

Exam. Code : 404402

Subject Code : 5651

**Diploma in Computer Application (Full Time)**  
**2<sup>nd</sup> Semester**

**DATABASE MANAGEMENT SYSTEM**

**Paper—I**

Time Allowed—Three Hours] [Maximum Marks—50

**Note** :— Attempt *five* questions by selecting at least *one* question from each Section.

**SECTION—A**

1. Define DBMS. Discuss various components of DBMS. What are the advantages of using DBMS ? 10
2. Explain the relational model for data retrieval in DBMS. Explain its advantages and disadvantages as compared to hierarchical approach. 10

**SECTION—B**

3. (a) What is an expert system ? What are its advantages ? Discuss its main features.
- (b) What are the methods used for database security and protection ? 5,5
4. (a) Why database integrity and concurrency is important ?
- (b) What is SQL ? Discuss DDL, DCL and DML commands (three each) of SQL \* PLUS. 5,5

**SECTION—C**

5. (a) Explain object oriented features of Oracle 10g.  
(b) Explain the following w.r.t. SQL \* PLUS : Join methods, Union, Minus. 5,5
6. (a) What are the views in database ? What is their role in DBMS ?  
(b) Explain briefly the following :  
(i) Tree Walking and Sub Query  
(ii) Built-in functions of SQL \* PLUS in Oracle 10 g. 10 g. 5,5

**SECTION—D**

7. (a) What is the relationship between SQL and PL/SQL ? What are the advantages of using PL/SQL ? How variable declaration takes place in it ?  
(b) How cursors are used in PL/SQL ? 6,4
8. (a) Define procedure and functions. How these are created and executed ? What are their advantages ?  
(b) What is a trigger ? Explain various types of triggers. 6,4