

## AC-3720

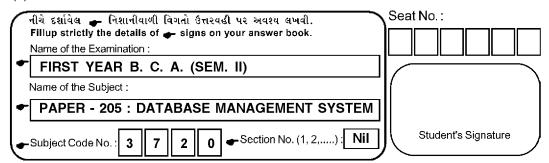
## First Year B. C. A. (Sem. II) Examination March/April – 2015

Paper - 205 : Database Management System

Time: 3 Hours [Total Marks: 70]

## **Instructions:**

**(1)** 



- (2) Figures on the right indicate marks.
- (3) Make assumptions whenever necessary.
- 1 Answer the following: (any seven)

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- (i) Explain prime and non-prime attributes.
- (ii) What do you mean by Domain Integrity?
- (iii) List various DDL, DML commands.
- (iv) Define Database Schema. What are the various types of schemas?
- (v) How to create relationship among tables?
- (vi) Give the difference between DROP and TRUNCATE command.
- (vii) Define Functional Dependency. Which functional dependency is achieved in 2NF?
- (viii) Explain Disjoint and Overlapping participation constraints.

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Ans	wer the following: (any three)	18
(i)	Explain concept of Generalization, Specialization and	
	Aggregation. Explain all through proper example.	
(ii)	What is Functional Dependency? Explain various types	
	of functional dependency.	
(iii)	Define Relationship and Relationship sets. Explain	
	mapping cardinalities with example.	
(iv)	Explain various types of Armstrong's axioms.	
Ans	wer the following: (any two)	12
(i)	What is decomposition? Explain with an example,	
	decomposition which is lossless and dependency	
	preserving both.	
(ii)	Explain giving an example how BCNF is better than	

4 Answer the following: (any three)

(iii) Write a note on Relational Model.

3NF.

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- (i) Construct an E-R Diagram of a Banking System
- (ii) Explain different database abstraction levels.
- (iii) Explain Super Key, Candidate Key, Primary Key, and Composite Key.
- (iv) Who is DBA? Explain the various functions of DBA.

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- 5 (a) Write Queries for creating following tables with appropriate constraints:

  Customer\_Master (Cust\_No, Cust\_Name, Address, City)

  Branch\_Master (Branch\_Id, Branch\_Name, City)

  Loan\_Master (Loan\_Id, Loan\_Type)

  Cust\_Branch\_Loan (Cust\_No, Loan\_Id, Branch\_Id, Loan\_Amount)
  - (b) Solve the following Queries:

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- (i) Display Customer who borrowed loan from 'Station' branch of 'Pune' city.
- (ii Display Customers who belong to Mumbai and borrowed 'Car Loan'.
- (iii) Display Customer who borrowed loan of maximum amount from 'City Square' branch of 'Baroda' City.
- (iv) Display Customer who has not borrowed any loan.
- (v) Display citywise, branchwise total loans.

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