23P451 (Pages: 2) Name : ....

Reg. No : ....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2025

(CBCSS-PG)

(Regular/Supplementary/Improvement)

CC19P CSS4 E04A - DIGITAL IMAGE PROCESSING

(Computer Science)

(2019 Admission onwards)

Time: 3 Hours   Maximum: 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

1. Illustrate Simple Image Formation model.

2. Illustrate histogram matching.

3. Illustrate Order Statistic Filters.

4. Conclude inverse filtering.

5. Conclude edge detection.

6. Discuss Lossy compression.

7. Expalin any 2 image compression standards.

(4 × 2 = 8 Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

8. Explain spatial and intensity resolution and image interpolation.

9. Illustrate DCT.

10. Describe spatial correlation and convolution.

11. Illustrate homorphic filtering.

12. Explain noise models.

13. Illustrate region based segmentation.

14. Illustrate arithmetic coding.

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Illustrate fundamental steps in image processing.

16. Explain Walsh,Hadamard and KL transformations.

17. Describe frequency domain filtering.

18. Explain fundamental concepts of image compression.

(2 × 5 = 10 Weightage)

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