



[FIT5201_S2_2025](#) / [Assessments](#) / [1. Quiz / Test](#) / Quiz 2 2025 S2

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Grade	5.00 out of 9.00 (55.56%)

Question 1

Incorrect

Mark 0.00 out of
1.00

Which statement about the iterative optimization algorithms for general machine learning problems is incorrect

Select one:

- a. They are insensitive to the initial values
- b. They might end at local minima ×
- c. Both gradient descent algorithms and stochastic gradient descent algorithms are iterative optimization algorithms

The correct answer is: They are insensitive to the initial values

Question 2

Incorrect

Mark 0.00 out of
1.00

Which statement is incorrect about the understanding of Bias and Variance in machine learning?

Select one:

- a. Variance is an indication of how sensitive the model's predictions are to the data that is used for training
- b. Given several models, the model with smallest bias is the best model
- c. Bias is an indication of much systematic error a model makes

The correct answer is: Given several models, the model with smallest bias is the best model

Question 3

Correct

Mark 1.00 out of
1.00Which statement about basis function is *incorrect*?

Select one:

- a. Basis functions are functions of the input variables
- b. Basis functions in linear regression models are linear
- c. Basis functions are linearly combined by the model parameters (coefficients)

The correct answer is: Basis functions in linear regression models are linear

Question 4

Correct

Mark 1.00 out of
1.00

Which one is *not* an advantage of stochastic gradient descent algorithm over gradient descent algorithm?

Select one:

- a. It is applicable even if not all data fits into main memory or is available at the same time
- b. It is more computationally efficient for large data sets
- c. It is insensitive to the initial values 

The correct answer is: It is insensitive to the initial values

Question 5

Correct

Mark 1.00 out of
1.00

Which statement about linear regression is *incorrect*?

Select one:

- a. Linear regression models describe a linear function in the input variables 
- b. Linear regression models describe a linear function of the model parameters
- c. The target variable is continuous

The correct answer is: Linear regression models describe a linear function in the input variables

Question 6

Incorrect

Mark 0.00 out of
1.00

Which one below is an indication that you need to train your model with smaller sets of features?

Select one:

- a. When your model has a high variance
- b. When your model has a high bias 

The correct answer is: When your model has a high variance

Question 7

Incorrect

Mark 0.00 out of
1.00Which statement about the gradient descent algorithm is *incorrect*

Select one:

- a. It is an iterative algorithm
- b. It needs to process the entire training set in one optimization step ✖
- c. For each iteration, the parameters are updated in the direction of the gradient of the training error

The correct answer is: For each iteration, the parameters are updated in the direction of the gradient of the training error

Question 8

Correct

Mark 1.00 out of
1.00Which statement about bias and variance is *incorrect*?

Select one:

- a. Very flexible models have low bias and high variance, and relatively rigid models have high bias and low variance
- b. A high bias and low variance is an indication of overfitting ✓
- c. There is usually a trade-off between bias and variance

The correct answer is: A high bias and low variance is an indication of overfitting

Question 9

Correct

Mark 1.00 out of
1.00

Suppose your model has a high error on a test set. Which one blow is an indication that training your model on a larger dataset can reduce the test error?

Select one:

- a. Your model has a high variance ✓
- b. Your model has a high bias

The correct answer is: Your model has a high variance

