

Code: 17CSCS1T5B

I M.Tech-I Semester-Regular Examinations-February 2018

**ADVANCED DATABASES
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max Marks: 60

Answer the following questions.

1. a) How would you estimate the cost of the Query and explain the need of Query Optimization. 7 M
b) Illustrate the concept of pipelining in combining the operations using Evaluation Algorithms. 8 M
(OR)
2. a) Can you discuss the cost components for a cost function that is used to estimate query execution cost. 7 M
b) Explain sort - merge join Algorithm implementation on Left outer join operation . 8 M
3. a) Show how Serializability is used for concurrency control. 8 M
b) How would you project the understanding about the desirable properties of Transactions with examples. 7 M
(OR)

4. a) Can you explain the concept of schedules based on Recoverability by discussing with examples. 10 M
b) Explain in your own words how transactions support is availed in SQL? 5 M
5. a) What are the different techniques for database recovery? Discuss in detail. 8 M
b) Discuss briefly about Multiple Granularity locking. 7 M
- (OR)
6. a) How would you Summarize the phases of the ARIES Recovery Algorithm with an Example? 8 M
b) How would you explain the importance of Two-Phase locking techniques for Concurrency Control? 7 M
7. a) Give your thoughts on following: 10 M
i) Spatial Database
ii) Mobile Database
b) Will you state in your own words about Geographic Information Systems (GIS). 5 M
- (OR)
8. a) Can you summarize the characteristics of Biological Data. 8 M
b) Can you explain about design and implementation issues for active databases. 7 M