



**B.E./ B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2011**

**GEOINFORMATICS ENGINEERING BRANCH**

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**THIRD SEMESTER - (REGULATIONS: 2004)**

**GI 274 - INFORMATICS - I**

Time: 3 hrs

Max. Marks: 100

Draw neat sketches wherever necessary  
Answer ALL Questions

**Part – A ( 10 x 2 = 20 mark)**

1. List uses of database management system (DBMS)
2. Differentiate data and information
3. List databases based on server configurations.
4. How do we manage the variable length records?
5. What is the use of primary key and foreign key? Give examples.
6. Define functional dependency.
7. What is multi valued attribute and composite attribute? Give examples
8. What is the use of sequence in Oracle?
9. What is the use of ODBC?
10. List two properties and two events of VB command button

**Part – B ( 5 x 16 = 80 mark)**

11. Classify the databases based on model, tools, usage, and server configuration with necessary examples
12. Explain about various normalization forms with its needs.

OR

Compare the hierarchical, network and Relational Data models with necessary examples

13. a. Explain different functionalities of relational algebra with the help of a example schema

OR

b. Notown Records has decided to store information about musicians who perform on its albums(as well as other company data) in a database.

- 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. What are the database security issues? Discuss necessary solutions for the problems.

OR

- b. (i) Explain the spatial database (4)
- (ii) Discuss about the information system life cycle (6)
- (iii) ARIES recovery algorithm (6)

15. a. (i) Explain the procedure to create tables, keys, index, views and sequences in Oracle using SQL (8)
- (ii) How user accounts, roles and privileges are handled in oracle? Give examples (8)

OR

- b. (i). Explain with example how to assign, remove and view the privileges of the oracle table, views etc (8)
- (ii). Write a VB code to create a MS access database with one table having two fields. Assume necessary suitable data. (8)