

SDAIA ML Week 4 Quiz

1) The k-fold method trains k models and then gives you the best performance between them.

10 ★☐ True☒ **False.**

2) If we're dealing with the problem of classification of a tumor between benign (Negative) or malignant (Positive), what is the most important metric to tune our model?

10 ★☒ **Recall**☐ Accuracy☐ Precision☐ ROC AUC

3) When comparing 2 models, we train them on the same dataset, and we have to test them on the same test set.

10 ★☒ **True**☐ False

4) When we set $\alpha/2 = 2.5\%$, what's the corresponding value of $Z_{\alpha/2}$? Tip: You can refer to the probability tables that you saw during the lessons.

10 ★

☐ 2.575☒ **1.96**☐ 1.645

5) Data Imbalance is one of the most common problems that occur in regression problems.

10 ★

☐ True☒ **False**

6) When decreasing the complexity of our model we have to avoid: (Mark all correct responses)

10 ★

☐ Data Bias☒ **Underfitting**☐ Data Imbalance☐ Overfitting

7) To work with hyperparameter tuning, the best way is to divide our dataset between/among:

10 ★

☐ Training and testing☐ Training, validation and testing☐ Training and testing, and apply k-fold cross validation on training.☒ **Training, validation and testing, and apply k-fold cross validation on training**

8) In bagging, we aggregate results by:

10 ★

- ☐ Weighted Averaging
- ☐ Soft Voting
- ☒ **Majority Voting**
- ☐ Minority Voting

9) In Statistical Hypothesis Testing, our null hypothesis is that the 2 models perform differently. Then we run the test and check if we reject the null hypothesis or not.

10 ★

- ☐ True
- ☒ **False**

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become 0, we are most likely dealing with:

- ☒ **Lasso Regularization**
- ☐ Ridge Regularization
- ☐ Elastic Net Regularization
- ☐ Inverse Regularization

 Submit Test

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