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Roll No

IT-832**B.E. VIII Semester****Examination, June 2017****Image Processing****(Elective - III)****Time : Three Hours****Maximum Marks : 70**

Note: i) Attempt any five questions.
 ii) All question carries equal marks.

1. a) Define sampling and quantization. Differentiate scalar and vector quantisers. 7
- b) Differentiate Binary image, grayscale image and colour image. 7
2. a) Explain different elements of an image processing system. 7
- b) What is Discrete Fourier transform? Write properties of 2D-DFT. 7
3. a) What is histogram? How histogram manipulation can be used for image enhancement? 7
- b) With suitable examples explain image arithmetic. 7

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4. a) How low pass filtering can be used to enhance image in frequency domain? 7
- b) Explain redundancy in images with a suitable classification of redundancy. 7
5. a) What is Run length coding? Where is it suitable. 7
- b) Differentiate lossy and lossless compression techniques. 7
6. a) What is image segmentation? Give a classification of image segmentation techniques. 7
- b) What is image degradation? Explain the effect of diagonalisation on degradation. 7
7. a) Explain the process of Polygonal Approximations using Minimum Perimeter Polygons. 7
- b) Differentiate Regional and Boundary descriptors. 7
8. Write short notes (any two) : 14
- a) Image Skeleton
- b) Median Filtering
- c) Hadamard transform

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