# C.U.SHAH UNIVERSITY
## Summer Examination-2016

**Subject Name : Database Management System**

**Subject Code :  4TE03DMS1**          **Branch: B.Tech (CE)**

**Semester : 3**          **Date :  03/05/2016**          **Time : 02:30 To 05:30**          **Marks : 70**

Instructions:
  (1)  Use of Programmable calculator & any other electronic instrument is prohibited.
  (2)  Instructions written on main answer book are strictly to be obeyed.
  (3)  Draw neat diagrams and figures (if necessary) at right places.
  (4)  Assume suitable data if needed.

| | | |
|---|---|---|
| **Q-1** | **Define Following Terms** | **(14)** |
| **a)** | Normalization | **(1)** |
| **b)** | Metadata | **(1)** |
| **c)** | Record | **(1)** |
| **d)** | Atomicity | **(1)** |
| **e)** | Redundancy | **(1)** |
| **f)** | Schema | **(1)** |
| **g)** | Naïve User | **(1)** |
| **h)** | Serializability | **(1)** |
| **i)** | Concurrency | **(1)** |
| **j)** | Data Integrity | **(1)** |
| **k)** | Foreign Key | **(1)** |
| **l)** | Consistency | **(1)** |
| **m)** | DBMS | **(1)** |
| **n)** | Composite Key | **(1)** |

**Attempt any four questions from Q-2 to Q-8**

| | | |
|---|---|---|
| **Q-2** | **Attempt all questions** | **(14)** |
| **a)** | Explain Advantages of DBMS over File Management System. | **(7)** |
| **b)** | Describe Role, Responsibility and Duties of DBA to handle DBMS. | **(7)** |
| **Q-3** | **Attempt all questions** | **(14)** |
| **a)** | Explain Different types of Database users. | **(7)** |
| **b)** | Explain Database System Architecture. | **(7)** |

| Q-4 | | **Attempt all questions** | **(14)** |
|---|---|---|---|
| | **a)** | Draw E-R Diagram for Hostel Management System. | **(8)** |
| | **b)** | Compare DBMS with RDBMS. | **(6)** |

| Q-5 | | **Attempt all questions** | **(14)** |
|---|---|---|---|
| | **a)** | What is Join in SQL? Explain Inner Join with example. | **(7)** |
| | **b)** | What is Relational Database? Explain Dr. E F Codd's 12 Rules. | **(7)** |

| Q-6 | | **Attempt all questions** | **(14)** |
|---|---|---|---|
| | **a)** | Explain ACID property of Transaction. | **(7)** |
| | **b)** | What is aggregate function in SQL?<br>Explain with example: (i) SUM() (ii) AVG() (iii) COUNT() | **(7)** |

| Q-7 | | **Attempt all questions** | **(14)** |
|---|---|---|---|
| | **a)** | Explain Trigger with example. | **(6)** |
| | **b)** | Explain 1NF, 2NF, 3NF and BCNF with Example. | **(8)** |

| Q-8 | | **Attempt all questions** | **(14)** |
|---|---|---|---|
| | **a)** | Explain Two-phase Commit Protocol with example. | **(7)** |
| | **b)** | Explain DDL, DML command with suitable syntax and examples. | **(7)** |