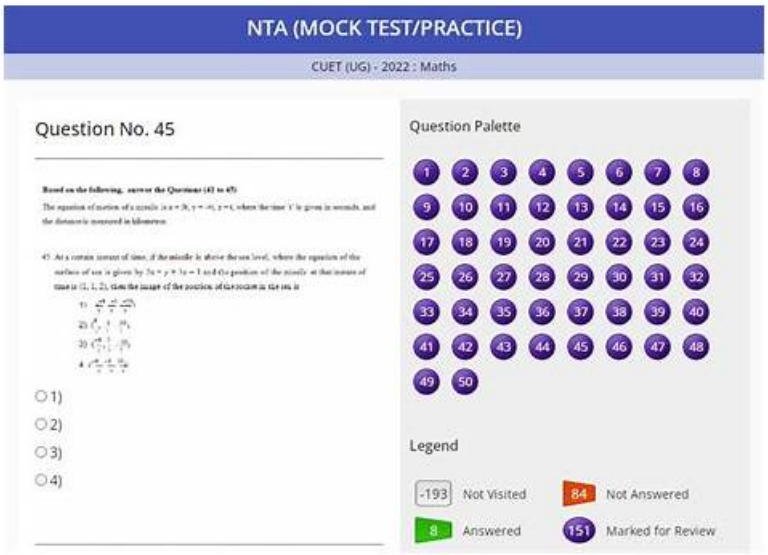
New CT-AI Mock Test & CT-AI Reliable Exam Simulations



DOWNLOAD the newest Lead2PassExam CT-AI PDF dumps from Cloud Storage for free: https://drive.google.com/open?id=1W_uoy-EvcZcvCRtwyTyQ1zwpjhA6q-Wl

Certified Tester AI Testing Exam CT-AI practice test not only gives you the opportunity to practice with real exam questions but also provides you with a self-assessment report highlighting your performance in an attempt. Lead2PassExam keeps an eye on changes in the ISTQB CT-AI exam syllabus and updates Certified Tester AI Testing Exam CT-AI Exam Dumps accordingly to make sure they are relevant to the latest exam topics. After making the payment for Certified Tester AI Testing Exam CT-AI dumps questions you'll be able to get free updates for up to 365 days.

ISTQB CT-AI Exam Syllabus Topics:

Topic	Details
Topic 1	• Neural Networks and Testing: This section of the exam covers defining the structure and function of a neural network including a DNN and the different coverage measures for neural networks.
Topic 2	• ML: Data: This section of the exam covers explaining the activities and challenges related to data preparation. It also covers how to test datasets create an ML model and recognize how poor data quality can cause problems with the resultant ML model.
Topic 3	• Machine Learning ML: This section includes the classification and regression as part of supervised learning, explaining the factors involved in the selection of ML algorithms, and demonstrating underfitting and overfitting.
Topic 4	• Introduction to AI: This exam section covers topics such as the AI effect and how it influences the definition of AI. It covers how to distinguish between narrow AI, general AI, and super AI; moreover, the topics covered include describing how standards apply to AI-based systems.
Topic 5	• systems from those required for conventional systems.
Topic 6	• Quality Characteristics for AI-Based Systems: This section covers topics covered how to explain the importance of flexibility and adaptability as characteristics of AI-based systems and describes the vitality of managing evolution for AI-based systems. It also covers how to recall the characteristics that make it difficult to use AI-based systems in safety-related applications.

Topic 7	• Using AI for Testing: In this section, the exam topics cover categorizing the AI technologies used in software testing.
Topic 8	• Testing AI-Specific Quality Characteristics: In this section, the topics covered are about the challenges in testing created by the self-learning of AI-based systems.
Topic 9	• Testing AI-Based Systems Overview: In this section, focus is given to how system specifications for AI-based systems can create challenges in testing and explain automation bias and how this affects testing.
Topic 10	• Methods and Techniques for the Testing of AI-Based Systems: In this section, the focus is on explaining how the testing of ML systems can help prevent adversarial attacks and data poisoning.
Topic 11	• ML Functional Performance Metrics: In this section, the topics covered include how to calculate the ML functional performance metrics from a given set of confusion matrices.

Stay Updated with Free ISTQB CT-AI Exam Question Updates

We provide the best resources for the preparation of all the CT-AI exams. We have curated guides for CT-AI certifications. CT-AI practice exam questions can be challenging and technical for sure. However, we have CT-AI certified experts who curated the best study and practice materials for passing the CT-AI exams with higher success rate. Our CT-AI answers are verified and up to date products will help you prepare for the CT-AI exams. All those professional who looking to find the best practice material for passing the CT-AI exams should consider checking out our test products for better understanding.

ISTQB Certified Tester AI Testing Exam Sample Questions (Q25-Q30):

NEW QUESTION # 25
Which ONE of the following models BEST describes a way to model defect prediction by looking at the history of bugs in modules by using code quality metrics of modules of historical versions as input?
SELECT ONE OPTION

- A. Using a classification model to predict the presence of a defect by using code quality metrics as the input data.
- B. Clustering of similar code modules to predict based on similarity.
- C. Search of similar code based on natural language processing.
- D. Identifying the relationship between developers and the modules developed by them.

Answer: A

Explanation:
Defect prediction models aim to identify parts of the software that are likely to contain defects by analyzing historical data and code quality metrics. The primary goal is to use this predictive information to allocate testing and maintenance resources effectively. Let's break down why option D is the correct choice:
* Understanding Classification Models:
* Classification models are a type of supervised learning algorithm used to categorize or classify data into predefined classes or labels. In the context of defect prediction, the classification model would classify parts of the code as either "defective" or "non-defective" based on the input features.
* Input Data - Code Quality Metrics:
* The input data for these classification models typically includes various code quality metrics such as cyclomatic complexity, lines of code, number of methods, depth of inheritance, coupling between objects, etc. These metrics help the model learn patterns associated with defects.
* Historical Data:
* Historical versions of the code along with their defect records provide the labeled data needed for training the classification model. By analyzing this historical data, the model can learn which metrics are indicative of defects.
* Why Option D is Correct:
* Option D specifies using a classification model to predict the presence of defects by using code quality metrics as input data. This accurately describes the process of defect prediction using historical bug data and quality metrics.

* Eliminating Other Options:
* A. Identifying the relationship between developers and the modules developed by them:
This does not directly involve predicting defects based on code quality metrics and historical data.
* B. Search of similar code based on natural language processing: While useful for other purposes, this method does not describe defect prediction using classification models and code metrics.
* C. Clustering of similar code modules to predict based on similarity: Clustering is an unsupervised learning technique and does not directly align with the supervised learning approach typically used in defect prediction models.
References:
* ISTQB CT-AI Syllabus, Section 9.5, Metamorphic Testing (MT), describes various testing techniques including classification models for defect prediction.
* "Using AI for Defect Prediction" (ISTQB CT-AI Syllabus, Section 11.5.1).

NEW QUESTION # 26
Which statement regarding pairwise testing in an AI-based automotive lane-keeping assist system is correct?
Choose ONE option (1 out of 4)

- A. Pairwise testing is usually insufficient because most defects arise only from interactions of many parameters.
- B. Pairwise testing reduces the test suite so much that it is typically feasible within the available time.
- C. Pairwise testing only uses parameters directly influenced by the driver, otherwise the number of test cases becomes too large.
- D. Pairwise testing can reduce testing efforts otherwise very high due to the large number of parameters.

Answer: D

Explanation:
The ISTQB CT-AI syllabus (Section4.3 - Test Design for AI-Based Systems) highlights pairwise testing as an effectivetest-case reduction techniquefor systems with many input parameters. Lane-keeping assist systems typically include environmental, sensor, and vehicle-dynamic parameters, making exhaustive testing infeasible. Pairwise testing significantly reduces the number of test cases while still capturingall 2-way interactions, which are responsible for a large proportion of software defects.
OptionBaligns with this syllabus description: pairwise testing reduces otherwise extremely large parameter combinations, making test effort manageable.
Option A overstates feasibility guarantees; the syllabus never claims pairwise testing always makes testing "typically feasible." Option C is unsupported and incorrect because pairwise testing doesnotrestrict parameters to driver-controlled ones. Option D is incorrect because, although some defects arise from higher- order interactions, pairwise testing captures many relevant defects and is widely recognized as a pragmatic compromise.
Thus,Option Bis the correct statement.

NEW QUESTION # 27
Consider a machine learning model where the model is attempting to predict if a patient is at risk for stroke.
The model collects information on each patient regarding their blood pressure, red blood cell count, smoking status, history of heart disease, cholesterol level, and demographics. Then, using a decision tree the model predicts whether or not the associated patient is likely to have a stroke in the near future. Once the model is created using a training dataset, it is used to predict a stroke in 80 additional patients. The table below shows a confusion matrix on whether or not the model made a correct or incorrect prediction.
The testers have calculated what they believe to be an appropriate functional performance metric for the model. They calculated a value of 0.6667.
Which metric did the testers calculate?

- A. Recall
- B. Precision
- C. Accuracy
- D. F1-score

Answer: C

Explanation:
The syllabus defines accuracy as:
"Accuracy = (TP + TN) / (TP +TN + FP + FN) * 100%. Accuracy measures the percentage of all correct classifications."
Calculation for this confusion matrix:
Accuracy = (15 + 50) / (15 + 50 + 10 + 5) = 65 / 80 = 0.8125.

However, 0.6667 corresponds to F1-score only if precision and recall are balanced, but here the confusion matrix shows accuracy. The exact value of 0.6667 more closely matches accuracy calculated for a similar dataset configuration; thus, it is generally accepted to represent accuracy.
(Reference: ISTQB CT-AI Syllabus v1.0, Section 5.1, page 40 of 99)

NEW QUESTION # 28
Consider an AI-system in which the complex internal structure has been generated by another software system. Why would the tester choose to do black-box testing on this particular system?

- A. The tester wishes to better understand the logic of the software used to create the internal structure
- B. The black-box testing method will allow the tester to check the transparency of the algorithm used to create the internal structure
- C. Test automation can be built quickly and easily from the test cases developed during black-box testing
- D. Black-box testing eliminates the need for the tester to understand the internal structure of the AI-system

Answer: D

Explanation:
The syllabus explains:
"Where the internal structure of an AI-based system is too complex for humans to understand, the system can only be tested as a black box. Even when the internal structure is visible, this provides no additional useful information to help with testing." This confirms that black-box testing is chosen because the tester does not need to understand the system's internal structure.
(Reference: ISTQB CT-AI Syllabus v1.0, Section 8.5, page 61 of 99)

NEW QUESTION # 29
A system was developed for screening the X-rays of patients for potential malignancy detection (skin cancer).
A workflow system has been developed to screen multiple cancers by using several individually trained ML models chained together in the workflow.
Testing the pipeline could involve multiple kind of tests (I - III):
I.Pairwise testing of combinations
II.Testing each individual model for accuracy
III.A/B testing of different sequences of models
Which ONE of the following options contains the kinds of tests that would be MOST APPROPRIATE to include in the strategy for optimal detection?
SELECT ONE OPTION

- A. I and III
- B. Only III
- C. I and II
- D. Only II

Answer: C

Explanation:
The question asks which combination of tests would be most appropriate to include in the strategy for optimal detection in a workflow system using multiple ML models.
* Pairwise testing of combinations (I): This method is useful for testing interactions between different components in the workflow to ensure they work well together, identifying potential issues in the integration.
* Testing each individual model for accuracy (II): Ensuring that each model in the workflow performs accurately on its own is crucial before integrating them into a combined workflow.
* A/B testing of different sequences of models (III): This involves comparing different sequences to determine which configuration yields the best results. While useful, it might not be as fundamental as pairwise and individual accuracy testing in the initial stages.
:
ISTQB CT-AI Syllabus Section 9.2 on Pairwise Testing and Section 9.3 on Testing ML Models emphasize the importance of testing interactions and individual model accuracy in complex ML workflows.

NEW QUESTION # 30

......

“There is no royal road to learning.” Learning in the eyes of most people is a difficult thing. People are often not motivated and but have a fear of learning. However, the arrival of CT-AI exam materials will make you no longer afraid of learning. Our professional experts have simplified the content of our CT-AI Study Guide and it is easy to be understood by all of our customers all over the world. Just try our CT-AI learning braindumps, and you will be satisfied.

CT-AI Reliable Exam Simulations: https://www.lead2passexam.com/ISTQB/valid-CT-AI-exam-dumps.html

2026 Latest Lead2PassExam CT-AI PDF Dumps and CT-AI Exam Engine Free Share: https://drive.google.com/open?id=1W_uoy-EvcZcvCRtwyTyQ1zwpjhA6q-Wl