

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (2011 & Onwards) (Sem.-4)
DATABASE MANAGEMENT SYSTEMS

Subject Code : BSBC-404

Paper ID : [B0243]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **SIX** questions carrying **TEN** marks each and a student has to attempt any **FOUR** questions.

SECTION-A

1. Write briefly :

- a) Define the term data independence.
- b) List the functions of database administrator.
- c) What is meant by functional dependency?
- d) Discuss the concept of joins.
- e) How union operator is implemented?
- f) Differentiate distributed databases from centralized database.
- g) What is the benefit of disaster management?
- h) How primary keys are useful?
- i) Write short note on integrity.
- j) Write short note on database protection.

SECTION-B

2. Differentiate the features of File Processing System and Database Systems.
3. What is meant by Three level Architecture of Database System? Explain the role of conceptual level in detail.
4. Discuss the concept of entity relationship model. How it helps in designing relational databases?
5. Compare the features of Network, Hierarchical and Relational model with the help of examples.
6. Differentiate between the following :
 - a) Relational Algebra and calculus
 - b) Second and Third Normal Form
7. What is meant by selection and projection Operator? Discuss their use on SQL based queries.