Huawei Certified Network Associate

1. As we understand more about machine learning, we will find that its scope is constantly changing over time.

A. TRUE			
B. FALSE			

Answer(s): A

2. As the cornerstone of Huawei's full-stack, all-scenario AI solution, it provides modules, boards, and servers powered by the Ascend AI processor to meet customer demand for computing power in all scenarios.

A. Atlas	
B. CANN	
C. MindSpore	
D. ModelArts	

Answer(s): A

3. Huawei's full-stack AI solution includes Ascend, MindSpore, and ModelArts. (Enter an acronym.)

A. All	
B. AIIS	
C. CANN	

Answer(s): C

4. The concept of "artificial intelligence" was first proposed in the year of:

A. 1950		
B. 1956		
C. 1960		
D. 1965		

Answer(s): B

5. Which of the following are subfields of AI?

A. Backpropagation algorithm
B. Expert system
C. Smart finance
D. Computer vision

Answer(s): B D

6. What are the application scenarios of computer vision?

A. Video action analysis
B. Image search
C. Smart albums

Answer(s): A B C

7. Which of the following is NOT a commonly used AI computing framework?

A. PyTorch	
B. MindSpore	
C. TensorFlow	
D. OpenCV	

Answer(s): D

8. "Today's speech processing technology can achieve a recognition accuracy of over 90% in any case." Which of the following is true about this statement?

A. This statement is incorrect. The accuracy of speech recognition is high, but not extremely high.

B. This statement is incorrect. In many situations, noise and background sound have a huge impact on speech recognition accuracy.

C. This statement is correct. Speech processing can achieve a high level of accuracy.

D. This statement is correct. Speech processing has a long history and the technology is very mature.

Answer(s): B

9. "Al application fields include only computer vision and speech processing." Which of the following is true about this statement?

A. This statement is false. The application fields of AI include computer vision, speech processing, natural language processing, and others.

B. This statement is false. Al application fields include only computer vision and natural language processing.

C. This statement is true. Voice data is processed with extremely high accuracy.

D. This statement is true. Computer vision is the most important AI application.

Answer(s): A

10. Which of the following are common gradient descent methods?

A. Batch gradient descent (BGD)

B. Mini-batch gradient descent (MBGD)

C. Multi-dimensional gradient descent (MDGD)

D. Stochastic gradient descent (SGD)

Answer(s): A B D

11. Which of the following algorithms presents the most chaotic landscape on the loss surface?

A. Stochastic gradient descent	
B. MGD	
C. MBGD	
D. BGD	

Answer(s): A

12. Which of the following statements are true about the k-nearest neighbors (k-NN) algorithm?

A. k-NN typically uses the mean value method to predict regression.

B. k-NN typically uses the majority voting method to predict classification.

C. k-NN is a parametric method often used for datasets with regular decision boundaries.

D. The k-NN algorithm determines which class an object belongs to based on the class to which most of the object's k nearest neighbors belong.

Answer(s): B D

13. An algorithm of unsupervised learning classifies samples in a dataset into several categories. Samples belonging to the same category have high similarity.

A. TRUE

B. FALSE

Answer(s): A

14. Which of the following statements is false about the debugging and application of a regression model?

A. If the model does not meet expectations, you need to use data cleansing and feature engineering.

B. After model training is complete, you need to use the test dataset to evaluate your model so that its generalization capability meets expectations.

C. If overfitting occurs, you can add a regularization term to the Lasso or ridge regression and adjust hyperparameters.

D. If underfitting occurs, you can use a more complex regression model, for example, logistic regression.

Answer(s): D

15. In machine learning, which of the following inputs is required for model training and prediction?

A. Neural network	
B. Historical data	
C. Training algorithm	
D. Manual program	

Answer(s): B

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16. Which of the following statements about datasets are true?

A. Testing refers to a process that uses a trained model for prediction. The dataset, which is used for testing, is called a testing set, and each sample is called a test sample.

B. A dataset generally has multiple dimensions. In each dimension, events or attributes that reflect the performance or nature of a sample in a particular aspect are called features.

C. In machine learning, a dataset is generally divided into a training set, validation set, and test set.

D. When it comes to the machine learning process, the validation set and the test set are essentially the same.

Answer(s): A B C

17. In a hyperparameter-based search, the hyperparameters of a model are searched based on the data on and the model's performance metrics.

A. TRUE

B. FALSE

Answer(s): A

18. The general process of building a project using machine learning involves the following steps: split data, ______ the model, deploy the model the model, and fine-tune the model.

A. train

Answer(s): A

19. When feature engineering is complete, which of the following is not a step in the decision tree building process?

 A. Decision tree generation

 B. Pruning

 C. Feature selection

 D. Data cleansing

Answer(s): D

20. Which of the following statements are true about decision trees?

 $\hfill\square$ A. The common decision tree algorithms include ID3, C4.5, and CART.

B. Quantitative indicators of purity can only be obtained by using information entropy.

C. Building a decision tree means selecting feature attributes and determining their tree structure.

D. A key step to building a decision tree involves dividing all feature attributes and comparing the purity of the division's result sets.

Answer(s): A C D