



13MY44 – IV (35)

B.Sc. IV Semester Degree Examination, May 2013  
COMPUTER SCIENCE  
CS 401 : Database Management Systems

Time : 3 Hours

Max. Marks : 80

**Instruction : All Parts are compulsory.**

PART – A

- I. Answer **any ten** of the following : (10×2=20)
- 1) What is DBMS ?
  - 2) Mention the advantages of using a DBMS.
  - 3) Mention two types of data independence.
  - 4) Define entity type with an example.
  - 5) What are weak and strong entity types ?
  - 6) What is relational schema ?
  - 7) What is the JOIN operation ?
  - 8) What is SQL ?
  - 9) Mention the syntax of SELECT ... FROM ... WHERE ... structure.
  - 10) Mention the different normal forms.
  - 11) Mention the grouping Query which includes built-in functions.
  - 12) Define functional dependency.

PART – B

- II. Answer **any five** of the following: (5×6=30)
- 1) Explain the advantages of using DBMS.
  - 2) Explain data models, schemas and instances.
  - 3) Write a note on DBMS languages.
  - 4) Explain entity type, entity set and attributes.
  - 5) Explain enhanced ER modelling.
  - 6) Explain the INSERT operation.
  - 7) Explain the JOIN Operation.
  - 8) Explain classification of DBMS.

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PART – C

(3×10=30)

III. Answer **any three** of the following :

- 1) Explain the SELECT command with different options.
- 2) Explain the characteristics of database approach.
- 3) Explain 1NF, 2NF and 3 NF.
- 4) Explain INSERT, DELETE and UPDATE Queries.
- 5) Write a note on :
  - a) Transaction processing.
  - b) Concurrency control.
  - c) Database security.