

JA-3720

First Year B. C. A. (Sem. - II) Examination

March/April - 2013

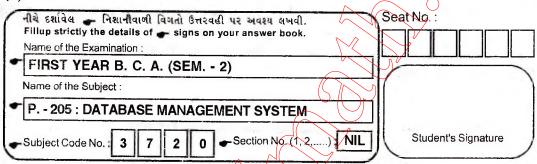
Paper - 205: Database Management System

Time: 3 Hours]

[Total Marks: 70

Instructions:

(1)



- (2) Figures on the right indicate marks.
- (3) Take assumption whenever necessary.
- 1 Answer the following (any seven)

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- (i) What is multi-valued dependency?
- (ii) In which condition you need to de-normalize the database?
- (iii) What is the difference between physical and logical data independence?
- (iv) What do you mean by total participation in a relationship?
- (v) List out any two DDL statements and any two TCL statements.
- (vi) What is data manager? List responsibilities of database manager.
- (vii) What is tuple?
- (viii) What do you understand by data type memo?

2 Answer following: (any three)

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- (i) What is functional dependency? Explain types of functional dependency with an example.
- (ii) What is normalization explain BCNF and compare how it is better than Third Normal Form?

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[Contd...

(iii) What is purpose of mapping cardinality? Explain it with example. (iv) Explain the components of DBMS. 3 Answer following: (any two) 14 Explain different level of data abstraction in detail. (i) (ii) Explain concept of generalization, specialization and aggregation. Explain it with example. Explain entity set and types of attribute in detail. (iii) How to set relationship between tables in access? (a) What is cascade update and cascade delete? Construct E-R diagram for online Ticket Booking (b) System. OR. Construct E-R diagram for online Banking system. (b) 6 Consider the following relations in database and solve 10 5 the gueries: Fees (year, total_fee_amount) Student (stud_no, name, address, year) Student_fees (stud_no, paid_amt, paid_date) Note: year contain F.Y, S.Y., T.Y. Create tables and give proper constraints (i) (ii) Give information about the student who does not have paid fee till today. Give the total fees amount received from T.Y. students (iii) (iv) Give the name of paid fees in last 7 days. Give the total pending fees amount. (v)