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**III/IV B.Tech (Supplementary) DEGREE EXAMINATION****November, 2019****Information Technology****Sixth Semester****Advanced Database Management Systems****Time:** Three Hours**Maximum : 60 Marks***Answer Question No.1 compulsorily.*

(1X12 = 12 Marks)

*Answer ONE question from each unit.*

(4X12=48 Marks)

1 Answer all questions

(1X12=12 Marks)

- What is query processing?
- Define Heuristic optimization.
- What is meant by semantic query optimization
- What is DDBMS?
- List the four allocation strategies for placement of data
- What is a distributed deadlock
- What is Logical OID
- What is orthogonal persistence?
- What is OODBMS?
- What is spatial database?
- Is XML well-formed language. Justify
- Define active databases

**UNIT I**

- Discuss the reasons for converting SQL queries into relational algebra queries before optimization is done. 6M
  - Discuss the different types of parameters that are used in cost functions. Where is this information kept? 6M

**(OR)**

- Discuss the algorithm to implement set operations. 6M
  - Extend the sort-merge join algorithm to implement the external sorting operation. 6M

**UNIT II**

- Explain the types of fragmentation in distributed data base. 6M
  - In a distributed environment, locking-based algorithms can be classified as centralized, primary copy, or distributed. Compare and contrast these algorithms. 6M

**(OR)**

- Discuss the advantages and disadvantages of a DDBMS 6M
  - Describe the protocol used to prevent the deadlock in DDBMS. 6M

**UNIT III**

- Describe the three generations of DBMSs. 6M
  - Explain the pointer swizzling techniques. 6M

**(OR)**

- How does an ORDBMS differ from an OODBMS? 6M
  - Describe the architecture and components of ObjectStore. 6M

**UNIT IV**

- Discuss the main concepts of GIS data bases. 6M
  - Discuss some applications of active databases. 6M

**(OR)**

- How are multimedia sources indexed for content-based retrieval? 6M
  - Discuss the main concepts of temporal data bases. 6M

