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SEAT No. :

**PE58**

[6579]-359

[Total No. of Pages : 1

**T.E. (Information Technology) (Insem)**  
**ADVANCED DATABASE & MANAGEMENT SYSTEM**  
**(2019 Pattern) (Semester - I) (314445 B) (Elective - I)**

*Time : 1 Hour]*

*[Max. Marks : 30]*

*Instructions to the candidates:*

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

**Q1)** a) What is meant by relational constraints? How constraints violated in relational model? [8]

b) Explain class hierarchies in object oriented concepts with types. [7]

OR

**Q2)** a) Explain relational schema with suitable example. [8]

b) Explain the concepts of encapsulation and polymorphism with suitable example. [7]

**Q3)** a) Explain homogenous and heterogeneous distributed database in detail. [7]

b) Explain parallel query evaluation with proper example. [8]

OR

**Q4)** a) Elaborate data storage in distributed database with all the useful techniques. [7]

b) Categorize different Parallel database architectures and conclude which of them is better. [8]

