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Roll No. ....

## TMC-404(1)

## **MID SEMESTER EXAMINATION, 2021** M. C. A. (FOURTH SEMESTER)

**IMAGE PROCESSING AND** COMPUTER VISION

Time: 11/2 Hours

Maximum Marks: 50

Note: (i) Answer all the questions by choosing any one of the sub-questions.

(ii) Each question carries 10 marks.

1. (a) What are the various steps of digital image processing? Explain in detail.

10 Marks (CO1)

OR

(b) Explain Image sampling and quantization in DIP. 10 Marks (CO1)

- (2) TMC-404(1)
- 2. (a) Difference between analog image processing and digital image processing.

10 Marks (CO1)

OR

(b) Explain Different types of image in DIP.

.10 Marks (CO1)

3. (a) What do you understand by gray level Transformations? Explain in detail.

10 Marks (CO2)

OR .

- (b) What do you understand by bit? Explain the term pixel, resolution, aspect ratio and pixel density in the context of image processing.

  10 Marks (CO2)
- 4. (a) What are image histogram processing techniques in DIP? Explain in detail.

10 Marks (CO2)

(b) Explain different color code conversion in digital image processing. 10 Marks (CO2)

(3)

5. (a) Explain different types of filters in image processing.

10 Marks (CO2)

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(b) What are Image Smoothing and Image Sharpening? Explain in detail.

10 Marks (CO2)