

6 A computer system stores text, images and sound.

(a) A character set is used to represent characters in a computer.

Identify **and** describe **one** character set.

Character set

Description

..... [2]

(b) The colour of each pixel in a bitmapped image is represented by 8 bits.

(i) State the largest number of different colours that can be represented by 8 bits.

..... [1]

(ii) State **one** drawback of increasing the number of bits that represents each pixel in the bitmap image.

..... [1]

(iii) A bitmap image can be compressed using lossy compression.

Explain the reasons why lossy compression is often suitable for a bitmap image.

..... [2]

(c) (i) Explain how an analogue sound wave is converted into digital data.

..... [2]

(ii) Describe **one** method of compressing a sound file using lossy compression.

..... [2]