01.1 Explain what the term data compression means.

[2 marks]

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01.2 Explain why it might be desirable to use data compression.

[4 marks]

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02 Run length encoding (RLE) is a method of data compression which uses frequency/data pairs.

02.1 State a run length encoding of the series of characters `ttjjeeess`

[1 mark]

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02.2 Explain how run length encoding (RLE) uses frequency/data pairs to compress data

[2 marks]

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02.2 Explain why run length encoding (RLE) does not always result in effective data compression.

[2 marks]

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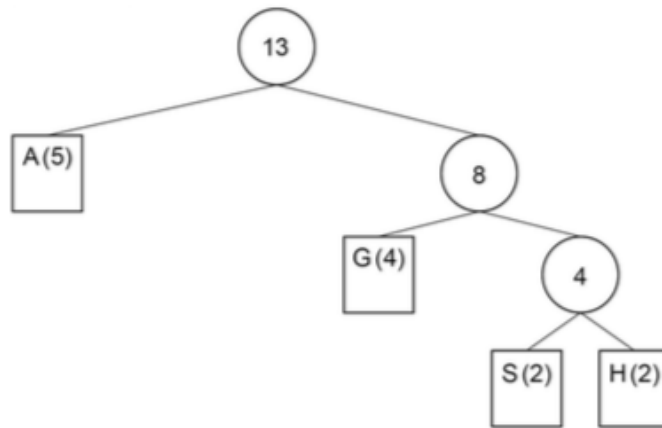……..

03 Huffman coding is another method of data compression used to compress text. The Huffman tree in **Figure 2** was created to encode the string shown in **Figure 1**.

Figure 1

AAGHHGGSAAASG

Figure 2

03.1 Complete the code table below for characters G, S and H for the Huffman tree shown in Figure 6. The code for character A has already been completed.

[3 marks]

Character	Binary code
A	0
G	
S	
H	

03.2 Explain how data is compressed using Huffman Coding. You do not need to explain how a Huffman Tree is created.

[3 marks]

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