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Name:
Student University Roll No.:

School of Engineering

First Sessional Examination, Even Semester (AS: 2023-24)

B. Tech: CSE/CCVII/IOTBC Year: II Semester: IV

Course Title: DATABASE MANAGEMENT SYSTEMS

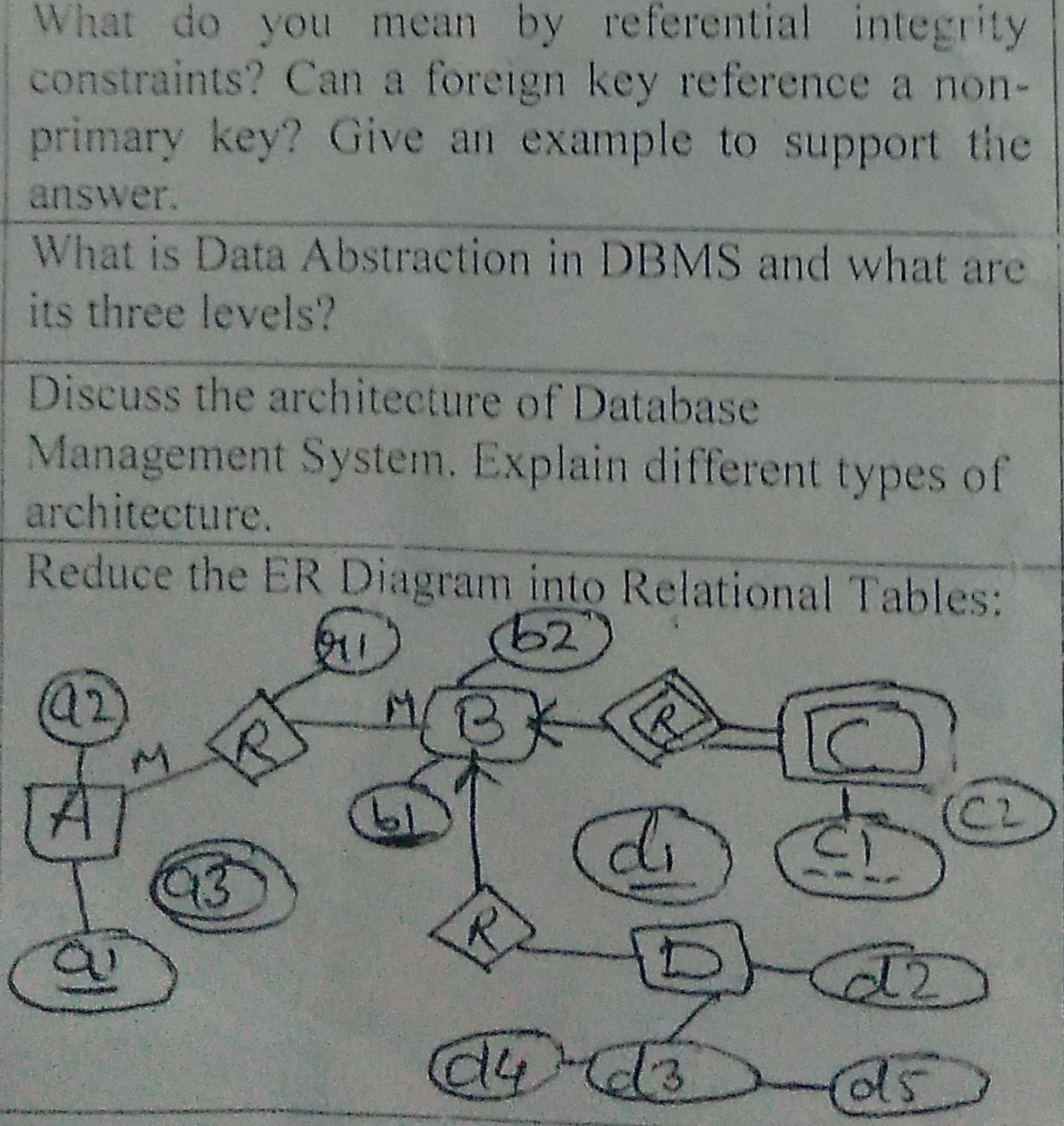
Course Code: BCS3401

Max Marks: 30

Time: 1 hr

Instructions if any: Read the question Carefully.

	SECTION 'A' Q.N.1. Attempt all parts of the following:	Course Objective	Marks
a)	Explain Union Compatibility.	CO1	1
b)	What is Identifying relationship?	CO1	1
c)	What do you mean by an instance?	CO1	1
d)	Explain the term Partial discriminator.	CO1	1
e)	Mention roles of DBA.	CO1	1

	SECTION 'B' Q.N.2. Attempt any two parts of the following:	Course Objective	Marks
a)	What do you mean by referential integrity constraints? Can a foreign key reference a non-primary key? Give an example to support the answer.	CO2	7.5
b)	What is Data Abstraction in DBMS and what are its three levels?	CO1	7.5
c)	Discuss the architecture of Database Management System. Explain different types of architecture.	CO1	7.5
d)	Reduce the ER Diagram into Relational Tables: 	CO2	7.5

	SECTION 'C'	Course Objective	Marks
Q.N.3. Attempt any one part of the following:			
a)	Explain all the Extended features of Entity-Relationship Model along with proper diagram and example.	CO1	10
b)	Consider the following relational database schema consisting of the four relation schemas: passenger (pid, pname, pgender, pcity) agency (aid, aname, acity) flight (fid, fdate, time, src, destination) booking (pid, aid, fid, fdate) i. Get the complete details of all flights to New Delhi. ii. Get the details about all flights from Chennai to New Delhi. iii. Get the details of flights that are scheduled on either of the dates 01/12/2020 or 02/12/2020 or both at 16:00 hours.	CO2	10
c)	Create a table called employee with attributes Empid, names, DOB, address. i) Insert Minimum 5 records. ii) Also sort the table according Empid. iii) Describe the schema of above table.	CO2	10

Table 1: Mapping between COs and questions

(Number of COs may vary from course to course)

COs	Questions Numbers	Total Marks
CO1	Q1 a, b, c, d, e Q2 b, c, Q3 a	30
CO2	Q 2 a, d Q 3 b, c	35