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Code No. : 16147 (B) N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. VI-Semester Main & Backlog Examinations, May/June-2023

Introduction to Databases (OE-IV)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	What are different levels of abstraction?	2	1	1	1,2
2.	What is the difference between Weak and a Strong entity set. Give an example of each.	2	1	1	1,2
3.	What is the difference between cartesian product and natural join. Give an example of each.	2	1	2	1,2
4.	List different aggregate functions in SQL.	2	2	2	1,2
5.	What is lossless Decomposition? Give an example.	2	1	3	1,2
6.	What are Amstrong's axioms and why are they sound and complete.	2	1	3	1,2
7.	What are the factors used to evaluate which technique (indexing and hashing) is best for given application?	2	1	4	1,2
8.	What are the causes of bucket overflow in a hash file organization? How to handle overflows.	2	2	4	1,2
9.	Explain the distinction between the terms serial schedule and serializable schedule.	2	2	5	1,2
10.	Explain ACID Properties.	2	2	5	1,2
Part-B (5 × 8 = 40 Marks)					
11. a)	Draw Overall System Structure of DBMS and explain each component in the system.	4	2	1	1,2
b)	Design an ER diagram for airline. The database must keep track of customers and their reservations, flights and their status, seat assignments on the individual flights, and schedule and routing of future flights. Include appropriate constraints.	4	3	1	1,2,3
12. a)	What are different integrity constraints. Explain with an example.	4	1	2	1,2

