

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.

Synoptic

Q. No.	Key Points
Q. 1	Designing an ER diagram {1 mk for scenario writing, 3 mks: 1 mk for each main entity(Main entity can be weak or strong). Each main entity should include all types of attributes.The main entities are student, Question, Faculty, Report. But it is not limited to these entities, 1 mk for proper relationship and mapping cardinality}
Q. 2	Designing a Relational Database by applying ER to Relational Mapping steps (2 mks for enlistling all steps, 3 mks : 1 mk for each relation)
Q. 3	Steps for calculating candidate keys and super keys (1 mk) Checking for different Normal Forms (2 mks) Highest Normal Form is 2NF
Q. 4	Definition of Normalization (1 mk) Steps for calculating candidate keys (3 mks : 1mk for each candidate key) AB, BC and BD are candidate keys
Q. 5	Use of Bell La Pedula Model and Write Matrix condition (1 mk) Write Matrix creation (2 mks)