Part A

1. Consider the pixel coordinates of p as p (2,3). Then label the neighbors of pixel p are.

a. (3,3)(2,3)(1,3)(1,3)

b. (3,3)(2,4)(1,3)(2,1)

c. (3,3)(2,3)(1,1)(2,2)

d. (3,3)(2,4)(1,3)(2,2)

2. Consider p,q are the pixels of the image f(x,y). Compute the distance between p and q which have a distance less than or equal to some value of radius r centred at (x,y) is called:

a. Chessboard distance

b. Euclidean distance

c. City-Block distance

d. Equivalence distance

3. The difference in intensity between the lowest and the highest intensity levels in an image which is represented as f(x,y) is

a. Noise

b. Saturation

c. Contrast

d. Brightness

4. Consider the image with pixels p,q with coordinates p(x,y) and q(s,t). Determine the method of performing array operation with one or more images?

a. Array by array

b. Column by column

c. Pixel by pixel

d. Row by row

5. Compute the number of bits needed to store the image of size 128 x 128 with 64 gray levels

a. 4096

b. 12288

c. 98304

d. 8192

6. Digitizing the coordinate values of a continuous image is called

a. Compression

b. Quantization

c. Sampling

d. Segmentation

7. Lossy compression is useful in

a. Military imaging

b. Space imaging

c. Medical imaging

d. Television broad casting

8. Discover the step which deals with tools for extracting image components those are useful in the representation and description of shape?

a. Segmentation

b. Representation & description

c. Compression

d. Morphological processing

9. The section of the real plane spanned by the coordinates of an image is called the_____

a. Spatial Domain

b. Coordinate Axes

c. Plane of Symmetry

d. None of the Mentioned

10. The range of values spanned by the gray scale is called

a) Dynamic range

b) Band range

c) Peak range

d) Resolution range

Part B

What is meant by image sensing? Explain the construction and operation of various image acquisition devices

Demonstrate the 2D transforms?

Demonstrate about adjacency and connectivity.

Describe the elements of visual perception.

Part C

Describe the elements of visual perception.

What are the elements of image processing system? Describe its working.

Explain the RGB and HSI Models?

Describe the functions of elements of digital image processing system with a diagram.