RKUNIVERSITY

Course Title	Database Management System using MS Access
Course Code	BCA211

Course Credit	Theory(Hrs) : 3
	Practical(Hrs) : 4
	Tutorial(Hrs) : 0
	Credits : 5

Course Objectives

The objectives of the course are:
- To understand the fundamental knowledge of database
- To study the concept of data processing and file organization
- To develop the skill and enhance the knowledge of automate operations in Microsoft Access
- To understand the core concepts of designing queries in Microsoft Access
- To design, construct and maintain a database and various database objects using procedural language constructs, forms reports and macros to solve problems

Detailed Syllabus

Sr. No.	Name of chapter & details	Hours Allotted
	Section – I	
1	**Overview of Data Processing** Introduction to Data, Information, Data Processing, Need of Data Processing, Types of Data Processing: Online, Batch, Real-Time Data Storage Hierarchy, Data Organization, File Management System: File Type, File Organizations	04
2	**Introduction to DBMS** Basic Concepts and Definitions: Field, Record, Database File,	04

	Database, DBMS, Drawbacks of Traditional File System, Advantages and Disadvantages of DBMS, Components of DBMS, Architecture of DBMS, E.F Codd Rules	
3	**Overview of Data Models** E-R, Relational, Hierarchical, Network, Object Oriented, Advantages and Disadvantages of Data Model	06
4	**Management of Database using MS-Access** Introduction to MS-Access, MS-Access Data Types, Object Naming Rules, Create New Database, Create and Modify Table Structure, Data Entry in Tables, Edit and Delete Tables, Import and Export Tables, Indexes, Creating Relationships between Tables, Database Operations	08
	Section – II	
5	**Tables** Create and Modify Tables through Wizard and Design View, Add Fields in Existing Tables, Datasheet View, Understanding Field Properties: Field Size, Input Mask, Format, Indexed, Required, Allow Zero Length, Validation Rule, Validation Text, Caption, Default Value, Working with Primary Key and Foreign Key	06
6	**Queries** Understanding and Creating Different Queries using Select, Actions Like: Append, Delete, Update, Make-table and Union, Using Wizard: Cross-tab Query, Find Duplicate Entry Parameter Query, Use of Multiple Selection Criteria in a Query, Use of Logical and Comparison Operators in a Query	06
7	**Forms** Creating Forms through Design View and Wizard, Understanding Forms and its Properties, Maintaining Data Using Form, Preview of Selected Form Records, Create Main Form or Sub Form, Designing a Custom Form Using Controls, Overview of ActiveX Controls	04
8	**Reports and Macro** **Reports:** Understanding Basics of Report, Creating a Report through Wizard and Design View, Sorting and Grouping on Report Field, Calculate Group Total and Overall Total in a Report, Modify Report Controls and Properties **Macro:** Understanding and Designing Macro, Utilizing Macro with Form and Reports, Conditional Macro	04

9	**Data Access Pages** Understanding and Designing of Data Access Pages, Static Page and Dynamic Page, Page Layout Attributes	02

Instructional Method and Pedagogy:

- Lectures will be conducted on the basis of Classroom Response Systems with the use of multimedia projector and black board.
- Assignments based on course contents will be given at the end of each unit/topic and will be evaluated at regular interval.
- Experiments will be based on the practical curriculum and will be evaluated at regular interval.

Course Learning Outcomes:

On the completion of the course, students will be able to:
- **Acquire** the knowledge of data processing and file organization
- **Understand** the database concepts, different database models, and database management system
- **Design** and **manipulate** a database using Microsoft Access
- **Perform** basic database related operations and queries
- **Develop** forms for data entry using Microsoft Access
- **Design** reports to represent data in meaningful information.
- **Apply** macros for automate tasks in forms, reports, and controls

Textbooks:

- Title: Access 2007 Bible , 1st Edition, Wiley India, New delhi
  Author(s): Michael R. Groh, Joseph C. Stockman, Gavin Powell, Cary N. Prague, Michael R. Irwin, Jennifer Reardon

Reference Books:

- Title: Introduction to Computer Data Processing and System Analysis, Sultan Chand and Sons Publications
  Author(s): V. K. Kapoor
- Title: Database System Concepts, 6th Edition, McGraw-Hill Publication
  Author(s): Abraham Silberschatz, Henry Korth, S Sudarshan
- Title: Microsoft Office Access 2007 Forms, Reports, Queries, Pearson Education
  Author(s): McFedries Paul
- Title: Beginning Access 2007 VBA, Wiley India New Delhi
  Author(s): Gosnell Denise

Additional Resources

- http://www.studytonight.com/dbms/
- http://studentstudyhub.com/database-management-system-dbms-full-hand-written-notes-download/
- http://www.tutorialspoint.com/dbms/
- http://www.emu.edu.tr/balkan/Access%202007%20tut_copy%281%29.pdf
- http://www.mu.ac.in/myweb_test/syllFybscit/DBMS.pdf