

Machine Learning Specialist - Professional Badge Quiz

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This badge quiz requires an 80% passing score to earn the *IBM Machine Learning Specialist - Professional v1* badge. There is no specific feedback provided upon completion, as the assumption is made that you have the necessary knowledge presented in the Recommended Learning provided. **You are only allowed a total of 4 attempts to take this quiz.** There is a 3 day waiting period required between attempts.

Started on	Tuesday, January 16, 2024, 8:45 PM
State	Finished
Completed on	Tuesday, January 16, 2024, 9:55 PM
Time taken	1 hour 9 mins
Grade	90.00 out of 92.00 (97.83%)

Question 1

Complete

1.00 points out of 1.00

Assume you have a data set that summarizes a marketing campaign with information related to prospective customers. The data set contains 100 observations with several columns that summarize information about the prospective customer. It also has a column that flags whether the prospect responded or not.

In this example, "Yes" or "No" are the possible values of the:

Select one:

- ☒ A. label
- ☐ B. features
- ☐ C. target
- ☐ D. example

Question **2**

Complete

1.00 points out of 1.00

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Which of these approaches to feature engineering will be impacted LEAST by extreme values?

Select one:

- ☒ A. RobustScaler
- ☐ B. MinMaxScaler
- ☐ C. LabelBinarizer
- ☐ D. OneHotEncoder

Question **3**

Complete

1.00 points out of 1.00

Which of the following statements about cloud data access using Pandas is TRUE?

Select one:

- ☐ A. With read_csv, the online file must be comma-delimited.
- ☒ B. The read_csv function can read data directly from a website or url.
- ☐ C. With read_csv, the destination file must have column names in the first row.
- ☐ D. A remote destination file must be downloaded locally before it can be read by Pandas.

Question **4**

Complete

0.00 points out of 1.00

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(True/False) On a given hypothesis test, you obtain a p-value of 0.051. This can be interpreted as approaching significance or almost significant.

Select one:

- ☒ True
- ☐ False

Question **5**

Complete

0.00 points out of 1.00

Which of the following statements about Random Upsampling is TRUE?

Select one:

- ☒ A. Random Upsampling results in excessive focus on the more frequently-occurring class.
- ☐ B. Random Upsampling preserves all original observations.
- ☐ C. Random Upsampling will generally lead to a higher F1 score.
- ☐ D. Random Upsampling generates observations that were not part of the original data.

Question **6**

Complete

1.00 points out of 1.00

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Which type of Ensemble modeling approach is NOT a special case of model averaging?

Select one:

- ☒ A. Boosting methods
- ☐ B. Random Forest methods
- ☐ C. The Bagging method of Bootstrap aggregation
- ☐ D. The Pasting method of Bootstrap aggregation

Question **7**

Complete

1.00 points out of 1.00

(True/False) K Nearest Neighbors with large k tend to be the best classifiers.

Select one:

- ☐ True
- ☒ False

Question **8**

Complete

1.00 points out of 1.00

(True/False) The Euclidean distance between two points will always be shorter than the Manhattan distance.

Select one:

- ☒ True
- ☐ False

Question **9**

Complete

1.00 points out of 1.00

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All of these options are useful error measures to compare regressions:

Select one:

- ☐ A. SSE
- ☐ B. R squared
- ☐ C. TSS
- ☒ D. ROC index

Question **10**

Complete

1.00 points out of 1.00

You can use supervised machine learning for all of the following examples, EXCEPT:

Select one:

- ☒ A. Segment customers by their demographics.
- ☐ B. Predict the number of customers that will visit a store on a given week.
- ☐ C. Predict the probability of a customer returning to a store.
- ☐ D. Interpret the main drivers that determine if a customer will return to a store.

Question **11**

Complete

1.00 points out of 1.00

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A model with high variance is characterized by sensitivity to small changes in input data.

Select one:

- ☒ True
- ☐ False

Question **12**

Complete

1.00 points out of 1.00

For a dataset with M observations and N features, Stratified cross-validation is equivalent to k-fold cross-validation, where $k=N-1$.

Select one:

- ☐ True
- ☒ False

Question **13**

Complete

1.00 points out of 1.00

A linear regression model is being tested by cross-validation. Relative to K-fold cross-validation, stratified cross-validation (with the same k) will likely increase the variance of estimated parameters.

Select one:

- ☐ True
- ☒ False

Question **14**

Complete

1.00 points out of 1.00

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(True/False) The shape of ROC curves are the leading indicator of an overfitted logistic regression.

Select one:

- ☐ True
- ☒ False

Question **15**

Complete

1.00 points out of 1.00

You are evaluating a binary classifier. There are 50 positive outcomes in the test data, and 100 observations. Using a 50% threshold, the classifier predicts 40 positive outcomes, of which 10 are incorrect.

The threshold is now increased further, to 70%. Which of the following statements is TRUE?

Select one:

- ☒ A. The Recall of the classifier would increase or remain the same.
- ☐ B. The Precision of the classifier would increase or remain the same.
- ☐ C. The Precision of the classifier would decrease.
- ☐ D. The Recall of the classifier would decrease.

Question **16**

Complete

1.00 points out of 1.00

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Which of the following statements about Elastic Net regression is TRUE?

Select one:

- ☒ A. Elastic Net combines L1 and L2 regularization.
- ☐ B. Elastic Net does not use L1 or L2 regularization.
- ☐ C. Elastic Net uses L2 regularization, as with Ridge regression.
- ☐ D. Elastic Net uses L1 regularization, as with Ridge regression.

Question **17**

Complete

1.00 points out of 1.00

This tree ensemble method only uses a subset of the features for each tree:

Select one:

- ☐ A. Bagging
- ☐ B. Stacking
- ☐ C. Adaboost
- ☒ D. Random Forest

Question **18**

Complete

1.00 points out of 1.00

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Decision trees used as classifiers compute the value assigned to a leaf by calculating the ratio: number of observations of one class divided by the number of observations in that leaf

E.g. number of customers that are younger than 50 years old divided by the total number of customers.

How are leaf values calculated for regression decision trees?

Select one:

- ☒ A. average value of the predicted variable
- ☐ B. weighted average value of the predicted variable
- ☐ C. mode value of the predicted variable
- ☐ D. median value of the predicted variable

Question **19**

Complete

1.00 points out of 1.00

This is the type of Machine Learning that uses both data with labeled outcomes and data without labeled outcomes:

Select one:

- ☐ A. Supervised Machine Learning
- ☐ B. Unsupervised Machine Learning
- ☐ C. Mixed Machine Learning
- ☒ D. Semi-Supervised Machine Learning

Question **20**

Complete

1.00 points out of 1.00

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Model adjustments that decrease bias also decrease variance, leading to a bias-variance tradeoff.

Select one:

- ☐ True
- ☒ False

Question **21**

Complete

1.00 points out of 1.00

Select the TRUE statement regarding the cost function for SVMs:

Select one:

- ☐ A. SVMs use a loss function that penalizes vectors prone to misclassification
- ☐ B. SVMs use same loss function as logistic regression
- ☐ C. SVMs do not use a cost function. They use regularization instead of a cost function.
- ☒ D. SVMs use the Hinge Loss function as a cost function

Question **22**

Complete

1.00 points out of 1.00

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You are evaluating a binary classifier. There are 50 positive outcomes in the test data, and 100 observations. Using a 50% threshold, the classifier predicts 40 positive outcomes, of which 10 are incorrect.

What is the classifier's Precision on the test sample?

Select one:

- ☒ A. 75%
- ☐ B. 25%
- ☐ C. 60%
- ☐ D. 80%

Question **23**

Complete

1.00 points out of 1.00

What is an ensemble model that needs you to look at out of bag error?

Select one:

- ☐ A. Logistic Regression.
- ☒ B. Random Forest
- ☐ C. Out of Bag Regression
- ☐ D. Stacking

Question **24**

Complete

1.00 points out of 1.00

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After we plot our elbow and we find the inflection point, what does that point indicate to us?

Select one:

- ☐ A. The data points we need to form a cluster
- ☐ B. How we can reduce our number of clusters.
- ☐ C. Whether we need to remove outliers.
- ☒ D. The ideal number of clusters.

Question **25**

Complete

1.00 points out of 1.00

What is the implication of a small standard deviation of the clusters?

Select one:

- ☐ A. The standard deviation of the cluster defines how tightly around each one of the centroids are. With a small standard deviation, we can't find any centroids.
- ☐ B. A small standard deviation of the clusters defines the size of the clusters.
- ☒ C. The standard deviation of the cluster defines how tightly around each one of the centroids are. With a small standard deviation, the points will be closer to the centroids.
- ☐ D. A small standard deviation of the clusters means that the centroids are not close enough to each other.

Question **26**

Complete

1.00 points out of 1.00

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Select the approach that can help you find the cluster with best inertia

Select one:

- ☒ A. Compute the resulting inertia or distortion, keep the results, and see which one of the different initializations of configurations lead to the best inertia or distortion. As an example of this, the best inertia result is the **lowest** value.
- ☐ B. Compute the resulting inertia or distortion, keep the results, and see which one of the different initializations of configurations lead to the best inertia or distortion. As an example of this, the best inertia result is the **average** value.
- ☐ C. Compute the resulting inertia or distortion, keep the results, and see which one of the different initializations of configurations lead to the best inertia or distortion. As an example of this, the best inertia result is the **median** value.
- ☐ D. Compute the resulting inertia or distortion, keep the results, and see which one of the different initializations of configurations lead to the best inertia or distortion. As an example of this, the best inertia result is the **highest** value.

Question **27**

Complete

1.00 points out of 1.00

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What's the name of the default initialization for K-means?

Select one:

- ☐ A. K-means optimal.
- ☐ B. K-means inertia
- ☐ C. K-means sum of square error
- ☒ D. K-means ++

Question **28**

Complete

1.00 points out of 1.00

Which statement describes correctly the use of distortion and inertia?

Select one:

- ☐ A. When outliers are a concern use inertia, otherwise use distortion.
- ☐ B. When we the sum of the point equals a prime number use inertia, and when the sum of the point equals a pair number use distortion.
- ☐ C. When the we can calculate a number of clusters higher than 10, we use distortion, when we calculate a number of clusters smaller than 10, we use inertia.
- ☒ D. When the similarity of the points in the cluster are more important you should use distortion and if you are more concern that clusters have similar numbers of points then you should use inertia.

Question **29**

Complete

1.00 points out of 1.00

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Which of the following measure methods computes the inertia and pick the pair that is going to ultimately minimize the inertia value?

Select one:

- ☐ A. Complete linkage
- ☐ B. Single linkage
- ☒ C. Ward linkage
- ☐ D. Average linkage

Question **30**

Complete

1.00 points out of 1.00

When using DBSCAN, how does the algorithm determine that a cluster is complete and is time to move to a different point of the data set and potentially start a new cluster?

Select one:

- ☐ A. When the algorithm requires you to change the input.
- ☐ B. When the algorithm forms a new cluster using the outliers.
- ☒ C. When no point is left unvisited by the chain reaction.
- ☐ D. When the solution converges to a single cluster.

Question **31**

Complete

1.00 points out of 1.00

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(True/false) Does complete linkage refer to the maximum pairwise distance between clusters?

Select one:

- ☒ True
- ☐ False

Question **32**

Complete

1.00 points out of 1.00

Which of the following statements correctly defines the strengths of the DBSCAN algorithm?

Select one:

- ☐ A. Do well with different density, works with just one parameter, the `n_clu` defines itself.
- ☐ B. The algorithm will find the outliers first, draw regular shapes, works faster than other algorithms.
- ☒ C. No need to specify the number of clusters (cf. K-means), allows for noise, and can handle arbitrary-shaped clusters.
- ☐ D. The algorithm is computationally intensive, it is sensitive to outliers, and it requires few hyperparameters to be tuned.

Question **33**

Complete

1.00 points out of 1.00

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When we use the DBSCAN algorithm, how do we know that our cluster is complete and is time to move to a different point of the data set and potentially start a new cluster?

Select one:

- ☐ A. When the algorithm forms a new cluster using the outliers.
- ☐ B. When the solution converges to a single cluster.
- ☐ C. When the algorithm required us to change the input.
- ☒ D. When no point is left unvisited by the chain reaction.

Question **34**

Complete

1.00 points out of 1.00

Which of the following statements correctly defines the weaknesses of the DBSCAN algorithm?

Select one:

- ☒ A. It needs two parameters as input, finding appropriate values of ϵ and n_{clu} can be difficult, and it does not do well with clusters of different density.
- ☐ B. The algorithm will find the outliers first, it draws regular shapes, and it works faster than other algorithms.
- ☐ C. The clusters it finds might not be trustworthy, it needs noisy data to work, and it can't handle subgroups.
- ☐ D. The algorithm is computationally intensive, it is sensitive to outliers, and it requires too many hyperparameters to be tuned.

Question **35**

Complete

1.00 points out of 1.00

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This time series component is related to the long term direction of the series:

Select one:

- ☐ A. Residual
- ☐ B. Seasonality
- ☒ C. Trend
- ☐ D. Confidence interval

Question **36**

Complete

1.00 points out of 1.00

This decomposition model assumes that the seasonal and residual magnitudes are independent of trend.

Select one:

- ☒ A. Additive Decomposition Model
- ☐ B. Seasonal-Residual Decomposition Model
- ☐ C. Multiplicative Decomposition Model
- ☐ D. Pseudo-additive Decomposition Model

Question **37**

Complete

1.00 points out of 1.00

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(True/False) A common limitation of forecasts based on smoothed data is their high sensitivity to outliers and unusual historical values.

Select one:

☐ True☒ FalseQuestion **38**

Complete

1.00 points out of 1.00

(True/False) If forecast residuals approximate white noise, the model is likely a bad fit and a different model should be selected.

Select one:

☐ True☒ False

Question **39**

Complete

1.00 points out of 1.00

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Which of the following is a characteristic of a moving average (MA) model?

Select one:

- ☒ A. A fixed number of past forecast errors are used to predict future values.
- ☐ B. Observations are assumed to be uncorrelated over time.
- ☐ C. The number of historical values used to predict future values increases over time.
- ☐ D. A fixed number of past forecast values are used to predict future values.

Question **40**

Complete

1.00 points out of 1.00

Which of the following is a characteristic of an autoregressive (AR) model?

Select one:

- ☐ A. The number of historical values used to predict future values increases over time.
- ☐ B. A fixed number of past forecast errors are used to predict future values.
- ☐ C. Observations are assumed to be uncorrelated over time.
- ☒ D. A fixed number of past forecast values are used to predict future values.

Question **41**

Complete

1.00 points out of 1.00

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Survival analysis is MOST useful for modeling:

Select one:

- ☒ A. the time until a binary event occurs, with censored data.
- ☐ B. single-variable machine learning problems with a time component.
- ☐ C. the seasonality component of non-integrated time series data.
- ☐ D. any machine learning problem with a time component.

Question **42**

Complete

1.00 points out of 1.00

For which of the customer churn problems below is survival analysis MOST DIRECTLY suitable?

Select one:

- ☒ A. Estimating the length of time until a customer will churn
- ☐ B. Predicting the likelihood that an individual customer will churn
- ☐ C. Estimating which groups of customers are most likely to churn
- ☐ D. Determining which factors are most important for keeping a customer from churning

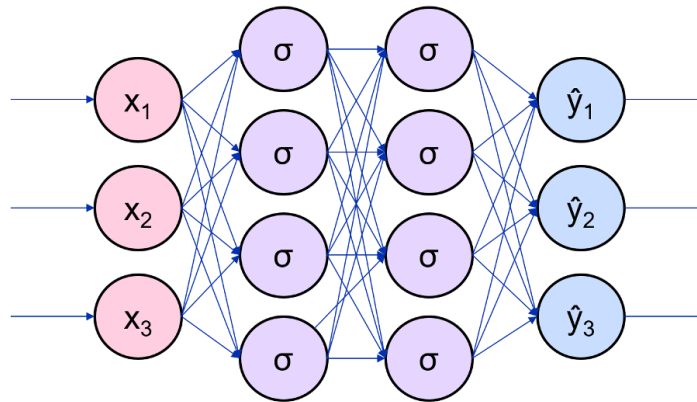
Question **43**

Complete

1.00 points out of 1.00

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Use the following image for reference. How many hidden units are in this Neural Network?



Select one:

- ☐ A. Four
- ☐ B. Fourteen
- ☐ C. Two
- ☒ D. Eight

Question **44**

Complete

1.00 points out of 1.00

A dataset with 8 features would have how many nodes in the input layer?

Select one:

- ☒ A. 8
- ☐ B. 10
- ☐ C. 4
- ☐ D. 2

Question **45**

Complete

1.00 points out of 1.00

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What is an advantage of using a network of neurons?

Select one:

- ☐ A. The output of neurons can be averaged.
- ☐ B. Feedforward capabilities are limited.
- ☒ C. a network of neurons can represent a non-linear decision boundary.
- ☐ D. The network is not limited to using only the sigmoid function as an activation function.

Question **46**

Complete

1.00 points out of 1.00

For a single data point, the weights between an input layer with 3 nodes and a hidden layer with 4 nodes can be represented by a:

Select one:

- ☐ A. 4 x 3 matrix
- ☒ B. 3 x 4 matrix.
- ☐ C. 3 x 3 matrix
- ☐ D. 4 x 4 matrix

Question **47**

Complete

1.00 points out of 1.00

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These are all activation functions except:

Select one:

- ☐ A. Sigmoid
- ☐ B. Hyperbolic tangent
- ☐ C. ReLu
- ☒ D. Leaky hyperbolic tangent

Question **48**

Complete

1.00 points out of 1.00

What is the main function of backpropagation when training a Neural Network?

Select one:

- ☐ A. Preprocess the input layer
- ☒ B. Make adjustments to the weights
- ☐ C. Propagate the output on the output layer
- ☐ D. Make adjustments to the loss function

Question **49**

Complete

1.00 points out of 1.00

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(True/False) Every node in a neural network has an activation function.

Select one:

- ☒ True
- ☐ False

Question **50**

Complete

1.00 points out of 1.00

Deep Learning uses deep Neural Networks for all these uses, except

Select one:

- ☐ A. To uncover usually unobserved relationships in the data
- ☐ B. As a classification and regression technique
- ☐ C. As an alternative to manual feature engineering
- ☒ D. Cases in which explainability is the main objective

Question **51**

Complete

1.00 points out of 1.00

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Stochastic gradient descent is this type of batching method:

Select one:

- ☒ A. online learning
- ☐ B. stochastic batch
- ☐ C. full batch
- ☐ D. mini batch

Question **52**

Complete

1.00 points out of 1.00

(True/False) Every node in a neural network has an activation function.

Select one:

- ☒ True
- ☐ False

Question **53**

Complete

1.00 points out of 1.00

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Which of the following IS NOT a benefit of Transfer Learning?

Select one:

- ☒ A. Improving the speed at which large models can be trained from scratch
- ☐ B. Reducing time required to tune hyper-parameters
- ☐ C. Conveying computational benefits when problems share similar primitive features.
- ☐ D. Reducing the impact of the vanishing gradient problem on early layers

Question **54**

Complete

1.00 points out of 1.00

Deep Learning uses deep Neural Networks for all these uses, except:

Select one:

- ☐ A. To uncover usually unobserved relationships in the data
- ☐ B. As a classification and regression technique
- ☐ C. As an alternative to manual feature engineering
- ☒ D. Cases in which explainability is the main objective

Question **55**

Complete

1.00 points out of 1.00

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(True/False) The “vanishing gradient” problem can be solved using a different activation function.

Select one:

- ☒ True
- ☐ False

Question **56**

Complete

1.00 points out of 1.00

(True/False) Optimizer approaches for Deep Learning Regularization use gradient descent:

Select one:

- ☐ True
- ☒ False

Question **57**

Complete

1.00 points out of 1.00

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LSTM models are among the most common Deep Learning models used in forecasting. These are other common uses of LSTM models, except:

Select one:

- ☒ A. Generating Images
- ☐ B. Anomaly Detection
- ☐ C. Machine Translation
- ☐ D. Image Captioning
- ☐ E. Speech Recognition
- ☐ F. Robotic Control

Question **58**

Complete

1.00 points out of 1.00

(True/False) GRUs will generally perform about as well as LSTMs with shorter training time, especially for smaller datasets.

Select one:

- ☒ True
- ☐ False

Question **59**

Complete

1.00 points out of 1.00

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(True/False) RNN models are mostly used in the fields of natural language processing and speech recognition.

Select one:

- ☒ True
- ☐ False

Question **60**

Complete

1.00 points out of 1.00

Which is the gating mechanism for RNNs that include a reset gate and an update gate?

Select one:

- ☐ A. Complex Gate
- ☒ B. GRUs
- ☐ C. LSTMs
- ☐ D. Refined Gate

Question **61**

Complete

1.00 points out of 1.00

(True/False) Variational autoencoders are generative models.

Select one:

- ☒ True
- ☐ False

Question **62**

Complete

1.00 points out of 1.00

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A good way to compare the inputs and outputs of a Variational Autoencoder is to calculate the mean of a reconstruction function based on binary crossentropy

Select one:

- ☒ True
- ☐ False

Question **63**

Complete

1.00 points out of 1.00

Select the right assertion:

Select one:

- ☐ A. Variational Autoencoders and Principal Component analysis can be used interchangeably.
- ☐ B. Autoencoders and Principal Component Analysis can be used interchangeably.
- ☒ C. Autoencoders learn from a compressed representation of the data, while variational autoencoders learn from a probability distribution representing the data.
- ☐ D. Variational autoencoders learn from a compressed representation of the data, while autoencoders learn from a probability distribution representing the data.

Question **64**

Complete

1.00 points out of 1.00

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Which type of Deep Learning approach is most commonly used for generating artificial images?

Select one:

- ☐ A. Convolutional Neural Network
- ☐ B. Recurrent Neural Network
- ☐ C. Multi-Layer Perceptron
- ☒ D. Autoencoders

Question **65**

Complete

1.00 points out of 1.00

(True/False) Discounting rewards refers to an agent reducing the value of the reward based on its uncertainty.

Select one:

- ☐ True
- ☒ False

Question **66**

Complete

1.00 points out of 1.00

(True/False) Successful Reinforcement Learning approaches are often limited by extreme sensitivity to hyperparameters.

Select one:

- ☒ True
- ☐ False

Question **67**

Complete

1.00 points out of 1.00

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(True/False) Simulation is a common approach for Reinforcement Learning applications that are complex or computing intensive.

Select one:

- ☒ True
- ☐ False

Question **68**

Complete

1.00 points out of 1.00

Fairness metric “Equal Opportunity Difference” is used when the bias comes from sampling and not from the data itself

Select one:

- ☒ True
- ☐ False

Question **69**

Complete

1.00 points out of 1.00

Protected attributes are universal and are not application specific

Select one:

- ☐ True
- ☒ False

Question **70**

Complete

1.00 points out of 1.00

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Group fairness partitions a population into groups defined by protected attributes and seeks for some statistical measure to be equal across groups, while Individual Fairness seeks for similar individuals to be treated similarly.

Select one:

- ☒ True
- ☐ False

Question **71**

Complete

1.00 points out of 1.00

Fairness metric “Statistical Parity Difference” is used when your data encodes structural biases

Select one:

- ☒ True
- ☐ False

Question **72**

Complete

1.00 points out of 1.00

Removing protected attributes/features such as (race, gender, age, caste, etc) from your data set will effectively eliminate bias

Select one:

- ☐ True
- ☒ False

Question **73**

Complete

1.00 points out of 1.00

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There are no tradeoffs between bias & accuracy meaning that reducing bias may will not have an impact on your model accuracy.

Select one:

- ☐ True
- ☒ False

Question **74**

Complete

1.00 points out of 1.00

In the AIF360 [interactive demo](#), if you check for bias on the Compass data set after applying the Reweighting pre-processing algorithm, for the protected attribute of sex, the disparate impact metric measures

Select one:

- ☐ a. 0.50 for the original data set and 1 for the debiased data set
- ☒ b. 0.59 for the original data set and 0.95 for the debiased data set
- ☐ c. 0.25 for the original data set and 0.75 for the debiased data set

Question **75**

Complete

1.00 points out of 1.00

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In the AIF360 interactive demo, if you check for bias on the Compass data set after applying the Adversarial Debiasing in-processing algorithm, for the protected attribute sex, the disparate impact metric measures

Select one:

- ☐ a. 0.50 for the original data set and 1 for the debiased data set
- ☒ b. 0.59 for the original data set and 0.93 for the debiased data set
- ☐ c. 0.25 for the original data set and 0.75 for the debiased data set

Question **76**

Complete

1.00 points out of 1.00

What is the recommended action if drift with respect to fairness metrics is observed in a classification model with future data?

Select one:

- ☒ a. Re-train and perform appropriate bias mitigation with the latest data available
- ☐ b. Re-train the classification model using the original training dataset
- ☐ c. Do nothing

Question **77**

Complete

1.00 points out of 1.00

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After what time can we stop checking bias drift for a deployed application

Select one:

- ☒ a. Bias drift should always be continuously checked
- ☐ b. 1 year post deployment
- ☐ c. 2 years post deployment

Question **78**

Complete

1.00 points out of 1.00

True or false: Transparency and Explainability mean the same thing

Select one:

- ☐ True
- ☒ False

Question **79**

Complete

1.00 points out of 1.00

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When is an AI model referred to as "black box" ?

- ☐ a. It's operations and functions are clearly visible for any human to comprehend
- ☒ b. It is exceedingly difficult to understand in terms of its inner workings, as it gives little to no view of its internal operations
- ☐ c. Its "box-like" algorithmic structure makes it highly transparent
- ☐ d. None of these options

Question **80**

Complete

1.00 points out of 1.00

True or False? Decision trees are a form of directly interpretable models.

Select one:

- ☒ True
- ☐ False

Question **81**

Complete

1.00 points out of 1.00

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Match the explanation method with the relevant persona

Global directly
interpretable models

Regulators and Data scientists

Global post hoc
explanations

Physicians, judges, and loan officers

Question **82**

Complete

1.00 points out of 1.00

The features in a given dataset are most of the times meaningful to consumers, but other times they are entangled, i.e. multiple meaningful attributes are combined together in a single feature. Which algorithm would be useful to understand representations in this type of dataset?

- ☐ a. ProfWeight
- ☒ b. Disentangled Inferred Prior Variational Autoencoder (DIP-VAE)

Question **83**

Complete

1.00 points out of 1.00

Global explanations are for single sample points whereas local explanations are for entire models

Select one:

- ☐ True
- ☒ False

Question **84**

Complete

1.00 points out of 1.00

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True or False? SHAP is an explainability framework that leverages inputs, labels and explanations in the training dataset to explain the prediction for an instance x

Select one:

☐ True☒ FalseQuestion **85**

Complete

1.00 points out of 1.00

True or False? Protodash explanations requires both features(input) and labels(output)

Select one:

☐ True☒ False

Question **86**

Complete

1.00 points out of 1.00

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Which of the following is **incorrect** when you compare nutrition labels and AI FactSheets?

Select one:

- ☐ a. AI FactSheets and Nutrition labels are means to achieve Transparency in their respective domains
- ☐ b. AI FactSheets and Nutrition label provide facts about the product to consumers without revealing secrets
- ☒ c. Like Nutrition labels, AI Factsheets also have a standardized/universal form and do provide answers to standardized questions.
- ☐ d. All options are correct

Question **87**

Complete

1.00 points out of 1.00

What does Governance mean ?

Select one:

- ☐ a. Not disclosing any information about the product.
- ☐ b. Disclosing facts about the product to consumers by giving away secrets
- ☒ c. AI Governance is the ability to understand and gain control over the AI development activities throughout the AI lifecycle.
- ☐ d. Preventing consumers from better understanding the product

Question **88**

Complete

1.00 points out of 1.00

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True or False: Multiple creators cannot be involved in creating single FactSheet

Select one:

- ☐ True
- ☒ False

Question **89**

Complete

1.00 points out of 1.00

True or False: AI FactSheet, like a nutrition label is not tailored to specific use case and audience.

Select one:

- ☐ True
- ☒ False

Question **90**

Complete

1.00 points out of 1.00

True or False: FactSheets does not allow you to render the facts in different ways to fit the needs of the person viewing them.

Select one:

- ☐ True
- ☒ False

Question **91**

Complete

1.00 points out of 1.00

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Why there is a need for AI Governance ?

Select one or more:

- ☒ a. Lack of transparency
- ☒ b. Lack of guidance for documentation
- ☒ c. Communication gaps between diverse lifecycle roles
- ☒ d. Non-standardized development practices

Question **92**

Complete

1.00 points out of 1.00

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FactSheets enables AI governance that allows organizations to

Select one or more:

- ☒ a. Capture AI lifecycle facts, enabling greater visibility and enabling opportunities for automated documentation
- ☒ b. Facilitate communication and collaboration among the diverse lifecycle roles and other stakeholders
- ☒ c. Perform analysis of these facts to improve business outcomes, increase overall efficiency, and learn best practices
- ☒ d. Specify enterprise policies to be enforced during the AI development lifecycle