

**MCA-07 (New)**

June - Examination 2016

**MCA 1st Year Examination****Fundamentals of Database Management System****Paper - MCA-07 (New)****Time : 3 Hours ]****[ Max. Marks :- 80**

**Note:** The question paper is divided into three sections A, B and C with marking scheme.

**Section - A****8 × 2 = 16**

(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) What do you mean by Data dictionary?
- (ii) Define foreign key.
- (iii) Write the syntax of UPDATE query.
- (iv) What is the mean of BCNF?
- (v) Write the syntax of ORDER By clause.
- (vi) In E-R diagram relations are represented by \_\_\_\_\_ .
- (vii) What is DML?
- (viii) What is Database Administrator?

**Section - B****4 × 8 = 32**

(Short Answer Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

- 2) Describe different Database schemes in the detail and also explain the difference between physical and logical Data Independence.
- 3) What do you mean by E-R diagram? Explain its components.
- 4) What is normalization? How is it useful in a good Database Design?
- 5) Explain the structure of DBMS. How it is different from RDBMS?
- 6) Differentiate between:
  - (i) Ternary relationship and Aggregation.
  - (ii) Entity and attribute
- 7) What is cardinality? Explain various types of mapping of cardinality.
- 8) What is hash file organization? What is hash index?
- 9) Discuss the various types of keys that are used in relational model.

**Section - C****2 × 16 = 32**

(Long Answer Questions)

**Note:** Answer **any two** questions. You have to delimit each answer maximum upto 500 words. Each question carries 16 marks.

- 10) What do you mean by records? Explain fixed length records and variable length records in detail.
  - 11) Discuss the difference between five join operation: Theta join, Equi join, Natural join, Outer join and Semi join.
  - 12) What is SQL? Write its characteristics and design basic structure of SQL.
  - 13) Explain network and object oriented model. What are the role of these models in database design?
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