

(i) Printed Pages: 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

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Exam. Code : 

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**B.A./B.Sc. (General) 4<sup>th</sup> Semester  
(2054)**

**COMPUTER SCIENCE**

**Paper : CS07–Data Base Concepts**

**Time Allowed : Three Hours]**

**[Maximum Marks : 30**

**Note :—Attempt ONE question each from Sections A to D.  
Q. No. 9 (Section E) is compulsory. All questions carry  
equal marks.**

**SECTION—A**

1. What do you mean by DBMS ? Explain the advantages and disadvantages of DBMS. 6
2. What do you mean by data independence ? Explain the difference between physical data independence and logical data independence. 6

**SECTION—B**

3. What is integrity constraint ? Explain various types of integrity constraints. 6
4. What do you mean by ER Model ? How can you create an ER Model ? Explain with examples. 6

### SECTION—C

5. What do you mean by relational algebra ? Explain various types of relational algebra operators with suitable examples. 6
6. What do you understand by relational calculus ? Describe the difference between tuple oriented and domain oriented relational calculus. 6

### SECTION—D

7. What is distributed database ? How can you create a distributed database ? 6
8. What do you mean by concurrency ? Discuss various techniques to handle concurrency. 6

### SECTION—E

#### (Compulsory Question)

9. Write short notes on the following :—

- (a) Primary Key
- (b) Data Integration
- (c) Query
- (d) Recovery
- (e) BCNF
- (f) Projection.

6×1=6