# M.Sc DEGREE EXAMINATION, APRIL 2019 I Year II Semester Digital Image Processing

### Time : 3 Hours

Max.marks:75

Section A  $(10 \times 2 = 20)$  Marks

#### Answer any **TEN** questions

- 1. List some applications of Digital Image Processing.
- 2. Define Sampling & Quantization.
- 3. What is a Filter? Why it is used?
- 4. What is Image averaging?
- 5. What is noise? What are the different types of noises?
- 6. Differentiate Enhancement and Restoration.
- 7. Define Compression Ratio.
- 8. What are the types of redundancy?
- 9. What are the methods based on which segmentation can be done?
- 10. What is region growing?
- 11. What is the advantage of JPEG 2000 standard?
- 12. What is adjacency? What are its types?

**Section B**  $(5 \times 5 = 25)$  Marks

Answer any **FIVE** questions

- 13. Discuss about Color models.
- 14. Write about Sharpening using Frequency Domain Filters.
- 15. Write Short notes of Image Restoration Techniques.
- 16. Discuss Categories of Image Degradation in brief.
- 17. Explain about Thresholding.
- 18. List the differences between Lossless and Lossy Compression.
- 19. Write Short notes on Haar Transform.

## Section C $(3 \times 10 = 30)$ Marks

### Answer any **THREE** questions

- 20. Explain the steps involved in Digital Image Processing.
- 21. Discuss in detail about Smoothing Spatial Filters.
- 22. Explain the model of Image Degradation and Restoration.
- 23. Explain Huffman Coding & Bit Plane Coding.
- 24. Discuss about Region Based Segmentation in detail.

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