

Task:

- 1.Private/Public Key Encryption
- 2.Encoding & Decoding P
- 3 Encryption V/s Encoding P
- 4 Decryption Technics P
- 5Hash Algorithms P
- 6 Cracking Hashes P
- 7 Steganography Data Hiding Techniques P
- 8 Steganography V/S Cryptography

Q1 answer:<https://www.preveil.com/blog/public-and-private-key/> , <https://www.geeksforgeeks.org/difference-between-private-key-and-public-key/>

Done

Q2; <https://gchq.github.io/CyberChef/> Done

Q3,4Answer:

OnlineText Encryption Decryption website:<https://www.devglan.com/online-tools/text-encryption-decryption> ,

Online RSA(Rivest-Shamir-Adleman) Testing Website:<https://www.devglan.com/online-tools/rsa-encryption-decryption>

Online DES Website;<https://www.devglan.com/online-tools/triple-des-encrypt-decrypt>

Q7 Answer: article <https://www.geeksforgeeks.org/image-steganography-using-stegosuite-in-linux/>

tool name : stegosuite

Q8 Answer: <https://www.geeksforgeeks.org/difference-between-steganography-and-cryptography/>

Q5 Answer: Online Hash generator website;<https://www.md5hashgenerator.com/>

Q6Answer; hash cracking tool used **hashcat**

```
Dictionary cache built:
* Filename...: rockyou.txt
* Passwords..: 14344391
* Bytes.....: 139921497
* Keyspace...: 14344384
* Runtime....: 1 sec

9cf695ac37ef238e62f6ee874b4b3968:student11

Session.....: hashcat
Status.....: Cracked
Hash.Type.....: MD5
Hash.Target.....: 9cf695ac37ef238e62f6ee874b4b3968
Time.Started.....: Fri May 26 11:53:33 2023 (0 secs)
Time.Estimated...: Fri May 26 11:53:33 2023 (0 secs)
Guess.Base.....: File (rockyou.txt)
Guess.Queue.....: 1/1 (100.00%)
Speed.#1.....: 2309.1 kH/s (0.28ms) @ Accel:1024 Loops:1 Thr:1 Vec:16
Recovered.....: 1/1 (100.00%) Digests, 1/1 (100.00%) Salts
Progress.....: 466944/14344384 (3.26%)
Rejected.....: 0/466944 (0.00%)
Restore.Point....: 462848/14344384 (3.23%)
Restore.Sub.#1...: Salt:0 Amplifier:0-1 Iteration:0-1
Candidates.#1....: swimchamp -> shortychula

Started: Fri May 26 11:53:23 2023
Stopped: Fri May 26 11:53:34 2023
keshav@inquisitive:~/RedT00LS$ █
```