

**COMPUTER VISION
CLASS XII
SEMESTER III**

THEORY

FULL MARKS – 20

(MCQ Type Question)

1. **What is the primary goal of computer vision?**
 - a) To create artistic images
 - b) To enable machines to interpret and understand visual information
 - c) To improve internet speed
 - d) To store images efficiently
2. **Which of the following is NOT an application of computer vision?**
 - a) Facial recognition
 - b) Spam email detection
 - c) Object detection
 - d) Medical image analysis
3. **When did significant research on computer vision begin?**
 - a) 1960s
 - b) 1980s
 - c) 2000s
 - d) 2010s
4. **Why is computer vision important in modern technology?**
 - a) It reduces internet costs
 - b) It enables automation and enhances decision-making
 - c) It increases file storage capacity
 - d) It accelerates data transmission
5. **Which industry uses computer vision for defect detection?**
 - a) Agriculture
 - b) Manufacturing
 - c) Finance
 - d) Education
6. **What is a pixel in a digital image?**
 - a) A unit of time
 - b) A single point in a digital image
 - c) A type of image filter
 - d) A compression technique
7. **Which color space uses Red, Green, and Blue components?**
 - a) HSV
 - b) CMYK
 - c) RGB
 - d) YUV

8. **What does image resolution refer to?**
 - a) Image size in memory
 - b) The sharpness of the image
 - c) The number of pixels in an image
 - d) The file format used
9. **Which of the following is a common image file format?**
 - a) DOCX
 - b) PDF
 - c) JPEG
 - d) MP3
10. **What is histogram equalization used for?**
 - a) Compressing an image
 - b) Enhancing image contrast
 - c) Reducing image size
 - d) Applying color filters
11. **Which operation sharpens the edges of an image?**
 - a) Blurring
 - b) Contrast stretching
 - c) Sharpening filter
 - d) Histogram equalization
12. **What is the primary purpose of Gaussian filtering?**
 - a) Noise reduction
 - b) Image segmentation
 - c) Edge detection
 - d) Feature extraction
13. **Which technique detects edges by calculating gradients?**
 - a) Histogram equalization
 - b) Sobel filter
 - c) Dilation
 - d) Erosion
14. **In morphological operations, what does dilation do?**
 - a) Removes noise
 - b) Shrinks object boundaries
 - c) Enlarges object boundaries
 - d) Reduces image size
15. **Which morphological operation removes small holes inside objects?**
 - a) Erosion
 - b) Opening
 - c) Closing
 - d) Dilation
16. **What is the purpose of feature extraction?**
 - a) Compressing images
 - b) Enhancing colors
 - c) Identifying important patterns in images
 - d) Increasing resolution

17. **Which feature detection algorithm is scale-invariant?**
- a) Harris Corner Detector
 - b) SIFT
 - c) Sobel
 - d) Gaussian Filter
18. **What does ORB stand for?**
- a) Orientation Robust Binary
 - b) Oriented FAST and Rotated BRIEF
 - c) Object Recognition Binary
 - d) Ordered Region Blur
19. **Which feature descriptor uses gradient orientations?**
- a) HOG
 - b) SURF
 - c) SIFT
 - d) ORB
20. **What is the main goal of image classification?**
- a) Compressing images
 - b) Categorizing images into predefined classes
 - c) Increasing image resolution
 - d) Detecting edges