1. What does RGBA stand for?

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

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

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

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

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

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

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

**ANS:  
Here are the responses to your questions:**

**1. RGBA stands for Red, Green, Blue, and Alpha. It is a color model used in digital imaging to represent colors. The alpha channel (A) represents the transparency of the color.**

**2. To get the RGBA value of any images using the Pillow module (PIL), you can use the `getpixel()` method. Here's an example:**

**```python**

**from PIL import Image**

**image = Image.open("example\_image.png")**

**rgba\_value = image.getpixel((x, y)) # Replace (x, y) with the coordinates of the pixel**

**```**

**3. A box tuple in the context of Pillow is a tuple representing a rectangular region within an image. It consists of four integer values `(left, upper, right, lower)` that define the bounding box of the region. The box tuple specifies the coordinates of the top-left corner `(left, upper)` and the bottom-right corner `(right, lower)` of the rectangular region.**

**4. To find out the width and height of an Image object in a Jupyter notebook using Pillow, you can use the `size` attribute:**

**```python**

**width, height = image.size**

**```**

**5. To get an Image object for a 100×100 image, excluding the lower-left quarter of it, you can use the `crop()` method:**

**```python**

**cropped\_image = image.crop((0, 0, 50, 50)) # This crops the lower-left quarter of the image**

**```**

**6. After making changes to an Image object, you can save it as an image file using the `save()` method:**

**```python**

**image.save("output\_image.png") # Save the image with the desired filename and extension**

**```**

**7. Pillow's shape-drawing code is contained within the `ImageDraw` module.**

**8. Image objects do not have drawing methods. Instead, drawing methods are available in the `ImageDraw.Draw` object. To get this kind of object, you need to create a `Draw` object using the `ImageDraw.Draw()` function and passing the Image object as an argument:**

**```python**

**from PIL import ImageDraw**

**draw = ImageDraw.Draw(image)**

**```**

**Now, the `draw` object has drawing methods like `point()`, `line()`, `rectangle()`, etc., which can be used to draw shapes on the image.**