

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2018 - 19 Examination

Semester: 2**Subject Code: 203202182****Subject Name: Program Elective-3 - Computer Vision****Date: 10/05/2019****Time: 10:30am To 01:00pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) What is Supervised and Unsupervised Learning? Explain with the examples. (05)
B) Explain the use of Median Filter for the removal of salt and pepper noise from the Digital Image. (05)
C) Explain Hough Transform with example. (05)
- Q.2** Answer the following questions. (Attempt any three) (15)
A) Describe the following properties of Fourier transform: Translation, Rotation.
B) Explain PCA.
C) Explain working of various Arithmetic and Logic Operations which are used for Image Enhancement.
D) Explain various Methods of Zooming.
- Q.3** A) Describe the difference between Opening and Closing Morphological Operations which are Performed on Digital Image. (07)
B) What is knowledge Based Vision? Explain different forms of knowledge Representation used in Computer Vision. (08)
- OR**
- B) Explain that the Histogram Equalization process is used for Image Enhancement with example. (08)
- Q.4** A) Explain k-mean Algorithm in detail (07)
- OR**
- A) Write the difference between Wavelet Transform and Fourier Transform. (07)
B) Explain Back Tracking algorithm with suitable example. (08)