

**#2 Midterm control questions**  
**For the “Foundations of databases” course**

1. Relational data model. Basic concepts.
2. Relational data model. Codd's rules.
3. Relational data model. Relational integrity constraints.
4. Relational algebra. Basic operations of relational algebra.
5. Relational calculus. Tuple relational calculus. Domain relational calculus.
6. SQL (Structured Query Language) query language. Basic SQL commands. Basic DDL (Data Definition Language), DML (Data Manipulation Language), and DCL (Data Control Language) commands.
7. SQL (Structured Query Language) query language. SQL syntax. Structure of SQL SELECT command. DISTINCT and TOP keywords. ORDER BY, ASC and DESC keywords.
8. SQL (Structured Query Language) query language. SQL syntax. WHERE keyword. Basic operators. Essentials of usage of AND, OR, IN, and BETWEEN operators. LIKE keyword.
9. SQL (Structured Query Language) query language. SQL syntax. GROUP BY keyword. Aggregation functions. HAVING keyword.
10. SQL (Structured Query Language) query language. SQL syntax. Table joins. Cartesian join (CROSS JOIN) and INNER JOIN operator.
11. SQL (Structured Query Language) query language. SQL syntax. Table joins. LEFT JOIN and RIGHT JOIN operators. FULL JOIN operator and its alternative.
12. SQL (Structured Query Language) query language. SQL syntax. Table joins. UNION, INTERSECT, and EXCEPT operations.
13. SQL (Structured Query Language) query language. SQL syntax. Structure of SQL INSERT command.
14. SQL (Structured Query Language) query language. SQL syntax. Structure of SQL UPDATE command.
15. SQL (Structured Query Language) query language. SQL syntax. Structure of SQL DELETE command.