

Exam. Code : 206601

Subject Code : 3637

**M.Sc. Bio-Informatics 1<sup>st</sup> Semester**  
**BI-512 DATABASE MANAGEMENT AND**  
**DATA MINING**

Time Allowed—Three Hours] [Maximum Marks—75

**Note :—**Attempt **FIVE** questions, selecting at least **ONE** question from each Section. The **fifth** question may be attempted from any section. All questions carry equal marks.

**SECTION—A**

1. (A) Discuss the advantages of using Database Approach. 8
- (B) Discuss the responsibilities of Data Base Administrator in detail. 7
2. (A) Discuss the three Schema Architecture. 8
- (B) Differentiate between logical data independence and physical data independence. 7

**SECTION—B**

3. Discuss Normalization and its forms in detail. 15
4. (A) What is a relationship type ? Explain the differences among a relationship instance, a relationship type. 8
- (B) Write the symbols and notation used in ER Diagram. 7

**SECTION—C**

5. (A) Write a short note on following with respect to Relational Model :
- (i) Domain
  - (ii) Attribute
  - (iii) Tuple
  - (iv) Relational Schema. 8
- (B) Discuss the entity integrity and referential integrity constraints with suitable examples. 7
6. (A) Write a short note on :
- (i) Triggers
  - (ii) Cursors. 7
- (B) Discuss the following statements with suitable SQL examples :
- (i) Select
  - (ii) Update
  - (iii) Insert
  - (iv) Delete. 8

**SECTION—D**

7. (A) Discuss the role of Data Mining on Biological Data. 7
- (B) What do you understand by Pattern Mining ? 8
8. (A) Discuss Data Warehouse and its role in Data Mining. 7
- (B) What do you understand by Association Analysis ? 8