

Daffodil International University

Department of Computer Science and Engineering

Faculty of Science and Information Technology (FSIT)

Final Examination, Semester: Fall-2019

Course Code: CSE311 (Day) Course Title: Database Management Systems

Time: 120 minutes Answer all questions Total Marks: 40

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| **Q1:**Consider the following relational Schema and Write the following queries using SQL. | **14** |
| **Q2:**Consider the following data tables.    Movie (title, year, length, inColor, studioName, producer\_num)  StarsIn(movieTitle, movieYear, starName)  MovieStar(name, address, gender, birthdate)  MovieExec(name, address, cert\_num, netWorth)  Studio (name, address, presC\_num)  Write the following queries using **Relational Algebra**:   * 1. Find the address of MGM studios.   2. Find Sandra Bullock’s birthdate (Sandra Bullock’s is a movie star).   3. Find all the stars that appear either in a movie made in 1980 or a movie   With “Love” in the title.   * 1. Find all executives worth at least $10,000,000.   2. Find all the stars who either are male or live in Miami ( have Miami as a   part of their address). | **10** |
| **Q3:** Give an example to explain Commit, Rollback and Savepoint of transaction. | **6** |
| **Q4:** Define the phases of state diagram of transition with block diagram. | **4** |
| **Q5:** Consider the following relational schema and normalize it up to third normal form. Be certain to indicate necessary constraints.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Patient\_id | Patient\_name | GP\_no | GP\_name | Apt\_date | consultant name | consultant address | sample required | | 0101 | Rafiq | 101 | Mirpur | 3/9/20 | Farnes | Mirpur | blood | |  |  |  |  | 20/12/20 | Farnes | Mirpur | none | |  |  |  |  | 10/10/20 | Edwards | Shamoli | urine | | 0102 | Jamal | 102 | Shamoli | 3/9/20 | Farnes | Mirpur | none | |  |  |  |  | 3/9/20 | Russ | Jigatola | sputum | | 0103 | Helal | 103 | Adabor | 4/10/20 | Russ | Jigatola | blood | | 0104 | Abul | 104 | Motijeel | 5/6/20 | Russ | Jigatola | sputum | | 0105 | Mollah | 105 | Mirpur | 9/11/20 | Edwards | Shamoli | none | | **6** |
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