

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BBA
BRANCH: MANAGEMENT**

**SEMESTER: V
SESSION: MO/2025**

SUBJECT: MN436 DATABASE MANAGEMENT SYSTEM

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Describe the different data models in DBMS.	[5] 2	2
Q.1(b)	Illustrate the different types of database architecture.	[5] 5	2
Q.2(a)	Analyze the necessity of Primary Key and Foreign Key in relational model.	[5] 2	4
Q.2(b)	Explain the importance of Extended ER (EER) features.	[5] 2	2
Q.3(a)	Outline the different types of Functional Dependencies with suitable examples.	[5] 2	4
Q.3(b)	Summarize the desirable properties of decomposition.	[5] 3	2
Q.4(a)	Explain the need of normalization.	[5] 3	2
Q.4(b)	Demonstrate with a suitable example to convert a 2NF (Second normal Form) relation to 3NF (Third normal Form).	[5] 3	3
Q.5(a)	Discuss transaction and transaction states in DBMS.	[5] 4	2
Q.5(b)	Evaluate the significance of Lock based concurrency control protocol where multiple transactions are executed simultaneously.	[5] 5	5

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