

## **B.Sc. 6<sup>th</sup> Semester (Honours) Practical Examination, 2021**

### **Course Title: Project Work (DSE-4)**

**Full Marks: 40 (30 +10)**

Perform any **one** from each group:

10x3=30

#### **Group A (Information Security)**

1. Perform encryption and decryption of Caesar cipher. Write a script for performing these operations.
2. Perform encryption and decryption of a Rail fence cipher. Write a script for performing these operations.
3. Perform encryption and decryption of a Play-fair cipher. Write a script for performing these operations.

#### **Group B (Artificial Intelligence)**

1. Write a prolog program to find the maximum of two numbers.
2. Write a prolog program to calculate the nth Fibonacci number.
3. Write a prolog program to calculate the factorial of a given number.

#### **Group C (Computer Graphics)**

1. Write a program to implement Bresenham's line drawing algorithm.
2. Write a program to clip a line using Cohen and Sutherland line clipping algorithm.
3. Write a program to implement mid-point circle drawing algorithm.

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