Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

INTERNATIONAL CENTRE FOR APPLIED SCIENECES
END SEMESTER THEORY EXAMINATIONS NOVEMBER/DECEMBER 2023
III SEMESTER B.Sc.(APPLIED SCIENCES) IN ENGG.

Database Management Systems [ICS 231 - S2]

Marks: 50   **Duration: 180 mins.**

Answer all the questions.

Missing data may be suitably assumed.

1) A)	Write a neat diagram and explain three level architecture for DBMS.?	(5)
B)	Explain different types of database system?	(5)
2) A)	Explain the following term with an example? i) Composite Attribute ii) Cardinality iii) Partial Participation iv) Entity integrity constraints v) Domain constraints	(5)
B)	Construct an E-R diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents. (Identify the suitable attributes for given problem)	(5)
3) A)	Explain different types Join operation in SQL with an example?	(5)
B)	Write Sql command for the following? i) Dropping a constraint. ii) Create the View iii) Create User iv) Grant Privileges v) Create a simple index	(5)
4) A)	Explain different types of functional dependency with an example?	(5)
B)	Convert below table into BCNF? Explain BCNF.	(5)

EmployeeID	EmployeeName	ProjectID	ProjectName	Department
101	Alice	201	Project A	HR
102	Bob	202	Project B	IT
101	Alice	203	Project C	HR
103	Carol	204	Project D	Sales

5)

A) What is the difference between shared lock and Exclusive Lock explain with an example?   (5)

B) Explain various possible consistency problems with transactions with an examples?   (5)

-----End-----