

Oct.-22/TE/Insem-562  
**T.E. (Information Technology) (Semester - I)**  
**ADVANCE DATABASE MANAGEMENT SYSTEM**  
**(2019 Pattern) (314445B) (Elective - I)**

*Time : 1 Hour*

*Instructions to the candidates : [Max. Marks : 30]*

- 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) Explain different type of anomalies. [5]  
 b) Explain relational model constraints in detail. [5]  
 c) Explain the concept of polymorphism in detail. [5]

- Q2)** a) Explain basic properties of OOP. [5]  
 b) Explain relational database schema in detail. [5]  
 c) Differentiate between data abstraction and encapsulation. [5]

- Q3)** a) Explain architecture of parallel database. [5]  
 b) Explain storing data in DDBMS. [5]  
 c) Explain distributed concurrency control and recovery in detail. [5]

**OR**

- Q4)** a) Explain architecture of distributed database. [5]  
 b) Explain interquery and intraquery parallelism. [5]  
 c) Explain distributed catalog management. [5]

