

Seat No.	
----------	--

**B.E. (CSE) (Semester - VII) (Revised) Examination, May - 2019****ADVANCED DATABASE SYSTEMS****Sub. Code : 67543****Day and Date : Saturday, 04 - 05 - 2019****Total Marks : 100****Time : 02.30 p.m. to 05.30 p.m.**

- Instructions :**
- 1) Attempt any three questions from each section.
  - 2) Q4 and Q8 are compulsory.
  - 3) Figures to the right indicate full marks.
  - 4) Assume suitable data wherever necessary.

**SECTION - I**

- Q1) a)** With the help of a suitable diagram, explain a typical transaction server system accessing data in a shared memory. **[8]**
- b)** Explain linear scaleup in case of parallel systems. **[8]**
- Q2) a)** Describe how the two-phase commit protocol operates during normal operations. **[8]**
- b)** What are persistent objects? Explain any two concepts to make the object persistent. **[8]**
- Q3) a)** What do you mean by embedded SQL and dynamic SQL? State the advantages and disadvantages of dynamic SQL. **[8]**
- b)** Explain database software development life cycle with suitable figure. **[8]**
- Q4) Write short notes on any three** **[6+6+6]**
- a) Reflection
  - b) ODL
  - c) Intra query parallelism
  - d) Object Identity and Structure

**SECTION - II**

- Q5) a)** State and briefly explain database security mechanisms against unauthorized access. [8]
- b) State the DBA's responsibilities to maintain database security. What actions are created by DBA-privileged commands. [8]
- Q6) a)** Explain the structure of XML data and XML schema. [8]
- b) What do you mean by sensitivity of data? Specify those factors that make data sensitive. [8]
- Q7) a)** What is business intelligence? State the general steps involved in BI. [8]
- b) What is star schema? Explain factor and dimensions as its components. [8]
- Q8) Write short notes on any three** [6+6+6]
- a) OLAP client server architecture
  - b) Audit trails in database
  - c) Covert channels
  - d) Data mining

