

1995 Paper 13 Question 9

Databases

Following a directive issued by the Inquisition, the University is to set up a database that will keep track of the way in which undergraduates are supervised.

At the end of each year this database will be consulted so that reports can be prepared to show the percentage of supervisions skipped (broken down by excuse, if any, proffered).

Students' exam grades will be correlated against their previous academic record, the number of supervisions they attended and the identity of their supervisors, so that pressure can be applied to both classes of participant.

The scheme will cover supervisions individually and in groups of two, three or four. The authorities will want to be able to determine whether group size, continuity of contact with one particular supervisor or College affiliation influence the outcome.

The same database is also to be used to help coordinate and regularise the way in which research students are used as supervisors, so they will be invited to record what subjects or year-groups they feel able to cope with and how much supervising they will undertake (which amount may vary from term to term). Note that only around 50% of all supervisions are given by research students — others are given by post-doctoral research workers, the teaching staff or people from outside the department.

Design a schema for a relational database that is to record the relevant information. You should state any assumptions that lie behind the schema design that you present.

[20 marks]