Question **1**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

2. Which technique involves partitioning an image into meaningful regions or objects?

Select one:

a.
Image registration

b.
Image convolution

c.
Image enhancement

d.
Image segmentation

Question **2**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

26. Which type of image segmentation is based on intensity gradients and step edges?

Select one:

a.
Texture segmentation

b.
K-means clustering

c.

Gradient-based segmentation

d.
Region growing

Question **3**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

14. Which segmentation method utilizes a seed point to iteratively grow regions based on similarity?

Select one:

a.
Edge detection

b.
Active contour modeling

c.
Region growing

d.
K-means clustering

Question **4**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

44. Which method can handle object over-segmentation by merging adjacent regions?

Select one:

a.

Watershed segmentation

b.
Active contour modeling

c.
K-means clustering

d.
Region growing

Question **5**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

25. Which segmentation method is suitable for detecting circular objects in images?

Select one:

a.
Watershed segmentation

b.
Active contour modeling

c.
Circular Hough Transform

d.
Region growing

Question **6**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

16. Which segmentation method is based on partitioning the feature space using a set of cluster centers?

Select one:

a.
Active contour modeling

b.
K-means clustering

c.
Graph-based segmentation

d.
Region growing

Question **7**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

9. Which segmentation approach considers both intensity and spatial proximity of pixels?

Select one:

a.
K-means clustering

b.
Region growing

c.
Watershed segmentation

d.
Active contour modeling

Question **8**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

18. What is the main limitation of the K-means clustering algorithm in image segmentation?

Select one:

a.
Inability to handle grayscale images

b.
Sensitivity to noise

c.
Slow convergence

d.
Dependency on initial seeds

Question **9**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

45. Which technique involves detecting edges based on intensity gradients in different directions?

Select one:

a.
Region growing

b.
K-means clustering

c.
Edge detection

d.
Active contour modeling

Question **10**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

28. Which technique uses connected components to identify segmented regions in an image?

Select one:

a.
Region growing

b.
Active contour modeling

c.
Connected-component labeling

d.
Watershed segmentation

Question **11**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

15. What is the purpose of the watershed transformation in image segmentation?

Select one:

a.
Object recognition

b.
Edge detection

c.
Noise reduction

d.
Overcoming undersegmentation

Question **12**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

47. Which technique segments an image by grouping similar pixels based on their color and spatial proximity?

Select one:

a.
Watershed segmentation

b.
Region growing

c.
Superpixel segmentation

d.
K-means clustering

Question **13**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

37. Which technique segments an image into patches that have both similar color and spatial proximity?

Select one:

a.
K-means clustering

b.
Superpixel segmentation

c.
Watershed segmentation

d.
Region growing

Question **14**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

19. Which segmentation method can adapt to irregular object boundaries and concavities?

Select one:

a.
Graph-based segmentation

b.
K-means clustering

c.
Region growing

d.
Active contour modeling

Question **15**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

24. Which technique involves merging or splitting image segments to achieve desired results?

Select one:

a.
Post-processing

b.
Splitting algorithm

c.
Region growing

d.
Merging algorithm

Question **16**

Complete

Mark 1.00 out of 1.00

Flag question

Question text

21. Which segmentation method seeks to separate regions based on the detection of significant gradients?

Select one:

a.
Region growing

b.
Edge detection

c.
K-means clustering

d.
Active contour modeling

Question **17**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

27. What is the purpose of the gradient magnitude in edge-based segmentation?

Select one:

a.
Detection of significant intensity changes

b.
Detection of object centers

c.
Enhancement of image resolution

d.
Detection of texture patterns

Question **18**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

11. Which segmentation method uses snakes or curves to delineate object boundaries?

Select one:

a.
K-means clustering

b.
Region growing

c.
Active contour modeling

d.
Graph-based segmentation

Question **19**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

22. What is the main challenge of contour-based image segmentation techniques?

Select one:

a.
Dependency on color information

b.
Limited computational resources

c.
Difficulty in defining object boundaries

d.
Sensitivity to noise

Question **20**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

4. Which segmentation method uses gradients to locate edges in an image?

Select one:

a.
Edge detection

b.
Thresholding

c.
K-means clustering

d.
Region growing

Question **21**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

20. Which technique divides an image into segments based on local texture patterns?

Select one:

a.
Texture segmentation

b.
Texture filtering

c.
Texture thresholding

d.
Texture mapping

Question **22**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

8. Which segmentation technique iteratively groups pixels into clusters based on their similarity?

Select one:

a.
Watershed segmentation

b.
K-means clustering

c.
Edge detection

d.
Region growing

Question **23**

Complete

Mark 1.00 out of 1.00

Flag question

Question text

49. Which method can overcome the oversegmentation problem by merging regions with similar color properties?

Select one:

a.
K-means clustering

b.
Watershed segmentation

c.
Graph-based segmentation

d.
Region growing

Question **24**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

17. Which segmentation technique is effective for segmenting images with intensity gradients?

Select one:

a.
K-means clustering

b.
Region growing

c.
Active contour modeling

d.
Watershed segmentation

Question **25**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

42. Which technique involves propagating region labels from seed points to nearby pixels?

Select one:

a.
Watershed segmentation

b.
Region growing

c.
K-means clustering

d.
Active contour modeling

Question **26**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

32. Which type of image segmentation is more suitable for segmenting textured objects?

Select one:

a.
K-means clustering

b.
Active contour modeling

c.
Texture-based segmentation

d.
Region growing

Question **27**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

33. What is the primary purpose of the watershed transform in image segmentation?

Select one:

a.
Object recognition

b.
Overcoming over-segmentation

c.
Edge detection

d.
Noise reduction

Question **28**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

48. Which segmentation method can be applied to segment color images by considering each color channel independently?

Select one:

a.
Color-based segmentation

b.
Active contour modeling

c.
Region growing

d.
Watershed segmentation

Question **29**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

34. Which segmentation method is commonly used for separating foreground and background in an image?

Select one:

a.
Active contour modeling

b.
Region growing

c.
GrabCut algorithm

d.
K-means clustering

Question **30**

Complete

Mark 1.00 out of 1.00

Flag question

Question text

43. What is the key advantage of superpixel segmentation in image analysis?

Select one:

a.
Reduced computational complexity

b.
Enhanced noise reduction

c.
Improved boundary detection

d.
Preservation of original pixel colors

Question **31**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

10. Which technique divides an image into segments by modeling the image as a graph?

Select one:

a.
Graph-based segmentation

b.
Region growing

c.
K-means clustering

d.
Active contour modeling

Question **32**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

35. What is the role of the gradient direction in edge detection-based segmentation?

Select one:

a.
Determination of edge orientation

b.

Detection of texture patterns

c.
Identification of object centers

d.
Enhancement of image contrast

Question **33**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

41. Which method segments an image based on patterns of local image texture?

Select one:

a.
Texture-based segmentation

b.
K-means clustering

c.
Region growing

d.
Watershed segmentation

Question **34**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

29. Which segmentation method is useful for segmenting an image into non-overlapping, contiguous regions?

Select one:

a.
K-means clustering

b.
Region growing

c.
Superpixel segmentation

d.
Watershed segmentation

Question **35**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

46. Which segmentation method can be adapted to segment images with varying lighting conditions?

Select one:

a.
K-means clustering

b.
Active contour modeling

c.
Adaptive thresholding

d.
Region growing

Question **36**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

5. Which segmentation technique is sensitive to noise and may result in fragmented regions?

Select one:

a.
K-means clustering

b.
Region growing

c.
Active contour modeling

d.
Watershed segmentation

Question **37**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

38. What is the primary purpose of post-processing in image segmentation?

Select one:

a.
Enhancing image resolution

b.
Refining initial segmentation results

c.
Improving color fidelity

d.

Reducing computational complexity

Question **38**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

50. Which technique can be used to segment an image based on the distribution of color values in the feature space?

Select one:

a.
Color-based segmentation

b.
K-means clustering

c.
Region growing

d.
Watershed segmentation

Question **39**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

30. Which method combines image features and region-based constraints for accurate segmentation?

Select one:

a.
Constraint-based segmentation

b.
Region growing

c.
K-means clustering

d.
Graph-based segmentation

Question **40**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

23. Which segmentation method considers both local and global information to divide an image?

Select one:

a.
Region growing

b.
Active contour modeling

c.
Graph-based segmentation

d.
Watershed segmentation

Question **41**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

31. Which technique can be used to refine the results of initial segmentation?

Select one:

a.
Pre-processing

b.
Region growing

c.
Post-processing

d.
Active contour modeling

Question **42**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

40. Which segmentation technique divides an image into regions based on color similarity?

Select one:

a.
K-means clustering

b.
Active contour modeling

c.
Watershed segmentation

d.
Region growing

Question **43**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

7. What is the primary challenge in threshold-based image segmentation?

Select one:

a.
Detecting noise

b.
Handling color information

c.
Identifying edges

d.
Determining the threshold value

Question **44**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

6. Which method converts an image into a binary representation by selecting a threshold value?

Select one:

a.
Thresholding

b.
Active contour modeling

c.
Region growing

d.
K-means clustering

Question **45**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

36. Which segmentation method is based on partitioning the image into non-overlapping regions?

Select one:

a.
Region growing

b.
K-means clustering

c.
Active contour modeling

d.
Superpixel segmentation

Question **46**
Complete
Mark 0.00 out of 1.00

Flag question

Question text

1. What is the goal of image segmentation in computer vision?

Select one:

a.
Noise reduction

b.
Feature extraction

c.
Image compression

d.
Object recognition

Question **47**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

39. Which segmentation method is based on the idea of evolving a contour toward object boundaries?

Select one:

a.
K-means clustering

b.
Active contour modeling

c.
Watershed segmentation

d.
Region growing

Question **48**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

12. Which segmentation method is particularly useful for segmenting touching or overlapping objects?

Select one:

a.
Graph-based segmentation

b.
Watershed segmentation

c.
Region growing

d.
K-means clustering

Question **49**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

3. Which type of image segmentation aims to group pixels based on their similarity in intensity?

Select one:

a.
Thresholding

b.
Region growing

c.
Edge detection

d.
Watershed segmentation

Question **50**
Complete
Mark 1.00 out of 1.00

Flag question

Question text

13. Which segmentation technique involves modeling image regions as an energy-minimization problem?

Select one:

a.
K-means clustering

b.
Active contour modeling

c.
Region growing

d.
Edge detection