

Required Algorithms in Security Package 2015/2016

| Requirement | Serial | Algorithm | Input | |
|-------------|--------|---|---------------------------------|-------------------------------|
| | | | Plaintext | Key |
| Mandatory | 1 | General Ceaser. | Text | integer |
| | 2 | Monoalphabetic. | Text | Text |
| | 3 | Autokey vigenere. | Text | Text |
| | 4 | Repeating key Vigenere. | Text | Text |
| | 5 | PlayFair. | Text | Text |
| | 6 | Hill Cipher. | Text OR Numbers | Text OR Numbers 2X2 OR 3X3 |
| | 7 | Rail Fence of depth Level n. | Text | Integer (n) |
| | 8 | Columnar | Text | Integers |
| Choose one | 9 | DES. And 3-DES | Text OR HEX | Text OR HEX |
| | 10 | Multiplicative Inverse using Extended Euclid's. AES. | Integers (No., Base) | |
| | | | Text OR HEX | Text OR HEX |
| Choose two | 11 | RC4. | Text OR HEX | Text OR HEX |
| | 12 | RSA. | Integers (p, q, M, e) | |
| | 13 | Diffie-Hellman key exchange. | Integers (q, α , Xa, Xb) | |
| | 14 | MD5 | TEXT | |

- This Package is a team work task, Please Formulate your groups of maximum 6 members
- All the Group members Must be from the same department
- Algorithms from [1 to 8] are mandatory to implement (encryption and decryption and cryptanalysis)
- Choose one algorithm to implement from algorithms [9,10],
- Choose two algorithms to implement from algorithms from [11 to 14]
- Delivery will be scheduled on practical exams week.
- Registration Form click here (https://docs.google.com/forms/d/1KhgdAt0yY5sRb5Eh-lwe9QNHQvvySb06Rze_b2gD28A/viewform),
Registration deadline 31 March 2016.
- You are asked to deliver a dll with the implemented algorithms. A project template will be available maximum by 31 March 2016 in order to automate the algorithms validation.

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