

**B.TECH.****THEORY EXAMINATION (SEM-VI) 2016-17****ADVANCE DBMS****Time : 3 Hours****Max. Marks : 100****Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.****SECTION-A****1 Explain the following :****(10×2=20)**

- a) Transaction transparency
- b) Concurrency control
- c) System log
- d) Orphan and inconsistent message
- e) Check point
- f) Semi joins and bloom joins
- g) Data Replication
- h) Serializable schedules
- i) Thomas write rule
- j) Active databases

**SECTION-B****2 Attempt any five of the following :****(10×5=50)**

- a) Discuss MOSS concurrency protocol with its architecture.
- b) Explain why row level locking is generally seen more desirable than table level locking?
- c) Compare the deferred- modification and immediate-modification version of the log-based recovery schemes, in terms of ease of implementation and overhead cost.
- d) What do you understand by Database Replication Techniques? What are the parameters of Eager Replication?
- e) What is deadlock? How distributed deadlocks are handled in DDBMS?
- f) What is the purpose of fragmentation in distributed database? Describe the various types of fragmentation methods.
- g) What do you mean by a lock scheduler? Explain the process of obtaining the lock. Explain the lock table.
- h) How is transaction management in distributed database different from transaction management in a standalone database? Describe distributed transaction management.

**SECTION-C****Attempt any two of the following :****(15×2=30)**

- 3 Discuss Multiple Granularity in detail using an example. Discuss the significance of Multi Granularity in database.
- 4 What are protocols? Explain lock based and time stamp based concurrency protocol with suitable example.
- 5 Differentiate between RDBMS and OODBMS. How does the concept of an object in the object oriented model differ from the concept of the entity in the entity-relationship model?