

Exam. Code : 105704

Subject Code : 1441

B.Sc. (Information Technology) 4th Semester

DATABASE MANAGEMENT SYSTEM

Paper—I

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt any **five** questions. All questions carry equal marks. The students can use only non-programmable and non-storage type calculator.

1. Define Database Management System. What are the advantages of DBMS over traditional file processing system ? Explain. 15
2. Tabulate the differences between network and hierarchical model. 15
3. Discuss the following in brief :—
 - (a) Candidate key, super key and foreign key 7.5
 - (b) DBA and its responsibilities. 7.5
4. What are the problems arising out of concurrent data access ? How concurrency is managed ? 15
5. What do you mean by database security ? How database security is enforced in a database system ? Discuss in detail. 15

6. What is a sub query ? What are different types of sub queries ? What is co-related sub query ? Give examples.

15

7. What is an index ? What are various types of indexes ? How do you create an index ? Explain with the help of an example.

15

8. What do you mean by package ? What are the advantages of packages ? What are components of package ? Explain the importance of each.

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