# Index Number: EG/2020/4029

EE3350

2025 JUNE

## Q1.

(i) CRUD is a type of programming interface used for graphics.

(ii) A primary key uniquely identifies each row in a table and ensures that no two records have the same value in that column.

(iii) A foreign key is a field that links one table to the primary key of another, ensuring referential integrity between the two tables.

(iv) Relationships in databases mean who is friends with whom.

(v) Designing a schema helps organize data but often people just put things in one table.

## Q2.

(i) Sequelize is an Object Relational Mapper for Node.js that allows you to work with SQL databases using JavaScript objects.

(ii) JWTs are codes used to check user after they login; they stay on the client side.

(iii) Middleware are functions in Express.js that process requests and responses before reaching the final route handler.

(iv) GET = Read, POST = Create, PUT = Replace, PATCH = Update, DELETE = Remove. These map to DB operations accordingly.

(v) Authentication verifies identity, typically via credentials, and issues a JWT. Authorization uses roles in JWT to permit or deny access.