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**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR
(GIET UNIVERSITY)**



Ph.D. (Second Semester-Summer) Examinations, May - 2025
23SPPECS2013 - Distributed Database Systems
(CSE)

Time: 3 hrs

Maximum: 70 Marks

The figures in the right hand margin indicate marks.

Answer ANY FIVE Questions.

(14 x 5 = 70 Marks) Marks

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| 1.a. | Discuss briefly about query decomposition & data localization. | 8 |
| b. | Explain views in centralized DBMSs with examples. | 6 |
| 2. | Describe general architecture of a parallel database system & shared memory architecture. | 14 |
| 3.a. | Explain about DBMS Standardization? Give Examples. | 7 |
| b. | Describe briefly about transaction management. | 7 |
| 4. | Discuss about the various transaction management through examples. | 14 |
| 5.a. | Explain about Complexity of relational algebra operations. | 7 |
| b. | Draw a diagram and explain a fully memory hierarchy managed by LRM and BM. | 7 |
| 6.a. | Explain briefly about network partitioning. | 7 |
| b. | Explain briefly about timestamp-based concurrency algorithms | 7 |
| 7. | Describe about architectural issues in distributed object DBMS. | 14 |
| 8.a. | Discuss about parallel execution for hierarchical architecture. | 7 |
| b. | Explain briefly about object storage. | 7 |

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