

BCA-09/DCA-103

December - Examination 2017

BCA Pt. II/DCA Examination**Database Management System****Paper - BCA-09/DCA-103****Time : 3 Hours]****[Max. Marks :- 100**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A**10 × 2 = 20**

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 word. Each question carries 2 marks.

- 1) (i) Define the aim of relational model.
- (ii) What do you understand by Database management system?
- (iii) Define the role of database administrator.
- (iv) What do you understand by data independence?
- (v) State the operations of relational algebra.
- (vi) What is database integrity?
- (vii) What do you understand by concurrency in DBMS?

- (viii) What is the shared locks?
- (ix) State the different data types in SQL.
- (x) What do you understand by data warehouse?

Section - B**4 × 10 = 40**

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) SQL is called as non-procedural language. Explain.
- 3) Explain different type of integrity constraints with example.
- 4) What is Normalization? Discuss its need.
- 5) Explain the use of join in RDBMS with the help of example.
- 6) Explain the growing phase of locking.
- 7) Explain the different set operations of SQL with the help of suitable example.
- 8) What is serializability and how it works in concurrency?
- 9) Explain the different types of failures of databases with the help of example.

Section - C**2 × 20 = 40**

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) What is 'Join'? Explain various types of join with suitable example.
- 11) Explain the following terms using an example:
- (i) entity-relationship model,
 - (ii) entity type,
 - (iii) weak entity,
 - (iv) attribute,
 - (v) key attribute,
 - (vi) derived attribute,
 - (vii) Multi-valued attribute.
- 12) Explain E-R model and relational model; and compare it.
- 13) What is concurrency control? How timestamp ordering ensure concurrency control?
