

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

4

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013

GEO INFORMATICS ENGINEERING BRANCH

THIRD SEMESTER

GI 9204 DATABASE SYSTEMS

(REGULATIONS: 2008)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

Draw neat sketches wherever necessary

PART-A (10 x 2 = 20 Marks)

1. How the information is more useful than data? Give Example
2. List the drawbacks of the file system.
3. List the fundamental operations of the relational algebra.
4. What is the importance of a primary key in a table
5. With example give the basic structure of a SQL query.
6. What is a view in SQL? Give its use with an example.
7. What is in place updating with respect to database recovery?
8. List the reasons for variable length records.
9. How events are used in VB? Give example.
10. Give an example for XML that describes a table.

Part – B (5 x 16 = 80 marks)

11. (i). Discuss different types of database failures and its recovery methods 10
(ii). What is a normalization? Explain 2nd Normal Form with example 6
 12. a) (i). Discuss the various hardware and software requirements for DBMS. 10
(ii). Explain about the roles of the administrators and designers of DBMS 6
- OR**
- b) (i). Classify the DBMS based on various factors and functionalities. 10
(ii). How the spatial details are stored in GIS database? 6
 13. a) (i) Explain how the Codd's rules will help to design RDBMS 12
(ii) Discuss about the set operations in SQL 4

OR

- b) (i) Notown Records has decided to store information about musicians who perform on its albums(as well as other company data) in a database. 16
- a. Each musician who records at Notown has a SSN, a name, an address and a phone number. Poorly paid musicians often share the same address. No address has more than one phone.
 - b. Each instrument that is used in songs recorded at Notown has a name (eg.Guitar, flute, etc..) and musical key (eg.C,B-flat,E-flat).
 - c. Each album that is recorded on the Notown label has a title, a copy right, a format (eg, CD or DVD), and an album identifier
 - d. Each song recorded at Notown has a title and an author.
 - e. Each musician may play several instruments and a given instrument may be played by several musicians.
 - f. Each album has a number of songs on it, but no song may appear on more than one album.
 - g. Each song is performed by one or more musicians and a musician may perform a number of songs.
 - h. Each album has exactly one musician who acts as its producer. A musician may produce several albums.

Design a conceptual schema for Notown and draw an ER diagram for the schema. Indicate all key and cardinality constraints and any assumption that you make. Identify any constraints that you are unable to capture in ER diagram and briefly explain why you could not express them

14. a) (i) Explain Information system life cycle 10
(ii) Discuss about triggers in database with examples. 6

OR

- b) (i) Discuss about the factors related to a database design process 10
(ii) Explain Functional Dependency with example 6
15. a) (i) Explain different ADO .net data providers 8
(ii) Explain Dot Net Frame work 8

OR

- b) (i) Discuss in detail about ADO.Net object model 10
(ii) Explain Ado.Net Dataset component 6