5. Discuss the working of the following concepts for DDBMS :

(a) Profile estimation for algebraic operations

(b) Optimization graphs.

6. (a) Explain timestamp based recovery methods for distributed databases.

(b) What is meant by site failure ? Explain.

7. Discuss the following concepts for distributed systems in detail :

(a) Deadlock detection

(b) Three phase locking and commit protocols.

8. Explain the working of the following concepts :

(a) Distributed Database design

(b) Authorization and protection for distributed databases.

M.Sc. Computer Science 2nd Semester
DISTRIBUTED DATABASE SYSTEMS
Paper : MCS-205

Time Allowed—2 Hours]   [Maximum Marks—100

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. (a) Compare distributed and centralized databases systems.

(b) What is meant by physical image for global relation ? Explain different types of schemas used for distributed databases.

2. Explain the following concepts for DDBMS :

(a) Integrity Constraints

(b) Levels of Transparency.

3. (a) What are union and join operations performed on a distributed query ? Explain.

(b) How a unary tree for a query is made ? Explain.

4. (a) What are parametric queries ? Explain by taking suitable example.

(b) What is query representation for distributed databases ? Explain.