Lesson Plan

Name of Faculty : Discipline : Semester : Subject : Ms. ABNAM Computer Engg

Ш Subject DBMS Lesson Plan Duration : 15 Weeks

| Week | Theory | | Practical | |
|-----------------|----------------|---|------------------|--|
| | Lecture Day | Topic (including assignment/test) | Practical Day | Topic |
| 1 st | 1 | Introduction to Database and its purpose, Introduction to Database system | 1 | Overview, Features and functionality, Application development in MS-Access |
| | 2 | Why Database, History of Database System, Characteristics of the database approach | | |
| | 3 | Advantages and disadvantages of database systems | | |
| 2nd | 4 | Introduction to Conventional File System, Concept of files ,record, data, information retrieval | 2 | Overview, Features and functionality, Application development in MS-Access |
| | 5 | Comparison between Conventional System and DataBase System | | |
| | 6 | Actors on the scene, Database Administrators, Database Designers, End Users, System Analysts and Application Programmers | | |
| 3 rd | 7 | Workers behind the scene (DBMS system designers and implementers, tool developers, operator and maintenance personnel) | 3 | Exercises on different forms of select statement, altering and droping of tables |
| | 8 | Data models: Physical Model, Object based Model, Record based Model Network Model, Heirachical Model) | | |
| 4 th | 10 | sub schemas instances, data base state. Case Study of models and schemas (examples student information System) | 4 | Exercises on different forms of altering and dropping of tables |
| | 11 | Three Level of Architecure | | |
| | 12 | Data base Administrator and Administration, Database Management System Advantage and Disadvantage, Classification of DBMS, DBMS Interfaces | | |
| 5 th | 13 | Concept of centralized and Client /Server Architecture for DBMS: Single Tier, Two Tier and Three Tier | 5 | Exercises on creation of tables |
| | 14 | Data Independence | | |
| | 15 | Database Languages and Interfaces | | |
| 6 th | 16 | Classification of Database Management Systems: Centralized, Distributed, | 6 | Exercises on creation of tables |
| | 17 | parallel and Object based | | |
| | 18 | Test | 1 | |

| 7 th | 19 | File based or primitive models | 7 | Viva-Voce |
|------------------|----|---|----|--|
| | 20 | traditional data models | | |
| | 21 | semantic data models. | | |
| 8 th | 22 | Entities and Attributes | 8 | Exercises on insertion of data into tables |
| | 23 | Entity types and Entity sets | | |
| | 24 | Key attribute and domain of attributes | | |
| 9 th | 25 | Relationship among entities | 9 | Exercises on insertion of data into tables |
| | 26 | Database design with E/R model | | |
| | 27 | Database design with E/R model | | |
| 10 th | 28 | ER Design Issues | 10 | Exercises on deletion of data using different conditions |
| | 29 | Mapping Constraints | | |
| | 30 | Domain, Attributes | | |
| 11 th | 31 | Tuples, Cardinality | 11 | Exercises on |
| | 32 | Primary, Secondary | | creation of tables using Primary Key |
| | 33 | Foreign key, | | |
| 12th | 34 | Alternative Keys | 12 | Exercises on Join of tables |
| | 35 | Relations | | |
| | 36 | Test | | |
| 13th | 37 | Introduction to SQL | 13 | Exercises on UPDATE statement |
| | 38 | Data definition language : Create, Alter, Drop commands | | |
| | 39 | Data Manipulation Language (DML) Select command with where clause using conditional expressions | | |
| 14th | 40 | Boolean operators, group by clause | 14 | Exercise on GROUP BY clause |
| | 41 | like operator | | |
| | 42 | Insert | | |
| 15th | 43 | Update and Delete commands | 15 | Viva-Voce |
| | 44 | Revision | | |
| | 45 | Test | | |