



**RA-0714**  
**Second Year B. Sc. Examination**  
**March / April – 2010**  
**Computer Science : Paper - V**  
**(RDMS)**

Time : Hours]

[Total Marks : 70

**Instructions :**

(1)

<p>नीचे दृशायेक निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : ☛ <b>S. Y. B. Sc.</b></p> <p>Name of the Subject : ☛ <b>Computer Science : Paper - 5</b></p> <p>☛ Subject Code No. : <b>0 7 1 4</b> ☛ Section No. (1, 2,.....): <b>Nil</b></p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- (2) All the questions are compulsory.  
(3) Figures in the **right** indicate full marks.

- 1 Answer the following questions : 14
- (a) What is transaction? What guarantees does a DBMS offer with respect to transactions?
  - (b) What are the disadvantages of a database system?
  - (c) Why are tuples in a relation not ordered?
  - (d) List the data types that are allowed for SQL attributes.
  - (e) State the difference between key and super key.
  - (f) What do you mean by logical data independence?
  - (g) Write the use of primary key and foreign key.
- 2 (a) Explain R.F. Codd rule. 5
- (b) Why do we designate one of the candidate keys of a relation to be the primary key? 5
- (c) Explain the term : 4
- (i) Logical schema
  - (ii) Physical schema.

**OR**

- 2 (a) How is the log used in transaction rollback and crash recovery? 5
- (b) Explain packages and its types by taking example. 5

- (c) Explain the advantages of using a query language instead of custom programs to process data. 4
- 3 (a) List the various cases where use of a null value would be appropriate. 5
- (b) Explain various built in functions in SQL. 5
- (c) Discuss the main characteristics of the database approach. 4

**OR**

- 3 (a) Define Boyce-Codd normal form. How does it differ from 3NF? 5
- (b) Explain grant and revoke commands in SQL with example. 5
- (c) What is view? Explain different types of views by taking suitable example. 4
- 4 (a) Write a note on triggers. 5
- (b) Draw an ER diagram for hospital management system. 5
- (c) Describe the concept of a cursor and how it is used in embedded SQL. 4

**OR**

- 4 (a) Write an E-R diagram for library automation. 5
- (b) How are the Outer Join operations different from the Inner Join operations? How is the Outer Join operation different from Union? 5
- (c) How does SQL allow implementation of the entity integrity and referential integrity constraints? 4
- 5 Attempt any **three** : 14
- (a) Explain different types of exceptions in PL/SQL.
- (b) Describe the various functions, which are required to be performed by the database administrator.
- (c) Explain briefly about the classification of DBMS.
- (d) Describe the two alternatives for specifying structural constraints on relationship type. What are the advantages and disadvantages of each ?