

## SB-1425

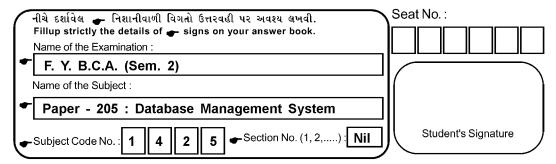
## First Year B. C. A. (Sem. II) Examination March/April - 2011

Paper - 205 : Database Management System

Time: 3 Hours [Total Marks: 70

## **Instructions:**

**(1)** 



- (2) Figure on the right indicate marks.
- (3) Take assumption whenever necessary.
- 1 Answer Following: (any seven)

14

- (1) Differentiate between logical and physical independence ?
- (2) What is usage of foreign key? Explain with example.
- (3) What do you mean by total participation in a relationship?
- (4) What is difference between IN and = operator.
- (5) List the requirements of DBMS.
- (6) List out any two DDL statements and any two TCL statements.
- (7) What is data manager? List responsibilities of database manager.
- (8) Differentiate between trivial and non-trivial dependency.
- 2 Answer the following: (any three)

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- (a) Explain Referential integrity constraints. Explain unique key constraints. Is Unique + NotNull is same as primary key or not. Justify.
- (b) Draw an E-R diagram on Departmental Store Management System.
- (c) Discuss the concept of Decomposition. Explain the characteristics of decomposition.

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on Third normal form. 3 Answer the following: (any two) 14 Consider the following relation: Teachers(course, professor, room, roomCap, enroll limit) FD={course->room, professor, roomCap, enroll\_limit, Room->roomCap, Room->enroll limit} Normalize it up to 3<sup>rd</sup> normal form. Explain the components of DBMS. (b) Write a note on anomalies in database during (c) insertion, deletion, updation. 4 Answer the following : (any two) 14 Differentiate between the various types of keys with example. (b) Explain data independence. (c) Explain the concept of generalization, specialization and aggregation. Explain it with example. RoomMast(RoomNo, RoomType, Rate) 5 5 Customer(CustName, City, RoomNo, AllocateDate, StayDays) RoomType: Super, Normal, Double Rate is daily room rate. Display the name of all customers who are living in RoomType "Super" for more than 2 days per visit. (2) Display the RoomType which is used maximum (3) Display the name of all customers who visited Hotel between 20-Jan-2009 to 25-Jan-2009. Delete all records before 2-Jan-2009. (4) Create Foreign key RoomNo in customer table. (5)Display total number of customers of "Surat" city. Using the tables described below: 5 (1) ItemMaster(itemcode, itemdesc, rate) (2) Cust(custno, cname) Ord(ordno, orddate, custno) (3)

What is the purpose of Normalization? Write a note

(d)

Describe FDs. Also explain in which NF the tables are at

OrdItem(orderno, itemcode, qtyOrd)

present?