

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION MO/2023)**

**CLASS: BCA
BRANCH: BCA**

**SEMESTER : III
SESSION : MO/2023**

SUBJECT: CA203 DATABASE MANAGEMENT SYSTEMS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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	Marks	CO	BL
Q.1(a) What is Database Management System?	[2]	1	1
Q.1(b) What are the responsibilities of DBA?	[3]	1	2
Q.2(a) Differentiate logical data independence and physical data independence?	[2]	1	1
Q.2(b) What are the purpose of Database Management System?	[3]	1	2
Q.3(a) Define primary key and foreign key?	[2]	2	1
Q.3(b) Draw an ER- Diagram of a Company database.	[3]	2	3
Q.4(a) What are the different types of relationship? Explain.	[2]	2	1
Q.4(b) Write a formal definition of Tuple Relational Calculus.	[3]	2	2
Q.5(a) Define full functional dependency.	[2]	3	1
Q.5(b) What are pitfalls in database design?	[3]	3	2

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