

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

Semester: Spring, 2026  
Time: 90 minutes  
Course Code: 0612-413  
Section: 64-A

Exam: Mid Term  
Full Marks: 20  
Title: Systems Analysis & Design  
Course Teacher: Md. Mahbobor Rahaman

*[Answer **ALL** the following questions. Figures in the brackets indicate marks assigned to each question.]*

**Question No. 1 [CLO 1, Level 2]**

**[Marks: 05]**

Information systems are integral to the functioning of modern organizations, as they support the collection, processing, storage, and dissemination of information. They help organizations manage operations efficiently, make informed decisions, and adapt to changing business environments. Understanding the components of information systems and how information technology influences system design is essential for improving organizational performance and achieving strategic goals. Organizational systems refer to the formal structure, processes, policies, and procedures governing an organization's operations. They are typically documented and can be designed, modified, and adapted to achieve specific objectives.

**Explain** the components of information systems and **illustrate** the impact of information technology on system design.

**Question No. 2 [CLO 2, 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 Days | Tk.500  | 8    | 5, 6,7     | 1 Days | Tk.2100 |
| 2    | None       | 2 Days | Tk.1500 | 9    | 6,7,8      | 3 Days | Tk.1500 |
| 3    | None       | 3 Days | Tk.2500 | 10   | 8,9        | 2 Days | Tk.4500 |
| 4    | 1          | 2 Days | Tk.600  | 11   | 8,9,10     | 3 Days | Tk.8700 |
| 5    | 1          | 4 Days | Tk.3700 | 12   | 11         | 4 Days | Tk.9800 |
| 6    | 2          | 3 Days | Tk.5800 | 13   | 12         | 2 Days | Tk.2300 |
| 7    | 2,3,4      | 5 Days | Tk.500  | 14   | 12,13,14   | 3 Days | Tk.800  |
|      |            |        |         | 15   | 13,14,15   | 5 Days | Tk.250  |

**Question No. 3 [CLO 3, Level 3]**

**[Marks: 05]**

Systems development tools are software applications and platforms that assist analysts, designers, and programmers in creating, testing, and maintaining information systems. Using these tools in practical scenarios allows organizations to streamline development, reduce errors, and improve system quality. **Identify** & describe the systems development tools.