A. Submission Instructions:

- Submit your solutions via eLearning.
- Please submit a single PDF/Doc/PS/Image file with the solutions.
- Late Submission Penalty:
  - up to 2 hours late — 10% deduction
  - 2 - 4 hours late — 20% deduction
  - 4 - 12 hours late — 35% deduction
  - 12 - 24 hours late — 50% deduction
  - 24 - 48 hours late — 75% deduction
  - more than 48 hours late — 100% deduction (zero credit)

B. Problems:

1. (20 Points)

Your customer requires a web application that will support four (4) different operations. All these operations have similar requirements for system resources and have the same load on the server. Will you design your customer's web application using Service-Oriented Architecture (SOA)? Please explain your answer using a real-world example.

2. (20 Points)

Describe Shared-Nothing architecture using a real-world web application as an example.

3. (40 Points)

Your client requires a website for the following services:

a. Very fast flight searches

b. Highly available travel booking request

c. Reliable travel itinerary access

Draw a diagram showing your design of a scalable, service-oriented architecture to meet your client's requirements.

4. (20 Points)

Define in your own words the following HTTP Request Methods with one or more examples:

    a. HTTP GET
    b. HTTP HEAD
    c. HTTP PUT
    d. HTTP POST