ASSIGNMENT-14

1. What does RGBA stand for?
   Ans: RGBA stands for "Red Green Blue Alpha". It is a color model used to represent colors in digital images and computer graphics.

2. From the Pillow module, how do you get the RGBA value of any images?
   Ans: To get the RGBA value of an image using the Pillow module in Python, we can use the getdata() method of an Image object.

3. What is a box tuple, and how does it work?
   Ans: A box tuple, also known as a bounding box or region of interest (ROI) tuple, is a tuple of four integers that represents a rectangular region in an image.The four integers in the tuple represent the left, upper, right, and lower coordinates of the rectangle, respectively. Specifically, the first integer is the x-coordinate of the left edge of the rectangle, the second integer is the y-coordinate of the upper edge, the third integer is the x-coordinate of the right edge, and the fourth integer is the y-coordinate of the lower edge.The box tuple is commonly used in image processing and computer vision applications to define regions of interest within an image that need to be cropped, resized, or otherwise processed separately from the rest of the image.

4. Use your image and load in notebook then, How can you find out the width and height of an Image object?
   Ans: Here's the code snippet for extracting a dog's image measurements:

```
from IPython.display import Image

image_path = 'DOG.jpg'

Image(filename=image_path)

from PIL import Image


# Open the image

image_path = 'DOG.jpg'

image = Image.open(image_path)


# Get the width and height

width, height = image.size
```

```
16.
17. print("Width:", width)
18. print("Height:", height)
```

Output will be Width: 6000, Height: 4000

5. What method would you call to get an Image object for a 100×100 image, excluding the lower-left quarter of it?

Ans: To get an Image object for a 100x100 image, excluding the lower-left quarter, we can use the crop() method of the Pillow library.

6. After making changes to an Image object, how could you save it as an image file?

Ans: To save an Image object as an image file, we can use the save() method of the Pillow library.

7. What module contains Pillow's shape-drawing code?

Ans: Pillow's shape-drawing code is contained in the ImageDraw module. The ImageDraw module provides a set of methods to draw various shapes, such as lines, rectangles, circles, and polygons, on an Image object.

8. Image objects do not have drawing methods. What kind of object does? How do you get this kind of object?

Ans: To draw on an image,we need to use the ImageDraw module, which provides the necessary methods for drawing shapes and text.To obtain an ImageDraw object for a given Image object, we can use the ImageDraw.Draw() function.