

R18

Code No: 154AM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech II Year II Semester (Special) Examinations, January/February - 2021
DATABASE MANAGEMENT SYSTEMS
(Common to CSE, IT)

Time: 2 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

1. Explain the functions of Database Administrator. [15]
2. What is Relational Model? Distinguish between Super key, Candidate key, Primary Key for a relation with examples. [15]
3. What is normalization? Explain 2NF, 3NF and BCNF Normal forms with example. [15]
4. What is serializability? Explain conflict and view serializability in detail. [15]
5. Describe insertion and deletion operations in B+ tree with example. [15]
- 6.a) Explain various levels of data abstraction and data independence.
b) Define generalization, specialization and aggregation? How it is represented in E-R Model? [7+8]
7. Let $R = (ABC)$ and let r_1 and r_2 both relations on schema R . Give an expression in the tuple relational calculus that is equivalent to each of the following.
a) $\prod_{A1}(r_1)$ b) $r_1 \cap r_2$ c) $r_1 - r_2$ [5+5+5]
8. Explain various data manipulation and data definition statements in SQL with examples. [15]

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