Started on	Friday, February 17, 2023, 9:00 PM
State	Finished
Completed on	Friday, February 17, 2023, 9:17 PM
Time taken	17 mins
Points	10.00/10.00
Grade	**100.00** out of 100.00

Question **1**

Correct

1.00 points out of 1.00

Match terms that are used synonymously in machine learning literature.

Features	Attributes ✔
Class labels	Targets ✔
Samples	Training examples ✔

Your answer is correct.

The correct answer is: Features → Attributes, Class labels → Targets, Samples → Training examples

Question 2

Correct

1.00 points out of 1.00

If the training data for a perceptron is not linearly separable then:

Select one:

- no testing data will be required.
- no weight vector will produce an error of zero. ✔
- the learning rule will become nonlinear over time.
- a division by zero exception will be raised.
- the perceptron learning algorithm is guaranteed to find a weight vector that is 100% correct.
- η will go to infinity.
- the "no free lunch theorem" will be violated.
- the myelin sheath will degrade.
- a high learning rate will be required.

Your answer is correct.

The correct answer is: no weight vector will produce an error of zero.

Question 3

Correct

1.00 points out of 1.00

The output of a perceptron can be:

Select one:

- a collection of clusters.
- a Python dictionary.
- only one of two predefined values. ✔
- a 2-dimensional NumPy array.
- a pulse train of any frequency.
- $0, \pi/2$, or $\pi/2$.
- any number that can be stored in a floating-point variable.
- a pulse train with a frequency between 0.0 and 1.0.
- any non-negative rational value.
- any point in the complex plane.

Your answer is correct.

The correct answer is: only one of two predefined values.

Question **4**

Correct

1.00 points out of 1.00

The design of perceptrons was inspired by:

Select one:

- unsupervised learning
- Voltron
- support vector machines
- neurons ✔
- Persephone
- deep neural networks
- reinforcement learning
- perspective
- precipice dynamics
- numpy and pandas
- alpha-beta pruning
- generative adversarial networks
- the constructor method
- the physical symbol system hypothesis

Your answer is correct.

The correct answer is: neurons

Question **5**

Correct

1.00 points out of 1.00

In a perceptron, weights are updated:

Select one:

- only at initialization.
- during learning. ✔
- according to height.
- using only negative values.
- in an unsupervised manner.
- only after learning is complete.
- in a pandas DataFrame.
- using a clustering algorithm.

Your answer is correct.

The correct answer is: during learning.

Question **6**

Correct

1.00 points out of 1.00

Perceptrons are used for:

Select one:

- supervised learning ✔
- genetic algorithms
- classical conditioning
- minimax search
- reinforcement learning
- deviant learning
- unsupervised learning

Your answer is correct.

The correct answer is: supervised learning

Question 7

Correct

1.00 points out of 1.00

"Clustering" is a kind of:

Select one:

- Reinforcement learning
- Unbiased learning
- Unsupervised learning ✔
- Supervised learning

Your answer is correct.

The correct answer is: Unsupervised learning

Question 8

Correct

1.00 points out of 1.00

Perceptrons are used for:

Select one:

- clustering
- regression analysis
- reinforcement learning
- symbolic regression
- classification ✔

Your answer is correct.

The correct answer is: classification

Question **9**

Correct

1.00 points out of 1.00

In the perceptron learning rule, the Greek symbol η, sometimes written as "eta," is used for:

Select one:

- the learning rate ✔
- free lunch
- the predicted class label
- the true class label
- the synaptic weight
- the loss

Your answer is correct.

The correct answer is: the learning rate

Question **10**

Correct

1.00 points out of 1.00

In a perceptron, the learning rate is:

Select one:

- always 1
- always 0
- set to the average feature value
- a hyperparameter ✔
- computed using the no free lunch theorem

Your answer is correct.

The correct answer is: a hyperparameter

◄ Code from class (perceptron and adaline)

Jump to...

Perceptron Assignmer