| Seat No.: | Enrolment No. |
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GUJARAT TECHNOLOGICAL UNIVERSITY

Subject Code: 2710506

ME - SEMESTER-I(New course) • EXAMINATION - WINTER- 2015

Date: 01/01/2016

| Su | bject | Name: Advanced Image Processing | |
|-------------------------------------|------------|---|----------|
| Time: 2:30 pm to 5:00 pm Total Mark | | s: 70 | |
| Ins | 2. | Attempt all questions. | |
| Q.1 | (a) | Describe different first order edge detection techniques and types with suitable mask. | 07 |
| | (b) | Write Brief note on different statistical operators used in neighborhood processing with suitable example. | 07 |
| Q.2 | (a) (b) | Define Curvature in Inage. How Corner Extraction is performed in Image? How Image Intensity is stretched using Histogram Normalization? Discuss role of Histogram Equalization. | 07 07 |
| | (b) | OR Describe Laplacian operators used in Image Processing. Also Explain Marr-Hildreth Operator. | 07 |
| Q.3 | (a) (b) | Explain Deformable Template & Problems associated with it in detail. Illustrate Hough Transform for lines and Circles. OR | 07 07 |
| Q.3 | (a) (b) | Explain Different approaches used for motion detection. Write briefly on flexible shape extraction techniques. | 07 07 |
| Q.4 | (a) (b) | Describe different Structural approaches used for texture description. Write Short Note on Active Contours. OR | 07 07 |
| Q.4 | (a) (b) | How Fourier descriptor is used for Boundary Extraction? Explain in detail. Discuss Basic Properties of Moments. Explain about Zernike Moments. | 07 07 |
| Q.5 | (a) (b) | Describe different Classification Approaches. Shortly give note on 3D Dataset with Slicing. OR | 07 07 |
| Q.5 | (a) (b) | Briefly explain Three-Dimensional Tomography. Explain 3- D Volumetric Display. | 07 07 |
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