

Time: 3 HRS

Max. Marks: 80

N.B.: 1) Question No.1 is compulsory.

2) Attempt any three from the remaining five questions.

3) Figures to the right indicate full marks

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| Q.1 | Write a short note on  | 20 |
|     | a) Huffman coding  |    |
|     | b) image subtraction   |    |
|     | c) Image Blur  |    |
|     | d) classification of image compression schemes   |    |
| Q.2 | a) Describe Digital Camera working principles Brightness and contrast in image processing. | 10 |
|     | b) Explain Haar Transforms in detail.  | 10 |
| Q.3 | a) Describe Image compression standards- JPEG & MPEG                                       | 10 |
|     | b) Describe homomorphic filter in detail   | 10 |
| Q.4 | a) Explain Salt and Pepper techniques in image processing                                  | 10 |
|     | b) What is high pass filtering? Explain.   | 10 |
| Q.5 | a) Explain HIS models 2D sampling in detail.   | 10 |
|     | b) Describe Thresholding Region based segmentation Chain codes in detail.                  | 10 |
| Q.6 | a) Discuss about Discrete Cosine Transform in detail                                       | 10 |
|     | b) Explain Image restoration Model in detail.  | 10 |