

**c) Differentiate between Raster Graphics and Vector Graphics. Give two file formats for each.**

Raster graphics are digital images represented by a matrix of pixels called a bitmap while vector graphics are computer graphics in which visual images are created directly from geometric shapes defined on a cartesian plane.

**Raster graphics file formats**

- .JPEG.
- .PNG.

**Vector file formats**

- SVG (Scalable Vector Graphics)
- PDF (Portable Document Format)

**d) A bitmap image has 157\*131 resolution pixels. Each pixel is 16-bit depth. Calculate the size of the bitmap image in kilobytes.**

$$\begin{aligned}\text{File size} &= (\text{resolution} * \text{bit depth}) \\ &= (157 * 131 * 16) \\ &= 329072 \text{ bits} * 0.000125 \\ &= 41.134 \text{ kilobytes}\end{aligned}$$

