

BACHELOR OF COMPUTER APPLICATION**(BCA) (Pre-Revised)****Term-End Examination, 2019****CS-06 : DATABASE MANAGEMENT SYSTEMS****Time : Three Hours]****[Maximum Marks :75**

Note : Question No. 1 is compulsory. Attempt any three questions from the rest.

1. (a) Consider the following Relation Schema : [10]

SUPPLIER (S#, SNAME, STATUS, CITY)

PARTS (P#, PNAME, COLOR, WEIGHT, CITY)

SP (S#, P#, QUANTITY)

Attempt the following queries in SQL-

(i) Find name of supplier for city = 'Delhi'

(ii) Find suppliers whose name start with 'AB'

- (iii) Find the name of parts supplied by supplier named 'Mohan'.
 - (iv) Delete records in supplier table whose status is 40.
 - (v) Find the name of supplier who supply 'red' coloured part.
- (b) Define the following : [8]
- (i) Primary Key
 - (ii) Foreign Key
 - (iii) Super Key
 - (iv) Candidate Key
- (c) What are the responsibilities of a DBA ? [4]
- (d) Explain three level architecture of Database System. [4]
- (e) Explain Specialization or Generalization feature of ER diagram with an example. [4]
2. (a) What is Normalization ? Why is it needed ? Explain 3NF with an example. [7]

- (b) What are the drawbacks of File Processing System ? Explain. [4]
- (c) Explain Inverted File Organization with an example. [4]
3. (a) What are the advantages and disadvantages of Data Replication in Distributed Databases ? [5]
- (b) What is Data Independence ? Explain the difference between Physical and Logical data independence with an example. [6]
- (c) What are Integrity Constraints ? Explain any two types of integrity constraints which can be imposed on Relational Databases. [4]
4. (a) Differentiate between Relational Database Management System and Object Oriented Database Management System. [6]
- (b) What is Client-Server Computing ? What are its advantages ? [5]
- (c) What is the difference between Knowledge Based System and Database System ? [4]

5. (a) Explain briefly advantages and disadvantages of Distributed DBMS. [7]
- (b) What is Functional Dependency (FD) ? Find the valid FDs in the following relation : [8]

A	B	C
I	1	2
I	1	3
J	1	4
J	1	3
K	2	5
L	4	7

----- X -----