

## **UA-3720**

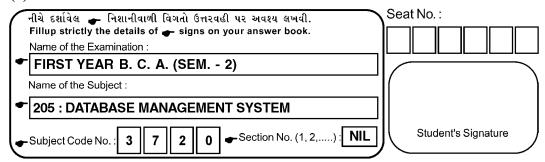
## First Year B. C. A. (Sem. - II) Examination March/April - 2012

Paper - 205 : Database Management System

Time: 3 Hours] [Total Marks: 70

## **Instructions:**

(1)



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

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- (1) What is a NULL value?
- (2) Name any four Database Management System?
- (3) What are disjoint and overlapping design constraints?
- (4) What is candidate key?
- (5) List the functions of file manager.
- (6) What is Query?
- (7) How redundancy can be reduced?
- (8) What is system R?
- 2 Answer in detail : (any three)

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- (1) Explain distinction among primary key, candidate key, super key, unique key and foreign key by giving example.
- (2) What is DBA? How DBA can hide various level and kinds of complexity from database user?
- (3) What is decomposition? What are criteria for good decomposition? Give an example of decomposition that is loss less but not dependency preserving.
- (4) Define DBMS. Explain structural architecture of DBMS.

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3	Answer following: (any four)		12
	(1)	Explain trivial and non trivial dependencies? Explain	
		by providing appropriate example.	
	(2)	Draw an E-R diagram for Banking System.	
	(3)	What is the inconsistent values problem? Include an	
		example not used in the text.	
	(4)	Explain the relationship between entity, entity class	
		and entity instance.	
	(5)	Name some DBMS applications and its working.	
4	Answer following: (any three)		15
	(1)	Explain the concept of key and their significance.	
	(2)	"Not Every BCNF Decomposition is dependency	
		preservation" justify the statement.	
	(3)	Explain DML and DDL statements.	
	(4)	Explain Trivial and non-trivial dependencies. Write	
		difference between them.	
5	(a)	Write SQL statement to create these tables:	3
		Suppliers(sid: integer, sname: string, address: string)	
		Parts(pid : integer, pname : string, color : string)	
		Catalog(sid : integer, pid : integer, cost : real)	
	(b)	Solve the following queries:	8
		(1) Find the names of suppliers who supply some red	
		part.	
		(2) Find the most expensive parts supplied by suppliers	
		named Mahesh.	
		(3) Find the parts supplied by every supplier at less	
		than \$200.	

Find the supplier names of the suppliers who supply a red part that costs less than 100 dollars.

(4)