

## ISTQB Certified Tester AI Testing (CT-AI) - Mock Exam

1. What is the key difference between supervised and unsupervised learning?

- A. Labeled vs unlabeled data
- B. Linear vs non-linear models
- C. Structured vs unstructured data
- D. Static vs dynamic learning

2. Which concept best explains 'overfitting'?

- A. High bias
- B. Model memorizes noise
- C. Perfect generalization
- D. Too little data

3. True or False: Underfitting occurs when a model is too complex.

4. What metric is most appropriate for highly imbalanced datasets?

- A. Accuracy
- B. Precision
- C. F1 Score
- D. MSE

5. Which metric evaluates a model across all classification thresholds?

- A. ROC-AUC
- B. Precision
- C. MAE
- D. Confusion Matrix

6. True or False: Recall penalizes false positives.

7. Which strategy is best when the expected result is unknown?

- A. Black-box testing

- B. Unit testing
- C. Metamorphic testing
- D. Regression testing

8. Which issue does 'data drift' refer to?

- A. Missing values in input
- B. Model overfitting
- C. Shift in input distribution over time
- D. Class imbalance

9. True or False: Pairwise testing ensures every possible input combination is tested.

10. What tool explains predictions using local interpretable models?

- A. SHAP
- B. LIME
- C. Confusion Matrix
- D. ROC

11. Which concept ensures humans are ultimately responsible for AI outcomes?

- A. Explainability
- B. Traceability
- C. Accountability
- D. Autonomy

12. True or False: SHAP is based on game theory.

13. What is the purpose of defect prediction in AI testing?

- A. Improve model explainability
- B. Prioritize high-risk code
- C. Normalize inputs
- D. Simplify model training

14. Which of the following is NOT a typical use of AI in testing?

- A. Generate test data
- B. Predict defect-prone modules
- C. Validate UI layouts visually
- D. Create regulatory documentation

15. True or False: AI models can be used to prioritize test cases based on risk.

16. In a credit approval system, what metric is most important to reduce denying qualified applicants?

- A. Accuracy
- B. Recall
- C. Specificity
- D. Precision

17. In cancer diagnosis, which metric should be prioritized?

- A. Precision
- B. Accuracy
- C. Recall
- D. ROC-AUC

18. True or False: Accuracy is always the best metric to use in AI classification tasks.

19. What is a 'test oracle'?

- A. Tool for data labeling
- B. Function that validates expected outputs
- C. Training data validator
- D. Explainability dashboard

20. What does GDPR enforce in the context of AI?

- A. Code coverage thresholds
- B. Right to explanation and data privacy
- C. Mandatory deep learning audits

D. Bias removal via LIME