Bachelor level/ BIT/ 1st Semester	Full Marks: 60
Time: 3 hours	Pass Marks: 30

Subject: Database Management System (BIT416)

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Very short answer questions (Attempt *All*) [8x2 = 16]
1. Define Database recovery?
2. What is attributes?
3. Write a SQL syntax of table creation with primary key.
4. Define relation algebra.
5. Explain principle of Relational data base design.
6. Define system recovery.
7. Differentiate between Database and Database Management System?
8. What is RDBMS?

Group B

Short answer questions (Attempt *Any Five*) [5x4 = 20]
9. What is DBMS? Explain the application of DBMS.
10. Explain the relational model with suitable example.
11. What is data Encryption? Explain the data anomalies with its types.
12. Why database security is required? Explain the main aspect of database security.
13. Write differences between DML and DDL.
14. Define database administrate with its role and reasonability.

Group C

Long answer question (Attempt *Any Three*) [3x8 = 20]
15. Why Normalization is need in database? Explain 1st, 2nd, and 3rd Normalization with its examples.
16. What is SQL? Consider the following relational database of a college.
    Student (RollNumber, StudentName, Address)
    Teacher (TeacherId, TeacherName, TeachingSubject)
    College (RollNumber, TeacherId)
    a) Find the name of students who live in Surkhet.
    b) Find the name of teacher who teaches DBMS and Computer network.
    c) Find the name of teacher who teaches computer organization to john smith student.
17. What is ER model? Draw ER- Diagram of Bus Reservation System and explain.
18. Explain database backup and recovery strategy and elaborate some strategies of database backup.

The End