

1.8.1 Database Management system (DBMS)

May/June 2004

1 (b) Using, as an example, the database of student records in a school,

(i) explain why different users should be given different access rights.

[4]

(ii) describe how these access rights can be implemented.

[4]

Oct/NOV 2005

1 (a) Explain what is meant by a flat file.

[2]

(b) Describe three advantages of using a relational database over flat files.

[6]

May/June 2006

7. A health centre employs doctors, nurses and receptionists.

The data that is stored about the patients includes their medical history and personal information about them.

Explain the need for maintaining privacy of the data and describe methods by which the database management system (DBMS) can help to achieve this.

[6]

Oct/NOV 2006

2 (b) State three advantages of using a relational database rather than a set of flat files.

[3]

May/June 2008

1 (a) Explain what is meant by a flat file.

[3]

(b) Explain the advantages of using a relational database rather than flat files.

[6]

May/June 2009

4 (d) Discuss the need for controlling access to the database tables and how access can be controlled.

[6]

Oct/NOV 2009. P31

8 (b) Three advantages of using a relational database rather than flat files are:

(i) reduced data duplication,

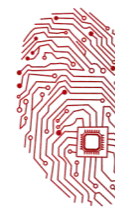
(ii) improved data security,

(iii) improved data integrity.

Explain what is meant by each of these and why they are features of a relational database.

[6]





1.8.1 Database Management system (DBMS)

May/June 2010. P31/ P32

4. (a) Explain how flat files differ from a relational database. [2]

(b) Describe three advantages of using a relational database rather than flat files to store information. [6]

Oct/NOV 2011. P31

7 (a) Explain the difference between storing data in a flat file and in a relational database. [2]

(b) Data about patients, doctors and treatments in a hospital are stored in a relational database.

Explain the advantages of using a relational database rather than a flat file to store the hospital data. [3]

(c) (i) Explain why access to the data in the database needs to be controlled.

(ii) Describe how this can be achieved. [5]

Oct/NOV 2011. P33

6 (a) Describe the advantages of using a relational database to store data rather than a flat file. [3]

May/June 2012. P33

1 (f) The normalisation process is designed to eliminate data inconsistency. Explain what is meant by data inconsistency. [1]

Oct/NOV 2012. P31

1 (c) In database design, unnecessary data duplication should be avoided. Explain, using an example, what is meant by data duplication. [2]

Oct/NOV 2012. P32

1 (c) Storing data in flat files has been replaced by storing data in relational database tables.

Explain how the use of a relational database reduces data redundancy. [2]

Oct/NOV 2012. P33

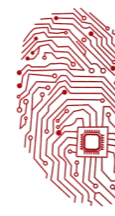
1 (c) In database design, data inconsistency must be avoided.

Explain, using an example, what is meant by data inconsistency. [2]

Oct/Nov 2013. P33

2 (a) Describe three advantages that a relational database would have over the use of flat files. [3]





1.8.1 Database Management system (DBMS)

Computer Science (9608)

May/ June 2016. P11/ P12

8 A school stores a large amount of data. This includes student attendance, qualification, and contact details. The school's software uses a file-based approach to store this data.

(a) The school is considering changing to a DBMS.

- (i) State what DBMS stands for. [1]
- (ii) Describe **two** ways in which the Database Administrator (DBA) could use the DBMS software to ensure the security of the student data. [4]
- (iii) A feature of the DBMS software is a query processor. Describe how the school secretary could use this software. [2]
- (iv) The DBMS has replaced software that used a file-based approach with a relational database. Describe how using a relational database has overcome the previous problems associated with a file-based approach. [3]

May/ June 2016. P13

5 (a) A Database Management System (DBMS) provides the following features.

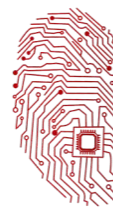
Draw a line to match each feature with its description.

Feature	Description
Data dictionary	A file or table containing all the details of the database design
Data security	Data design features to ensure the validity of data in the database
Data integrity	A model of what the database will look like, although it may not be stored in this way
	Methods of protecting the data including the uses of passwords and different access rights for different users of the database

[3]

A school stores a large amount of data that includes student attendance, qualification and contact details. The school is setting up a relational database to store these data.





1.8.1 Database Management system (DBMS)

(b) The school needs to safeguard against any data loss.

Describe **three** factors to consider when planning a backup procedure for the data.

Justify your decisions.

[6]

