Take Test: Quiz 8.2

Test Information

Description	This quiz is designed to assess your understanding of the concepts presented in recorded lectures 8.3 and 8.4.
Instructions	You should complete this quiz after viewing recorded lectures 8.3 and 8.4.
Multiple Attempts	This test allows 2 attempts. This is attempt number 1.
Force Completion	This test can be saved and resumed later.

Question Completion Status:

QUESTION 1 **2 points** Save Answer

In Hopfield networks, a state of a node is either 1 or -1.

- ◯ True
- ◯ False

QUESTION 2 **3 points** Save Answer

In Hopfield networks, inhibition is embodied in the network because

- ◯ the diagonal elements are all 1's.
- ◯ the states variables are either -1 or 1.
- ◯ The state variables can have the value of -1.

QUESTION 3 **2 points** Save Answer

Before the Z function (the function that zeros out the diagonal elements) is applied to a weight matrix of a Hopfield network, the diagonal elements of that weight matrix are all 1's because

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it.

QUESTION 4

2 points Save Answer

After a matrix-vector multiplication and application of the hard-limiting activation function in a Hopfield network using bi-polar state variables, the state vector can never have an element equal to zero.

- True
- False

QUESTION 5

3 points Save Answer

Asynchronous updating essentially involves

- updating a single state variable by taking the inner product of a row in the weight matrix and the state column vector and then applying the hard-limiting function.
- performing the matrix-vector multiplication and zeroing out the entries that do not correspond to the updated node.

Question Completion Status:

vector.

QUESTION 6

2 points Save Answer

The value of the Hecht-Nielsen function always decreases with each iteration.

- True
- False

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