**National Police College**

**Course: Database Management System**

**Exercise-Monday 23rd October, 2023**

1. Why would you prefer a database system over simply storing data in operating system files? When would it be reasonable not to use a database system?
2. Define logical data independence and reasons of its use in DBMS?
3. Explain in detail and with real-life examples, the difference between logical and physical data independence.
4. Explain clearly the difference between external, internal, and conceptual schemas. How are these different schema layers related to the concepts of logical and physical data independence?
5. Imagine a scenario of a company or institution and decide on its database structure (different tables) and discuss its three-level architecture.
6. Explain some of the responsibilities of a DBA? Let’s assume that the DBA is never interested in running his or her own queries. Does s/he still need to understand query optimization? Why?