## Mid-West University

# **Examinations Management Office**

Final Examinations -2082

Bachelor level/BIT/I Semester

Time: 3 hrs.

Subject: Database Management System (BIT416)

Full Marks: 60 Pass Marks: 30

Candidates are required to give their answers in their own words as far as practicable. Figures in the margins indicate marks.

### Group A

### Very short questions (Attempt all)

 $[8 \times 2 = 16]$ 

- 1. Write any two examples of database?
- 2. Define key attributes?
- 3. Write a SQL syntax of table creation with primary key.
- 4. What is data encryption?
- 5. Explain cartesian product.
- 6. Define system recovery.
- 7. Write the difference between data and information?
- **8.** What is RDBMS?

### Group B

# Short answer questions (Attempt any five)

 $[5 \times 4 = 20]$ 

- 9. What is database security? Explain any two types of elements of database security.
- 10. Explain the relational model with suitable example.
- 11. What is data redundance? Explain the data anomalies with its types.
- 12. Define database backup strategies and elaborate on any two types of backup strategies.
- 13. Illustrate the need of database security? Explain the main aspects of database security.
- 14. Define database administration. With its some common types.

#### Group C

### Long answer questions (Attempt any three)

 $[3 \times 8 = 24]$ 

- 15. Why Normalization is need in database? Explain 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Normalization with its examples.
- 16. a) Discuss the functional dependency with its property.
  - b) Why SQL is required? Explain the Data manipulation language with example.
- 17. What is ER model? Drow ER- Diagram of Bus Reservation System and explain.
- 18. What is a Database Management System (DBMS)? Explain the advantages of a DBMS over a flat-file system.

#### The End