**8.1 security**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ class\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1.

A Local Area Network is used by staff in a hospital to access data stored in a Database Management System (DBMS).

Name **two** security measures to protect computer systems.

1 ....................................................................................................................................

2 ....................................................................................................................................

[2]

2.

A bank holds personal data about its customers and their financial data.

**(a)** Describe the difference between security and integrity of data.

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**(b)** Describe **three** security measures that the bank could implement to protect its electronic data.

Security measure1 ........................................................................................................

Description ....................................................................................................................

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Security measure2 ......................................................................................................

Description ....................................................................................................................

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Security measure 3 ..................................................................................................

Description ...........................................................................................................................................................................................................................................................

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3.

**(a)** Give the definition of the terms firewall and authentication. Explain how they can help with the security of data.

Firewall ..........................................................................................................................

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Authentication ................................................................................................................

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**(b)** Describe **two** differences between data integrity and data security.

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**(c)** Data integrity is required at the input stage and also during transfer of the data.

**(i)** State **two** ways of maintaining data integrity at the input stage. Use examples to help explain your answer.

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**(ii)** State **two** ways of maintaining data integrity during data transmission. Use examples to help explain your answer.

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