

MAY 2016

P/ID 17533/PCE15

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. How to represent digital images? Discuss.
2. Write a note on image subtraction.
3. Write about image negatives.
4. Discuss on ideal low pass filters.
5. Discuss on arithmetic mean filters.
6. Write a note on Thresholding.
7. Write about source encoder and decoder.
8. Discuss on noiseless coding theorem.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Give a detailed note on spatial and gray-level resolution.
10. Explain color models.

11. Give a detailed note on enhancement using arithmetic/logic operation.
12. Explain the following :
 - (a) log transformations
 - (b) Power-law transformations.
13. Explain one-dimensional Fourier transform and its reverse.
14. Explain the following :
 - (a) Ideal high pass filters
 - (b) Butterworth high pass filters.
15. Explain order-statistics filters.
16. What are the various tools for periodic noise reduction or removal? Explain.
17. Describe the various types of data redundancy.
18. Explain Huffman coding redundancy technique.