



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 6th Semester Examination, 2023

CMSADSE05P-COMPUTER SCIENCE (DSE3/4)
DIGITAL IMAGE PROCESSING (PRACTICAL)

SET-II

Time Allotted: 4 Hours

Full Marks: 10

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

Answer any *one* question from the following

10×1 = 10

1. Write a program to read an image and enlarge to its double size.
2. Write a program to display the height and width reduction of an image.
3. Write a program to read an image and rotate it in clockwise and anticlockwise direction.
4. Write a program to read an image and obtain its
(i) Negative image and (ii) Flip image.
5. Write a program for the following image arithmetic operations:
(i) Addition of two images
(ii) Calculate mean value of image.
6. Write a program to display the results of down-sampling of an image.
7. Write a program to convert a grayscale image to binary image using mean value as the threshold.
8. Write a program that will add salt-n-pepper noise of a specific density over an image. Hence, reduce the noise by using median filter.
9. Write a program to display the histogram of an image. Then display the low-contrast and high-contrast versions of the image and the corresponding histogram.
10. Write a program for wavelet transform on given image and perform inverse wavelet transform to reconstruct image.

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