

## **Post-Lab:**

### **1. Why Optimal Asymmetric Encryption Padding (OAEP) is a Padding Scheme Often Used with RSA Encryption:**

OAEP is used with RSA encryption to enhance security by adding randomness and preventing certain types of cryptographic attacks. It ensures that the same plaintext encrypts to different ciphertexts each time, even if the same key is used, thereby providing additional protection against various attacks such as chosen plaintext attacks.

### **2. Why Chinese Remainder Theorem (CRT) RSA's Decryption is Almost 4 Times Faster than Normal RSA:**

CRT speeds up RSA decryption by breaking the problem into smaller computations using the prime factors of the modulus. By performing modular exponentiation separately with these smaller numbers and combining the results, CRT reduces the computational complexity, making the decryption process significantly faster compared to the straightforward method.