

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VII ELECTRONIC : WINTER- 2022
SUBJECT : DIGITAL IMAGE PROCESSING

Day : Thursday

Time : 02:30 PM-05:30 PM

Date : 15-12-2022

W-13398-2022

Max. Marks : 60

N.B.

- 1) All Questions are **COMPULSORY**!
 - 2) Figures to the right indicate **FULL** marks.
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Q.1 Describe the fundamental steps and components in image processing. (10)

OR

Q.1 What are the color fundamentals? Describe noise in color images. (10)

Q.2 Elaborate histogram based techniques used in image processing applications. (10)

OR

Q.2 Discuss the low pass filters in frequency domain used for Image Processing. (10)

Q.3 What is the difference between Fourier transform and wavelet transform? Derive wavelet function using Haar wavelet. (10)

OR

Q.3 Describe various lossless compression methods. (10)

Q.4 What is mathematical morphology? Discuss the Hit or Miss transformation. (10)

OR

Q.4 What is digital image watermarking? Describe typical image watermarking system. (10)

Q.5 What is edge detection? Describe the first order edge detection operators. (10)

OR

Q.5 State the principle of region growing. Explain its application in segmentation. (10)

Q.6 List out the various applications of image processing. Explain Iris recognition system in detail. (10)

OR

Q.6 Write a note on video motion analysis. (10)

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