1. What does CVIP stand for?
a) Computer Vision and Information Processing
b) Computer Vision and Image Processing
c) Computer Visual Intelligence Processing
d) Computer View and Image Perception

View answer
Answer: b) Computer Vision and Image Processing

2. Which of the following is NOT a fundamental task of computer vision?
a) Object recognition
b) Image compression
c) Scene understanding
d) Motion estimation

View answer
Answer: b) Image compression

3. In the history of CVIP, which decade saw significant advancements in pattern recognition techniques?
a) 1950s
b) 1960s
c) 1970s
d) 1980s

View answer

Answer: c) 1970s

4. What is a primary goal of image filtering in CVIP?
a) To reduce noise
b) To increase image resolution
c) To change the color space
d) To compress the image

View answer
Answer: a) To reduce noise

5. Which image representation stores color information as intensity values for red, green, and blue channels?
a) RGB
b) HSV
c) CMYK
d) YCbCr

View answer
Answer: a) RGB

6. Which statistical measure is used to represent the average brightness of an image?
a) Mean
b) Median
c) Mode

d) Standard deviation

View answer
Answer: a) Mean

7. What is the purpose of labeling in recognition methodology?
a) To classify objects into predefined categories
b) To assign unique identifiers to connected regions in an image
c) To extract features from images
d) To perform clustering of similar objects

View answer
Answer: b) To assign unique identifiers to connected regions in an image

8. Which morphological operation involves expanding the boundaries of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: a) Dilation

9. What is the primary objective of thinning in morphological image processing?
a) To remove noise from the image

b) To make objects thinner while preserving their connectivity
c) To expand the boundaries of objects
d) To close small gaps in objects

View answer
Answer: b) To make objects thinner while preserving their connectivity

10. Which morphological operation involves shrinking the boundaries of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: b) Erosion

11. Which transformation is used to find specific patterns in binary images, such as locating edges or corners?
a) Hit-or-Miss transformation
b) Dilation
c) Erosion
d) Opening

View answer
Answer: a) Hit-or-Miss transformation

12. In CVIP, what does the term “grouping” refer to?
a) Identifying individual objects within a scene
b) Labeling connected regions in an image
c) Recognizing patterns or structures formed by multiple objects
d) Extracting features from images

View answer
Answer: c) Recognizing patterns or structures formed by multiple objects

13. Which morphological operation is typically used to remove small objects from the foreground of an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: c) Opening

14. Which CV model is inspired by the organization and function of the human visual system?
a) Statistical models
b) Geometric models
c) Biological models
d) Physical models

View answer

Answer: c) Biological models

15. What does the “H” in HSV color space represent?
a) Hue
b) High
c) Highlight
d) Hybrid

View answer
Answer: a) Hue

16. Which morphological operation is used to fill gaps in the contours of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: d) Closing

17. Which technique is commonly used for extracting features from images in CVIP?
a) Histogram equalization
b) Fourier transform
c) Edge detection
d) Low-pass filtering

View answer
Answer: c) Edge detection

18. In image processing, what does the term “erosion” refer to?
a) Expanding the boundaries of objects
b) Shrinking the boundaries of objects
c) Enhancing the contrast of an image
d) Removing noise from an image

View answer
Answer: b) Shrinking the boundaries of objects

19. Which of the following is a morphological operation used to remove small holes in the foreground of an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: d) Closing

20. Which statistical measure represents the most frequently occurring pixel intensity in an image?
a) Mean

b) Median
c) Mode
d) Standard deviation

View answer
Answer: c) Mode

21. Which morphological operation is the dual of dilation?
a) Erosion
b) Opening
c) Closing
d) Hit-or-Miss transformation

View answer
Answer: a) Erosion

22. What is the primary purpose of image conditioning in CVIP?
a) To enhance the visual appearance of images
b) To prepare images for further processing or analysis
c) To reduce the size of images
d) To convert images to a different color space

View answer
Answer: b) To prepare images for further processing or analysis

23. Which morphological operation is used to remove small objects from the background of an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: c) Opening

24. What is the main advantage of using morphological operations in image processing?
a) They are computationally expensive
b) They are sensitive to noise
c) They preserve object boundaries
d) They require a large amount of memory

View answer
Answer: c) They preserve object boundaries

25. Which morphological operation is used to remove noise from the edges of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: b) Erosion

26. Which statistical measure represents the spread of pixel intensities in an image?
a) Mean
b) Median
c) Mode
d) Standard deviation

View answer
Answer: d) Standard deviation

27. In CVIP, what does the term “matching” refer to?
a) Finding correspondences between features in different images
b) Adjusting the brightness and contrast of an image
c) Detecting edges in an image
d) Removing noise from an image

View answer
Answer: a) Finding correspondences between features in different images

28. Which morphological operation is used to remove small protrusions from the foreground of an image?
a) Dilation
b) Erosion

c) Opening
d) Closing

View answer
Answer: c) Opening

29. Which of the following is NOT a common application of computer vision?
a) Autonomous vehicles
b) Medical image analysis
c) Weather prediction
d) Object recognition

View answer
Answer: c) Weather prediction

30. What is the primary goal of image segmentation in CVIP?
a) To enhance image resolution
b) To identify individual objects or regions of interest in an image
c) To reduce noise in an image
d) To change the color space of an image

View answer
Answer: b) To identify individual objects or regions of interest in an image

31. Which morphological operation is used to remove isolated pixels or small clusters from an

image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: c) Opening

32. Which CV model represents objects as geometric shapes and their spatial relationships?
a) Statistical models
b) Geometric models
c) Biological models
d) Physical models

View answer
Answer: b) Geometric models

33. What is the primary purpose of region growing in image processing?
a) To reduce noise in an image
b) To merge adjacent regions with similar properties
c) To detect edges in an image
d) To change the color space of an image

View answer
Answer: b) To merge adjacent regions with similar properties

34. Which morphological operation is used to remove small gaps between objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: d) Closing

35. Which of the following is NOT a common method for image representation?
a) Binary representation
b) Histogram representation
c) Wavelet representation
d) Vector representation

View answer
Answer: b) Histogram representation

36. In CVIP, what does the term “extracting” refer to?
a) Selecting relevant features from an image
b) Segmenting an image into distinct regions
c) Detecting edges in an image
d) Adjusting the brightness and contrast of an image

View answer

Answer: a) Selecting relevant features from an image

37. Which morphological operation is used to remove small holes or gaps in objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: d) Closing

38. Which morphological operation is used to remove small objects from the edges of larger objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: b) Erosion

39. What is the primary purpose of thinning in morphological image processing?
a) To remove noise from the image
b) To make objects thinner while preserving their connectivity

c) To expand the boundaries of objects
d) To close small gaps in objects

View answer
Answer: b) To make objects thinner while preserving their connectivity

40. Which statistical measure represents the middle value of a sorted list of pixel intensities?
a) Mean
b) Median
c) Mode
d) Standard deviation

View answer
Answer: b) Median

41. Which morphological operation is used to remove small protrusions from the foreground of an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: c) Opening

42. Which morphological operation is used to remove noise from the edges of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: b) Erosion

43. In CVIP, what does the term “labeling” refer to?
a) Finding correspondences between features in different images
b) Assigning unique identifiers to connected regions in an image
c) Detecting edges in an image
d) Removing noise from an image

View answer
Answer: b) Assigning unique identifiers to connected regions in an image

44. Which morphological operation is used to fill gaps in the contours of objects in an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer

Answer: d) Closing

45. Which morphological operation is typically used to remove small objects from the foreground of an image?
a) Dilation
b) Erosion
c) Opening
d) Closing

View answer
Answer: c) Opening

46. What is the primary purpose of image conditioning in CVIP?
a) To enhance the visual appearance of images
b) To prepare images for further processing or analysis
c) To reduce the size of images
d) To convert images to a different color space

View answer
Answer: b) To prepare images for further processing or analysis

47. Which morphological operation is used to remove small objects from the background of an image?
a) Dilation
b) Erosion

c) Opening
d) Closing

View answer
Answer: c) Opening

48. Which of the following is NOT a common application of computer vision?
a) Autonomous vehicles
b) Medical image analysis
c) Weather prediction
d) Object recognition

View answer
Answer: c) Weather prediction

49. What is the primary goal of image segmentation in CVIP?
a) To enhance image resolution
b) To identify individual objects or regions of interest in an image
c) To reduce noise in an image
d) To change the color space of an image

View answer
Answer: b) To identify individual objects or regions of interest in an image

50. Which morphological operation is used to remove isolated pixels or small clusters from an

image?

a) Dilation

b) Erosion

c) Opening

d) Closing

View answer

Answer: c) Opening