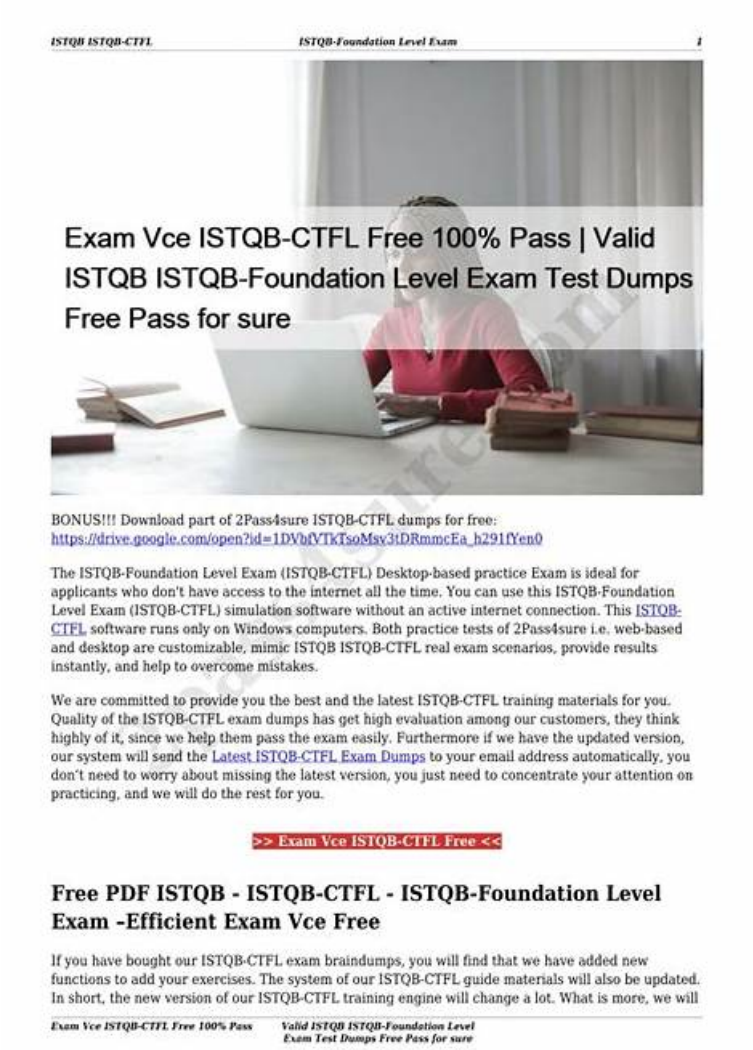
ISTQB CT-AI Valid Test Vce Free & CT-AI Exams



BTW, DOWNLOAD part of DumpsTests CT-AI dumps from Cloud Storage: https://drive.google.com/open?id=1Ro_Qr0rpy0BwMfHC02G258sT6zVnBnrx

DumpsTests makes your CT-AI exam preparation easy with it various quality features. Our CT-AI exam braindumps come with 100% passing and refund guarantee. DumpsTests is dedicated to your accomplishment, hence assures you successful in CT-AI Certification exam on the first try. If for any reason, a candidate fails in CT-AI exam then he will be refunded his money after the refund process. Also, we offer one year free updates to our CT-AI Exam esteemed user, these updates are applicable to your account right from the date of purchase. 24/7 customer support is favorable to candidates who can email us if they find any ambiguity in the CT-AI exam dumps, our support will merely reply to your all Certified Tester AI Testing Exam exam product related queries.

ISTQB CT-AI Exam Syllabus Topics:

Topic	Details
Topic 1	• 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 2	• 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 3	• systems from those required for conventional systems.
Topic 4	• 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 5	• 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 6	• 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 7	• 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 8	• Using AI for Testing: In this section, the exam topics cover categorizing the AI technologies used in software testing.
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	• Test Environments for AI-Based Systems: This section is about factors that differentiate the test environments for AI-based
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.

ISTQB CT-AI Exams | CT-AI Valid Practice Materials

They work together and put all their expertise to ensure the top standard of DumpsTests CT-AI exam practice test questions. So you rest assured that with the ISTQB CT-AI exam real questions you can make the best Certified Tester AI Testing Exam exam preparation strategy and plan. Later on, working on these CT-AI Exam Preparation plans you can prepare yourself to crack the CT-AI certification exam.

ISTQB Certified Tester AI Testing Exam Sample Questions (Q86-Q91):

NEW QUESTION # 86
The activation value output for a neuron in a neural network is obtained by applying computation to the neuron.
Which ONE of the following options BEST describes the inputs used to compute the activation value?
SELECT ONE OPTION

- A. Individual bias at the neuron level, activation values of neurons in the previous layer, and weights assigned to the connections between the neurons.
- B. Activation values of neurons in the previous layer, and weights assigned to the connections between the neurons.
- C. Individual bias at the neuron level, and activation values of neurons in the previous layer.
- D. Individual bias at the neuron level, and weights assigned to the connections between the neurons.

Answer: A

Explanation:
In a neural network, the activation value of a neuron is determined by a combination of inputs from the previous layer, the weights of the connections, and the bias at the neuron level. Here's a detailed breakdown:

* Inputs for Activation Value:
* Activation Values of Neurons in the Previous Layer:These are the outputs from neurons in the preceding layer that serve as inputs to the current neuron.
* Weights Assigned to the Connections:Each connection between neurons has an associated weight, which determines the strength and direction of the input signal.
* Individual Bias at the Neuron Level:Each neuron has a bias value that adjusts the input sum, allowing the activation function to be shifted.
* Calculation:
* The activation value is computed by summing the weighted inputs from the previous layer and adding the bias.
* Formula: z=#(wi#ai)+bz = \sum (w_i \cdot a_i) + bz=#(wi#ai)+b, where wiw_iwi are the weights, aia_iai are the activation values from the previous layer, and bbb is the bias.
* The activation function (e.g., sigmoid, ReLU) is then applied to this sum to get the final activation value.
* Why Option A is Correct:
* Option A correctly identifies all components involved in computing the activation value: the individual bias, the activation values of the previous layer, and the weights of the connections.
* Eliminating Other Options:
* B. Activation values of neurons in the previous layer, and weights assigned to the connections between the neurons: This option misses the bias, which is crucial.
* C. Individual bias at the neuron level, and weights assigned to the connections between the neurons: This option misses the activation values from the previous layer.
* D. Individual bias at the neuron level, and activation values of neurons in the previous layer
This option misses the weights, which are essential.
References:
ISTQB CT-AI Syllabus, Section 6.1, Neural Networks, discusses the components and functioning of neurons in a neural network.
"Neural Network Activation Functions" (ISTQB CT-AI Syllabus, Section 6.1.1).

NEW QUESTION # 87
Which of the following approaches would help overcome testing challenges associated with probabilistic and non-deterministic AI-based systems?

- A. Run the test several times to generate a statistically valid test result to ensure that an appropriate number of answers are accurate.
- B. Decompose the system test into multiple data ingestion tests to determine if the AI system is getting a sufficient volume of input data.
- C. Decompose the system test into multiple data ingestion tests to determine if the AI system is getting precise and accurate input data.
- D. Run the test several times to ensure that the AI always returns the same correct test result.

Answer: A

Explanation:
Probabilistic and non-deterministic AI-based systemsdo not always produce the same output for identical inputs. This makes traditional testing approaches ineffective. Instead, the best approach is torun tests multiple times and analyze results statistically.
* Statistical Validity:Running tests multiple times ensures that observed results are statistically significant. Instead of relying on a single test run,analyzing multiple iterations helps determine trends, probabilities, and outliers.
* Expected Result Tolerance:AI-based systems may produce different results within an acceptable range. Defining acceptable tolerances (e.g., "result must be within 2% of the optimal value") improves test effectiveness.
* A (Run Several Times for the Same Correct Result):AI systems are ofteninherently non- deterministicand may not return the exact same result every time. Expecting identical outputs contradicts the nature of these systems.
* B & C (Decomposing Tests into Data Ingestion Tests):While data ingestion quality is important, it does notdirectlysolve the issue of probabilistic test results. Statistical analysis is the key approach.
* ISTQB CT-AI Syllabus (Section 8.4: Challenges Testing Probabilistic and Non-Deterministic AI- Based Systems)
* "For probabilistic systems, running a test multiple times may be necessary to obtain a statistically valid test result.".
* "Where a single definitive output is not possible, results should be analyzed statistically rather than relying on individual test cases.".
Why Other Options Are Incorrect:Supporting References from ISTQB Certified Tester AI Testing Study Guide:Conclusion:Sinceprobabilistic AI systems do not always return the same result, the best approach is torun multiple test iterations and validate results statistically. Hence, thecorrect answer is D.

NEW QUESTION # 88
An airline has created an ML model to project fuel requirements for future flights. The model imports weather data such as wind speeds and temperatures, calculates flight routes based on historical routings from air traffic control, and estimates loads from average passenger and baggage weights. The model performed within an acceptable standard for the airline throughout the summer but as winter set in, the load weights became less accurate. After some exploratory data analysis, it became apparent that luggage weights were higher in the winter than in summer.
Which of the following statements BEST describes the problem and how it could have been prevented?

- A. The model suffers from drift and therefore the performance standard should be eased until a new model with more transparency can be developed
- B. The model suffers from corruption and therefore should be reloaded into the computer system being used, preferably with a method of version control to prevent further changes
- C. The model suffers from a lack of transparency and therefore should be regularly tested to ensure that any progressive errors are detected soon enough for the problem to be mitigated
- D. The model suffers from drift and therefore should be regularly tested to ensure that any occurrences of drift are detected soon enough for the problem to be mitigated

Answer: D

Explanation:
The syllabus states:
"Concept drift occurs when the operational environment changes without the trained model changing correspondingly. The outputs of the model become less accurate and less useful. Therefore, the operational model should be regularly evaluated against its acceptance criteria." (Reference: ISTQB CT-AI Syllabus v1.0, Section 7.6, Page 54 of 99)

NEW QUESTION # 89
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. Only II
- B. Only III
- C. I and II
- D. I and III

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.
Reference:
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 # 90
Which of the following neural network coverage criteria can be adapted for its application?
Choose ONE option (1 out of 4)

- A. Sign-Sign coverage
- B. Threshold coverage
- C. Sign-Change coverage
- D. Neuron coverage

Answer: B

Explanation:
Section4.2 - Test Coverage Criteria for AI Modelsof the ISTQB CT-AI syllabus describes neural network- specific coverage methods. Among the techniques,threshold coverageis explicitly noted asadaptable, meaning testers may choose different thresholds to determine whether neuron activation is considered
"covered." This flexibility makes threshold coverage adjustable to the model architecture, problem domain, and required test thoroughness.
Options A and B (Sign-Sign and Sign-Change coverage) are more rigid structural criteria and are not described as adaptable within the syllabus. They focus on sign patterns of neuron activations and do not allow altering thresholds. Option D, neuron coverage, measures the proportion of neurons activated at least once.
Although simple, it is not defined as an adaptable criterion. Its limitations are documented: it provides shallow insight and too easily achieves high coverage.
Onlythreshold coverageallows testers to adjust activation thresholds for more refined coverage measurement, makingOption Cthe correct choice.

NEW QUESTION # 91
.....

id=1Ro_Qr0rpy0BwMfHC02G258sT6zVnBnrx