

# Short Quiz



Quiz submitted



- Due Feb 13 at 9:40pm
- Points 20
- Questions 10
- Available Feb 13 at 8pm - Feb 13 at 9:40pm 1 hour and 40 minutes
- Time Limit 15 Minutes

## Instructions

Answer the following questions.

## Attempt History

	Attempt	Time	Score
<b>LATEST</b>	<a href="#">Attempt 1</a>	4 minutes	20 out of 20

Score for this quiz: 20 out of 20

Submitted Feb 13 at 8:35pm

This attempt took 4 minutes.



Question 1

2 / 2 pts

What is the main goal of deep learning?

- ☐ Reinforcement learning
- ☐ Unsupervised learning
- ☐ Feature extraction

Correct!

- ☒ Training neural networks to learn from data and make predictions



Question 2

2 / 2 pts

Which type of neural network architecture is primarily used for image processing tasks?

Correct!

- ☒ Convolutional Neural Network
- ☐ Recurrent Neural Network
- ☐ Autoencoders
- ☐ Deep Belief Networks



Question 3

2 / 2 pts

What is backpropagation/backward pass operation in the context of deep learning?

Correct!

- ☒ A method for
- ☐ A method for
- ☐ A technique to prevent overfitting
- ☐ A method for feature selection

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#### Question 4

2 / 2 pts

Which deep learning architecture is well-suited for processing sequential data like natural language?

- ☐ CNN
- ☐ Feedforward

Correct!

- ☒ RNN
- ☐ Autoencoders



#### Question 5

2 / 2 pts

In deep learning, what does the term “epoch” refer to?

Correct!

- ☒ The number of iterations over the entire training dataset during training
- ☐ The process of adjusting learning rates during training
- ☐ The number of layers in a neural network
- ☐ The technique for initializing the weights of a neural network



#### Question 6

2 / 2 pts

What is the role of the activation function in a neural network?

Correct!

- ☒ It introduces non-linearity to the network, allowing it to learn complex patterns.
- ☐ It controls the dropout rate during training.
- ☐ It defines the learning rate during training.
- ☐ It determines the number of neurons in each layer.



#### Question 7

2 / 2 pts

What is the purpose of the learning rate in the context of deep learning?

- ☐ To adjust the number of layers in the neural network

Correct!

- ☒ To control the speed at which the model learns during training
- ☐ To handle the imbalance in the training dataset
- ☐ To determine the activation function to be used in the network



## Question 8



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2 / 2 pts

What is the purpose of the pooling layer in a CNN?

Correct!

- ☒ It reduces the spatial dimensions of the feature maps.
- ☐ It adds more convolutional layers to the network.
- ☐ It introduces non-linearity to the network.
- ☐ It performs feature extraction on the input data.



## Question 9

2 / 2 pts

What is the role of the “loss function” in deep learning?

- ☐ It determines the number of neurons in each layer.

Correct!

- ☒ It measures the model's performance and guides the optimization process.
- ☐ It defines the learning rate during training.
- ☐ It controls the dropout rate during training.



## Question 10

2 / 2 pts

What does a neuron compute?

- ☐ A neuron computes the mean of all features before applying the output to an activation function.
- ☐ A neuron computes a function 'g' that scales the input  $x$  linearly ( $Wx+b$ )
- ☐ A neuron computes an activation function followed by a linear function ( $z = Wx + b$ )

Correct!

- ☒ A neuron computes a linear function ( $z = Wx + b$ ) followed by an activation function.

Quiz Score: 20 out of 20