

Code No: 843AA

R17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA II Semester Examinations, October/ November - 2020
DATABASE MANAGEMENT SYSTEMS

Time: 2 Hours

Max.Marks:75

Answer any five questions
All questions carry equal marks

- 1.a) Discuss the drawbacks of storing and managing the data in the files.
b) What are participation constraints in ER model? [7+8]
2. Explain various DDL and DML commands with suitable example. [15]
- 3.a) Explain the commands available for modifying the database in SQL.
b) Explain the aggregate functions used with SQL. [7+8]
- 4.a) Explain and compare WHERE and Having Clause.
b) How are the OUTER JOIN operations different from JOIN operations? How is the OUTER UNION operation different from UNION? [7+8]
5. Using the following schema write the queries using Relational Algebra
Sailors (sailor-id, sailor-name, sailor-rating, sailor-age)
Boats (boat-id, boat-name, boat-color)
Reserves (sailor-id, boat-id, booked-date)
a) List all the boat details whose color is "Red"
b) List the Sailor details whose have not booked a boat on "10/12/2019"
c) List the Sailor details who are aged more than 40.
d) List the Sailors who booked Red boat on "10/12/2019"
e) List the sailor whose rating is "6" and booked a "green" boat. [15]
6. Explain each of the following with example
a) Boyce-Codd Normal Form b) Fourth Normal Form [7+8]
- 7.a) Describe the three phases of the ARIES recovery method.
b) Describe the write-ahead logging protocol. [7+8]
8. Explain Linear Hashing and extendable Hashing as dynamic indexing structure. [15]

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