

**BCA Third Semester Examination, Dec - 2019****FIRST PAPER****Data Base Management System**

Paper Code:42301

**Time Allowed: Three Hours****Maximum Marks: 70**

*No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.*

**(Attempt all six questions.)****Part I (Question No. 1& 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.****PART I**

1. Attempt any 10 questions out of the following. Each question carries 1 mark. **10x1=10**  
(Words limit up to 20 words each)
  - a. What is DBMS?
  - b. What is DDL?
  - c. What is DBA?
  - d. What is E – R Model?
  - e. What is Key?
  - f. What is Attribute?
  - g. What is Functional Dependency?
  - h. What is Transaction?
  - i. What are Views?
  - j. What are Sub – Queries?
  
2. Attempt all questions. Each question carries 5 marks. **4X5=20**  
(Words limit up to 50 words each)
  - a. What is the difference between Database System and File System?
  - b. What is the difference between Generalization and Specialization?
  - c. Explain various types of Functional Dependency.
  - d. Explain various types of Aggregate Functions.

**Part-II  
Unit- I**

3. What do you mean by Data Abstraction? Explain the difference between Physical Level, Conceptual Level and View Level of data abstraction. **10**

**OR**What is Database Model? Explain various types of data models in detail. **10****P.T.O.**

**Unit- II**

4. Explain various notations for E – R diagram.

**10**

**OR**

Write short note on :-

- a) Primary Key
- b) Alternate Key
- c) Secondary Key
- d) Aggregation
- e) Foreign Key

**10**

**Unit- III**

5. What is the importance of Normalization? Explain different normal forms up to 3 - NF.

**10**

**OR**

Write short note on:-

- a) Loss – Less decomposition and lossy decomposition
- b) ACID properties and transaction states.

**Unit- IV**

6. What are the advantages of SQL? Explain various data types available in SQL.

**10**

**OR**

Write short note on:-

- a) Various types of SQL commands
- b) Different types of Joins.

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