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 Write a short note on any four Q.1 a) Quantization b) High pass filtering c) Discrete Cosine Transform d) Homomorphic filter. a) Describe Camera working principles in image processing. Q.2 10 b) Explain histogram processing in detail. 10 a) Explain Vehicle Number Plate Detection and Recognition techniques 0.3 10 b) Describe Vidicon and Digital Camera working principles Brightness. 10 a) Explain Fri-Chen Filter in detail. 10 b) What is meant by wavelet based image compression? Explain. 10 a) Explain Thresholding Region based segmentation Chain codes in detail. Q.5 10 b) Describe Object Detection using Correlation Principle. 10 a) Discuss about classification of image compression schemes Q.6 **10** b) Explain divide and conquer approach in detail. 10