BACHELOR IN INFORMATION TECHNOLOGY (BIT)

Term-End Examination

December, 2011

CSI-14 : DATA ANALYSIS AND DATABASE DESIGN

Time : 3 hours

Maximum Marks: 75

CSI-14

Note: There are two sections in this paper. Section - A is compulsory. Answer any three questions from section - B.

SECTION - A

Answer all the questions in this section.

5x2=10

- 1. State True / False for the following statements :
 - (a) If there exists a linear order among data items and transactions request locks in that order, then there cannot be any Deadlock.
 - (b) DROP Command is used to remove table (s) from the database.
 - (c) ROLLBACK Command is used to make corrections to a table.
 - (d) The overall logical structure of a database can be expressed graphically by Data Flow Diagram.
 - (e) In a relational data model, the columns of a table are called Entities.

CSI-14

P.T.O.

- Give an example of a relational scheme that is in 10 3NF but not in BCNF. Justify your answer.
- Define Referential Integrity. Give two examples 10 of a referential integrity constraint that can be applied on any database.

CSI-14

SECTION - B

Answer *any three* questions from this section.

- Explain the following Codd's Commandments, 15 with the help of an example for each :
 - (a) The logical data independence rule
 - (b) Rule of entity integrity
 - (c) Comprehensive sublanguage rule
- 5. What is Normalization ? What are the advantages **15** of normalizing database ?
- Draw E-R diagram for a University Information 15 System. Make necessary assumptions.
- 7. Define the terms "Specialization" and 15 "Generalization". What are the differences between them ?

CSI-14

3