



BCG-2360-R Seat No. _____

M. Sc. (CA & IT) (Sem. III) Examination

April/May - 2014

305 : Database Management System

Time : 3 Hours]

[Total Marks : 70

- 1** Attempt any three **15**
- a What is Data independence? Explain using three levels of Database Architecture.
 - b Draw an ERD for Library Information system.
 - c Discuss advantages of DBMS over file system and also explain characteristics of it.
 - d Explain projection in Relational Algebra.
- 2** Attempt any three **15**
- a Explain Transitive dependency using 3NF. And convert a database into 3NF.
 - b DISCUSS READ ONLY VIEWS with example.
 - c Explain conversion functions in SQL.
 - d What is Join? Explain INNER JOIN with example.

- 3 a What is primary key, Foreign key and UNIQUE? Explain. 3
- b Explain ALTER TABLE statement in SQL. 2
- 4 Attempt any Three 15
- a What is DEADLOCK? Explain deadlock prevention Techniques.
- b What is serializability? Explain conflict serializability.
- c Explain 2PL protocol.
- d What is Recovery? Explain shadow paging.
- 5 Attempt any Three 15
- a What is user defined exception? Explain.
- b Write a PL/SQL program to display customer names and total no. of vowels in that name from customer table.
- Customer [cnum, cname, city, rating]
- c Write a PL/SQL program to check whether given no. is prime or not.
- d Explain parameterized cursor.
- 6 a Explain block structure of PL/SQL program. 2
- b Explain iterative controls. 3