



- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram wherever necessary.
  3. Avoid vague answers and write answers relevant and specific to question only.

**1. Either:-**

- a) Discuss in detail the problem area in DDBMS environment. **8**
- b) Explain in detail Layer of transparency. **8**

**OR**

- c) Define DDBMS? Explain distributed database system in detail. **8**
- d) How do you explain the improved performance of DDBMS? **8**

**2. Either:-**

- a) Discuss in brief architecture model for distributed DBMS. **8**
- b) Explain alternatives design strategies in brief. **8**

**OR**

- c) Explain partitioning algorithm in detail. **8**
- d) Explain different global directory issues. **8**

**3. Either:-**

- a) Explain in brief layer of Query processing. **8**
- b) Discuss the Query processing system with example. **8**

**OR**

- c) What is objective of Query processing? Explain in brief. **8**
- d) Explain in detail the complexity of Relation algebra operation. **8**

**4. Either:-**

- a) Explain in detail classification of concurrency control algorithm. **8**
- b) Explain the properties of transaction in detail. **8**

**OR**

- c) What is mean by transaction model? Explain transaction model with example. **8**
- d) What is serializability theory? Explain. **8**

**5. Solve all the questions.**

- a) Why distributed database is necessary? Explain. **4**
- b) Explain in short allocation model. **4**
- c) What are distributed Execution strategies? Explain. **4**
- d) What is work flows? Explain. **4**

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