

**Department of Business Administration  
Faculty of Business & Entrepreneurship  
Daffodil International University  
Program: BBA**

Semester: Fall, 2025  
Time: 90 minutes  
Course Code: MIS-409  
Section: 63- A

Exam: Mid Term  
Full Marks: 20  
Title: System Analysis & Design  
Course Teacher: MR

**Question no.1: [CLO1, Level 2]**

**[Marks : 5]**

Organizational system refers to the formal structure, processes, policies, and procedures governing an organization's operations. It is typically documented and can be designed, modified, and adapted to achieve specific objectives. Now, **explain** the information system components and **illustrate** the impact of information technology on system design.

**Question no.2: [CLO2, Level 4]**

**[Marks : 10]**

Analyze the data provided in the table to determine the most cost-effective and time-efficient critical path. Discuss how the identified path impacts overall project performance and resource allocation.

| Task | Precedence | Time   | Cost  | Task | Precedence | Time   | Cost  |
|------|------------|--------|-------|------|------------|--------|-------|
| 1    | None       | 1 DAY  | \$150 | 9    | 5, 6       | 3 DAYS | \$350 |
| 2    | None       | 3 DAYS | \$500 | 10   | 6, 7       | 5 DAYS | \$400 |
| 3    | None       | 2 DAYS | \$100 | 11   | 8,9        | 2 DAYS | \$400 |
| 4    | 1          | 3 DAYS | \$200 | 12   | 9,10,11    | 2 DAYS | \$250 |
| 5    | 1          | 5 DAYS | \$750 | 13   | 11,12      | 3 DAYS | \$750 |
| 6    | 2          | 2 DAYS | \$380 | 14   | 11,12,13   | 4 DAYS | \$150 |
| 7    | 3          | 3 DAYS | \$250 | 15   | 13,14      | 6 DAYS | \$300 |
| 8    | 4, 5       | 1 DAY  | \$650 | 16   | 14,15      | 2 DAYS | \$180 |

**Question no.3: [CLO3, Level 3]**

**[Marks : 5]**

The Systems Development Life Cycle (SDLC) is a framework that outlines the steps for creating and managing a new information system, from initial idea to retirement. **Construct** the relationship between the waterfall approach to the SDLC and the overlap of systems development activities, and evaluate how these factors influence the effectiveness and flexibility of system development projects.