R15

Code No: 823AC

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

Time: 2 Hours   Max.Marks:75

Answer any five questions
All questions carry equal marks
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1. Explain about different types of integrity constraints.   [15]

2. Draw the ER diagram for Hospital Management system.   [15]

3. Consider the following schema and write the SQL statements for the queries given below:
   SAILORS(Sid, Sname, rating, age)
   BOATS(bid, bname, color)
   RESERVES(sid, bid,day)
   a) Find names of sailors who reserved green boat
   b) Find the colors of boats reserved by "Ram"
   c) Find names of sailors who have reserved a red or a green boat.
   d) Find the "sids" of sailors with age over 20 who have not registered a red boat. [15]

4. Define Join? Explain different types of joins.   [15]

5. Consider the universal relation R = {A, B, C, D, E, F, G, H, I, J} and the set of functional dependencies
   F={ {A,B} -> {C},   A} -> {D,E}, {B}->{F},   {F} ->{G,H}, {D} -> {I,J}}.
   What is the key for R? Decompose R into 2NF, then 3NF relations.   [15]

6. Explain Multi valued Dependencies and Fourth normal form with example.   [15]

7. Discuss in detail Multiple Granularity locking protocols.   [15]

8. Explain about Clustering File Organization and Heap File Organization.   [15]

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