9 A company owner has installed a new network. Data is correct before it is transmitted across the network.

The company owner is concerned that data might have errors after transmission.

(a) Explain how the data might have errors after transmission.

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(b) The company owner decides to introduce an error detection system to check the data for errors after transmission.

The error detection system uses an odd parity check and a positive automatic repeat query (ARQ).

(i) Describe how the error detection system operates to check for errors.

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[8]

(ii) Give **two** other error detection methods that could be used.

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[2]

(c) The company owner also installs a firewall to help protect the network from hackers and malware.

(i) Explain how the firewall operates to help protect the network.

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(ii) Give **two** examples of malware that the firewall can help protect the network from.

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[2]