

Name: _____ Roll Number: _____

1. (1 point) Laplacian pyramids are primarily used for:
 - A. Estimating affine transformations
 - B. Representing the differences between consecutive levels of a Gaussian pyramid**
 - C. Computing gradients of an image
 - D. Performing affine transformations
2. (1 point) The process of constructing a Gaussian pyramid involves:
 - A. Applying Sobel filters
 - B. Histogram equalization
 - C. Repeated smoothing and downsampling**
 - D. Edge detection
3. (1 point) The Laplacian pyramid at a specific level is obtained by:
 - A. Directly subtracting the current level of the Gaussian pyramid from the next level
 - B. Subtracting the upsampled next level of the Gaussian pyramid from the current level**
 - C. Applying a Sobel filter to the current level
 - D. Computing the gradient of the Gaussian pyramid at that level
4. (1 point) Laplacian pyramids are reconstructed by:
 - A. Directly summing all levels of the pyramid
 - B. Applying Fourier transforms
 - C. Adding the upsampled Laplacian levels to the corresponding Gaussian levels**
 - D. Using edge detection filters
5. (1 point) Image blending using Laplacian pyramids involves:
 - A. Directly blending the original images
 - B. Using Fourier transforms
 - C. Combining Laplacian pyramid levels of the images with a Gaussian mask pyramid**
 - D. Upsampling only one image
6. (1 point) True or False: The lowest level of a Laplacian pyramid is the same as the lowest level of the Gaussian pyramid. A. True **B. False**
7. (1 point) True or False: Laplacian pyramids can be used for image compression. **A. True**
B. False
8. (1 point) True or False: A Laplacian pyramid requires a Gaussian pyramid for its construction. **A. True** B. False
9. (1 point) True or False: Image blending with Laplacian pyramids requires only the highest level of the pyramids. A. True **B. False**
10. (1 point) True or False: In the Laplacian pyramid, the high-frequency details are stored at lower levels, while the coarser details are at higher levels. A. True **B. False**