

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

**CLASS: B.TECH.  
BRANCH: EC, CE**

**SEMESTER: VII  
SESSION: MO/2022**

**SUBJECT: CS301 DATABASE MANAGEMENT SYSTEM**

**TIME: 2 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The total marks of the questions are 25.
  2. Candidates attempt for all 25 marks.
  3. Before attempting the question paper, be sure that you have got the correct question paper.
  4. The missing data, if any, may be assumed suitably.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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			CO	BL
Q1	(a) What is DBMS? Explain with Purpose of Database Management System.	[2]		Remembering
Q1	(b) Explain about the role of Database Users and Administrator?	[3]		Understand
Q2	(a) What is E-R Diagram? explain with Extended E - R Features.	[2]		Remembering
Q2	(b) What is Structure of Relational Database? Explain with Codd's Rules.	[3]		Understand
Q3	(a) Explain about the Fundamental Relational Algebra Operations?	[2]		Remembering
Q3	(b) Write shorts notes on the following: (i)Basic structure of SQL queries (ii) Aggregate Functions, (iii) Null Values	[3]		Analyze
Q4	(a) Explain about the View of Data, Database Languages and Transaction Management?	[2]		Remembering
Q4	(b) What is Query Processing? Explain with Evaluation of Expressions.	[3]		Understand
Q5	(a) What is Ordered Indices? Explain with B+ Tree index files, B-Tree index files,?	[2]		Understand
Q5	(b) Differentiate ordered indexing and hashing? Explain	[3]		Analyze

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