

12MCSC16 Digital Image Processing

Part –A

(10*1/2=5)

Choose the correct Answer

1. -----sampling is carried out by measuring at regular interval the amount of light incident
a)Spatial b)Temporal c)Resolution d)All the above
2. -----images are special type of intensity image where pixel can only take on Black or White values
a)Binary b)Color c)Special d)All the above
3. -----of images describe the frequency of the Intensity value that occur in an image
a)Plug in b)Acquisitions c)Histogram d)None of the above
4. -----comes with its own Java Runtime
a)image J b)JRK c)JRO d)All the above
5. -----Operations perform pixel values without changing the size, Geometry or local structure of image
a)Point b)Size c)Histograms d)None
6. -----filter replaces every image pixel by the media of the pixel in the corresponding filter region R.
a) Median b) Mean c) Invert d) All the above
7. -----is defined as an area that exhibits a strong grandient values in multiple direction at the same time
a) Edge b) Corner point c) Robust d) None of the above
8. -----operators is used for Detecting edges horizontally and vertically.
a) Prewitt b) Sobel c) Robinson d) Kirsch
9. ----- is a technique for transforming one image into another in an incremental fashion
a) Morphing b) Cutting c) Paste d) Editing
10. -----creates a new image that marks all the location of a structure elements origin
a) Erosion b) Dilation c) Opening d) Close

Part -B

(5*4=20)

Answer All Questions

Each answer should not exceed 200 words or one page

11. a) Write short notes on Programming with Images
(or)
b) Explain Raster and vector data.
12. a) List out the Key features of Image J
(or)
b) Describe about Computing Histogram
13. a) Examine the concept of Point operation and Histogram
(or)
b) Briefly explain the types of Linear Filtering
14. a) What you meant by Derivative Filter ? Explain
(or)
b) Illustrate about Canny Operators
15. a) Discuss about Salient Structures
(or)
b) Explain about Decision Morphological Filters

PART -C

(5*7=35)

Answer all questions

Answer should not exceed 600 words or three Pages

16. a) Write a Detailed note on Image Acquisition
(or)
b) Write short note on i) JPEG II) GIF
17. a) Narrate the Interpreting Histogram
(or)
b) Elaborate Interactive Tools and Image Plugins
18. a) Discuss about Non Linear Filters
(or)
b) List out Histogram Specification
19. a) Explain various Edge Operators
(or)
b) Describe the Harris corner Detectors
20. A) Delineate the Hough Transform for Circles and Ellipses.
(or)
B) Catalog the properties of Dilation and Erosion.
