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Roll No ....

MCA-505(B)

M.C.A. V Semester

Examination, November 2018

Computer Vision and Digital Image Processing

(Elective-III)

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Describe the concept of computer vision. Does it require in image processing.

   b) An image is 2400 pixels wide and 1200 pixel high. The image was scanned at 300 dpi. What is the physical size of the image.

   a) What do you mean by sampling and quantization.

   b) How do you represent image in MXN numerical array form?

3. Discuss the image smoothing filter with its model in the spatial domain.

4. a) What is Histogram? Explain Histogram equalization.

   b) What are image Sharpening Filters? Explain the various types of it.

5. Explain the following term:
   i) Line detection
   ii) Global by Hough transform

6. a) How is edge detection used for detecting discontinuities in a Digital Image?

   b) Explain Fast Fourier Transformation.

7. a) Explain the boundary descriptors in image representation.

   b) What do you mean by Chain codes?

8. Write a short notes (Any two):
   i) Image differencing
   ii) Low pass filter
   iii) Feature matching

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