorithm is a better choice when you are working with smaller datasets, and if the data is changing a lot over time and you don't have a steady dataset.

4. What is a Turing test? 1 / 1 point

- ☐ It tests and cleans the dataset.
- ☒ It tests a machine's ability to exhibit intelligent behavior.
- ☐ It tests images.
- ☐ It tests the dataset.

☒ Correct  
In 1950, Alan Turing developed the Turing test to test a machine's ability to exhibit intelligent behavior. Alan Turing's test has served as a foundational threshold for artificial intelligence.

5. What are some of the different milestones in deep learning history? 1 / 1 point

- ☐ Deep Blue defeats a world champion chess player and TensorFlow is released
- ☒ Geoffrey Hinton's work, AlexNet, and TensorFlow
- ☐ Deep Blue defeats a world champion chess player, and AlexNet is created.
- ☐ Deep Blue defeats a world champion chess player, and Keras is released.

☒ Correct  
In 2006, the previous limitations of deep learning, namely exploding and vanishing gradients were overcome with algorithmic advancements such as Geoffrey Hinton's work on unsupervised pre-training. Neural networks are rebranded as deep learning, as we are able to train much deeper networks, networks with more layers; in 2012, a deep learning model using convolutional neural nets called AlexNet achieved a top five error of 15.3 percent; in 2015, one of the most popular libraries, TensorFlow, was built for deep learning, making it more powerful and accessible.

6. What is artificial intelligence? 1 / 1 point

- ☐ A subset of deep learning.
- ☒ Any program that can sense, reason, act, and adapt.
- ☐ A subset of machine learning
- ☐ None of the above.

☒ Correct  
Artificial intelligence is any program that can sense, reason, act, and adapt. It is essentially a machine taking any form of intelligent behavior.

7. What are two spaces within AI that are going through drastic growth and innovation? 1 / 1 point

- ☐ Computer vision and deep learning.
- ☒ Computer vision and natural language processing.
- ☐ Deep learning and machine learning.
- ☐ Language processing and deep learning.

☒ Correct  
In two spaces we are seeing drastic growth and innovation, computer vision and natural language processing. The sharp advancements in computer vision are impacting multiple areas. For example, cars getting to the point where they can drive themselves. Similarly, natural language processing is booming with vast improvements in ability to translate, determine sentiment, clustering of new articles, writing papers, and many others.

8. Why did AI flourish so much in the last years? 1 / 1 point

- ☐ Access to hardware for cleaning data
- ☐ Stylish designed computers
- ☒ Faster and inexpensive computers and data storage
- ☐ Data storage in the cloud is much more expensive

☒ Correct  
AI flourished in the last years with the cloud infrastructure now in place to store large amounts of data for much cheaper, and the plethora of new ways to capture data are now able to build larger, more new once datasets to learn underlying patterns across a multitude of fields. We also have faster computers, and we now have access to powerful hardware for processing and storing data.

9. How does Alexa use artificial intelligence? 1 / 1 point

- ☐ Recognizes faces and pictures.
- ☒ Recognizes our voice and answers questions.