

Day-20 Quiz-DataScience-Training

Welcome to the Python Programming Quiz! This quiz tests your knowledge of daily learnings. Please read the instructions carefully before starting the quiz.

Instructions and Rules

- **Time Limit:** You have 20 minutes to complete the quiz.
- **Number of Questions:** The quiz consists of 20 multiple-choice questions.
- **Scoring:** Each correct answer is worth 1 point. There is no negative marking for incorrect answers.
- **Single Attempt:** You are allowed only one attempt to complete the quiz.
- **Required Fields:** All questions are mandatory. You must answer each question to submit the quiz.
- **Resources:** This is a closed-book quiz. Do not use any external resources, including books, notes, or the internet.
- **Honesty:** Please answer the questions honestly and to the best of your ability. Cheating or dishonesty will result in disqualification.
- **Environment:** Ensure you are in a quiet environment where you can concentrate without interruptions.
- **Technical Issues:** In case of technical issues, please contact the quiz administrator immediately.
- **Retakes:** There are no retake opportunities for this quiz. Ensure you are prepared before starting.

Good luck, and do your best!

* Indicates required question

1. Email *

2. **1. What is the primary goal of a flower classification project? ***

Mark only one oval.

- ☐ A) To count the number of flowers in an image
- ☐ B) To classify images of flowers into different categories
- ☐ C) To detect edges in flower images
- ☐ D) To enhance the colors in flower images

3. **2. What is TensorFlow? ***

Mark only one oval.

- ☐ A) A library for image processing
- ☐ B) A framework for machine learning and deep learning
- ☐ C) A tool for web development
- ☐ D) A database management system

4. **3. How do you import the TensorFlow module in Python? ***

Mark only one oval.

- ☐ A) import tensorflow as tf
- ☐ B) import tf as tensorflow
- ☐ C) import tensorflow
- ☐ D) from tensorflow import tf

5. **4. What is the purpose of the Conv2D layer in a neural network? ***

Mark only one oval.

- ☐ A) To perform convolution operations on images
- ☐ B) To perform pooling operations on images
- ☐ C) To flatten the input
- ☐ D) To add fully connected layers

6. **5. What does the MaxPooling2D layer do in a neural network? ***

Mark only one oval.

- ☐ A) It adds fully connected layers
- ☐ B) It performs convolution operations
- ☐ C) It flattens the input
- ☐ D) It reduces the spatial dimensions of the input

7. **6. What is the purpose of the Flatten layer in a neural network? ***

Mark only one oval.

- ☐ A) To add fully connected layers
- ☐ B) To perform pooling operations
- ☐ C) To convert 2D arrays into 1D arrays
- ☐ D) To perform convolution operations

8. **7. What is a Dense layer in a neural network? ***

Mark only one oval.

- ☐ A) A layer that performs convolution operations
- ☐ B) A layer that performs pooling operations
- ☐ C) A fully connected layer
- ☐ D) A layer that normalizes the input

9. **8. What is the purpose of the Sequential model in TensorFlow? ***

Mark only one oval.

- ☐ A) To perform data augmentation
- ☐ B) To define a linear stack of layers
- ☐ C) To load pre-trained models
- ☐ D) To optimize hyperparameters

10. **9. What is the role of activation functions in a neural network? ***

Mark only one oval.

- ☐ A) To perform pooling operations
- ☐ B) To introduce non-linearity into the network
- ☐ C) To reduce the dimensionality of the input
- ☐ D) To convert 2D arrays to 1D arrays

11. **10. Which of the following is a commonly used activation function? ***

Mark only one oval.

- ☐ A) Sigmoid
- ☐ B) ReLU
- ☐ C) Tanh
- ☐ D) All of the above

12. **11. What is the purpose of an optimizer in a neural network? ***

Mark only one oval.

- ☐ A) To define the architecture of the network
- ☐ B) To minimize the loss function
- ☐ C) To perform data augmentation
- ☐ D) To initialize the weights

13. **12. Which of the following is a commonly used optimizer? ***

Mark only one oval.

- ☐ A) SGD
- ☐ B) Adam
- ☐ C) RMSprop
- ☐ D) All of the above

14. **13. What is data augmentation in the context of deep learning? ***

Mark only one oval.

- ☐ A) Increasing the size of the training data by adding synthetic data
- ☐ B) Reducing the size of the training data
- ☐ C) Normalizing the training data
- ☐ D) Splitting the training data into batches

15. **14. What is the purpose of the ImageDataGenerator in TensorFlow? ***

Mark only one oval.

- ☐ A) To perform data augmentation
- ☐ B) To create batches of image data
- ☐ C) To normalize image data
- ☐ D) All of the above

16. **15. What does setting verbose=1 do during model training in TensorFlow? ***

Mark only one oval.

- ☐ A) It prints detailed logs of the training process
- ☐ B) It prints only the final accuracy
- ☐ C) It disables logging
- ☐ D) It saves the model checkpoints

17. **16. In the context of object detection, what does confidence score represent? ***

Mark only one oval.

- ☐ A) The accuracy of the model
- ☐ B) The certainty of the detected object
- ☐ C) The speed of the detection process
- ☐ D) The size of the detected object

18. **17. What does specifying input_shape in the first layer of a Sequential model do? ***

Mark only one oval.

- ☐ A) Sets the batch size for training
- ☐ B) Defines the shape of the input data for the model
- ☐ C) Determines the number of epochs
- ☐ D) Configures the learning rate of the model

19. **18. What is the use of ImageDataGenerator in TensorFlow? ***

Mark only one oval.

- ☐ A) To generate synthetic data
- ☐ B) To load and augment image data
- ☐ C) To visualize image data
- ☐ D) To save image data

20. **19. Which of the following is not a parameter of the cv2.putText() function? ***

Mark only one oval.

- ☐ A) image
- ☐ B) text
- ☐ C) org
- ☐ D) filter

21. **20. What will happen if you do not include cv2.waitKey(0) after cv2.imshow()? ***

Mark only one oval.

- ☐ A) The image window will close immediately
- ☐ B) The image window will stay open indefinitely
- ☐ C) The image window will not display
- ☐ D) The image will not be read

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