

2 An employee of a company sells houses. He sends images of the houses to his company.

(a) The employee compresses the image files using lossy compression before sending them. Lossy compression reduces the size of the image files.

Give **two** other reductions that lossy compression makes to the images.

- 1
- 2 [2]

(b) The image data is broken down into packets to be sent across a network to the company.

The destination internet protocol (IP) address is read by a device in the network. The device uses the IP address to forward the packet towards its correct destination.

(i) State the name of the device that reads the destination IP address.

..... [1]

(ii) Identify the part of the packet where the destination IP address is found.

..... [1]

(c) The IP address has an IPv6 format.

Give **three** characteristics of the IPv6 format.

- 1
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- 2
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- 3
- [3]

(e) The image data is encrypted using symmetric encryption.

(i) Tick (✓) **one** box to show the correct statement about symmetric encryption.

- A Encrypted text is known as plain text.
- B The most secure form of encryption.
- C The encryption key is shared with any device receiving the encrypted data.
- D Two different keys are used.

[1]

(ii) Give **one** other type of encryption that could be used.

..... [1]