Roll No. .....

67074

M.C.A. 2nd Semester (with new notes) M.M. 80 w.e.f. May, 2013

Examination–May, 2017

DATABASE MANAGEMENT SYSTEMS (NEW)

Paper-MCA-204

Time : 3 hours ***Max. Marks : 80***

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all. Question No. 1 is **compulsory** and attempt **four** more questions by selecting **one** question from each unit. All questions carry equal marks.

1. (a) What are single valued and multi-valued attributes ?

(b) What is database schema ?

7. (a) What the importance of normal n in database design ? Explai F, 2NF and 3NF with the help of iple.

(b) Why s l NULL in a relation be avoide ar as possible ? Discuss the proble spurious tuples and how you ma vent it ?

INIT-IV

8. (a) What neant by the concurrent executi database transactions in a multiu system ? Discuss why concur control is needed ?

(b) Explai desirable properties of transa .

9. (a) Discus problem of deadlock and starvat and the different approa to dealing with these proble

(b) How is ng implemented ? What is the r of the lock table in implem ion ? How are requests to lock an ock a data item handled ?

(c) What is ca .te key ?

(d) What is rel al algebra ?

(e) Which clau the SELECT command can be us › change the order of tuples in a .on ? Give an example.

(f) What is ins ı anomaly ?

(g) What is CC ſ statement in SQL ?

(h) What are tl › modes of locking ?

ſ-I

2. (a) Explain various functional component BMS with the help of a diagram.

(b) What do ı mean by data independen State its importance in database te ogy.

3. (a) Explain difl types of DBMS user's with their jc ıd responsibilities.

(b) Discuss tl arious E-R diagram notations a aw an E-R diagram for banking s . Make your own assumption ıt the system.

UNIT-II

4. (a) Discuss the characteristics of relations that make them different from ordinary tables and files.

(b) What is the use of constraints ? Explain primary key constraints, unique constraints and check constraints with the help of an example.

5. (a) What is the significance of creating a view ? Write commands to create, modify and removing a view.

(b) What is relational Calculus ? How formulae are formed for domain and tuple Calculus ? Explain by giving an example.

UNIT-III

6. (a) Why do you use SELECT command in SQL ? What is the difference between WHERE and HAVING clause ? Explain with the help of an example.

(b) What is the role of aggregate functions in SQL queries ? Explain all aggregate functions with the help of examples.