

BCA-09/DCA-103

June - Examination 2018

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 words. Each question carries 2 marks.

- 1) (i) Define Integrity rule.
- (ii) What are relation schema and relation in DBMS?
- (iii) Define cross product of tables in DBMS.
- (iv) Which operators are used as a comparison operator in SQL?
- (v) What is concurrency control?
- (vi) State the operations of relational Algebra.
- (vii) Explain weak entity set.

- (viii) What is Query evaluation engine?
- (ix) Define DBMS.
- (x) Define the aim of relational model.

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) Draw and explain the architecture of DBMS.
- 3) Differentiate between file system and database oriented system.
- 4) What is transaction? List the properties of transaction that a database system maintains.
- 5) Differentiate between super, candidate and primary key, foreign key.
- 6) What is the role of ER model in database design?
- 7) What do you mean by view in SQL? Write syntax to create view.
- 8) Explain the growing phase of locking.
- 9) What is normalization? How it is useful in good database design?

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) Construction an ER diagram for a university registrar office. The office maintains data about each class, including the instructor the enrolment and the time and place of class meetings. Clearly highlight the primary keys and mapping cardinalities.
- 11) What is Join? Explain various types of joins with suitable examples.
- 12) What do you mean by Query and sub-query? Discuss the various characteristics of SQL and explain five aggregate functions with suitable example.
- 13) What are stored procedure and triggers? How are they created? What are their advantages and disadvantages.
