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Code No. : 16136 AS (B)

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. VI-Semester Advanced Supplementary Examinations, August-2022

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.	Define a relational database	2	1	1	1,2
2.	List out the symbols used in ER diagrams	2	1	1	1,2
3.	Give one example for relational data base with at last 4 entries in it	2	3	2	1,2
4.	Write SQL statement to find employee with maximum salary in the organization	2	3	2	1,3
5.	What is atomic domain, define it	2	2	3	1,2
6.	Define first normal form	2	1	3	1,2
7.	Differentiate dynamic and static hashing	2	2	4	1,2
8.	Draw the transaction state diagram	2	3	4	1,2
9.	What is durability, define?	2	1	5	1,2
10.	Define serializability	2	4	5	1,2
Part-B (5×8 = 40 Marks)					
11. a)	Draw ER diagram for hospital management system	4	3	1	1,2
b)	Explain the database architecture with an example	4	1	1	1,2
12. a)	Discuss about relational algebra operations with examples	4	2	2	1,2
b)	What is nested query? Write SQL statement to find the names of employee not reporting to anybody from the employee database	4	4	2	1,3
13. a)	Discuss briefly about functional dependency with an example	4	2	3	1,2
b)	Explain with an example how to design a good relational database	4	2	3	1,2

Contd... 2

14. a)	Explain in detail about B-Tree files with an example?	4	3	4	1,2
b)	Differentiate between ordered indexing and hashing?	4	2	4	1,2
15. a)	Explain about storage structure	4	2	5	1,2
b)	“Recoverable schedules are cascade less” please justify	4	3	5	1,3
16. a)	Discuss about database design process	4	2	1	1,2
b)	Write SQL statement using the following data base schema Employee(Eno,Ename,Managerno,Deptno) Department(Deptno,Dname,Dloc) 1. Find name of the employees and department names 2. Find the names of the employee and his manager name	4	3	2	1,3
17.	Answer any <i>two</i> of the following:				
a)	Differentiate between database and relational database	4	3	3	1,2
b)	Write about the advantages of ordered indexing	4	4	4	1,2
c)	What is transaction? Explain it with examples?	4	3	5	1,2

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	50%
