

00195

**B.Tech. COMPUTER SCIENCE AND
ENGINEERING (BTCSEVI)**

Term-End Examination

June, 2013

BICS-024 : DIGITAL IMAGE PROCESSING

Time : 3 hours

Maximum Marks : 70

Note : *Answer any seven questions. All questions carry equal marks.*

1. (a) Explain the components of image processing system. 5
- (b) What are the basic concepts in sampling and quantization ? 5

2. Write a short notes on :
 - (a) Spatial filtering 5
 - (b) Sharpening spatial filters 5

3. Discuss the following :
 - (a) Lowpass Filters 5
 - (b) Highpass Filters 5

4. Briefly explain minimum mean - square error restoration. 10

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| 5. | Explain Geometric mean filter and Order statistic filters. | 10 |
| 6. | Explain different color models ? | 10 |
| 7. | Explain smoothing and sharpening. | 10 |
| 8. | Discuss the following : | |
| | (a) Dilation | 5 |
| | (b) Erosion | 5 |
| 9. | Explain plane to plane Transformation. | 10 |
| 10. | Explain : | |
| | (a) Basic Global Thresholding | 5 |
| | (b) Basic Adaptive Thresholding | 5 |
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