

Total No. of Questions—5]

[Total No. of Printed Pages—3

| | |
|---------------------|--|
| Seat No. | |
|---------------------|--|

[5363]-202

BCA/B.B.A. (CA) (Sem. II) EXAMINATION, 2018

202 : DATABASE MANAGEMENT SYSTEM

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) *All* questions are compulsory.

(ii) Draw neat diagrams wherever necessary.

1. Answer the following (any *four*) : [4×4=16]

- (a) State and explain the advantages of DBMS.
- (b) What are logical and physical files ?
- (c) Explain the views of Database Management System.
- (d) Explain the different DBMS and RDBMS used in the Industry.
- (e) Explain Primary key and Foreign key with example.

2. Answer the following (any *four*) : [4×4=16]

- (a) Explain the various DML commands with examples.
- (b) Explain the syntax of ALTER Table.
- (c) Explain union and difference in Relational algebra with suitable example.
- (d) What is Normalization ? Explain 1NF with suitable example.
- (e) Explain sparse index.

P.T.O.

3. Attempt the following : [16]

Consider the following entities and their relationship :

Game (gno, gname, no-of-player, coachname)

Player (pno, pname)

Game and player are related with many-to-many relationship

Create RDB in 3NF and solve the following queries using SQL
(any *five*) :

- (a) Delete a row from Game table for game "Cricket"
- (b) Display all players who play game "Table Tennis"
- (c) List all games played by Rajesh
- (d) Add column Age in the player table
- (e) Count total no. of players whose coach is "Kiran"
- (f) Count max no. of players in a game.

4. Write short notes on (any *four*) : [4×4=16]

- (a) Explain Insert Anomalies with example.
- (b) Aggregation and Generalization.
- (c) Order by and Group by.
- (d) Entity, attribute, superkey, tuple.
- (e) Sequential file organization.

5. Attempt the following : [2×8=16]

(a) Consider the below

INVOICE

Hilltop Animal Hospital Date : Jan. 14 2018

Invoice No. 97

Mr. Richard Cook

490 This Street

England

| PET | Procedure | Amount |
|--------|---------------------|----------------|
| Rover | Rabbies Vaccination | 400=00 |
| Morris | Rabbies Vaccination | 700=00 |
| | Total | <u>1100=00</u> |
| | Tax (10%) | 110=00 |
| | Amount Owing | <u>1210=00</u> |

Normalize the above case upto 3 NF.

(b) Consider the database and write relational algebraic expression
Patient Master (PatientNo. PatientName, Sex, Address City,
Allergy, Chief Complaints)

(i) Display all patients whose Allergy is "Nimesulide"

(ii) Display all male patients from city Calcutta.

(iii) Update all patients whose sex is "M" with "Male".

(iv) List all patients whose chief complaint is "fever".