Name: Class: Mark:

# (a) Describe how a black and white image could be represented in binary. [2]

(b) How many bits per pixel would be required for an image with a palette of   
256 possible colours? [1]

# State two factors that affect the file size of a bitmap image. [2]

# Calculate the file size of each of the following images. [2]

* 1. A 256 colour icon with dimensions of 50 × 50 pixels
  2. A 16 colour icon with dimensions of 100 × 100 pixels

1. A digital camera takes an image with the following properties:

* Resolution: 10 Megapixels (10 000 000 pixels)
* Colour depth: 24 bits  
  Calculate the file size in mebibytes. [3]

[Total 10 marks]