

QP CODE: 26019171



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

MSc CYBER FORENSICS

ELECTIVE - CF810403 - IMAGE PROCESSING AND SECURITY

2019 Admission Onwards

555C1598

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Explain about image processing software.
2. Write a short note on color models.
3. Define frequency domain in spatial filtering.
4. Write about bandpass filters.
5. Write about Lossy predictive coding.
6. What is MPEG?
7. How can track the transactions of the work using watermarking?
8. Write about blind or targeted steganalysis.
9. List various notation used in models of watermarking.
10. How to estimate rate of Addictive White Gaussian Noise (AWGN) of channel?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. What is Image Acquisition? Write about image acquisition using sensor strips.
12. What is adjacency and what are the three types of adjacency?
13. Write a short note on histogram matching.
14. Compare Erlang/Gamma noise and Exponential noise .





15. Write short note on thresholding and region based segmentation.
16. Differentiate information hiding, steganography, and watermarking.
17. Explain about the properties associated with a watermark detection process.
18. What is marking space? Write two step and three step watermark embedder and detector.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain in detail about Image sampling and quantization.
20. Explain basic gray level transformation with suitable diagrams.
21. Write about Image Compression. Explain in detail about image compression models.
22. Describe importance of watermarking and steganography.

(2×5=10 weightage)

