

**M.Sc. (Bio-Informatics) First Semester
MBIN-8006: Introduction to Database System**

Time allowed: 3 Hours**Max. Marks: 60**

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting atleast one question from each Unit.

x-x-x

I. Attempt the following:-

- a) Differentiate between the terms schema and instance.
- b) What are multi-valued attributes? Briefly discuss with examples.
- c) How the primary key of a table can be deleted? Briefly discuss the statement.
- d) List two advantages of using views.
- e) What is a Data Model? Discuss in brief.
- f) What is the use of ORDER BY clause in SELECT statement?
- g) Briefly discuss the concept of a database cursor.
- h) What is ODBC? Discuss in brief.

(8x1½)

UNIT – I

- II.
 - a) What are the major components of a typical DBMS? How do they relate to each other? Discuss.
 - b) What is the purpose of ER Model? What different types of relationships can be expressed through ER diagrams? Discuss with suitable examples. (6,6)
- III.
 - a) Draw and explain ER diagrams for a Hospital Management System. Appropriately assume any required information yourself.
 - b) Differentiate between logical and physical data independence with the help of suitable examples. (7,5)

UNIT – II

- IV.
 - a) What is SQL? What is its use? Write a note on its history.
 - b) Discuss the utility and syntax of GRANT and REVOKE statements.
 - c) Discuss the use and syntax of ALTER TABLE statement.

(3x4)

(2)

- V. a) What do you understand by a nested query? Discuss with the help of an example.
b) What is meant by self join? Discuss with the help of an example.
c) Discuss the use and syntax of UPDATE statement. (3x4)

UNIT - III

- VI. a) What is the utility of functions? How functions can be created and used in PL/SQL? Discuss with the help of an example.
b) Briefly outline the steps involved in connecting to MS-Access using VB. (6,6)
- VII. Write notes on the following:-
a) Event Handling in VB
b) Database Triggers (6,6)

x-x-x