

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

FIRST YEAR B.C.A.

BCA 102 : Database Management System

Teaching Scheme (per week)	
Th. (hours)	Pr. (hours)
3	--

Examination Scheme					
INT		EXT		TOTAL	
Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
30	--	70	--	100	--

UNIT I

(17 Marks)

Database Concepts and Architecture:

Operational data, purpose of database system, structure of DBMS, three levels of the architecture, the external level, the conceptual level, the internal level, mappings, the database administrator, distributed processing. Data Models: hierarchical, network and relational, Operators, relations, domains and attributes, keys, extensions and intensions, traditional set operations, special relational operations.

UNIT II

(18 Marks)

Database Design:

The E/R model, E/R diagrams, database design with the E/R model, trivial and nontrivial dependencies, closure of a set of dependencies, closure of a set of attributes, irreducible sets of dependencies, non loss decomposition and functional dependencies, first, second and third normal forms, dependency preservation, Boyce/Codd normal form, multi-valued dependencies and fourth normal form, join dependencies and fifth normal form.

UNIT III

(17 Marks)

- Introduction for the MS-ACCESS Database.
- Step for to create database.
- Table design and different data type of the MS-ACCESS database.
(Text, Number, Auto number, Currency, Boolean, Date/Time, Memo)
- Different Element of the MS-ACCESS database.
(Table, Query, Forms, Reports, Macros, Modules)
- Different Naming Conventions.
(Tbl, qry, frm, rpt, mcd, bas)
- Different Field which is used in to database?
- Create a student database and show that database using -Lookup Wizard.
- Different field property into details.
- In the database stu_ID put as auto number.
- Primary key and Foreign key and in the student database stu_ID define as a primary key.
- Write a step for the insert record, delete record and update record into student database.
- Insert, update and delete record in database
- Datasheet view.
- Relationship
- Steps for create a relationship between two or more table.
- Sort the student table lookup fields and enter data in Datasheet view.

- Form elements in MS-ACCESS create a form for the enter data of student.
- Set the heading of the form and arranging fields.
- Step for the creating a form with the Sub form.
- Using the form add record, delete record, update record and search record .

UNIT IV

(18 Marks)

- Introduction of Query in the MS-ACCESS.
(Select Query, Cross tab Query, Make-table Query, Update Query, Append Query, Delete Query)
- Query for the select one record, all record, update record, delete record.
- Report.
- Type of wizard.
(Auto Report, A Report Wizard, A Label wizard, A Chart Wizard)
- Columnar Auto Report for the student name and address.
- Tabular Auto Report for student name and address.
- Header and Footer in the report.
- Adding a new filed into the report.
- Create a report using select query.
(Select only for t.y.b.c.a. student)
- Sorting and grouping record in the report (write a step)
- Page break into report.
(After three records)
- Draw the chart for student mark into report.
- Introduction for the Macro.
- Create a macro to maximize a form and attach it to the form's On Open event Property.
- Run macros that are part of a group.
- Introduction for the command button.
- Put the command button into student form for find record.
- Create a menu with command button.

Books:

1. Introduction to Database System C. J. Date (7th edition) Low Price Edition
2. Ms- Access
3. Database system concepts Henry F. Korth (3rd edition) TMH Publications

Question Paper Scheme:

University Examination Duration : 3 Hours.

- Q.1 - Unit-I (17 Marks)
A. Objective/ Short Questions.
B. Descriptive/ Long questions.
- Q.2 - Unit-II (18 Marks)
A. Objective/ Short Questions.
B. Descriptive/ Long questions.
- Q.3 - Unit-III (17 Marks)
A. Objective/ Short Questions.
B. Descriptive/ Long questions.
- Q.4 - Unit-IV (18 Marks)
A. Objective/ Short Questions.
B. Descriptive/ Long questions.