Name: Harsh Hardasani

Batch: T12

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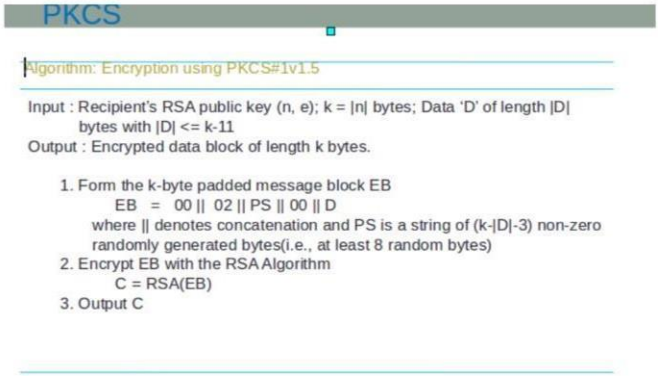
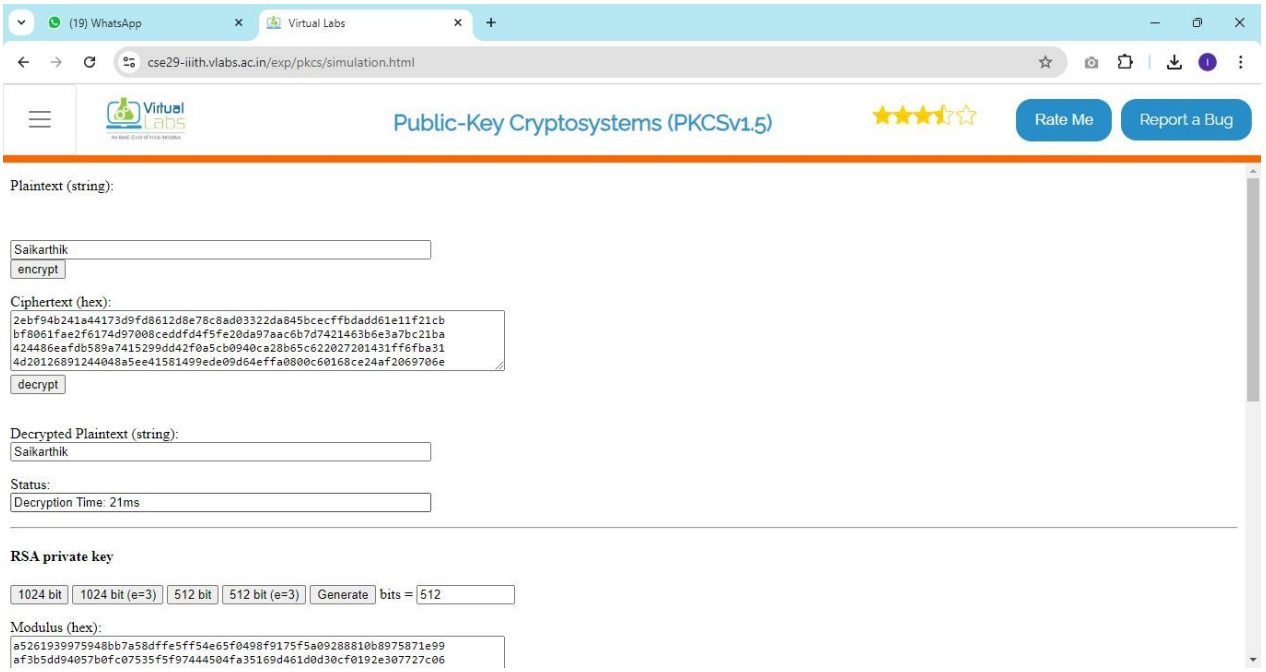
Assignment No. 4

Aim: Implementation and analysis of RSA cryptosystem and Digital Signature scheme using RSA.

Theory:



Output:



Conclusion: In conclusion, the implementation and analysis of the RSA cryptosystem and Digital Signature scheme using RSA demonstrate the effectiveness of RSA in providing both encryption and authentication. The RSA cryptosystem ensures secure data transmission through public-key encryption, while the Digital Signature scheme adds an additional layer of security by enabling message integrity and non-repudiation. The combination of these two mechanisms highlights RSA's strength in securing sensitive communications, although it requires careful key

management and computational resources due to the large prime numbers involved in key generation.

LO Mapped: LO2