Q4 A]
Anb A)

Query Processing :-

Query Processing is the activity performed in extracting data from the database. In query processing it takes various steps for fetching the data from the database.

Basics of steps of Query Processing :-

1) Parsing and translation :-
   • Translate the query into its internal form. This is then translated into relational algebra.

   • Parser checks syntax, verifies relation.

2) Optimization :-
   • SQL is a very high level language.
   → the users specify what to search for not how the search is actually done.

   → the algorithms are choosen automatically by the DBMS.

   • For a given SQL query - there may be many possible execution plans.

- Amonst all equivalent plans choose the one with lowest cost.

  - cost is estimated using statistical information from the database catalog.

3] Evalution :-

The query evaluation engine takes a query evaluation plan, execut executes that plan and returns the answer to that query.

→ Parse tree construled :-

The translation process in query processing is similar to the parser parser of a query. When a user executes any query for generating the internal from of the query, verifies the name of the relation in the database, the tuple and finally the required attribute value the parser creates a tree of query is known as "parser tree".