# CO-PO-PSO Mapping Table

### 1. Course Outcomes (COs)

- CO1: Define key terms and components related to database clustering and distributed databases.
- CO2: Explain the processes for deploying, monitoring, and managing database clusters.
- CO3: Apply CRUD operations, automation tools, and cluster monitoring utilities to manage data and nodes.
- CO4: Analyze performance metrics and identify solutions to cluster connectivity and latency problems.
- CO5: Evaluate the effectiveness of security mechanisms and backup strategies in a database system.
- CO6: Design and implement cluster configurations and communication architectures for different scenarios.

### 2. Program Outcomes (POs)

- PO1: Engineering Knowledge
- PO2: Problem Analysis
- PO3: Design/Development of Solutions
- PO4: Conduct Investigations
- PO5: Modern Tool Usage
- PO6: Engineer & Society
- PO7: Environment & Sustainability
- PO8: Ethics
- PO9: Individual & Team Work
- PO10: Communication
- PO11: Project Management
- PO12: Life-long Learning

## 3. Program Specific Outcomes (PSOs)

- PSO1: Ability to design and manage data-centric solutions using modern database technologies.
- PSO2: Ability to implement secure, scalable, and fault-tolerant distributed database systems.

## 4. CO-PO-PSO Mapping Table

| PO/PS<br>O | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 1 | 2 |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1        | 3 | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 2 |
| CO2        | 3 | 3 | 2 | 2 | 3 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 3 | 2 |
| CO3        | 3 | 3 | 3 | 2 | 3 | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| CO4        | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 2 | 3 |
| CO5        | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 3 | 3 |
| C06        | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 3 |