

7. What do you mean by package? What are the advantages of packages? What are components of package? Explain the importance of each.
8. What does trigger mean? What are its uses and explain its working. Make a comparison of before and after trigger. How a trigger can be deleted?

**Exam. Code : 105704**  
**Subject Code : 1437**

**B.Sc. (Information Technology) 4<sup>th</sup> Semester**  
**DATABASE MANAGEMENT SYSTEM**

**Paper-I**

Time Allowed—2 Hours] [Maximum Marks—75

**Note** :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. Discuss the three level architecture of database management system. Explain the various type of data independence. How mapping is performed between different levels of database architecture ? Explain.
2. Discuss in detail the Entity Relationship model with the help of suitable examples.
3. Define normalization. How 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> normal forms are applied on databases? Explain.
4. What are the problems arising out of concurrent data access? How concurrency is managed?
5. Define recovery. What is the need of performing recovery? Discuss the various methods of performing recovery.
6. What is a sub query? What are different types of sub queries? What is correlated sub query? Give examples.