



BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL INSTITUTE OF TECHNOLOGY

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058, India
(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination

Max. Marks: 20

Class: SYMCA

Course Code: MCA32

Subject: Database Management System

Duration: 1Hr.

Semester: III

Date: 17/09/19

Time: 12.00PM

Instructions: (1) All questions are compulsory.
(2) Use of scientific calculator is allowed.
(3) Assume any necessary data but justify the same.

Q. No.	Questions	Max Marks	CO	BL
Q. 1	Design an ER diagram for SPIT Feedback Management System by considering three main entities and by enlisting all steps.	5	CO1	L3
Q. 2	Design a relational database for SPIT Feedback Management System by enlisting all steps. OR Design a relational database schema for College Management System.	5	CO1	L3
Q. 3	Apply Normalization concept on following relation and identify the highest normal form. Report(rid, title, author, subject) having following set of functional dependencies. rid --> title, rid --> author, rid --> subject, author --> subject	3	CO2	L3
Q. 4	Apply Normalization concept and identify Candidate key/s from following relation. R(A,B,C,D,E) having following set of functional dependencies. AB --> CD, D --> A, BC --> DE	4	CO2	L3
Q. 5	Create three people Ajinkya, Bhoomi, Chetan. Now lets give each one a label: Ajinkya is Confidential, Bhoomi is Restricted, Chetan is Top SecMret. Each person creates a document, and when they create a document the document gets the same label as the person who created it. Ajinkya creates Document A, Bhoomi creates Document B, Chetan creates Document C. Create a Write matrix using Bell Lapadula Model.	3	CO4	L2