

S. Y. B. C. A.  
**BCA -205 Database Management Systems**

Teaching Scheme (per week)		Examination Scheme					
Th. (hours)	Pr. (hours)	Internal		External		Total	
		Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
3	-	30	-	70	-	100	-

**UNIT I (10 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.

**UNIT II (12 Marks)**

**Data Structure and Corresponding Operators:**

Data Models: hierarchical, network and relational. Operators, relations , domains and attributes, keys, extensions and intensions, traditional set operations, attribute – names for derived relations, special relational operations.

**UNIT III (24 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 IV (24 Marks)**

**FoxPro:**

FoxPro –Versions, features, requirement of hardware & software, working with FoxPro. Creating database file, listing contents of a database file, viewing and editing data, modifying structure and file utilities, sorting and indexing, reports and labels, memory variables, creating a programming file, running a program file, conditional statements and loops, displaying data with @ command, inputting data with @.....get @...edit, wizards.

**Books:**

1. Introduction to Database System C. J. Date (7th edition) Low Price Edition
2. SQL, PL/SQL Evan Bayross (2nd edition) BPB Publications
3. Database system concepts Henry F. Korth (3rd edition) TMH Publications
4. Mastering FoxPro BPB Publications

**Question Paper Scheme:**

**University Examination Duration : 3 Hours.**

Q.1 - Unit-I (10 Marks)

- A. Objective/ Short Questions.
- B. Descriptive/ Long questions.

Q.2 - Unit-II (12 Marks)

- A. Objective/ Short Questions.

B. Descriptive/ Long questions.

Q.3 - Unit-III (24 Marks)

A. Objective/ Short Questions.

B. Descriptive/ Long questions.

Q.4 - Unit-IV (24 Marks)

A. Objective/ Short Questions.

B. Descriptive/ Long questions.

C. Program in FoxPro.

Note: Options should be given in all questions.