**ANSWERS**

**Q1. What does RGBA stand for?**

**Ans.** RGBA stands for Red, Green, Blue, and Alpha. It is a color model that represents colors using a combination of these four components. The red, green, and blue components define the color, while the alpha component represents the opacity or transparency of the color.

**Q2. From the Pillow module, how do you get the RGBA value of any images?**

**Ans.** In the Pillow module, you can get the RGBA value of any image by using the **getpixel()** method on the Image object. The **getpixel()** method takes the coordinates (x, y) of the pixel as arguments and returns a tuple representing the RGBA values of that pixel.

**Q3. What is a box tuple, and how does it work?**

**Ans.** A box tuple in Pillow represents a rectangular region in an image. It is a tuple of four integers in the format **(left, upper, right, lower)**, where **left** represents the x-coordinate of the left edge, **upper** represents the y-coordinate of the upper edge, **right** represents the x-coordinate of the right edge, and **lower** represents the y-coordinate of the lower edge. It defines a box that encompasses the specified region in the image.

**Q4. Use your image and load in notebook then, How can you find out the width and height of an Image object?**

**Ans.** To find out the width and height of an Image object, you can use the **size** attribute. Accessing **image.size** will return a tuple of two integers representing the width and height of the image, respectively.

**Q5. What method would you call to get 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 of it, you can use the **crop()** method on the Image object. You would pass a box tuple specifying the region you want to crop out, in this case, **(0, 50, 50, 100)** which represents the left half of the image from y=50 to y=100. The resulting Image object would be the cropped portion of the image.

**Q6. After making changes to an Image object, how could you save it as an image file?**

**Ans.** After making changes to an Image object, you can save it as an image file using the **save()** method. You would call **image.save(filename)** and provide the desired filename with the appropriate file extension. The image file will be saved in the specified format.

**Q7. What module contains Pillow’s shape-drawing code?**

**Ans.** The module that contains Pillow's shape-drawing code is called **ImageDraw**. It is a part of the Pillow library and provides methods for drawing shapes such as lines, rectangles, ellipses, and polygons on Image objects.

**Q8. Image objects do not have drawing methods. What kind of object does? How do you get this kind of object?**

**Ans.** Image objects in Pillow do not have drawing methods. The **ImageDraw** object is used for drawing on an Image object. You can obtain an **ImageDraw** object by creating it using the **ImageDraw.Draw()** function and passing the Image object as an argument. For example, **draw = ImageDraw.Draw(image)** creates an **ImageDraw** object named **draw** that can be used to draw on the **image** object.