

Quiz review

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State	Finished
Completed on	Wednesday, 13 March 2024, 4:31 PM
Time taken	2 mins 21 secs
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct
Mark 1.00 out of 1.00

Which model type aims to capture the joint probability $P(x, y)$?

- 47562
- ☐ Discriminative Model
 - ☐ Both Generative Model and Discriminative Model
 - ☒ Generative Model✔
 - ☐ Probability Distribution
 - ☐ regression model

The correct answer is: Generative Model

Question 2

Correct
Mark 1.00 out of 1.00

For what tasks can generative models be applied?

- 47562
- ☐ Classification only
 - ☒ Data generation, denoising, inpainting, and more✔
 - ☐ Data labeling only
 - ☐ Only data generation
 - ☐ Only denoising

47562

The correct answer is: Data generation, denoising, inpainting, and more



Question 3

Correct

Mark 1.00 out of 1.00

What does a probability distribution provide?

- ☐ A training method for models
- ☒ A mathematical description of outcomes for a random variable ✓
- ☐ A method for generating new data
- ☐ A measure of model error
- ☐ A decision boundary for classification

The correct answer is: A mathematical description of outcomes for a random variable

Question 4

Correct

Mark 1.00 out of 1.00

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Within generative models, what function does the discriminator serve in GANs?

- ☒ To distinguish between real and generated data ✓
- ☐ To optimize the generator
- ☐ To capture the joint probability
- ☐ To generate new data
- ☐ To calculate the likelihood

The correct answer is: To distinguish between real and generated data

Question 5

Correct

Mark 1.00 out of 1.00

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What's a significant hurdle when training GANs?

- ☐ Slow convergence rate
- ☐ Inability to generate high-resolution images
- ☐ The discriminator becoming too weak
- ☐ Overfitting to the training data
- ☒ Mode collapse ✓

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The correct answer is: Mode collapse

Question 6

Correct

Mark 1.00 out of 1.00

How is the likelihood of data given a model symbolized?

- ☐ $P(\text{model} \mid \text{data})$
- ☐ $P(\text{model})$
- ☒ $P(\text{data} \mid \text{model})$ ✓
- ☐ $P(\text{data})$
- ☐ $P(\text{data} \ \& \ \text{model})$

The correct answer is: $P(\text{data} \mid \text{model})$

Question 7

Correct

Mark 1.00 out of 1.00

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Within the architecture of Generative Adversarial Networks (GANs), which duo of fundamental elements are paramount?

- ☐ Classifier and Regressor
- ☐ Activator and Deactivator
- ☐ Forward and Backward Propagators
- ☐ Encoder and Decoder
- ☒ Generator and Discriminator ✓

The correct answer is: Generator and Discriminator

Question 8

Correct

Mark 1.00 out of 1.00

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Which of the following best describes the difference between generative and discriminative models?

- ☐ Generative models are older in concept
- ☐ Generative models are always better
- ☐ Discriminative models can't generate data
- ☐ Generative models are used for classification only
- ☒ Generative models learn the data distribution, while discriminative models learn the decision boundary ✓

The correct answer is: Generative models learn the data distribution, while discriminative models learn the decision boundary

Question 9

Correct

Mark 1.00 out of 1.00

Which of the following is NOT a property of likelihood?

- ☐ It is always a probability between 0 and 1
- ☒ It is not normalized like a probability ✓
- ☐ It can be used to compare different models
- ☐ It is a function of model parameters
- ☐ It measures how well a model explains data

The correct answer is: It is not normalized like a probability

Question 10

Correct

Mark 1.00 out of 1.00

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Which claim regarding generative models isn't true?

- ☐ They capture the data distribution
- ☐ They can be used in unsupervised learning scenarios
- ☒ They always require labeled data for training ✓
- ☐ They can be combined with discriminative models for certain tasks
- ☐ They can generate new data samples

The correct answer is: They always require labeled data for training

[◀ Introduction to Generative Models](#)

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