

2124

B.Sc. Data Analytics (FYUP)  
First Semester

Paper: Introduction to Database Management System

Time allowed: 3 Hours

Max. Marks: 45

NOTE: *Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I - IV.*

x-x-x

**UNIT - I**

- I. What do you mean by DBMS? Explain the components of DBMS. (9)
- II. What do you understand by Data Model? Draw the difference between network and hierarchical model. (9)

**UNIT - II**

- III. What do you mean by normalization? Explain the different types of normalization. (9)
- IV. What do you mean by ER Model? Explain the different components of ER Model. (9)

**UNIT - III**

- V. What do you mean by SQL? Discuss any five commands of SQL with proper syntax. (9)
- VI. What do you mean by Foreign key? How can you implement foreign key constraint in SQL? (9)

**UNIT - IV**

- VII. What do you mean by Join? Explain the different types of Joins. (9)
- VIII. What do you mean by Privilege? Explain the use of GRANT and REVOKE command in detail. (9)

**UNIT - V**

- IX. Write short notes on following:-

- a) Nested query (2)
- b) Group by (2)
- c) Relational algebra (2)
- d) COMMIT and ROLLBACK (2)
- e) Data independence (1)

x-x-x