Reg. No.: .....

Name: .....

University of Kerala

W6649

Third Semester FYUGP Degree Examination, November 2025

Discipline Specific Core Course

COMPUTER APPLICATION

UK3DSCCAP201 - DataBase Management

Academic Level: 200-299

2024 Admission

Time: 1 Hour 30 Minutes(90 Mins.) **Max. Marks: 42**

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	Distinguish drop and delete command	RE	1
2	Compare Simple and composite attributes.	RE	3
3	Explain Primary Key?	UN	3
4	Describe the role of a database administrator (DBA).	UN	1
5	Explain the purpose of normalization	UN	4
6	Identify the commands in TCL.	UN	2

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Describe the use of Relational Model in Database.	UN	1
8	Discuss about the anomalies present in the database.	UN	2
9	Illustrate Mapping cardinalities.	AP	3
10	Illustrate the closure of a set of functional dependencies?	AP	4

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Explain the different phases of the database design process. Highlight the importance of conceptual, logical, and physical design stages with suitable examples. OR B) Illustrate with example SELECT and PROJECT operation in relational algebra?	AP	2, 1
12	A) Examine the database design process in detail	AN	4, 1

Qn No.	Question	CL	CO
	OR B) Compare and analyze the relational, hierarchical, and network data models based on structure, flexibility, and data retrieval. Provide suitable examples.		
13	A) Explain 3 – tier Database Architecture with detailed diagram. OR B) Describe **aggregate functions** in SQL with suitable examples	EV	1, 2
14	A) Explain about three normal forms with advantages and disadvantages. OR B) Prepare an ER Diagram for the following COLLEGE database schema. 1 Student(Student_id(PK),Name, Address,Date of birth) 2.Course(Course_id(PK), Course_name,credit) 3.Instructor(Instructor_id(PK),name,Department) A student can register for many courses and a course can have many students. Each course is taught by one instructor but an instructor can teach many courses.	CR	4, 3