

M.C.A.(Sem-II) April-2023

(3 Hours)

[Total Marks: 80]

- N.B. : (1) Question No. 1 is Compulsory.
 (2) Attempt any three out remaining five questions.
 (3) Each Question carries 20 marks.

- Q1) Attempt any four questions. [20M]
 a) What are advantages of Digital Images? [5M]
 b) Give the property of symmetry and Periodicity of Direct DFT? [5M]
 c) Explain Image Restoration Model? [5M]
 d) What do you mean by redundancy in image? [5M]
 e) Explain the Object Detection Using Correlation Principle in brief? [5M]

- Q2)
 a) What are basic elements of digital image processing systems? [10M]
 b) Write short note on "Vector Quantization". [10M]

- Q3)
 a) Explain the Histogram Processing Techniques in detail? [10M]
 b) Write short note on "Noise Model". [10M]

- Q4)
 a) Write short note on "Smoothing Filters". [10M]
 b) Explain the Digital Watermarking in detail? [10M]

- Q5)
 a) Write short note on "KL Transform" [10M]
 b) Write short note on "Morphological Operations on Image". [10M]

- Q6) Solve any two questions
 a) Explain Transform Based Compression with suitable diagram? [10M]
 b) Write short note on "Statistical Compression Techniques" [10M]
 c) What are methods used for edge detection? [10M]