

Total No. of Questions : 4]

SEAT No. :

PE40

[6579]-342

[Total No. of Pages : 2

**T.E. (Electronics /E & TC/(Electronics &
Communication-Advanced Communication Technology)
(Insem) DATABASE MANAGEMENT
(2019 Pattern) (Semester - I) (304183)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Solve Q.1 or Q.2, Q.3 or Q.4.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn whenever necessary.
- 4) Assume suitable data, if necessary.

- Q1)** a) Define data abstraction. Explain different levels of data abstraction. [5]
b) Draw overall structure of database management system and explain query processor in detail. [5]
c) Explain any five applications of database management system. [5]

OR

- Q2)** a) Compare between strong entity and weak entity. [5]
b) Construct an ER diagram of customer account relationship. Customer entity with attributes of S#, customer name, street, customer city, and account entity with attributes account no, and balance. The customer account relationship with date attributes. [5]
c) What is a relational operator? Explain following relational operators with suitable examples.
i) Selection
ii) Projection
iii) intersection [5]

- Q3)** a) What is mean by domain integrity constraints? Explain any three domain integrity constraints with suitable examples. [5]
b) Differentiate between primary key and foreign key. [5]
c) Enlist any five features of good relational design. [5]

OR

P.T.O.

Q4) a) What is mean by functional dependency? Explain multi values and partial functional dependency with suitable examples. [5]

b) Consider following schema, check whether it is in 3NF, if not justify and propose the schema in 3NF. [5]

Students_Details (Stud_id, Stud_name, Zip, City)

c) Study the relation given below *Student_project* and state what level of normalization can be achieved and normalize it up to that level. [5]

Stud_id	Proj_id	Stud_name	Proj_name
ET101	ETP1	Rohit	Image Processing
ET102	ETP2	Priya	RFID
ET103	ETP3	Kishor	Home Automation
ET104	ETP4	Kalyani	Green House Automation

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