

SE IT - Sem III - Database Management Systems (CBCS)
(3 Hours)

Q. P. Code: 37783

Marks : 80



02 JUN 2018

N.B. : 1. Question no. 1 is compulsory.

2. Solve any **Three** questions out of remaining **Five** questions.sss

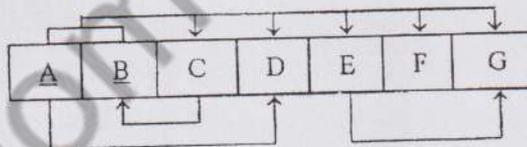
- Q1 a Explain Role of DBA ? 5
b List all the functional dependencies satisfied by the relation. 5

X	Y	Z
X1	Y1	Z1
X1	Y2	Z1
X2	Y2	Z1
X2	Y2	Z1

- c What is the difference between unique key and primary key? 5
d Explain different types of attributes with examples? 5
- Q2 a Explain static hashing technique with example? 10
b Define Normalization? Explain 1NF, 2NF and 3NF with examples? 10

- Q3 a Consider the following employee database. 10
Employee(empname, street, city, date_of_joining)
Works(empname, company_name, salary)
Company(company_name, city)
Manages(empname, manager_name)
Write SQL queries for the following statements:
i) Modify the database so that employee "Sachin" now lives in "Mumbai"
ii) Find number of employees in each city with date_of_joining as "01-Aug-2017"
iii) List the name of companies starting with letter "A"
iv) Display empname, manager_name, city of those employees whose date_of_joining is greater than "01-01-2014"
- b Explain DBMS architecture 10

- Q4 a Construct a dependency diagram of relation R and normalize it up to the BCNF Normal form 10



- b Explain different types of relational algebra operations. 10
- Q5 a Explain Cursors and its types with example 10
b Draw EER diagram for Hospital Management System showing constraints on generalisation and specialisation 10

- Q6 Write a short note on: 5
a Types of Entities 5
b Authorization in SQL 5
c Views in SQL 5
d B- tree 5