

**AiU™ Certified Tester in Artificial Intelligence (CTAI)**

**Sample exam – 10 Questions**

Released Version

2019 Syllabus



Artificial Intelligence United

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## Purpose of this document

This document contains 10 sample exam questions for AiU Certified Tester in Artificial Intelligence (CTAI) in the English language.

The sample questions, answer sets and associated justifications in this document have been created by a team of subject matter experts and experienced question writers with the aim of assisting people who are planning to take the AiU Certified Tester in Artificial Intelligence (CTAI) examination.

None of these questions are used in the official AiU Certified Tester in Artificial Intelligence (CTAI) examination, but they are written to the same level of difficulty as the official certification exam.

## Instructions

The question and answer sets are organized in the following way:

- Chapters
- Question - including any scenario followed by the question stem
- Answer Set

## General Information on the sample exam paper:

- Number of Questions: 10
- Number of points: 1 per question
- Please only choose one answer per question

## List of Chapters

- Chapter 1 - Introduction to Artificial Intelligence
- Chapter 2 - Overview of Testing AI Systems
- Chapter 3 - Offline Testing of AI Systems
- Chapter 4 - Online Testing of AI Systems
- Chapter 5 - Explainable AI
- Chapter 6 - Risks and Test Strategy for AI Systems
- Chapter 7 - AI for Software Testing Life Cycle (STLC)

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**Question 1**

*(the correct answer is worth 1 point)*

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In a dataset, a pair of highly correlated input variable is detected by correlogram. What is the data preprocessing step required on the pair of columns?

- (a) Drop one of the columns
- (b) Drop both the columns
- (c) Represent one column as function of another column
- (d) Keep both the columns

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**Question 2**

*(the correct answer is worth 1 point)*

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In unsupervised clustering, as the number of clusters increases, what is its effect on the value of inertia metric?

- (a) Inertia increases.
- (b) Inertia decreases
- (c) Inertia remains unchanged
- (d) Inertia is independent of the number of clusters.

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**Question 3**

*(the correct answer is worth 1 point)*

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Which **ONE** of the following options is the **BEST** set of metrics to measure the quality of an unsupervised association rule?

- (a) Support & Confidence
- (b) Confidence & Lift
- (c) Support & Lift
- (d) Support, Confidence & Lift

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**Question 4**

*(the correct answer is worth 1 point)*

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In unsupervised association rule mining, if the value of the lift metric is equal to 1.0, what does this reflect?

- (a) No association
- (b) Positive association
- (c) Negative association
- (d) Impossible value

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**Question 5**

*(the correct answer is worth 1 point)*

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Which **ONE** of the following options **BEST** represents the mechanism employed by the LIME tool to generate explanations for a model?

- (a) Examining the model algorithm type
- (b) Examining values of algorithm parameters
- (c) Examining variations in output on perturbing input samples
- (d) Computing metrics value of the model

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**Question 6**

*(the correct answer is worth 1 point)*

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Which **ONE** of the following options **BEST** represents the functioning of metamorphic testing?

- (a) By computing model metrics
- (b) By applying cross-validation
- (c) By using Grad-CAM
- (d) By verifying implicit relation(s) among input variables

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**Question 7**

*(the correct answer is worth 1 point)*

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During which **ONE** of the following phases is the testing for accuracy of a model performed?

- (a) Online testing
- (b) Offline testing
- (c) Load testing
- (d) Regression testing

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**Question 8**

*(the correct answer is worth 1 point)*

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Which **ONE** of the following options is the **MOST** relevant metric for measuring the performance of a classifier model used for cancer detection?

- (a) Accuracy
- (b) F1score
- (c) Sensitivity
- (d) Precision

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**Question 9**

*(the correct answer is worth 1 point)*

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Which **ONE** of the following options is the **BEST** suited Machine Learning type to be applied so that the ML model can suggest a relevant advertisement to a user, based on the keywords (s)he used for searches on Google?

- (a) Clustering
- (b) Classification
- (c) Market basket analysis
- (d) Regression

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**Question 10**

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*(the correct answer is worth 1 point)*

If a set of words occurs repeatedly in a given text, one should (where possible) remove these words from the text, as they will not add value to the Machine Learning analysis of the text. What are these (removable) words known as?

- (a) Tokens
- (b) Stop words
- (c) Chats
- (d) POS tags

## Answer Key:

Question 1 - Answer: (a)

Question 2 - Answer: (b)

Question 3 - Answer: (d)

Question 4 - Answer: (a)

Question 5 - Answer: (c)

Question 6 - Answer: (d)

Question 7 - Answer: (b)

Question 8 - Answer: (c)

Question 9 - Answer: (c)

Question 10 - Answer: (b)