

Part-c

20181CSE0621

1) a) Given, Size of Image = $1024 \times 1024 \times [1+8+1]$
 $= 1048576 \text{ bits}$

$\therefore \text{Time required} = \frac{\text{Total bits}}{\text{Band rate}}$
 $= \frac{1048576}{56000}$
 $= 187.25 \text{ seconds} \approx 3.1 \text{ min}$

$\therefore \text{Time} = 3.1 \text{ min}$

b) Size of Image = $1024 \times 1024 \times [1+8+1]$
 $= 1048576 \text{ bits}$

Band rate = 750 K

$\therefore \text{Time} = \frac{1048576}{750 \times 10^3} = 14 \text{ seconds}$

$\therefore \text{Time} = 14 \text{ seconds}$

c) The various types of images based on color formats are binary, gray level, 2-6 bit and 8 bit color format.

- The size of each of these images vary due to number of reasons which include the difference in the number of pixels, the intensity, resolution and so on.

- As in each of these images the matrix is filled with either black/white in case of binary image & RGB in case of other formats it produces a difference in size of the image.