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IMAGE PROCESSING – QUIZ 1 (2017 -18, II)

1. The type of Interpolation where for each new location the intensity of the immediate pixel is assigned is \_\_\_\_\_

- a) bicubic interpolation
- b) cubic interpolation
- ☒ c) bilinear interpolation
- d) nearest neighbour interpolation

2. What is the output of a smoothing, linear spatial filter?

- a) Median of pixels
- b) Maximum of pixels
- c) Minimum of pixels
- ☒ d) Average of pixels

3. Which of the following is the disadvantage of using smoothing filter?

- ☒ a) Blur edges
- b) Blur inner pixels
- c) Remove sharp transitions
- d) Sharp edges

4. The mask shown in the figure below belongs to which type of filter?

1	2	3
2	4	3
1	2	3

- ☒ a) Sharpening spatial filter
- b) Median filter
- c) Sharpening frequency filter
- d) Smoothing spatial filter

5. What is the general form of representation of log transformation?

- ☒ a)  $s = c \log_{10}(1/r)$
- b)  $s = c \log_{10}(1+r)$
- c)  $s = c \log_{10}(1*r)$
- d)  $s = c \log_{10}(1-r)$

6. Which of the following depicts the main functionality of the Bit-plane slicing?

- ☐ a) Highlighting a specific range of gray levels in an image
- b) Highlighting the contribution made to total image appearance by specific bits
- ☒ c) Highlighting the contribution made to total image appearance by specific byte
- d) Highlighting the contribution made to total image appearance by specific pixels

7. In a dark image, the components of histogram are concentrated on which side of the grey scale?

- a) High
- b) Medium
- ☒ c) Low
- d) Evenly distributed

8. If the images are displayed using 8-bits, then, what is the range of the value of an image if the image is a result of subtraction operation?

- a) 0 to 255
- b) 0 to 511
- ☒ c) -255 to 0
- d) None of the mentioned

9. If an image contains K disjoint regions, what does the union of all the regions represent?

- a) Background
- ☒ b) Foreground
- c) Outer Border
- d) Inner Border

10. Two 8-bit images having one pixel gray value 84 and 5 at the same location, are operated against AND operator. What would be the resultant pixel gray value at that location in the enhanced image?

- ☒ a) 164
- b) 251
- ☒ c) 4
- ☒ d) 85

2<sup>8</sup>

0 1 0 1