1

Question: What does TPR stand for in the context of ROC curves?

A) True Positive Ratio

B) True Positive Rate

C) False Positive Rate

D) False Positive Ratio

Correct Answer: B

2

Question: Which of the following is NOT a use case of ROC curves mentioned in the text?

A) Medical Diagnostics

B) Fraud Detection

C) Weather Forecasting

D) Customer Churn Prediction

Correct Answer: C

3

Question: What is a confusion matrix?

A) A graph showing the performance of a classification model.

B) A table visualizing the performance of a classification model by comparing predicted and actual values.

C) A formula for calculating classification accuracy.

D) A type of significance test.

Correct Answer: B

4

Question: In a confusion matrix, what does a False Positive represent?

A) Correctly predicting a negative instance as negative.

B) Incorrectly predicting a positive instance as negative.

C) Correctly predicting a positive instance as positive.

D) Incorrectly predicting a negative instance as positive.

Correct Answer: D

5

Question: The formula for classification accuracy is:

A) TP / TP + FP

B) TP / TP + FN

C) (TP + TN) / (TP + TN + FP + FN)

D) (TP + FN) / (TP + TN + FP + FN)

Correct Answer: C

6

Question: Precision is calculated as:

A) TP / TP + FN

B) TP / TP + FP

C) TN / TN + FP

D) TN / TN + FN

Correct Answer: B

7

Question: Recall is also known as:

A) Specificity

B) Precision

C) Sensitivity

D) F1 Score

Correct Answer: C

8

Question: The F1 score is the:

A) Arithmetic mean of precision and recall.

B) Geometric mean of precision and recall.

C) Harmonic mean of precision and recall.

D) Sum of precision and recall.

Correct Answer: C

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Question: Which metric is best suited for evaluating the performance of a regression model?

A) Classification Accuracy

B) Recall

C) Mean Squared Error (MSE)

D) F1 Score

Correct Answer: C

10

Question: What does a p-value less than 0.05 typically suggest in a significance test?

A) The null hypothesis should be accepted.

B) The observed differences are likely due to random chance.

C) The observed differences are unlikely to have occurred by random chance.

D) The test is inconclusive.

Correct Answer: C