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BICS-024

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00343

December, 2016

BICS-024 : DIGITAL IMAGE PROCESSING

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any* ***seven*** *questions. All questions carry equal marks.*

1. Describe the various steps in image processing. Explain the structure of the human eye with the help of a diagram. *10*

2. Explain colour slicing and colour complements. *10*

3. Explain any two morphological algorithms. *10*

4. Explain Dilation and Erosion with examples. Prove that Erosion and Dilation are dual transformations. *10*

5. What do you mean by registration ? Explain in brief Geometrical transformation. *10*

6. Briefly explain minimum mean-square error restoration. *10*

7. Explain plane-to-plane transformation. *10*

8. What is an Edge ? Describe the Canny Optimal Edge Detection method with an example. *10*

9. What is image restoration ? Explain the degradation model for continuous function in detail. *10*

10. Write short notes on any ***two*** of the following : *2×5=10*

    (a) Convex Hull

    (b) Graph Matching

    (c) Band reject filters and Band pass filters