**Answer the following questions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q. No** | | **Questions** | **Unit** | **Marks** | **CO** | **Cognitive Level** |
| 1 | a) | Define DBMS. | 1 | 2 | I | Remember |
| b) | Define Foreign key. | 2 | 2 | IV | Remember |
| c) | Define Weak entity set. | 3 | 2 | II | Remember |
| **UNIT-1** | | | | | | |
| 2 | a) | Explain overall structure of Database Management Systems. | | 4 | I | Understand |
| b) | Describe the Functions of a DBA. | | 4 | I | Understand |
| **OR** | | | | | | |
| 3 | a) | Explain the advantages of using a DBMS over File Processing System. | | 4 | I | Understand |
| b) | Explain the applications of Database Systems explain. | | 4 | I | Understand |
| **UNIT-2** | | | | | | |
| 4 | a) | Explain in detail about nested Queries. | | 4 | IV | Understand |
| b) | Illustrate Comparison operator with example. | | 4 | IV | Understand |
| **OR** | | | | | | |
| 5 | a) | Explain Domain Relational Calculus. | | 4 | II | Understand |
| b) | Explain Tuple Relational Calculus. | | 4 | II | Understand |
| **UNIT-3** | | | | | | |
| 6 | Draw an E-R diagram for student information system and identify the derived and composite attributes, the strong and weak entity sets and relationships | | | 8 | II | Apply |
| **OR** | | | | | | |
| 7 | a) | Explain about attributes and entity sets. | | 4 | II | Understand |
| b) | Describe the notational conventions used in ER model. | | 4 | II | Understand |

**Prepared by**

Name of the Faculty: **Mr. M. Narasimhulu, Assistant Professor, CSE**

Signature of the Faculty:

**Answer the following questions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q. No** | | **Questions** | **Unit** | **Marks** | **CO** | **Cognitive Level** |
| 1 | a) | Classify Data Models. | 1 | 2 | I | Remember |
| b) | Classify Aggregate Functions in SQL. | 2 | 2 | IV | Remember |
| c) | Classify Attributes with examples. | 3 | 2 | II | Remember |
| **UNIT-1** | | | | | | |
| 2 | a) | What are Database languages and explain? | | 4 | I | Understand |
| b) | Describe Database users | | 4 | I | Understand |
| **OR** | | | | | | |
| 3 | a) | Explain the architecture of a Database with a neat Diagram. | | 4 | I | Understand |
| b) | Explain Data Abstraction. | | 4 | I | Understand |
| **UNIT-2** | | | | | | |
| 4 | a) | Explain various built-in aggregate functions in SQL with its forms. | | 4 | IV | Understand |
| b) | Discuss about data manipulation commands in SQL with syntax and examples. | | 4 | IV | Understand |
| **OR** | | | | | | |
| 5 | a) | Illustrate five fundamental operations of Relational algebra with an example for each. | | 4 | II | Understand |
| b) | Explain relational database entities with example. | | 4 | II | Understand |
| **UNIT-3** | | | | | | |
| 6 | Draw E-R diagram for university. A university registrar’s office maintains data about the following entities:  (a) Courses, including number, title, credits, syllabus and prerequisites.  (b) Course offerings, including course number, year, semester, section number, instructor (s), timings and classroom.  (c) Students, including student-id, name and program.  (d) Instructors, including identification number, name, department and title. | | | 8 | II | Apply |
| **OR** | | | | | | |
| 7 | a) | Explain various cardinalities that are supported by the crow’s foot notation. | | 4 | II | Understand |
| b) | Explain in detail about relationships and relationships sets. | | 4 | II | Understand |

**Prepared by**

Name of the Faculty: **Mr. M. Narasimhulu, Assistant Professor, CSE**

Signature of the Faculty: