**Question 01**

You are working as a Solutions Architect for a startup company based in Sri Lanka where you are tasked to propose an architecture to set up an e-commerce platform. At its simplest form, e-commerce software enables a business to sell products and services online. Main functions of the platform are,

a. User management

b. Product management

c. Order and inventory management

d. Plans/discount management

e. Payment management

f. Customer Support

Company CEO wants to go live with an MVP (minimum viable product) and add lot of features frequently in the due course. Customers should be able to access the system using a mobile app in addition to the web. Also, CEO expects high growth & demand once e-commerce platform goes live. The system should serve customers only in Sri Lanka.

Marketing head pointed out a requirement of offering some promotions to increase sales and public awareness. And also, he has a requirement to do some customized offers (Customized recommendations) based on customers' buying history patterns.

Operations head pointed out that in the event of failure, the Recovery Time Objective (RTO - How much time taken to make system back online) must be less than 2 hours, and the Recovery Point Objective (RPO - How much data can be lost) must be less than 15 minutes. And also, system should guarantee the security of Personally identifiable information (PII) which collects at the time of customer registration.

Multiple small teams shall be assigned to work on this project and project shall run in agile mode.

In addition to above mentioned points, below generic aspects also should cover in the architecture you propose.

Availability

Scalability

Security

Pricing

Operational excellence

You need to propose an architecture to cater above mentioned business requirement with clear logic behind your decisions.