

**BBM / Sixth Semester / COM 312: Database Management**

*Candidates are required to answer all the questions in their own words as far as practicable.*

**Group “A”**

**1. Brief Answer Questions:** **[5 × 1 = 5]**

- i. Why is relational database?
- ii. What do you mean by attributes?
- iii. List three domain types found in SQL.
- iv. What do you mean by closure of attribute?
- v. What is loss less decomposition?

**Group “B”**

**Short Answer Questions:** **[5 × 3 = 15]**

2. Normalize given relation to third normal form: R (A, B, C, D, E);  
Primary key (A, B)  
FDs given,  $C \rightarrow D$  and  $C \rightarrow E$
3. What is set membership? How is set membership found using SQL statement?
4. Write an example for serializable transactions.
5. How CHECK clause can be used to create domain constraint while creating table using SQL? Explain.
6. Consider a relation R with the schema R (A, B, C, D, E, F) with a set of functional dependencies F as follows;

$\{ \underline{AB}, C, BC, AD, D, E, CF, B \}$

Find the super key for this relation.

**Group “C”**

**Analytical Questions:** **[2 × 10 = 20]**

7. Why is operational data need cleaning before performing actual data analysis? Explain the data cleaning steps showing the relation between data integrity and data quality.
8. What do you mean by data recovery? Discuss the situations where data need to be recovered. Explain anyone of the database recovery method.

**(Note:** *The students should not limit themselves to the chapters mentioned in this Model Questions as questions can be asked from any chapter (within the syllabus) in the examination.*)



## **Project Report Contents**

### **Introduction**

- What is your topic about?
- For what purpose it can be used?
- Organization of your report (section 2 covers, section 3 covers etc.)

### **Background**

- Which database management system used?
- Which books, papers are considered as references?

### **Project**

- Your method to develop the database system?
- What you did? (what are the requirements to be addressed?)
- Design
  - E-R diagram: What are the entities, attributes and relationships considered and why?
  - SQL: DDL statements, DML statements

### **Summary**

- Write in short what your project is about, its uses, for whom it is useful

Report must be written in understandable English. There is no restriction on the number of pages of the report, but students are expected to write report of 5-10 pages without copying from any other sources. If duplication is found in the report, the report will be scrapped.

If any idea, definitions, words are taken from other articles, books reference of the author of the article, book must have specified with date of article written in the paragraph. E.g.

Mr. X (1999) suggests that change is inevitable and continuous process for the software system.

#### **References**

X, (1999), "Software Evolution", 3<sup>rd</sup> edition, Software Engineering

*\*\*\*\*\*This is just an example; instructors can follow any referencing style of their choice and familiarity.*

### **Report format**

- Fonts and size of font:
  - Calibri
  - Main Heading: 14pt
  - Sub Headings: 12pt
  - Body text: 11pt
- Margins: 1.5 inch (top, right, bottom, left)
- Must be written in only one side of the page
- Must have cover page with suitable title of project, name of students carrying the project in alphabetical order, date of report submission, Name of college
- Table of contents
- References if any.