

Hi UGS, when you submit this form, the owner will be able to see your name and email address.

Required

11,

$$\frac{1}{9} \times$$

1	1	1
1	1	1
1	1	1

The mask shown in the figure belongs to which type of filter? Required to answer. Single choice.

(1 Point)

- ☒ Sharpening spatial filter
- ☐ Median filter
- ☐ Smoothing spatial filter
- ☐ Sharpening frequency filter

22,



Figure.2(a)



Figure.2(b)

If the original image is the one in Figure.2(a), and the resulting image after some processing is the one in Figure.2(b), what is the most likely processing from the list below to give this result? Required to answer. Single choice.

(1 Point)

- ☐ Median filtering followed by an edge detection
- ☐ Edge detection followed by a median filtering.
- ☐ Edge detection by a Laplacian operator

- ☐ High pass filtering

33,

Edge detection is based on Required to answer. Single choice.
(1 Point)

- ☐ abrupt changes
- ☐ smooths changes
- ☐ thickness of edges
- ☐ thinness of edges

44,

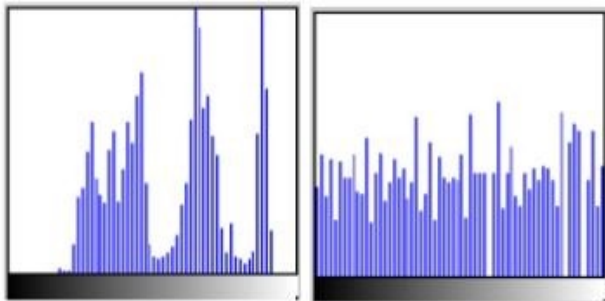


Figure.1(a)

Figure.1(b)

Figure.1(a) represents the grey level histogram of a digital image. After processing this image, one gets another grey level digital image with the grey level histogram shown in Figure.1(b) What is the most processing applied on the original image from the ones below?
Required to answer. Single choice.

(1 Point)

- ☐ Grey scale inversion (negative of the original image)
- ☐ Binary thresholding
- ☐ Histogram equalization
- ☐ Some grey scale slicing

55,

Which of the following method is/are used for padding the image?
Required to answer. Single choice.

(1 Point)

- ☐ Adding rows and column of 0 or other constant gray level
- ☐ Simply replicating the rows or columns
- ☐ All of the mentioned
- ☐ None of the mentioned

66,

What is the Second Derivative of Image Sharpening called? Required to answer. Single choice.

(1 Point)

- ☐ Gaussian
- ☐ Canny
- ☒ Laplacian
- ☐ None

77,

Histogram processing works in Required to answer. Single choice.
(1 Point)

- ☐ Frequency domain
- ☒ Spatial domain
- ☐ Both of the above
- ☐ None of the above

88,

Multilevel thresholding has Required to answer. Single line text.
(1 Point)

99,

Segmentation algorithms depends on intensity values Required to answer. Single choice.
(1 Point)

- ☐ discontinuity
- ☐ Similarity
- ☐ Continuity
- ☒ Both a and b

1010,

Computation of derivatives in segmentation is also called Required to answer. Single choice.
(1 Point)

- ☒ spatial filtering
- ☐ frequency filtering
- ☐ low pass filtering
- ☐ high pass filtering

1111,

Spatial domain refers to Required to answer. Single choice.
(1 Point)

- ☐ Manipulations on whole image
- ☒ Direct manipulation of image pixel
- ☐ Modifications on Fourier transform of an image
- ☐ Contrast shrinking

1212,

Edge detection in images is commonly accomplished by performing a spatial ----- of the image field. Required to answer. Single choice.

(1 Point)

- ☐ Smoothing Filter
- ☐ Integration
- ☒ Differentiation
- ☐ Min Filter

1313,

Perwitt operator is defined by Required to answer. Single choice.

(1 Point)

- ☒ eight masks
- ☐ four masks
- ☐ six masks
- ☐ None

1414,

If D_0 is the cut off distance measured from origin of frequency rectangle and $D(u, v)$ is the distance from point (u, v) . Then what value does an Ideal High pass filter will give if $D(u, v) \leq D_0$ and if $D(u, v) > D_0$? Required to answer. Single choice.

(1 Point)

- ☒ 0 and 1 respectively
- ☐ 1 and 0 respectively
- ☐ 1 in both case
- ☐ 0 in both case

1515,

Which of the following is the disadvantage of using smoothing filter? Required to answer. Single choice.

(1 Point)

- ☒ Blur edges
- ☐ Enhance edges
- ☐ None of the mentioned

1616,

Smoothing filter is used for which of the following work(s)? Required to answer. Single choice.

(1 Point)

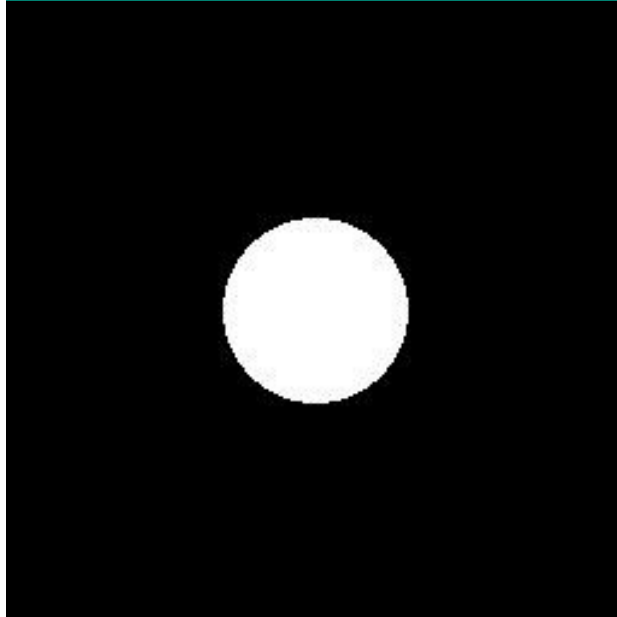
- ☐ Blurring
- ☐ Noise Reduction
- ☒ All of the mentioned
- ☐ None

1717,

Regions of image must be Required to answer. Single choice.
(1 Point)

- ☐ joint
- ☒ disjoint
- ☐ connected
- ☐ overlapped

1818,



$H(u,v)$ is a filter applied to the image in frequency domain by point multiplication What is the filter type? Required to answer. Single choice.
(1 Point)

- ☐ High pass
- ☒ Low pass
- ☐ Band pass
- ☐ None

1919,

Steps of filtering in frequency domain Required to answer. Single choice.
(1 Point)

- ☒ Compute DFT, Apply filter, Compute Inverse DFT
- ☐ Compute Filter
- ☐ None of the mentioned

2020,

In _____ image we notice that the components of histogram are concentrated on the low side on intensity scale. Required to answer. Single choice.

(1 Point)

- ☐ bright
- ☒ Dark
- ☐ colourful
- ☐ All of the Mentioned

2121,

Sobel gradient is good for detection of Required to answer. Single choice.

(1 Point)

- ☐ horizontal lines
- ☐ vertical lines
- ☐ Diagonal lines
- ☒ both a and b

2222,

Both the ----- and ----- filters are used to enhance horizontal edges (or vertical if transposed). Required to answer. Single choice.

(1 Point)

- ☒ Prewitt and Sobel
- ☐ Sobel and Gaussian
- ☐ Prewitt and Laplacian
- ☐ Sobel and Laplacian

2323,

One of the following filters is nonlinear Required to answer. Single choice.

(1 Point)

- ☐ Gaussian Filter
- ☐ Averaging Filter
- ☐ Laplacian Filter
- ☒ Median

2424,

In Homomorphic filtering which of the following operations is used to convert input image to discrete Fourier transformed function? Required to answer. Single choice.

(1 Point)

- ☒ Logarithmic operation
- ☐ Exponential operation
- ☐ Negative transformation
- ☐ None of the mentioned

2525,

Convolution in spatial domain is equivalent to multiplication in Required to answer. Single choice.

(1 Point)

- ☒ frequency domain
- ☐ time domain
- ☐ spatial domain
- ☐ plane

2626,

Required to answer. Single choice.

(1 Point)

- ☐ Option 1
- ☐ Option 2

2727,

Passes low frequency while attenuating medium frequency is a function of Low Pass Filter. Required to answer. Single choice.

(1 Point)

- ☒ True
- ☐ False

2828,

Which of the following filter(s) attenuates high frequency while passing low frequencies of an image? Required to answer. Single choice.

(1 Point)

- ☐ Un-sharp mask filter
- ☒ Low-pass filter
- ☐ Zero-phase-shift filter
- ☐ All of the mentioned

2929,

Kirsch masks can be defined in Required to answer. Single choice.

(1 Point)

- ☒ eight directions
- ☐ four directions
- ☐ None