

Your grade: 100%

Your latest: 100% • Your highest: 100% • To pass you need at least 80%. We keep your highest score.

Next item →

1. What is the primary objective of the YOLO v7 algorithm in object detection?

1 / 1 point

- ☐ To enhance image resolution
- ☐ To classify images into predefined categories
- ☒ To detect and localize objects within an image
- ☐ To segment images into different regions

✔ Correct
Correct! YOLO v7 aims to detect and localize objects within an image efficiently.

2. Which accuracy metric is used to evaluate the balance between precision and recall in object detection?

1 / 1 point

- ☐ Mean Average Precision
- ☐ True Positive Rate
- ☒ F1 Score
- ☐ False Negative Rate

✔ Correct
Correct! The F1 Score is used to evaluate the balance between precision and recall in object detection.

3. Which of the following are object detection algorithms that can be compared with YOLO?

1 / 1 point

- ☐ AlexNet
- ☐ ResNet
- ☒ SSD (Single Shot MultiBox Detector)

✔ Correct
Correct! SSD is an object detection algorithm that can be compared with YOLO.

- ☒ Faster R-CNN

✔ Correct
Correct! Faster R-CNN is another object detection algorithm that can be compared with YOLO.

- ☒ Fast R-CNN

✔ Correct
Correct! Fast R-CNN is an object detection algorithm that can be compared with YOLO.

4. Which of the following steps are involved in implementing style transfer using the VGG19 network?

1 / 1 point

- ☐ Applying convolutional layers to the stylized image
- ☒ Extracting feature maps from style and content images

✔ Correct
Correct! Extracting feature maps is a fundamental step in style transfer.

- ☒ Balancing content and style weights during optimization

✔ Correct
Correct! Balancing the weights is essential for achieving a desired blend of content and style.

- ☒ Optimizing the input image to minimize content and style loss

✔ Correct
Correct! Optimization is crucial to blend content and style effectively.

- ☐ Generating feature maps using a random noise image

5. Which concepts are central to the neural algorithm of artistic style?

1 / 1 point

- ☐ Activation functions
- ☒ Gram matrices

✔ Correct
Correct! Gram matrices are used to calculate style loss by capturing the correlations between feature maps.

- ☒ Content loss

✔ Correct

Correct! Content loss helps in preserving the structure of the content image.

☐ Pooling layers

☒ Style loss

👉 **Correct**

Yes! Style loss is crucial for capturing the stylistic elements of the style image.