Assignment 5

The due date for submitting this assignment has passed. Due on 2021-02-26, 23:59 EST. As per your record, you have not submitted this assignment.

1. An image enhancement technique that attempts to improve the contrast in an image by "stretching" the range of intensity values it contains to span a desired range of image values is called __________ point.
   - Non-linear Equalization
   - Non-linear contrast stretching
   - Histogram Equalization
   - Linear Contrast Stretching
   No, the answer is incorrect.
   Accepted Answers: Non-linear Equalization

2. Which of the following statements is/are true? __________ point
   - A Salient filter is a linear, edge-preserving, and noise-reducing smoothing filter.
   - A high-pass image can be computed as differences between original and downsized versions.
   - Laplacian operators use a second-order derivative function.
   No, the answer is incorrect.
   Accepted Answers: A Salient filter is a linear, edge-preserving, and noise-reducing smoothing filter.

3. The transition used for representing astrophic singularities. __________ point
   - Frame Transition
   - Current Transition
   - Dynamic Waver Transition
   - Curve Transition
   No, the answer is incorrect.
   Accepted Answers: Frame Transition

4. The k-NN algorithm assigns points to nearest neighbors in __________ space. __________ point
   - Feature space
   - Color space
   - Depth space
   - Texture space
   No, the answer is incorrect.
   Accepted Answers: Feature space

5. The following statement is true: __________ point
   - \( \sqrt{\sum (x - \mu)^2} = \sqrt{\sum (x - \mu)^2} \)
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   - \( \sqrt{\sum (x - \mu)^2} = \sqrt{\sum (x - \mu)^2} \)
   No, the answer is incorrect.
   Accepted Answers: \( \sqrt{\sum (x - \mu)^2} = \sqrt{\sum (x - \mu)^2} \)

6. The HAWAII cameras' coefficients of a 4-point signal, \( m_n = [1, 4, -4, 1] \), can be found as __________ point
   - \[ [1, 4, -4, 1] \]
   - \[ [1, 4, -4, 1] \]
   - \[ [1, 4, -4, 1] \]
   - \[ [1, 4, -4, 1] \]
   No, the answer is incorrect.
   Accepted Answers: \[ [1, 4, -4, 1] \]

7. The following statement is false: __________ point
   - A gradient operator is computed as a difference in intensity between adjacent pixels.
   - A gradient operator is computed as a difference in intensity between adjacent pixels.
   - A gradient operator is computed as a difference in intensity between adjacent pixels.
   - A gradient operator is computed as a difference in intensity between adjacent pixels.
   No, the answer is incorrect.
   Accepted Answers: A gradient operator is computed as a difference in intensity between adjacent pixels.

8. The error signal for the Laplacian filter is given by __________ point
   - \( [0, 0, 1, 0, 0] \)
   - \( [0, 0, 1, 0, 0] \)
   - \( [0, 0, 1, 0, 0] \)
   - \( [0, 0, 1, 0, 0] \)
   No, the answer is incorrect.
   Accepted Answers: \( [0, 0, 1, 0, 0] \)

9. The Peak Signal to Noise Ratio (PSNR) will be approximately __________ point
   - \( 40 \) dB
   - \( 50 \) dB
   - \( 60 \) dB
   - \( 70 \) dB
   No, the answer is incorrect.
   Accepted Answers: \( 40 \) dB

10. Identify the operator. When this is: __________ point
    - Laplacian
    - Gaussian
    - LOO
    - MED
    No, the answer is incorrect.
    Accepted Answers: Laplacian