

**CS-445 DATABASE MANAGEMENT**  
**CHALLENGE EXAM**

**STUDY MATERIALS:**

Students deciding to take the challenge exam should use the current module for exam preparation. The text assigned for this course or another college level text will also be very helpful study materials.

**EXAM CONTENT:**

This exam is designed to test your knowledge and understanding of the concepts outlined in the REGIS CS-445 DATABASE MANAGEMENT course module (2001).

The exam is a 100 point multiple choice exam based on 100 questions covered in the text assigned for this course. You will have 2½ hours to complete the exam, a passing score is 70%.

The exam will cover the following sections:

Database history

Major advantages and disadvantages of database systems

Data dictionary

Data and its representation

Data associations (1:1, 1:M, M:N)

Entity-relationship diagrams (entities, domains, metadata)

Normalization (purpose, anomalies, advantages, and disadvantages)

Database planning (conceptual design, physical design)

ANSI/SPARC 3-schema architecture

Query language (SQL, commands, advantages, disadvantages, QBE)

Host language interface (embedded SQL)

Data models (hierarchical, network, relational, object-oriented)

The relational database (constructing, advantages, disadvantages)

Data and database administration

Logical transactions (COMMIT and ROLLBACK)

Database security