



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2E6DE

B.Tech VI Semester Regular/Supplementary Examinations, June 2022

IMAGE PROCESSING AND PATTERN RECOGNITION
(ELECTRONICS AND COMMUNICATION ENGINEERING)

Maximum Marks: 70

Date:21.06.2022 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Define Quantization.
- 2 What is meant by image restoration?
- 3 Define thresholding.
- 4 What is meant by dilation?
- 5 Mention the purpose of digital image Water marking.
- 6 What is Statistical Compression?
- 7 Define skeletonization.
- 8 What are Polygonal Approximations?
- 9 Define pattern.
- 10 What is clustering?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Write detailed note on Sharpening filters in spatial and frequency domain. (10)
OR
- 12 A) Explain the importance of image restoration process in image processing. (5)
B) Write short notes on Histogram Processing (5)
- 13 A) What is Hit-or-Miss transformation? Explain. (6)
B) Write the characteristics of erosion. (4)
OR
- 14 Categorize the image segmentation methods. Explain the edge detection methods. (10)
- 15 Explain in detail about Spatial Compression Techniques with an example. (10)
OR
- 16 Write a detailed note on Lossy Predictive Type Coding. (10)
- 17 Explain the following: i) chain codes (4) ii) Boundary descriptors. (6)
OR
- 18 Write a detailed note on regional and relational descriptors. (10)
- 19 Write a detailed note on Bayes Classifier for Normal patterns. (10)
OR
- 20 A) Explain the K-means algorithm. (5)
B) List the difference between pattern clustering and classification. (5)