1.What does RGBA stand for?

A. The RGB color model is extended in this specification to include “alpha” to allow specification of the opacity of a color.

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

A. import the Image module from the Pillow library. from PIL import Image.

Open any image and get the RAGBAG values. img = Image.open('image.png') rgba = img.convert(“RGBA”) ...

Change the color. Data will be an Imaging Core object containing thousands of tuples of RGBA values. ...

Store the changed image.

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

A. The box. tuple submodule **provides read-only access for the tuple userdata type**. It allows, for a single tuple: selective retrieval of the field contents, retrieval of information about size, iteration over all the fields, and conversion to a Lua table.

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

A. In order to find the height and width of an image, there are two approaches. The first approach is by using the**PIL(Pillow)**library and the second approach is by using the **Open-CV** library.

Pip install pillow

import required module

from PIL import Image

# get image

filepath = "geeksforgeeks.png"

img = Image.open(filepath)

# get width and height

width = img.width

height = img.height

# display width and height

print("The height of the image is: ", height)

print("The width of the image is: ", width)

**2nd way using .size:**

import required module

from PIL import Image

# get image

filepath = "geeksforgeeks.png"

img = Image.open(filepath)

# get width and height

width,height = img.size

# display width and height

print("The height of the image is: ", height)

print("The width of the image is: ", width)

**Using Open CV:**

import required module

import cv2

# get image

filepath = "geeksforgeeks.jpg"

image = cv2.imread(filepath)

#print(image.shape)

# get width and height

height, width = image.shape[:2]

# display width and height

print("The height of the image is: ", height)

print("The width of the image is: ", width)

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?

A. To save images, we can **use the PIL.** **save() function**. This function is used to export an image to an external file. But to use this function, first, we should have an object which contains an image.

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

A. **The 'ImageDraw' module** provides simple 2D graphics support for Image Object. Generally, we use this module to create new images, annotate or retouch existing images and to generate graphics on the fly for web use. The graphics commands support the drawing of shapes and annotation of text.

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

A. Images objects have drawing objects. Drawing objects are versatile; there are many ways you can use a Drawing object. You can **display it as an image by using a DrawingImage and an Image control**. You can use it with a DrawingBrush to paint an object, such as the Background of a Page. You can use it to describe the appearance of a DrawingVisual.

**Creating a Drawing Object**

1. Click on the tool that represents the type of object you want to create, or select the object from the Shapes tool. ...
2. Click within your document at one corner of where you want the shape to appear.
3. Drag the mouse to the opposite corner for the object.