

Important and Super Important questions for DIP-18CS741

Module 1,2,3,4,5

1. explain fundamental steps in digital image processing.
2. explain the components of image processing systems.
3. Explain the example in field of digital image processing
4. Explain different ways of representing an image using data structures.
5. Explain the relationship between pixels in a digital image using i)neighbours of a pixel ii) adjacency of pixel iii)distance measures.
6. Explain sampling and digitization
7. Explain basic gray level transformation
8. Explain histogram processing
- 9.Explain the image compression model
- 10.Explain the two types for the compression model
 - a)Lossy compression b)lossless compression
- 11.Explain image segmentation using threshold
- 12.Explain region splitting and merging in image segmentation
- 13.Explain the process of finding the points on an edge using regional processing
- 14.Explain the way of finding edge points in an image that lie along a straight line usinf hough transform
- 15.Apply LZW coding to compress and decompress the message “ababbabcbabba”

16.Explain run length coding compression technique and apply the same to obtain the compressed code for the bit stream

0000001111111111111111000000000000011111111

17. Explain inter pixel redundancy

18 Explain huffmann coding with an example

19. Explain arithmetic coding

20. Properties of discrete fourier transform

21.Explain how arithmetic operations are helpful in image enhancement

22.Explain 2D-DFT and its inverse of an image in frequency domain

23.Write a short note on Image filtering

24.Derive second order laplacian derivative for image sharpening in Spatial domain

25.Smoothing of images in frequency domain using ideal,butterworth and gaussian low pass filters

26.Explain point detection and line detection in image segmentation using mask representations