Name: Class: Mark:

1. (a) Give **two** reasons why you might compress photographic files
before emailing them. [2]

Reason 1.

Reason 2:

(b) Two forms of compression are lossy and lossless.

 Explain the most suitable form of compression to use when transmitting:

(i) a draft manuscript for a book. [2]

(ii) A video recording which you have made of the school play. [2]

2. A music production company needs to save music at the highest quality possible. They would like to make use of compression if possible.

 Explain how compression can help the music production company. [2]

3. An algorithm called Run Length Encoding is used to compress an image. It converts the file by recording the colour code, represented here by a letter, followed by the number of pixels of the same colour, e.g. R4.

(a) Give the result of applying the algorithm to the following data for an image: [2]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| G | G | G | G | G | R | R | R | Y | Y | Y | Y | Y | Y | R | R | R | G | G | G | G |

(b) Is this lossy or lossless compression?

 Explain your answer: [2]

4. Describe the effect of reducing the resolution and colour depth of an image. [3]

[Total 15 marks]