

Quiz 1 Results for Stephen Giang

! Correct answers are hidden.

Score for this quiz: **10** out of 10

Submitted Sep 23 at 3:08pm

This attempt took 20 minutes.

Question 1

1 / 1 pts

Which of the following statements is incorrect (wrong).

- ☐ The storage type for Portable File Formats can be ASCII or raw
- ☒ RGB files are used for color printing
- ☐ JPEG images are compressed.
- ☐ All interchange file formats can be used with different software and hardware

Question 2

1 / 1 pts

Consider HSI images below



Image A



Image B

☐ B is a low intensity version of A

☐ B is low saturated version of A

☐ B is high intensity version of A

☒ B is a high saturated version of A

Question 3

1 / 1 pts

For which of the following factors human vision is superior to machine vision.

☐ measurement quality

☒ 3-D capability

☐ Spectrum response

☐ image acquisition speed

Question 4

1 / 1 pts

Which of the following is true for dithering using error diffusion?

☐ The image is enlarged a with a pattern matrix

☒ Certain adjacent pixel values are adjusted depending on the current pixel value.

☐ A 3 by 3 dither matrix with certain values is defined.

☐ It is accomplished by thresholding the image against a dither matrix.

Question 5

1 / 1 pts

Which of the following is correct for the image raster format?

- ☒ It consists of pixel values or intensities.
- ☐ Enlargement of images in raster format maintains the sharpness of the image.
- ☐ Images produced by cameras are not of raster format.
- ☐ It consists of a collection of lines.

Question 6

1.5 / 1.5 pts

position	101	102	103	104
value	36			48

Consider the above pixel positions and values. What will be the value at position 103 if a linear interpolation is used?

- ☐ 38
- ☒ 44
- ☐ 46
- ☐ 42

Question 7

1 / 1 pts

Suppose an 8-bit image A is quantized to obtain a 6 bit image B. What is difference between the highest values of image A and image B?

- ☐ 256
- ☐ 128

☐ 64

☒ 192

Question 8

1 / 1 pts

Which of the following statements is true regarding Image A and Image B below?

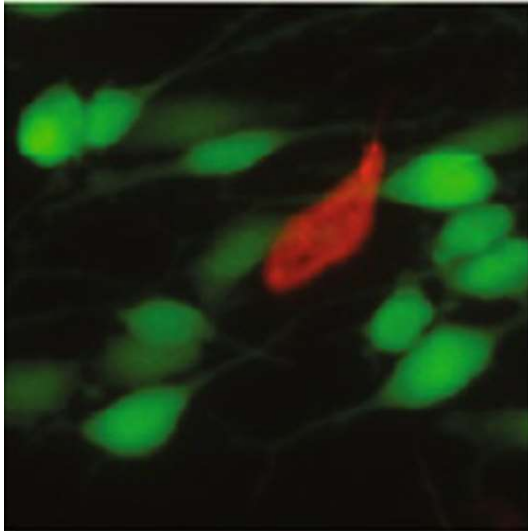


Image A

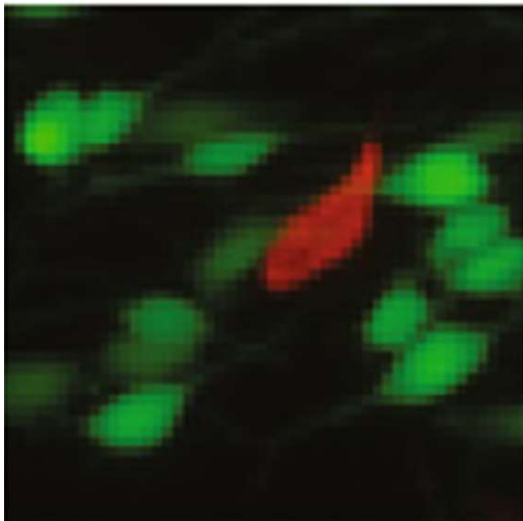


Image B

☐ Pixels in B have higher bits than those in A.

☒ Image A has a higher resolution than Image B.

☐ A is a blurred version of Image B.

☐ Pixels in B have fewer bits than those in Image A

Question 9

1.5 / 1.5 pts

Suppose an object of size 40 by 40 mm must occupy an area in the image plane more than area of 4 by 4 mm but less than 6 by 6 mm . The distance between the image plane and object is more 500 mm. What should be the focal length of the camera?

Choose from standard focal length of 25, 35, 50 and 70 ($x_{image} = \frac{f x_{obj}}{Z-f}$.)

☒ 70

☐ 50

☐ 25

☐ 35

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