2021

(held in 2022)

MCA

(Theory Paper)

Paper Code : MCA-5.4

(Image Processing)

Full Marks – 75

Time – Three hours

The figures in the margin indicate full marks for the questions.

1. Fill up the blanks : 2×5=10

   (i) _____ function is used to convert an image into RGB format.

   (ii) _____ function is used to convert greyscale into indexed image.

   (iii) histeq ( ) function is used for _____.

   (iv) dither ( ) function is used for _____.

   (v) imshow ( ) function is used for _____.

[Turn over

2. Answer any *five* questions from the following :.

7×5=35

(i) What is image ? Define Digital image.

3+4=7

(ii) What is quantization ? Explain.

(iii) Explain the principle of pulse code modulation.

(iv) Write about different types of bitmap file formats of a digital image.

(v) How many types of Digital Image are there ? Explain all.

(vi) Define Colour Image.

3. Answer any *three* questions from the following :

3×10=30

(i) Explain the digital image processing system.

(ii) What is image segmentation ? Explain the functional characteristics of image segmentation technique.   4+6=10

(iii) Write briefly about image enhancement.

(iv) What is pixel ? Define resolution.

5+5=10