Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination

Max. Marks: 20	Duration: 1Hrs
Class:S.E.	Semester:IV
Course Code:IT 43,CE42	Branch:Information Technology,Computer
Name of the Course: Database Management Systems	

Instruction:

(1) All questions are compulsary

(2) Draw neat diagrams

(3) Assume suitable data if necessary

SYNOPTIC

QNO	Answer	Marks	CO
1	Correct query with proper notation carries 2 marks each. 1.Find the empname, deptname, deptHead from the given schema. $\Pi_{empname,\ B.DeptName,\ B.DeptHead}$ (contd $(Employee_A \bowtie empdept_B)$ 2.Select all employees Id, and Project Ids with start year is 2015. $\Pi_{empId,\ ProjectID}$ ($\sigma_{startyear\ =\ 2015}$ (contd $(EmpProject)$)	4	2
Q2) 1. 2.	Correct query carries 2 marks each. select * from employee where emaildid like "%gmail%" select count(empid) as TotalEmployee, projectid from empproject group by projectid	6	2

3.	select empid, empname from employee where empheadid = (select empid from employee where empname = "Abhishek")		

Q3)	Functions of DBA (**Any two-** correct answer carries 2 marks)
	    1) Schema definition
	    2) Storage structures and access method
	    3) Schema and physical organization modification.
	    4) Granting of authorization for data access.
	    5) Integrity constraint specification.
	
	OR
	Purpose of any two **data** Independence in DBMS.
	    1) Logical data Independence –To alter the logical structure of the database.
	    2) Physical data Independence – To improve performance of the system.
		2	1

Q4)	End User 1) Naive Users (tellers, agents, web users) 2) Application Programmers 3) Sophisticated Users (Analysts) 4) Database Administrators	4	1
Q5)	Draw using proper ER notations - following concepts are drawn correctly by taking relevant example , correct relationship , attributes, cardinality - all notations : ONLY then 4 marks (2 each correct ans) OR Mapping of Generalization and Aggregation to the Relational Model. -Taking relevant example, correct relationship, attributes and following rules of mapping if the conversion shown then two marks for each.	4	1