

SET A: CSE 428 Image Processing

Spring 2025

Quiz 1

Marks: 15

1. What is the Weber Ratio? You may explain with an example. [1]
2. What are the two steps for Digitalization in Digital Image acquisition? Explain both in brief [2]
3. A Digital Image is 7 bits quantization. What is the quantization level? What is the range of brightness that can be shown using the quantization level [2]
4. What is Image Downsampling?[1]
5. Explain the difference between basic point image processing and neighborhood processing in the context of digital image analysis. [1]
6. Write two applications of Point processing.[1]
7. What is Log Transformation? [1]
8. Consider an image with 4-bit quantization with $(r_1, s_1) = (4, 6)$ and $(r_2, s_2) = (9, 13)$. [5]
 - i. Draw the graph for Contrast stretching.
 - ii. Apply Contrast stretching on the pixels.
9. When does Gamma transformation acts same as log transformation [1]

