

Reg. No. :

Question Paper Code : 21119

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2014.

Eighth Semester

Electronics and Communication Engineering

CS 1002 — DIGITAL IMAGE PROCESSING

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is image sampling?
2. What is the need for perspective transformation?
3. What is meant by spatial filtering?
4. Define Histogram.
5. What is image restoration?
6. Define Blind image.
7. What is lossy compression?
8. What is MPEG?
9. Define Segmentation.
10. What is meant by Chair code?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss in detail about elements of visual perception. (8)
(ii) Explain the basic properties of 2D Fourier transform. (8)

Or

- (b) Write notes on
(i) Walsh Hadamard (8)
(ii) Karhunen-Loeve Transforms. (8)

12. (a) (i) Explain about spatial domain methods in detail. (8)
(ii) Write notes on Image averaging. (8)

Or

- (b) (i) Discuss in detail about Homomorphic filtering. (8)
(ii) Differentiate laplacian filter and frequency domain filtering. (8)
13. (a) (i) Explain about Noise models. (8)
(ii) Explain the singular value decomposition. (8)

Or

- (b) Discuss about constrained least mean square filtering.
14. (a) (i) Explain the LZW coding. (8)
(ii) Explain in detail about wavelet coding. (8)

Or

- (b) With example, explain the JPEG compression.
15. (a) (i) Discuss the boundary extraction and representation. (8)
(ii) Write a short notes Types of Threshold. (8)

Or

- (b) (i) Discuss about the boundary descriptors. (8)
(ii) Explain about the Texture. (8)
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