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RV COLLEGE OF ENGINEERING®

(An Autonomous Institution Affiliated to VTU)

IV Semester B. E. Examinations Oct/Nov-2023

Artificial Intelligence and Machine Learning DATABASE MANAGEMENT SYSTEM

Time: 03 Hours Maximum Marks: 100

Instructions to candidates:

- 1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
- 2. Answer FIVE full questions from Part B. In Part B question number 2 is compulsory. Answer any ONE full question from 3 and 4, 5 and 6, 7 and 8, 9 and 10.

PART-A

1 1.1	Define entity and relation.	02
1.2	A is a language that enables users to access or manipulate data.	01
1.3	Define the multivalued attribute with an example.	02
1.4	Define naive and causal end users.	02
1.5	What are the roles of database designer?	02
1.6	What is the difference between DELETE and DROP commands?	02
1.7	Explain collection and document in the context of MongoDB.	02
1.8	What is sharding?	01
1.9	List two features of Cassandra.	02
1.10	Differentiate between DISTINCT and UNIQUE value in SQL.	02
1.11	What is key value pair? What is the usage of this in NoSQL.	02

PART-B

2	а	List four significant differences between a file processing system and a DBMS.	06
	1.		06
	b	Describe the different types of languages used in DBMS with	10
		example.	10
			0.5
3	a	List and discuss the data types supported by SQL with examples.	06
	b	Describe the importance of layered architecture and three schema	
		architecture with a neat diagram.	10
		OR	
4	a	Discuss the constraints of relation model in DBMS.	08
	b	Applying the rules of ER diagram, write an ER diagram for the given	
		Schema:	
		Doctor (SSN, FirstName, Lastname, Speciality, Years of Experience,	
		PhoneNum)	
		Patient(SSN,Firstname, lastname, Address, DOB,	
		PrimaryDoctor_SSN)	
		Medicine(tradename,UnitPrice,GenericFlag)	
		Prescription(Id,Date, Doctor_SSN,patient_SSN)	
		Prescription_medicine(Prescription Id, Tradename, NumofUnits)	08

Solution Solution	_		How do you took for amount relations and absorbe of damlicate tambo						
Consider the following table 1 and table 2: Table 1 Reg No Branch Section 1 CSE A 2 ECE B 3 CV A 4 IT B 5 IT A	5	a	How do you test for empty relations and absence of duplicate tuples						
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