

BB-118

May-2015

B.Sc., Sem.-IV

COM-205 : Computer Science

(Relational Database Management System)

Time : 3 Hours]

[Max. Marks : 70

1. (a) What is DBMS ? Explain three layer architecture of DBMS. 7
OR
Define the term DBA. Explain functions and responsibilities of DBA.
- (b) What is Attribute ? Explain various types of attributes. 5
OR
What do you understand by Specialization ?
- (c) Do as Directed : 2
(1) What is RDBMS ?
(2) List down disadvantages of file processing system.
2. (a) What do you understand by Entity Relationship Model ? Explain with participations and role of an entity set. 8
OR
What is Relational Algebra ? Explain different record based operations with example.
- (b) What do you understand by ACIDS properties of Transaction ? 4
OR
What is View Serializability ?
- (c) Do as Directed : 2
(1) What is difference between right outer join and full outer join ?
(2) What is Authorization ?
3. (a) Explain 2NF & BCNF form in detail. 7
OR
What is Concurrency Control ? Explain common problems of it.

- (b) Write short note on Lock Granularity. 5
- (c) Do as Directed : 2
- (1) Explain two differences between differed and immediate updates.
- (2) What is Decomposition ?
4. (a) Write SQL query for the following : (any **seven**) 12
- Salesman (snum, sname, city, commition)
- Customer (cnum, cname, city, rating, snum)
- Order (onum, amount, odate, cnum, snum)
- (1) Give the commands to create out tables (salesmen, customer, orders) with all the necessary constraints like Primary Key & Foreign Key.
- (2) Find out the customer in alphabetical order whose name begins with 'G'.
- (3) List all customers and salesmen who shared a same city.
- (4) List all orders of the customer 'Chandresh'.
- (5) Create a view that shows all the customers who have the highest rating.
- (6) Create a view that shows all the salesman with multiple customers.
- (7) Create another table London staff having same structure as salesmen table.
- (8) Create a copy of your order table. Drop the original order table.
- (9) Delete all customers with no current orders.
- (10) Double the commission of all salesman of London.
- (b) Do as directed : 2
- What is Grant & Revoke command ?
5. (a) What is loop ? Explain in detail with types, syntax and example. 5
- OR**
- What is Procedure ? Explain in detail with example.
- (b) Explain PI/SLQ block in detail with variable creation. 7
- (c) Do as directed : 2
- (1) In which type of event trigger can be fired ?
- (2) What is Modular Design ?
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