

**DATA BASE MANAGEMENT SYSTEM – 237**

(SEMESTER-3rd)

**NOTE:** The candidates are required to attempt two questions each from Sections A and B carrying 4 marks each and entire Section C consisting of 7 short answer type questions carrying 2 marks each.

**Section – A**

1. Explain the database architecture in detail.
2. Explain following
  - (a). data independence
  - (b). schema and subschema
3. What is a data model ? Explain relational model with example
4. Explain following relational algebra operations
  - (a). selection
  - (b). Projection
  - (c). Join
  - (d). Division

**Section – B**

5. What do you mean by normalization ? Explain its types
6. Explain following
  - (a). Problem arising out of bad database design
  - (b). database security
7. What are the steps to create report in MS Access?
8. What do you mean by Concurrency Control? Explain time stamp method to handle concurrency?

**Section – C**

9.
  - (a). Explain database instance
  - (b). Explain database degree and cardinality
  - (c). Difference between logical and physical data independence
  - (d). Difference between super key and candidate key
  - (e). What is normalization
  - (f). Explain multi valued dependency

(g). Whatdo you mean by database recovery.